

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: P1356770

Luminaire Tested: 1ASL4-5-1-G52-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356770
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: 1ASL4-5-1-G52-UNV
Description: 1FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

Summary

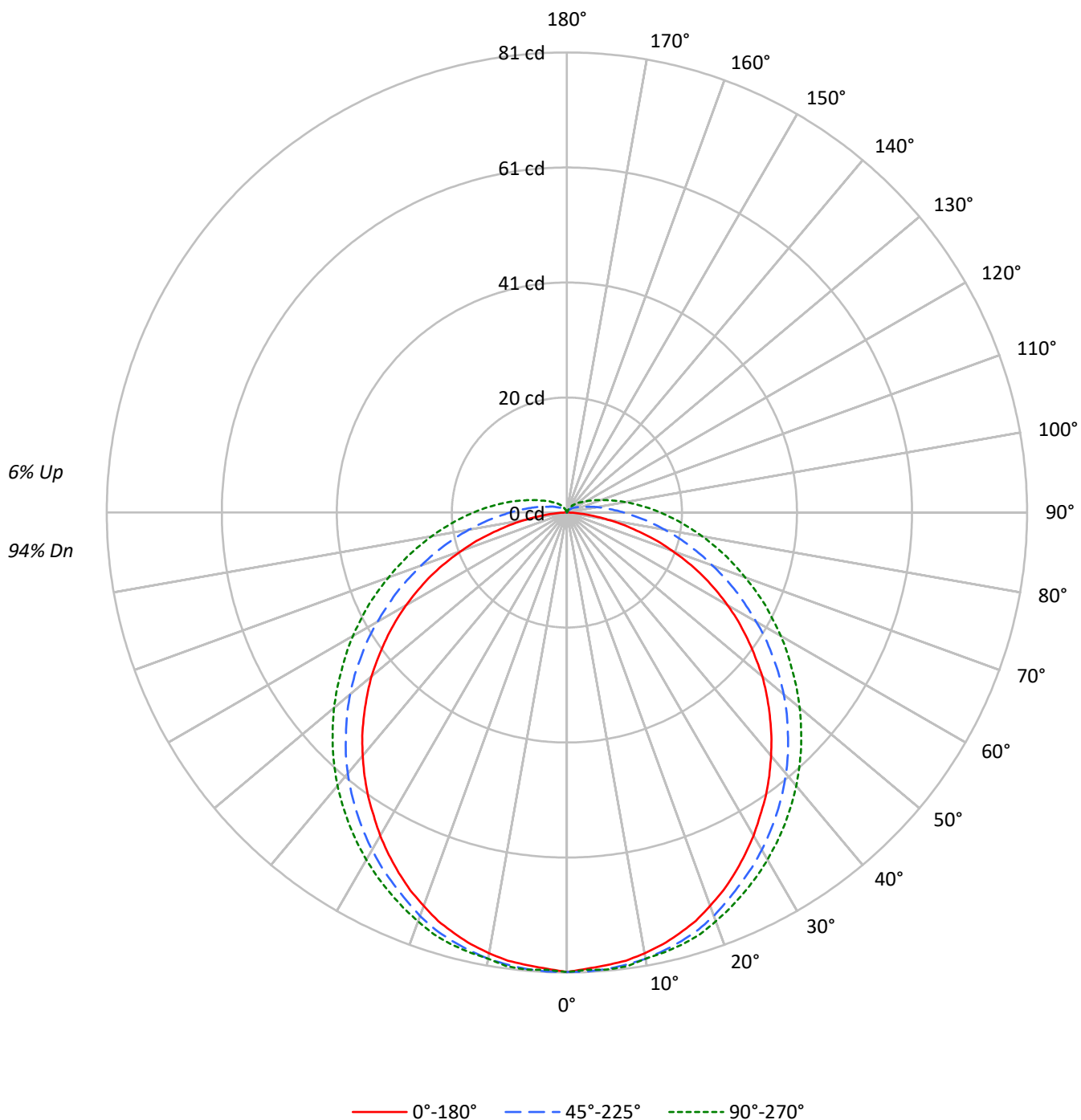
Lumens per Lamp: N/A
Luminaire Lumens: 271.0 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 0.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 5.2
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
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108		102	102	102		96
1	106	100	95	91	102	97	93	89	92	88	85		87	84	81		82
2	95	86	79	73	92	84	77	71	79	74	69		75	70	66		71
3	87	76	67	60	84	73	65	59	69	63	57		66	60	55		62
4	79	67	57	50	76	65	56	50	62	54	48		58	52	47		56
5	73	59	50	43	70	58	49	43	55	47	42		52	46	41		50
6	67	53	44	38	65	52	43	37	50	42	36		47	41	35		45
7	62	48	39	33	60	47	39	33	45	37	32		43	36	31		41
8	58	44	35	29	56	43	35	29	41	34	29		39	33	28		38
9	54	40	32	26	52	39	32	26	38	31	26		36	30	25		35
10	51	37	29	24	49	36	29	24	35	28	23		34	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2668	2668	2668
5°	2624	2604	2604
10°	2590	2540	2533
15°	2546	2470	2479
20°	2490	2395	2414
25°	2427	2308	2344
30°	2357	2231	2278
35°	2286	2151	2210
40°	2209	2069	2142
45°	2129	1979	2072
50°	2044	1888	2000
55°	1937	1786	1924
60°	1821	1678	1862
65°	1677	1570	1799
70°	1470	1451	1733
75°	1213	1344	1688
80°	877	1240	1658
85°	427	1156	1664

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2129 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.7	2.8
10°-20°	22.0	8.1
20°-30°	33.3	12.3
30°-40°	40.2	14.8
40°-50°	42.3	15.6
50°-60°	39.4	14.5
60°-70°	32.4	11.9
70°-80°	23.0	8.5
80°-90°	13.8	5.1
90°-100°	7.8	2.9
100°-110°	4.3	1.6
110°-120°	2.4	0.9
120°-130°	1.4	0.5
130°-140°	0.8	0.3
140°-150°	0.3	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	62.9	23.2
0°-40°	103.2	38.1
0°-60°	184.8	68.2
0°-90°	254.0	93.7
90°-120°	14.5	5.3
90°-150°	16.9	6.2
90°-180°	17.0	6.3
0°-180°	271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	81	81	81	81	81	
5°	80	81	81	81	81	8
15°	77	78	78	78	79	22
25°	70	71	72	73	74	32
35°	61	62	64	66	67	38
45°	50	52	55	57	58	39
55°	39	41	44	47	48	35
65°	26	29	33	37	38	26
75°	13	17	22	27	29	14
85°	2	7	13	18	20	3
90°	0	4	10	15	16	0
95°	0	2	7	12	13	0
105°	0	1	4	7	8	0
115°	0	0	2	4	5	0
125°	0	0	2	3	3	0
135°	0	0	1	2	2	0
145°	0	0	0	1	1	0
155°	0	0	0	0	0	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°	80.9	80.9	80.9	80.9	80.9
2.5°	80.4	81.1	80.9	80.6	80.6
5°	80.0	80.8	80.7	80.6	80.8
7.5°	79.6	80.3	80.3	80.4	80.6
10°	78.8	79.8	79.8	79.8	79.8
12.5°	77.9	78.8	79.0	79.1	79.3
15°	76.7	77.7	78.1	78.5	78.7
17.5°	75.4	76.4	77.0	77.5	77.9
20°	73.7	74.8	75.6	76.2	76.6
22.5°	72.0	73.1	73.9	74.7	75.3
25°	70.0	71.2	72.2	73.3	73.8
27.5°	67.9	69.2	70.5	71.7	72.3
30°	65.7	67.1	68.6	70.0	70.6
32.5°	63.3	64.8	66.6	68.0	68.8
35°	61.0	62.5	64.5	66.1	66.9
37.5°	58.5	60.1	62.3	64.1	64.9
40°	55.9	57.6	60.0	61.9	62.8
42.5°	53.3	55.0	57.6	59.7	60.6
45°	50.5	52.4	55.0	57.3	58.3
47.5°	47.7	49.6	52.5	54.8	55.9
50°	44.9	46.9	49.8	52.4	53.5
52.5°	41.8	44.0	47.1	49.8	51.0
55°	38.8	41.0	44.2	47.2	48.4
57.5°	35.8	38.0	41.5	44.6	46.0
60°	32.7	35.0	38.5	41.9	43.5
62.5°	29.5	31.9	35.6	39.3	40.9
65°	26.4	28.8	32.9	36.7	38.5
67.5°	23.1	25.6	30.0	34.1	35.9
70°	19.7	22.6	27.3	31.6	33.4
72.5°	16.7	19.7	24.7	29.1	31.0
75°	13.3	16.7	22.2	26.7	28.7
77.5°	10.3	14.0	19.8	24.4	26.4
80°	7.4	11.4	17.5	22.3	24.2
82.5°	4.8	9.2	15.4	20.2	22.1
85°	2.5	7.1	13.4	18.3	20.1
87.5°	0.7	5.5	11.5	16.4	18.2
90°	0.0	4.2	10.0	14.7	16.4
92.5°	0.0	3.2	8.6	13.1	14.8
95°	0.0	2.5	7.3	11.5	13.2
97.5°	0.0	1.9	6.3	10.2	11.8
100°	0.0	1.6	5.4	9.0	10.5
102.5°	0.0	1.3	4.7	8.0	9.3
105°	0.0	0.9	3.8	7.0	8.2
107.5°	0.0	0.6	3.4	6.1	7.2
110°	0.0	0.5	3.0	5.3	6.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.5	2.7	4.8	5.7
115°	0.0	0.5	2.4	4.2	5.0
117.5°	0.0	0.4	2.0	3.8	4.5
120°	0.0	0.4	1.8	3.4	4.0
122.5°	0.0	0.3	1.6	3.0	3.7
125°	0.0	0.3	1.5	2.7	3.2
127.5°	0.0	0.2	1.3	2.5	2.9
130°	0.0	0.2	1.2	2.2	2.7
132.5°	0.0	0.1	1.1	2.0	2.4
135°	0.0	0.1	0.9	1.7	2.2
137.5°	0.0	0.0	0.8	1.6	1.9
140°	0.0	0.0	0.6	1.4	1.7
142.5°	0.1	0.0	0.5	1.2	1.5
145°	0.1	0.0	0.4	1.0	1.3
147.5°	0.1	0.1	0.3	0.8	1.0
150°	0.1	0.1	0.2	0.5	0.8
152.5°	0.1	0.1	0.1	0.4	0.5
155°	0.1	0.1	0.0	0.3	0.4
157.5°	0.1	0.1	0.0	0.1	0.2
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	12.72	14.28	13.18	14.72	15.19	14.47	16.02	14.93	16.46	16.93
	3H	14.22	15.63	14.69	16.09	16.60	16.78	18.19	17.25	18.64	19.15
	4H	14.70	16.04	15.19	16.51	17.03	17.86	19.20	18.36	19.67	20.20
	6H	14.98	16.23	15.48	16.71	17.25	18.95	20.20	19.45	20.68	21.22
	8H	15.03	16.23	15.55	16.74	17.28	19.48	20.67	20.00	21.18	21.73
	12H	15.05	16.19	15.57	16.69	17.27	20.02	21.17	20.55	21.67	22.25
4H	2H	13.54	14.88	14.04	15.35	15.88	14.91	16.25	15.41	16.72	17.25
	3H	15.27	16.42	15.78	16.93	17.47	17.45	18.59	17.95	19.10	19.65
	4H	15.88	16.92	16.40	17.45	18.02	18.70	19.75	19.23	20.27	20.85
	6H	16.27	17.20	16.82	17.75	18.34	19.98	20.90	20.52	21.45	22.04
	8H	16.37	17.24	16.92	17.79	18.39	20.61	21.47	21.16	22.03	22.63
	12H	16.41	17.20	16.99	17.78	18.39	21.27	22.06	21.84	22.64	23.25
8H	4H	16.48	17.34	17.03	17.90	18.50	18.92	19.79	19.47	20.34	20.95
	6H	17.04	17.78	17.63	18.37	18.98	20.37	21.10	20.95	21.69	22.31
	8H	17.22	17.88	17.82	18.49	19.11	21.14	21.80	21.73	22.40	23.03
	12H	17.33	17.92	17.93	18.52	19.21	21.98	22.57	22.58	23.16	23.85
12H	4H	16.63	17.42	17.21	18.00	18.61	18.93	19.72	19.51	20.30	20.91
	6H	17.29	17.95	17.88	18.55	19.18	20.41	21.07	21.00	21.67	22.30
	8H	17.55	18.15	18.15	18.74	19.43	21.24	21.84	21.84	22.43	23.12

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-8

Test Date: 01/22/2026

Luminaire Tested: 4ASL-2-G520-UNV-OPL-1_600mA

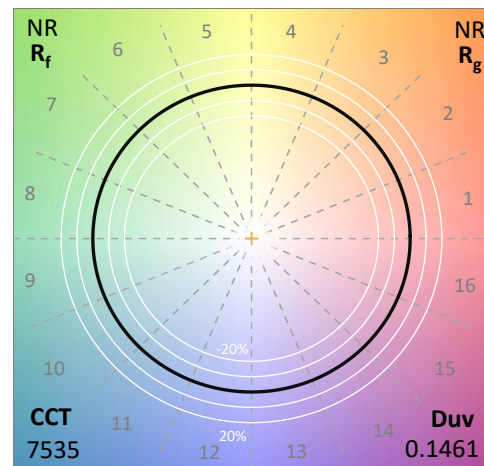
Data in this report applies to families of products including 4ASL

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-8
 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-G520-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND GREEN 520NM LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	7535	CRI (Ra):	-11.7		
CIE u':	0.0718	R1:	-30.6	R9:	-351.9
CIE v':	0.5710	R2:	5.1	R10:	-75.5
Duv:	0.1461	R3:	5.6	R11:	-78.0
CIE x:	0.1962	R4:	-51.7	R12:	-14.7
CIE y:	0.6931	R5:	-6.4	R13:	-32.5
CIE z:	0.1107	R6:	-0.6	R14:	52.7
Peak Wavelength (nm):	524	R7:	10.9	R15:	-37.0
Dominant Wavelength (nm):	529	R8:	-25.8		
Purity:	75.95236				
Rf:	NR				
Rg:	NR				



Test Conditions

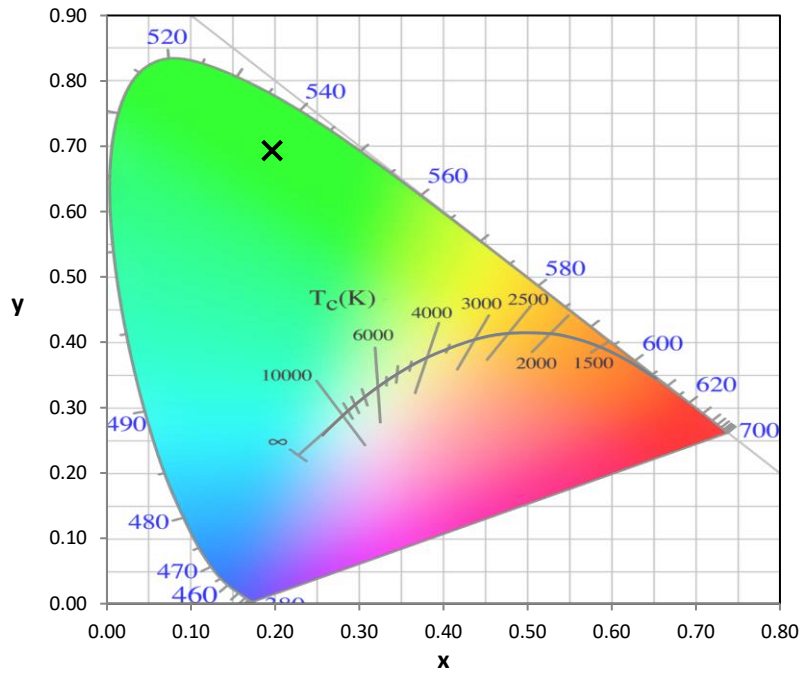
Stabilization Time: 48M
 Operation Time: 1H 48M
 Sphere Temperature (°C): 25.1

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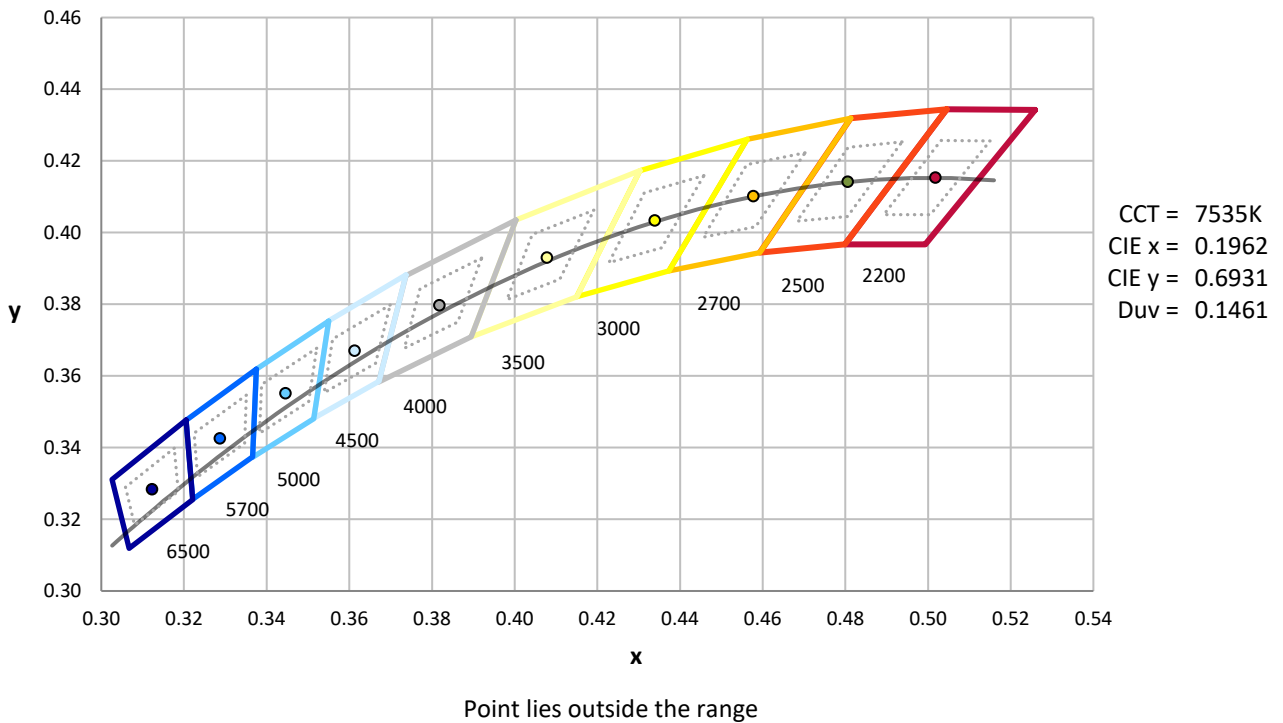
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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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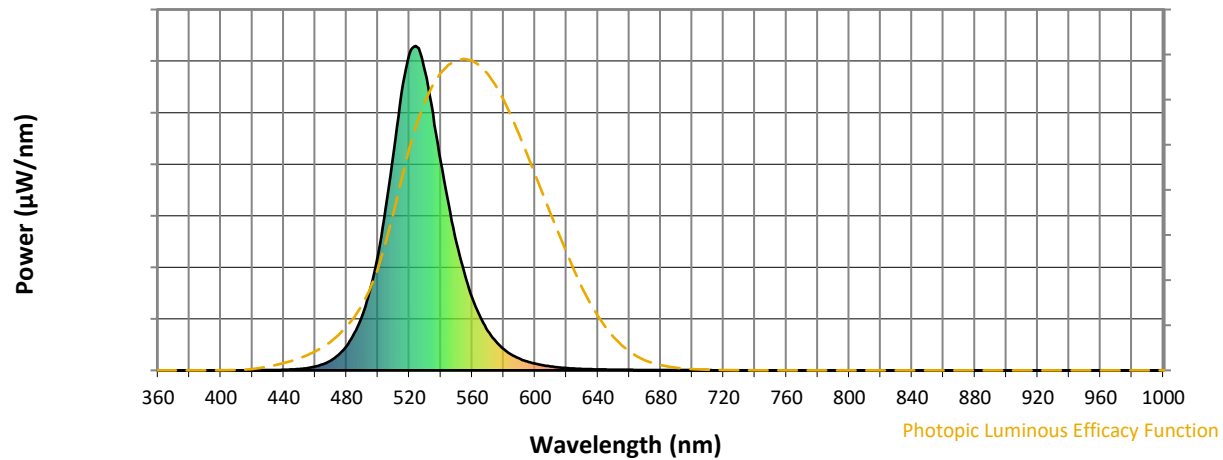
CIE 1931 Chromaticity Diagram



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



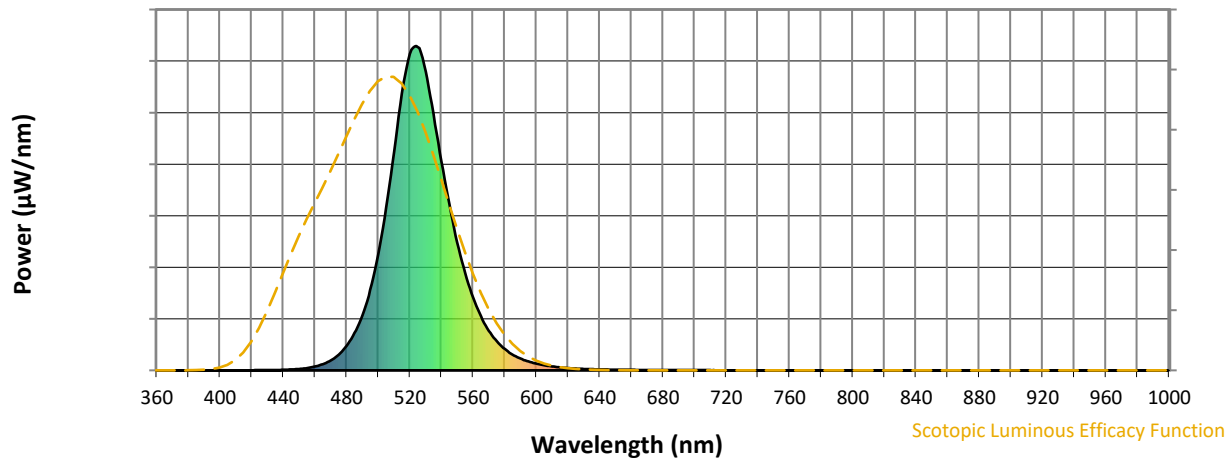
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Photopic Flux vs. Wavelength

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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



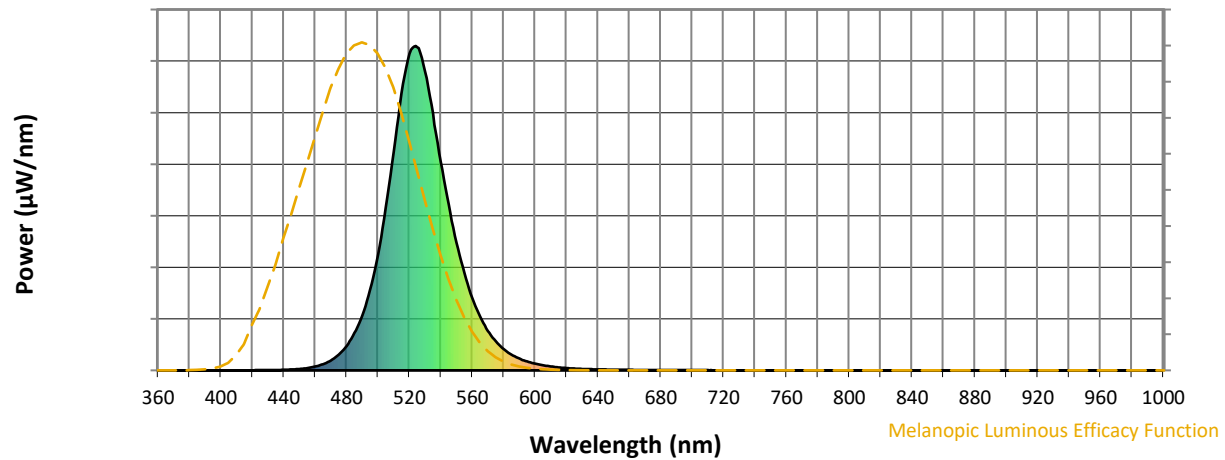
Scotopic Lumens: NR

S/P: 2.63

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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.87

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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

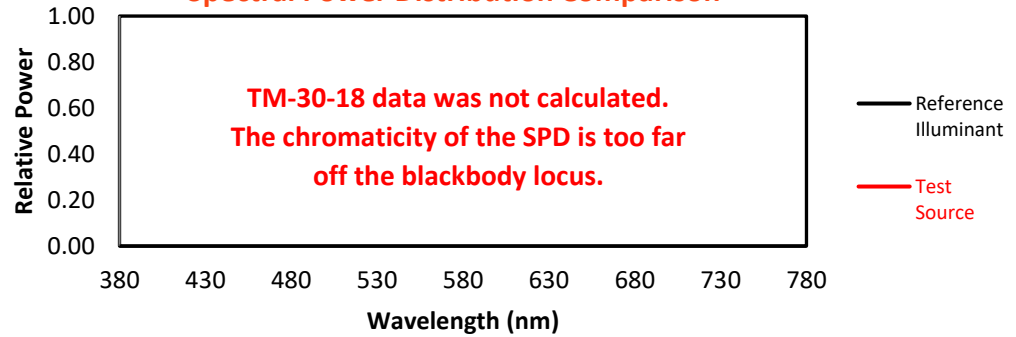
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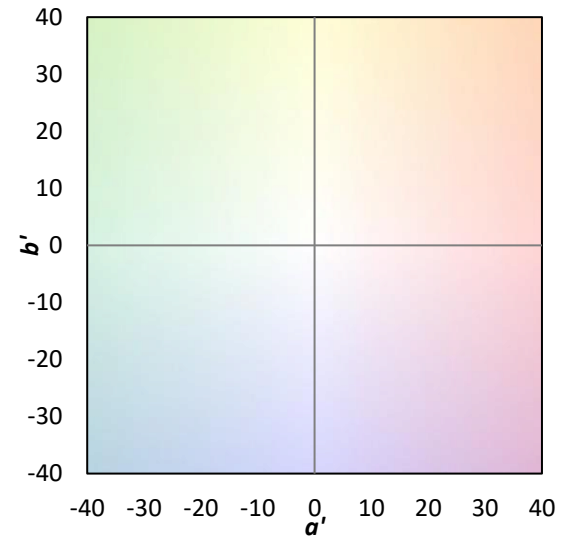
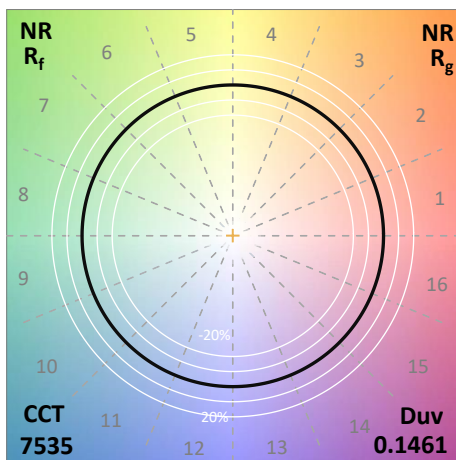
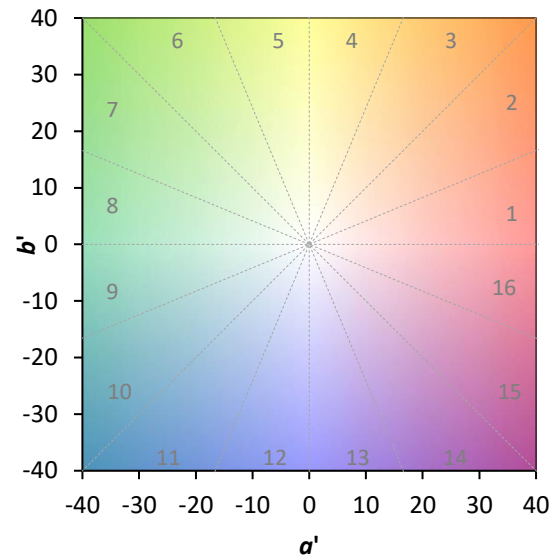
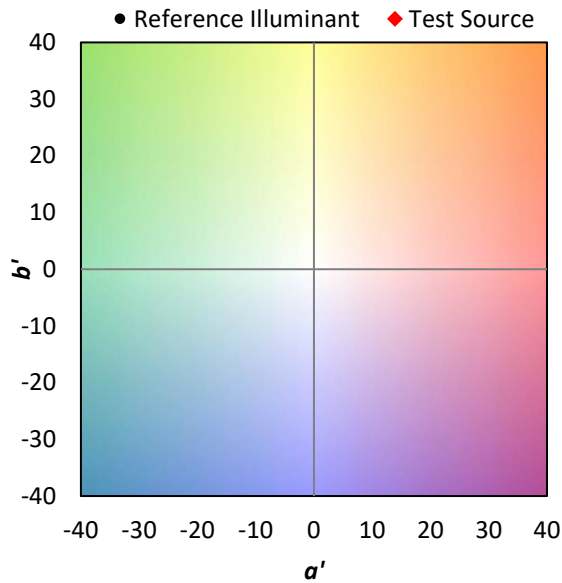
Summary

$R_f = 0$
 $R_g = 0$
 $CIE\ R_a = -11.7$
 $R_g = -351.9$

Spectral Power Distribution Comparison



Color Vector Graphics

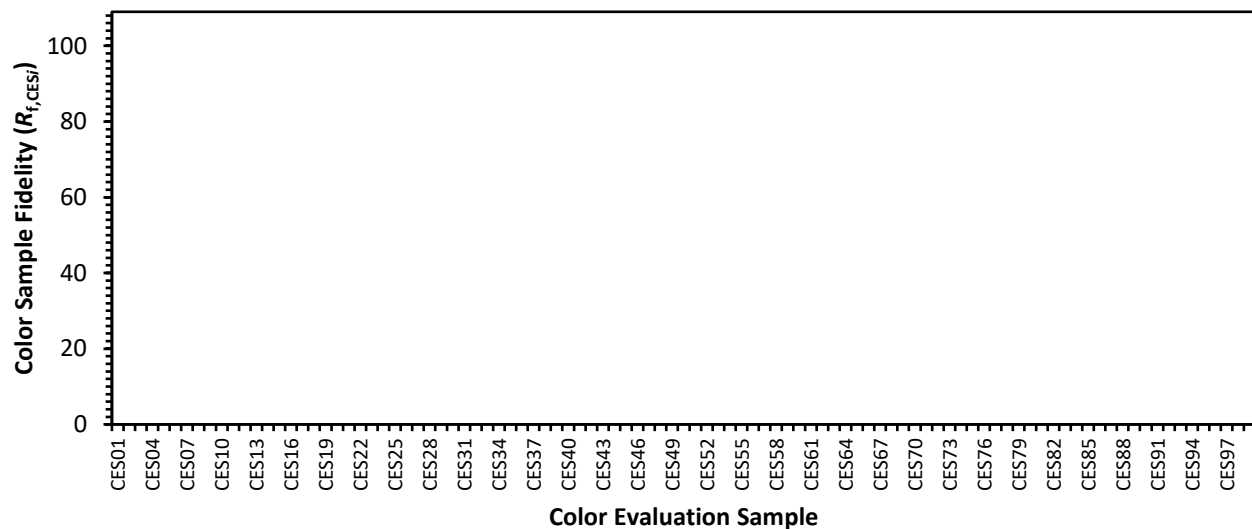


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Individual Sample Fidelity Index (R_{fi})

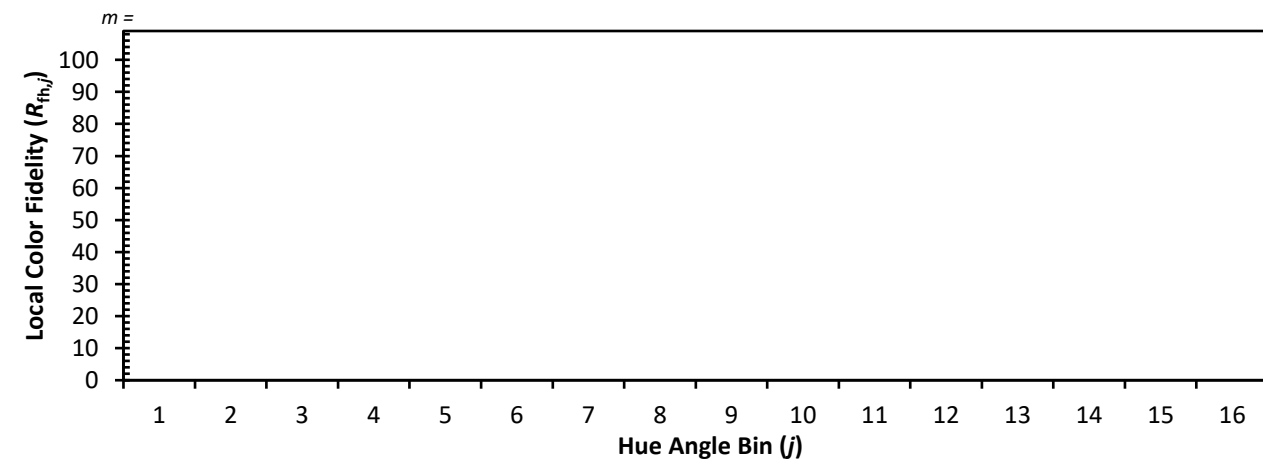
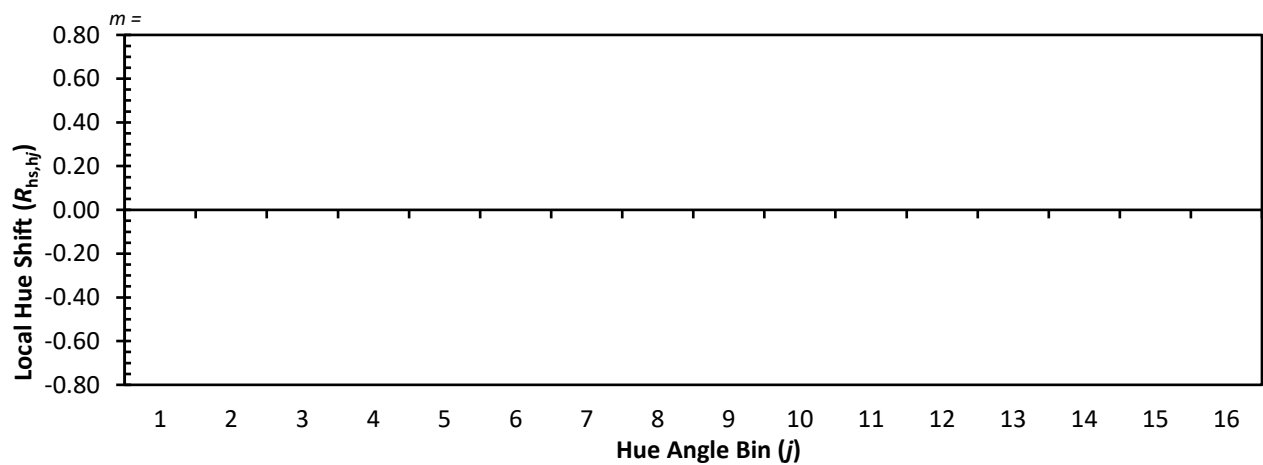
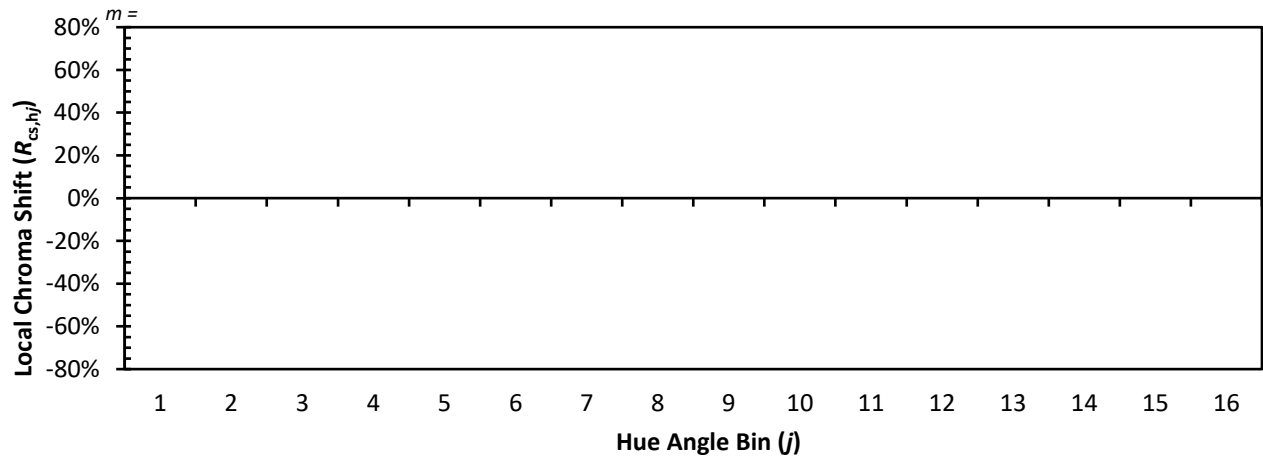
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CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
CES09 = 0	CES34 = 0	CES59 = 0	CES84 = 0
CES10 = 0	CES35 = 0	CES60 = 0	CES85 = 0
CES11 = 0	CES36 = 0	CES61 = 0	CES86 = 0
CES12 = 0	CES37 = 0	CES62 = 0	CES87 = 0
CES13 = 0	CES38 = 0	CES63 = 0	CES88 = 0
CES14 = 0	CES39 = 0	CES64 = 0	CES89 = 0
CES15 = 0	CES40 = 0	CES65 = 0	CES90 = 0
CES16 = 0	CES41 = 0	CES66 = 0	CES91 = 0
CES17 = 0	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 0	CES43 = 0	CES68 = 0	CES93 = 0
CES19 = 0	CES44 = 0	CES69 = 0	CES94 = 0
CES20 = 0	CES45 = 0	CES70 = 0	CES95 = 0
CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
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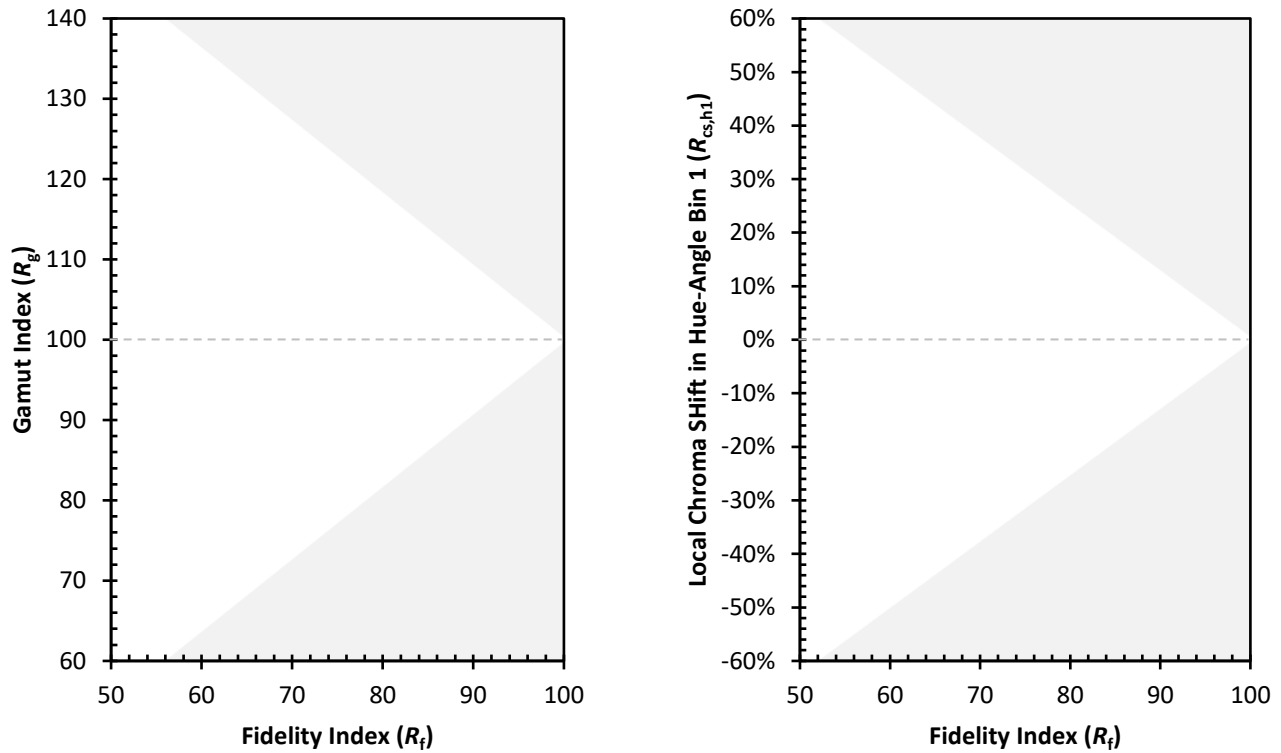


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Color Rendition by Hue-Angle Bin



Measure Comparisons


(END OF REPORT)