

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: P1357124

Luminaire Tested: 4ASL4-10HE-2-G52-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357124
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 4ASL4-10HE-2-G52-UNV
Description: 4FT 1000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 2 ROW
Light Source: -
Ballast/Driver: -

Summary

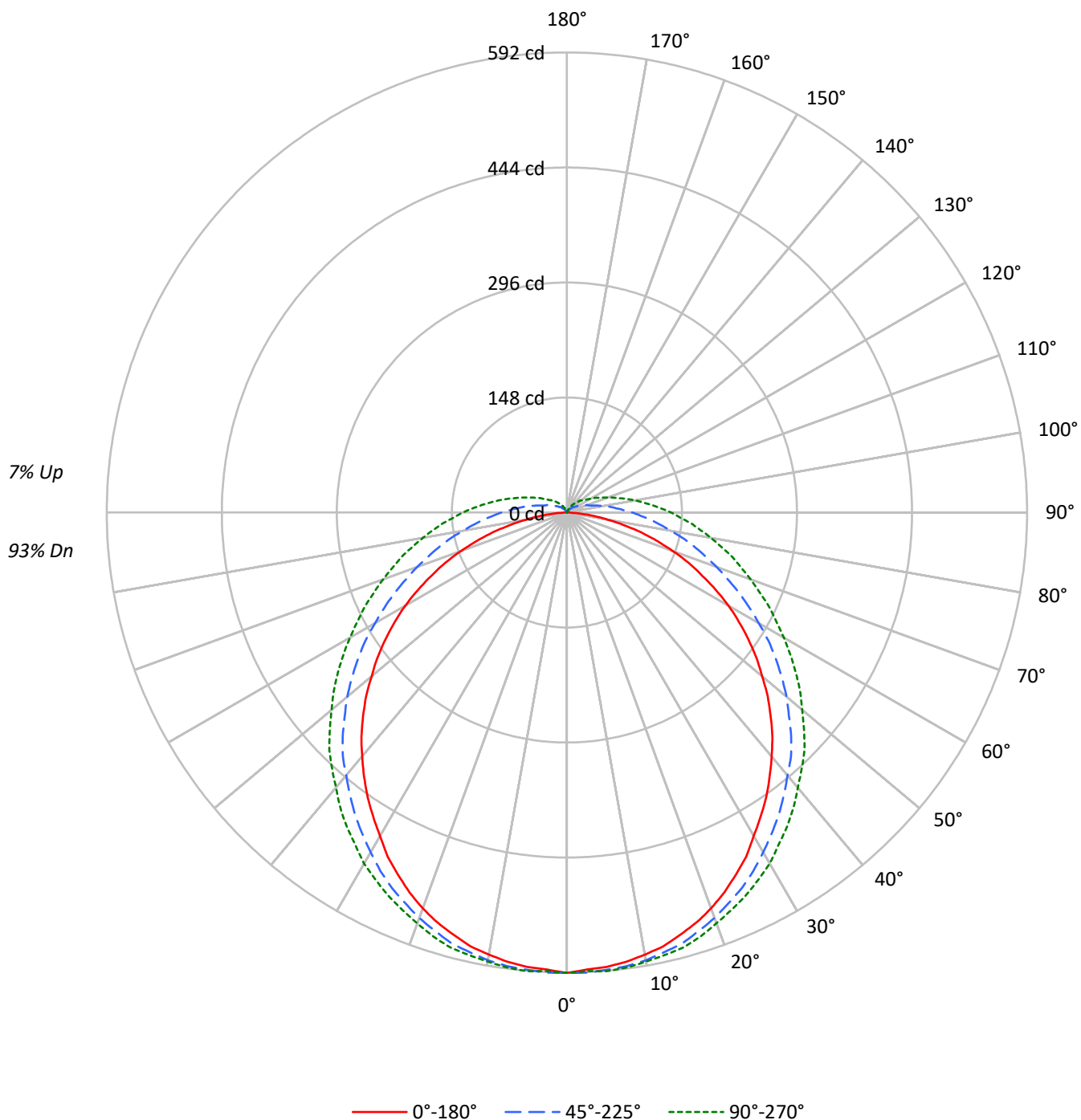
Lumens per Lamp: N/A
Luminaire Lumens: 2034.0 lumens
Efficiency: N/A
Efficacy: 53.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 38.2
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			0
RW	70	50	30	10	70	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		95	95	95	93
1	105	100	95	90	102	97	92	88	91	87	84		86	83	80		81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68		74	70	65		70	66	63	60
3	86	75	66	59	83	73	65	58	69	62	56		65	59	55		62	57	53	50
4	79	66	57	50	76	64	56	49	61	54	48		58	51	46		55	49	45	42
5	72	59	50	43	70	57	49	42	54	47	41		52	45	40		49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36		47	40	35		44	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32		43	36	31		41	35	30	28
8	58	44	35	29	56	43	34	29	41	33	28		39	32	28		37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25		36	29	25		34	29	24	22
10	50	37	29	24	49	36	28	23	35	28	23		33	27	22		32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4808	4808	4808
5°	4770	4712	4698
10°	4738	4625	4584
15°	4695	4531	4492
20°	4638	4410	4363
25°	4549	4292	4252
30°	4437	4157	4141
35°	4351	4031	4013
40°	4249	3895	3878
45°	4147	3778	3780
50°	4015	3623	3634
55°	3888	3457	3518
60°	3731	3271	3394
65°	3489	3097	3299
70°	3216	2932	3211
75°	2819	2806	3183
80°	2197	2695	3173
85°	1333	2693	3263

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4147 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.2	2.8
10°-20°	161.5	7.9
20°-30°	244.7	12.0
30°-40°	296.0	14.6
40°-50°	312.1	15.3
50°-60°	291.2	14.3
60°-70°	240.5	11.8
70°-80°	174.4	8.6
80°-90°	110.2	5.4
90°-100°	65.8	3.2
100°-110°	37.7	1.9
110°-120°	21.4	1.1
120°-130°	12.2	0.6
130°-140°	6.6	0.3
140°-150°	2.9	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	462.4	22.7
0°-40°	758.4	37.3
0°-60°	1361.7	66.9
0°-90°	1886.8	92.8
90°-120°	124.9	6.1
90°-150°	146.6	7.2
90°-180°	147.0	7.2
0°-180°	2034.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	587	592	591	591	592	56
15°	563	570	574	576	579	159
25°	514	522	533	540	544	237
35°	447	458	475	488	494	279
45°	371	386	408	425	432	286
55°	285	302	328	350	360	255
65°	192	212	244	274	287	191
75°	99	125	170	205	220	104
85°	19	58	108	145	160	23
90°	0	35	84	119	134	1
95°	0	22	63	97	110	0
105°	0	8	35	62	71	0
115°	0	4	20	37	45	0
125°	0	2	13	24	28	0
135°	0	0	8	15	19	0
145°	0	0	4	9	11	0
155°	0	0	0	2	4	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°	592.5	592.5	592.5	592.5	592.5
2.5°	588.8	594.3	592.5	590.6	590.6
5°	586.9	592.5	590.6	590.6	592.5
7.5°	583.2	588.8	588.8	588.8	590.6
10°	577.6	585.0	585.0	585.0	586.9
12.5°	572.0	577.6	579.4	581.3	583.2
15°	562.7	570.1	573.9	575.7	579.4
17.5°	553.4	558.9	564.5	570.1	572.0
20°	542.2	549.6	555.2	560.8	562.7
22.5°	529.1	536.6	544.0	549.6	553.4
25°	514.2	521.7	532.9	540.3	544.0
27.5°	499.3	506.8	519.8	529.1	532.9
30°	480.7	491.9	504.9	516.1	521.7
32.5°	463.9	475.1	490.0	503.1	506.8
35°	447.2	458.3	475.1	488.1	493.7
37.5°	428.5	441.6	458.3	473.2	478.8
40°	409.9	422.9	441.6	458.3	462.1
42.5°	391.3	404.3	426.7	441.6	447.2
45°	370.8	385.7	408.0	424.8	432.3
47.5°	350.3	365.2	387.5	406.2	413.6
50°	327.9	344.7	368.9	387.5	395.0
52.5°	307.4	324.2	348.4	368.9	378.2
55°	285.1	301.8	327.9	350.3	359.6
57.5°	262.7	279.5	307.4	331.6	341.0
60°	240.3	257.1	285.1	313.0	322.3
62.5°	216.1	234.8	264.6	292.5	303.7
65°	191.9	212.4	244.1	273.9	286.9
67.5°	169.5	190.0	223.6	257.1	268.3
70°	145.3	167.7	204.9	238.5	251.5
72.5°	121.1	145.3	186.3	221.7	234.8
75°	98.7	124.8	169.5	204.9	219.9
77.5°	74.5	106.2	152.8	190.0	203.1
80°	54.0	87.6	136.0	175.1	188.2
82.5°	35.4	70.8	121.1	160.2	173.3
85°	18.6	57.8	108.1	145.3	160.2
87.5°	5.6	44.7	95.0	132.3	145.3
90°	0.0	35.4	83.8	119.2	134.1
92.5°	0.0	27.9	72.7	108.1	121.1
95°	0.0	22.4	63.3	96.9	109.9
97.5°	0.0	18.6	55.9	87.6	98.7
100°	0.0	14.9	48.4	78.3	89.4
102.5°	0.0	11.2	41.0	68.9	80.1
105°	0.0	7.5	35.4	61.5	70.8
107.5°	0.0	5.6	29.8	54.0	63.3
110°	0.0	5.6	27.9	46.6	55.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	3.7	24.2	42.9	50.3
115°	0.0	3.7	20.5	37.3	44.7
117.5°	0.0	3.7	18.6	33.5	41.0
120°	0.0	3.7	16.8	29.8	35.4
122.5°	0.0	1.9	14.9	26.1	31.7
125°	0.0	1.9	13.0	24.2	27.9
127.5°	0.0	1.9	11.2	22.4	26.1
130°	0.0	1.9	11.2	20.5	24.2
132.5°	0.0	0.0	9.3	18.6	22.4
135°	0.0	0.0	7.5	14.9	18.6
137.5°	0.0	0.0	7.5	13.0	16.8
140°	0.0	0.0	5.6	13.0	14.9
142.5°	0.0	0.0	3.7	11.2	13.0
145°	0.0	0.0	3.7	9.3	11.2
147.5°	0.0	0.0	1.9	7.5	9.3
150°	0.0	0.0	1.9	5.6	7.5
152.5°	0.0	0.0	0.0	3.7	5.6
155°	0.0	0.0	0.0	1.9	3.7
157.5°	0.0	0.0	0.0	0.0	1.9
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	14.77	16.30	15.24	16.76	17.25	16.83	18.36	17.30	18.82	19.31
	3H	16.27	17.67	16.76	18.14	18.67	19.28	20.68	19.76	21.15	21.68
	4H	16.75	18.08	17.26	18.57	19.11	20.49	21.82	20.99	22.30	22.85
	6H	17.02	18.26	17.54	18.76	19.32	21.76	23.00	22.28	23.50	24.06
	8H	17.08	18.26	17.61	18.79	19.35	22.42	23.60	22.95	24.13	24.69
	12H	17.09	18.23	17.63	18.75	19.35	23.15	24.28	23.69	24.80	25.40
4H	2H	15.65	16.98	16.15	17.46	18.01	17.26	18.59	17.76	19.07	19.62
	3H	17.39	18.52	17.91	19.05	19.62	19.94	21.07	20.46	21.60	22.17
	4H	18.00	19.03	18.54	19.58	20.17	21.32	22.36	21.86	22.90	23.50
	6H	18.40	19.32	18.96	19.88	20.49	22.79	23.71	23.35	24.27	24.89
	8H	18.50	19.36	19.06	19.93	20.55	23.56	24.42	24.12	24.99	25.61
	12H	18.54	19.33	19.13	19.92	20.55	24.41	25.20	25.00	25.79	26.42
8H	4H	18.69	19.55	19.26	20.12	20.75	21.54	22.41	22.11	22.97	23.60
	6H	19.28	20.01	19.88	20.62	21.25	23.19	23.92	23.78	24.53	25.16
	8H	19.47	20.13	20.08	20.75	21.39	24.10	24.76	24.71	25.38	26.02
	12H	19.59	20.18	20.20	20.79	21.50	25.14	25.73	25.75	26.34	27.05
12H	4H	18.89	19.68	19.48	20.27	20.90	21.55	22.34	22.14	22.93	23.56
	6H	19.58	20.25	20.19	20.86	21.51	23.23	23.89	23.83	24.51	25.15
	8H	19.87	20.46	20.48	21.07	21.78	24.21	24.80	24.82	25.40	26.11

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

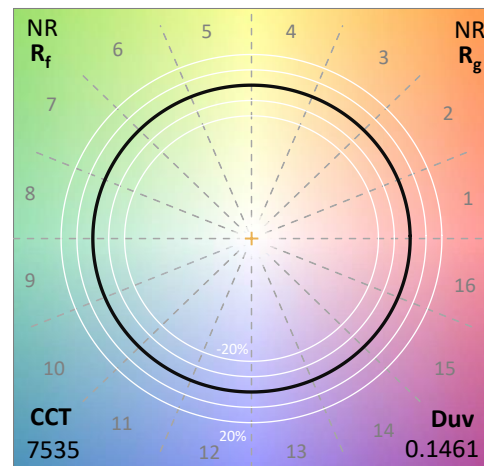
Data in this report applies to families of products including 4ASL

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

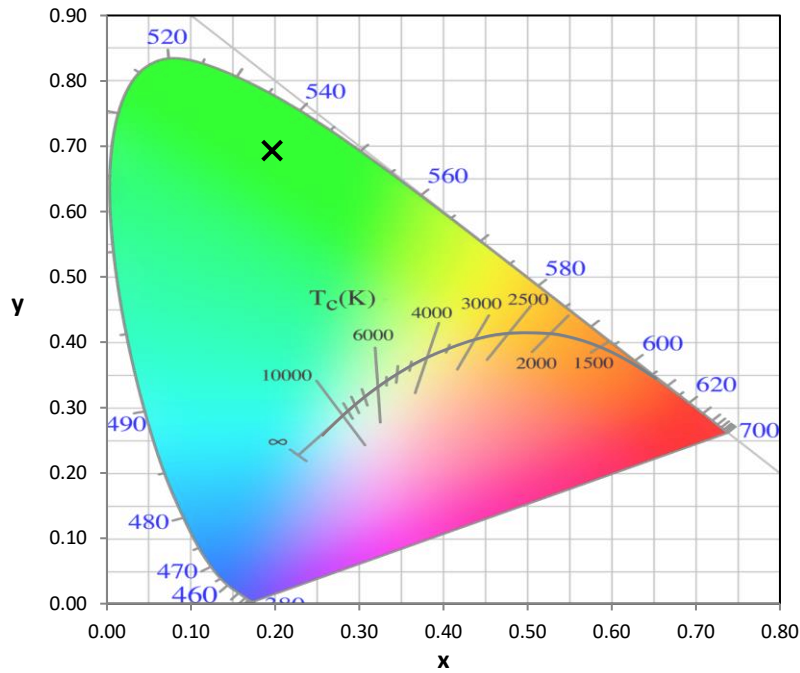
Stabilization Time: 48M
 Operation Time: 1H 48M
 Sphere Temperature (°C): 25.1

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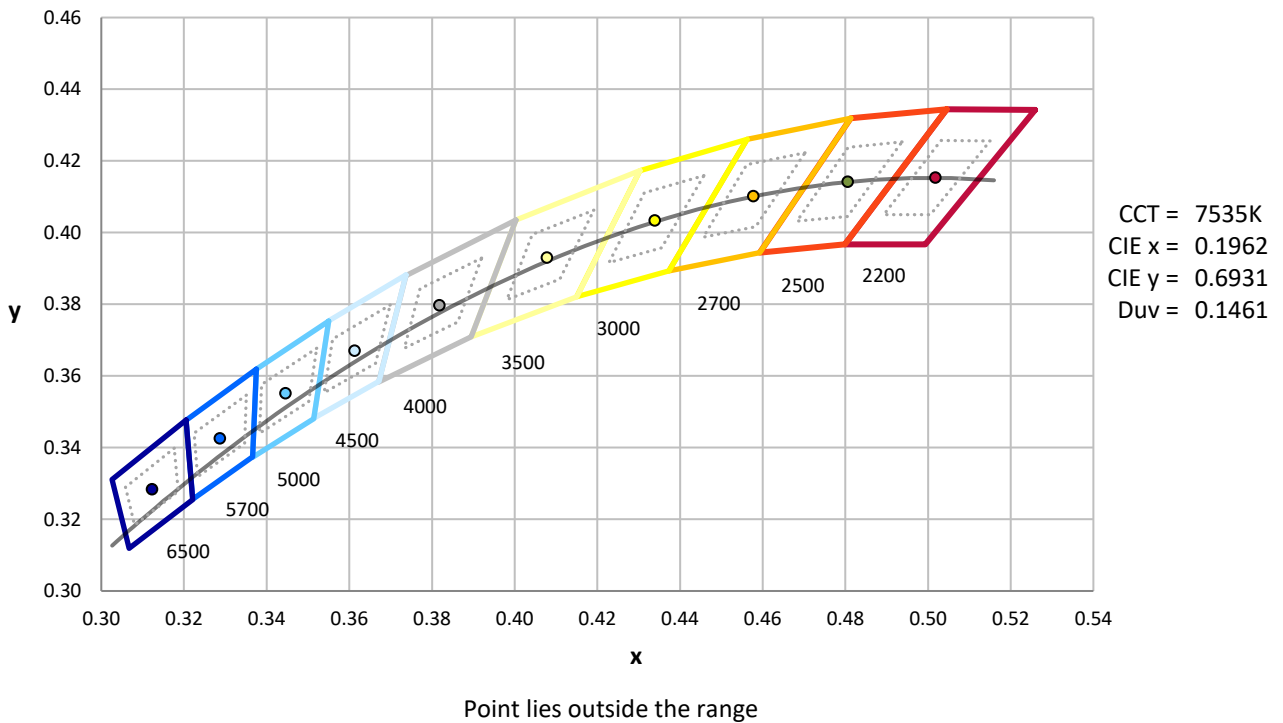
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

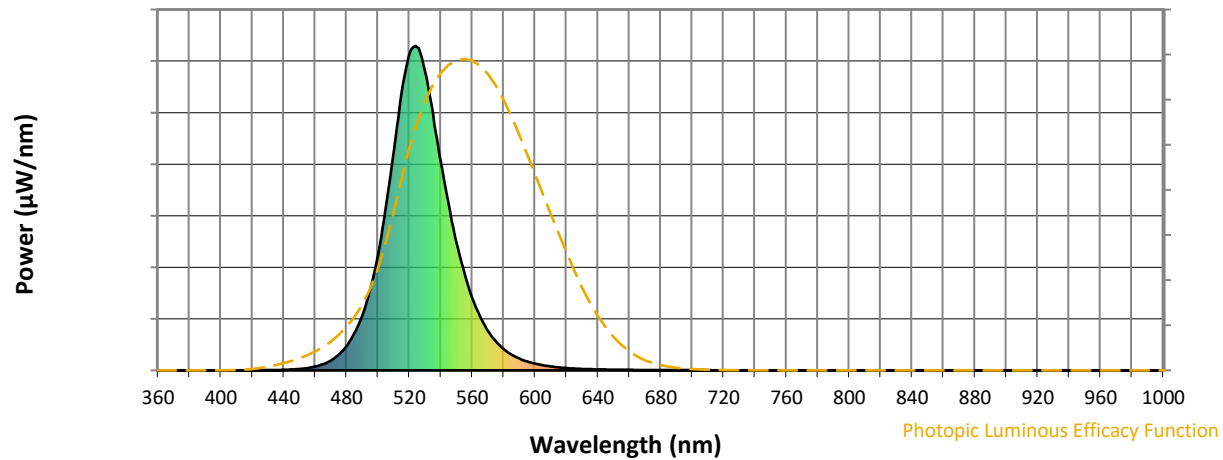


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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Photopic Flux vs. Wavelength

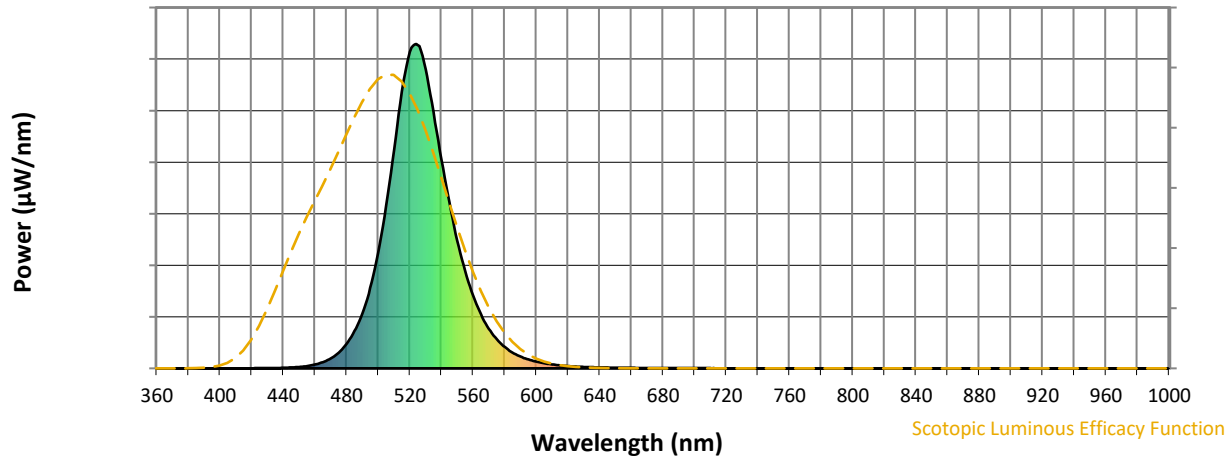


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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

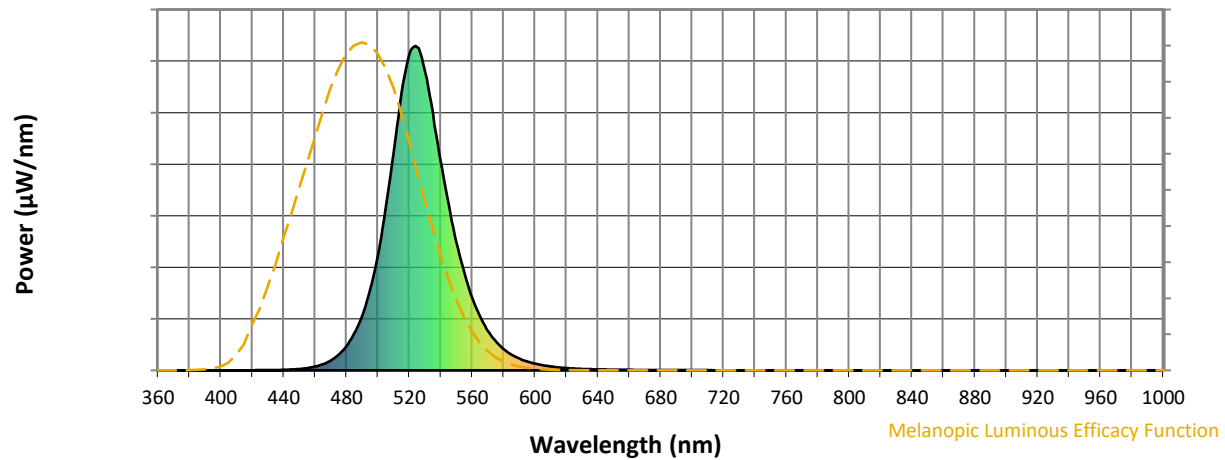


Scotopic Lumens: NR

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			

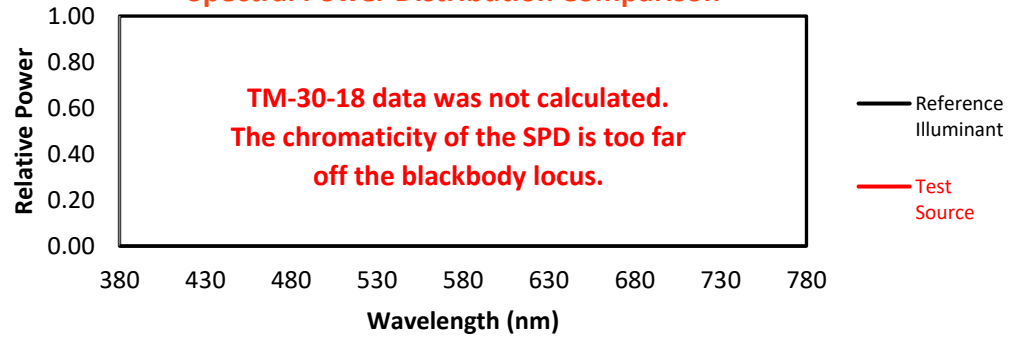
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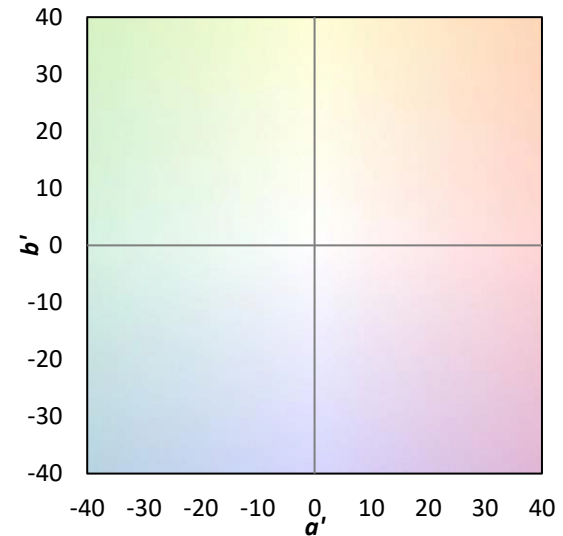
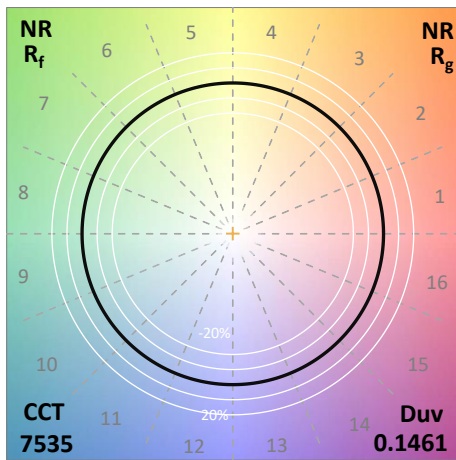
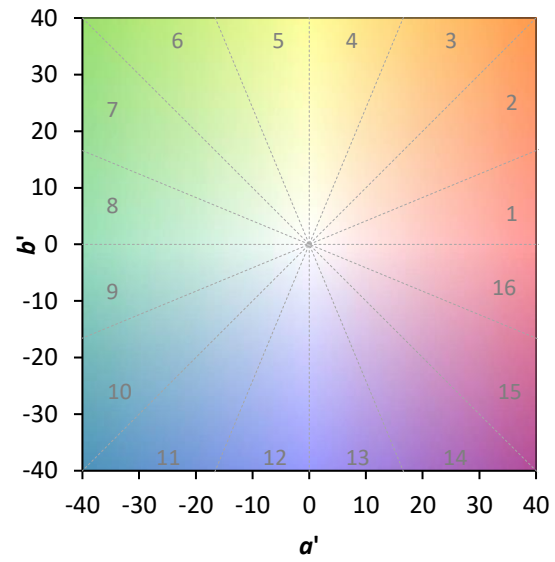
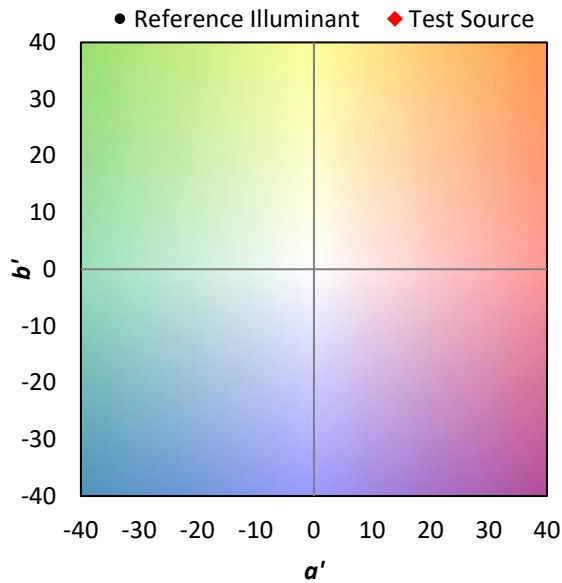
Summary

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

Spectral Power Distribution Comparison

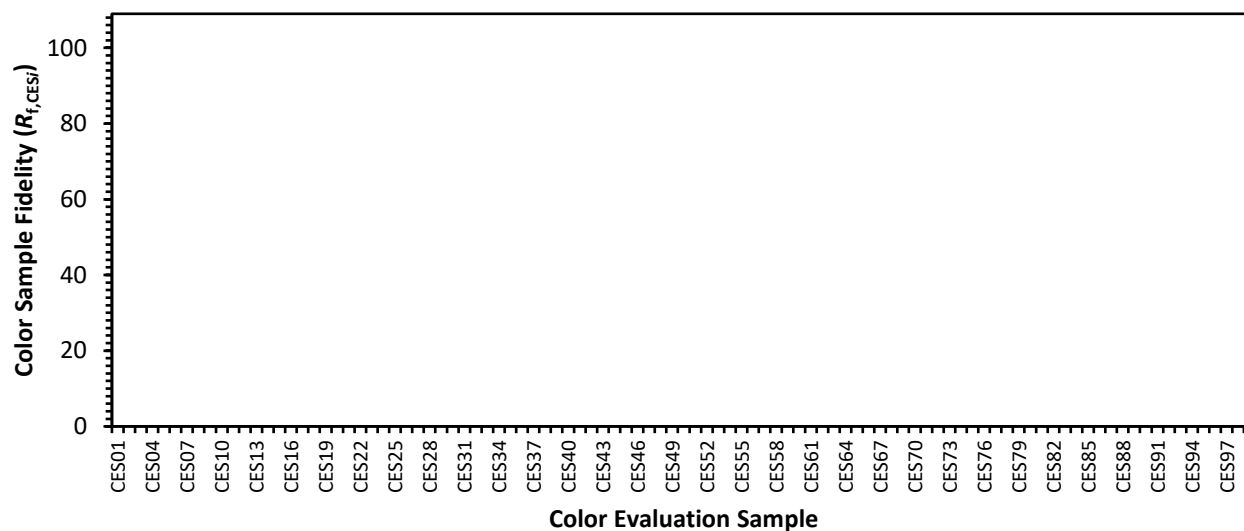


Color Vector Graphics



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

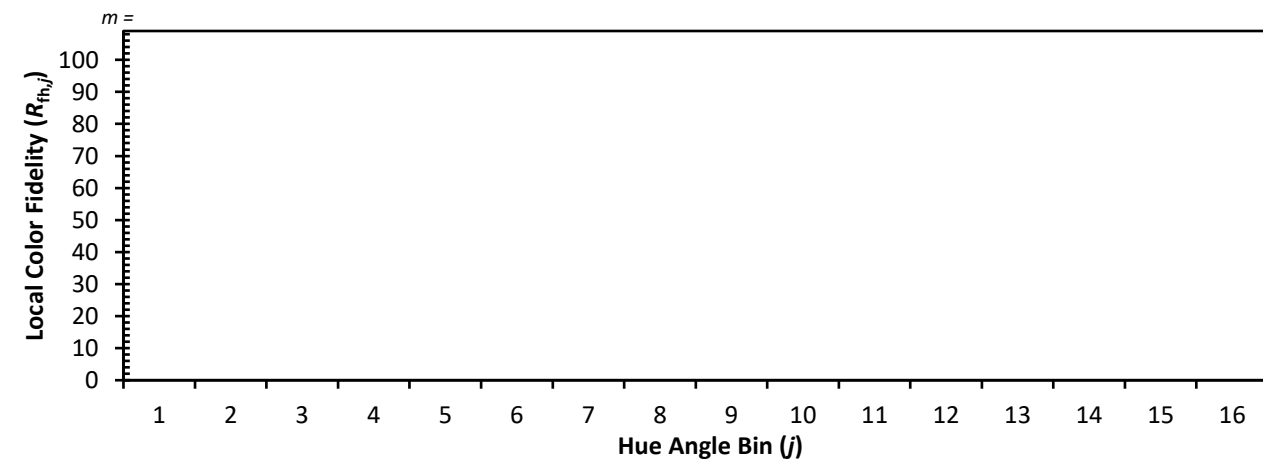
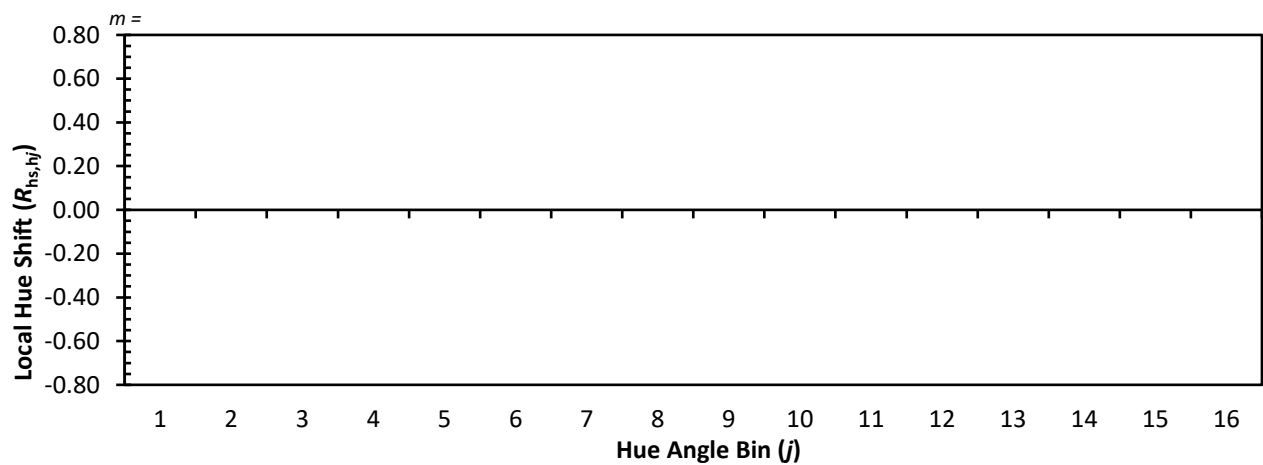
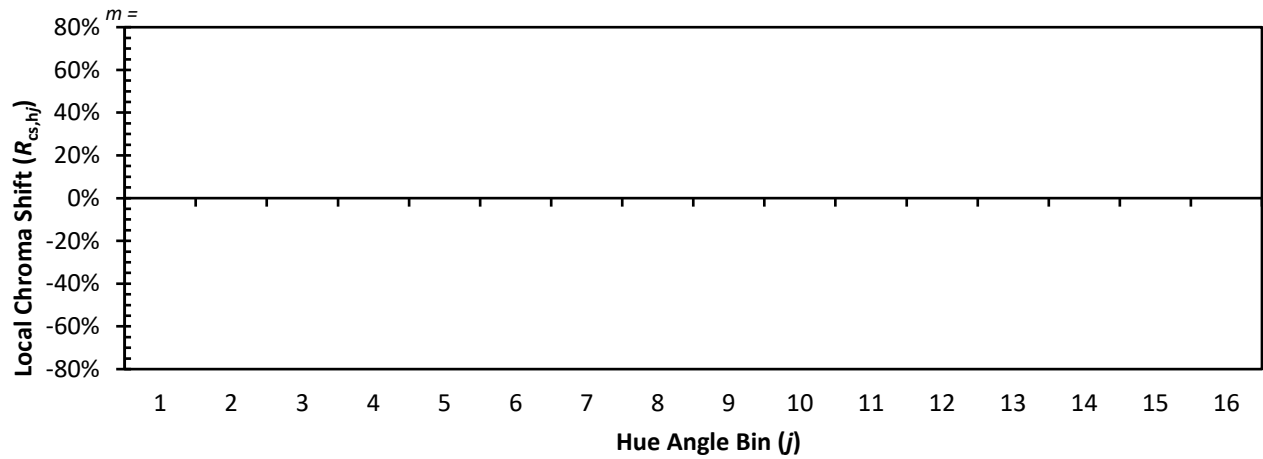
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CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 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
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CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
CES23 = 0	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 0	CES49 = 0	CES74 = 0	CES99 = 0
CES25 = 0	CES50 = 0	CES75 = 0	



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Color Rendition by Hue-Angle Bin



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Measure Comparisons



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