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: P1357057

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

Issue Date: 2/17/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1357057
	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:	3ASL4-30VHE-3-A59-UNV
Description:	3FT 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:	1819.0 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: 2.98' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	54.6
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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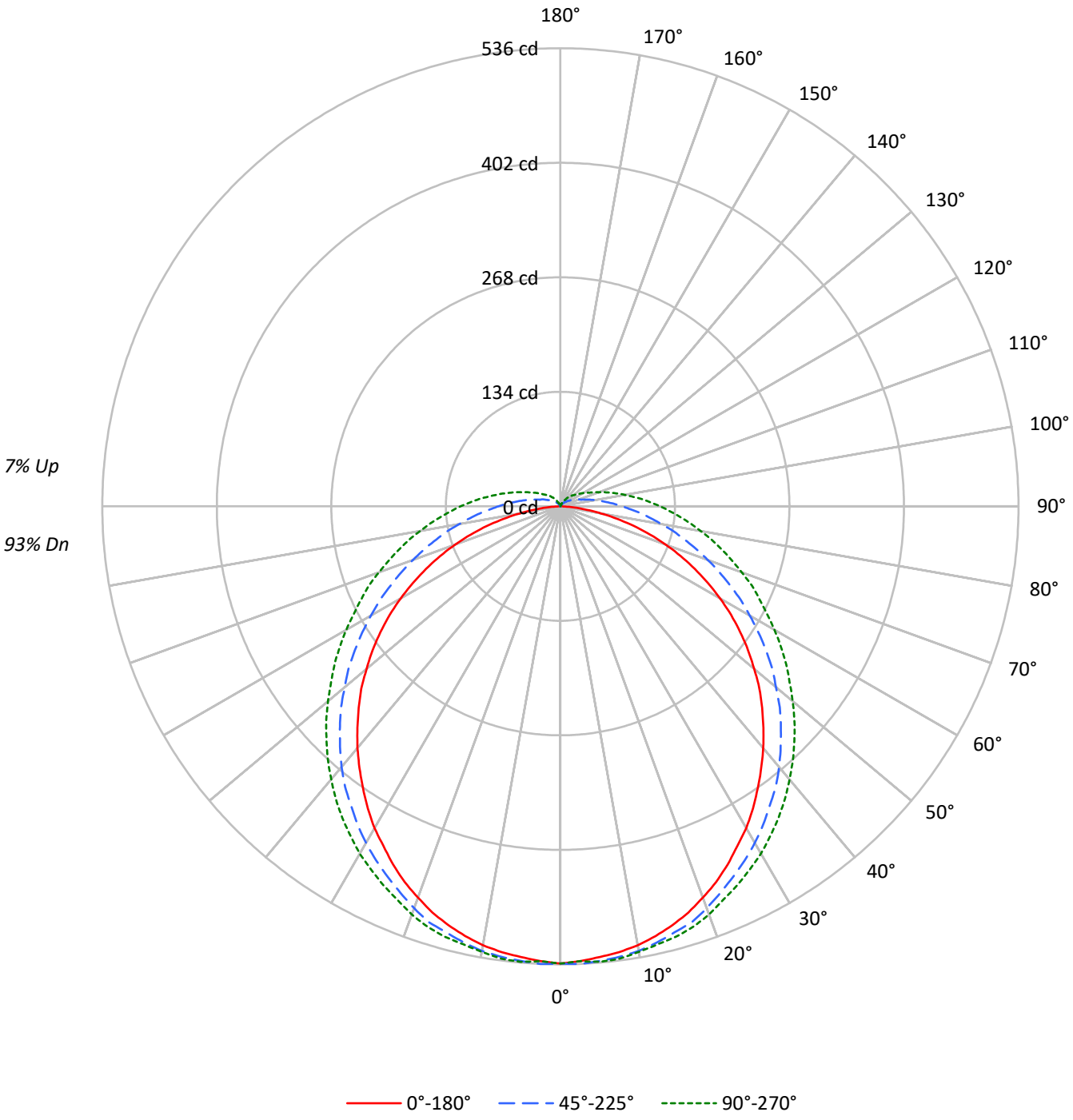
CATALOG NUMBER: 3ASL4-30VHE-3-A59-UNV

Luminous Intensity Polar Plot



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TEST NUMBER: P1357057
CATALOG NUMBER: 3ASL4-30VHE-3-A59-UNV

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5799	5799	5799
5°	5743	5687	5666
10°	5706	5573	5523
15°	5639	5434	5401
20°	5549	5299	5264
25°	5445	5132	5109
30°	5336	4986	4977
35°	5200	4822	4830
40°	5077	4671	4676
45°	4942	4489	4521
50°	4790	4294	4359
55°	4624	4107	4215
60°	4411	3890	4068
65°	4140	3680	3945
70°	3794	3472	3850
75°	3297	3281	3785
80°	2547	3132	3756
85°	1484	3086	3811

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4942 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.7	2.8
10°-20°	145.7	8.0
20°-30°	220.2	12.1
30°-40°	266.7	14.7
40°-50°	280.1	15.4
50°-60°	261.3	14.4
60°-70°	215.9	11.9
70°-80°	155.5	8.5
80°-90°	96.6	5.3
90°-100°	56.6	3.1
100°-110°	32.4	1.8
110°-120°	18.3	1.0
120°-130°	10.5	0.6
130°-140°	5.7	0.3
140°-150°	2.4	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	416.6	22.9
0°-40°	683.3	37.6
0°-60°	1224.7	67.3
0°-90°	1692.7	93.1
90°-120°	107.3	5.9
90°-150°	125.8	6.9
90°-180°	126.0	6.9
0°-180°	1819.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	535	535	535	535	535	
5°	529	534	534	534	535	50
15°	507	514	516	519	522	143
25°	463	470	478	485	489	213
35°	403	414	427	439	445	252
45°	334	346	365	380	387	257
55°	257	271	294	315	323	230
65°	174	190	219	247	257	172
75°	89	111	150	182	196	94
85°	17	50	94	128	140	20
90°	0	30	72	103	117	1
95°	0	19	54	83	96	0
105°	0	7	30	52	61	0
115°	0	3	18	32	38	0
125°	0	2	11	21	24	0
135°	0	0	7	13	17	0
145°	0	0	3	8	9	0
155°	0	0	0	2	3	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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TEST NUMBER: P1357057
CATALOG NUMBER: 3ASL4-30VHE-3-A59-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	535.0	*535.0*	535.0	535.0	535.0
2.5°	*532.8*	*536.1*	*536.1*	*532.8*	*532.8*
5°	529.4	*533.9*	533.9	533.9	535.0
7.5°	526.1	*531.7*	531.7	531.7	533.9
10°	521.6	*527.2*	528.3	528.3	529.4
12.5°	515.0	*521.6*	522.8	523.9	525.0
15°	507.2	*513.9*	516.1	519.4	521.6
17.5°	498.3	*506.1*	510.5	513.9	516.1
20°	487.2	*495.0*	500.5	505.0	508.3
22.5°	476.0	*482.7*	489.4	495.0	498.3
25°	462.7	*470.5*	478.3	484.9	489.4
27.5°	448.2	*457.1*	467.1	474.9	479.4
30°	434.9	*443.8*	454.9	464.9	469.4
32.5°	419.3	*429.3*	441.6	451.6	457.1
35°	402.6	*413.8*	427.1	439.3	444.9
37.5°	386.0	*397.1*	413.8	426.0	431.6
40°	369.3	*380.4*	398.2	411.5	417.1
42.5°	351.5	*362.6*	381.5	396.0	402.6
45°	333.7	*345.9*	364.8	380.4	387.1
47.5°	315.9	*328.1*	348.1	364.8	371.5
50°	295.9	*309.2*	329.2	348.1	354.8
52.5°	277.0	*290.3*	312.5	331.5	338.1
55°	256.9	*271.4*	293.6	314.8	322.6
57.5°	236.9	*251.4*	274.7	297.0	305.9
60°	215.8	*231.3*	255.8	279.2	289.2
62.5°	194.6	*211.3*	238.0	262.5	272.5
65°	173.5	*190.2*	219.1	246.9	256.9
67.5°	152.4	*170.2*	201.3	230.2	242.5
70°	131.2	*150.2*	183.5	213.6	225.8
72.5°	110.1	*130.1*	166.8	198.0	210.2
75°	89.0	*111.2*	150.2	182.4	195.8
77.5°	67.8	*93.4*	135.7	167.9	181.3
80°	48.9	*77.9*	120.1	153.5	166.8
82.5°	31.1	*62.3*	106.8	140.1	153.5
85°	16.7	*50.1*	94.5	127.9	140.1
87.5°	5.6	*38.9*	82.3	115.7	127.9
90°	0.0	*30.0*	72.3	103.4	116.8
92.5°	0.0	*23.4*	63.4	93.4	105.7
95°	0.0	*18.9*	54.5	83.4	95.7
97.5°	0.0	*15.6*	47.8	74.5	85.6
100°	0.0	*12.2*	41.2	66.7	76.7
102.5°	0.0	*10.0*	35.6	58.9	69.0
105°	0.0	*6.7*	30.0	52.3	61.2
107.5°	0.0	*5.6*	25.6	46.7	54.5
110°	0.0	*4.4*	23.4	40.0	47.8

TEST NUMBER: P1357057
CATALOG NUMBER: 3ASL4-30VHE-3-A59-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*3.3*	21.1	35.6	43.4
115°	0.0	*3.3*	17.8	32.3	37.8
117.5°	0.0	*3.3*	15.6	28.9	34.5
120°	0.0	*2.2*	14.5	25.6	31.1
122.5°	0.0	*2.2*	12.2	23.4	27.8
125°	0.0	*2.2*	11.1	21.1	24.5
127.5°	0.0	*1.1*	10.0	18.9	22.2
130°	0.0	*1.1*	8.9	16.7	20.0
132.5°	0.0	*1.1*	7.8	15.6	18.9
135°	0.0	*0.0*	6.7	13.3	16.7
137.5°	0.0	*0.0*	5.6	12.2	14.5
140°	0.0	*0.0*	4.4	10.0	13.3
142.5°	0.0	*0.0*	3.3	8.9	11.1
145°	0.0	*0.0*	3.3	7.8	8.9
147.5°	0.0	*0.0*	2.2	5.6	7.8
150°	0.0	*0.0*	1.1	4.4	5.6
152.5°	0.0	*0.0*	0.0	3.3	4.4
155°	0.0	*0.0*	0.0	2.2	3.3
157.5°	0.0	*0.0*	0.0	0.0	1.1
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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TEST NUMBER: P1357057
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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	17.42	17.91	17.43	18.97	17.90	19.42	19.91
	3H	16.93	18.33	17.41	18.80	19.32	19.88	21.28	20.36	21.75	22.27
	4H	17.41	18.74	17.91	19.22	19.76	21.07	22.40	21.57	22.88	23.42
	6H	17.68	18.92	18.20	19.42	19.97	22.30	23.54	22.82	24.04	24.59
	8H	17.74	18.92	18.26	19.44	20.00	22.93	24.12	23.46	24.64	25.20
	12H	17.75	18.89	18.28	19.40	19.99	23.62	24.76	24.16	25.27	25.87
4H	2H	16.30	17.63	16.80	18.11	18.65	17.86	19.20	18.37	19.68	20.22
	3H	18.04	19.17	18.55	19.70	20.26	20.54	21.68	21.06	22.20	22.76
	4H	18.64	19.68	19.18	20.22	20.81	21.90	22.94	22.43	23.47	24.07
	6H	19.04	19.96	19.59	20.52	21.12	23.33	24.24	23.88	24.81	25.41
	8H	19.13	20.00	19.69	20.56	21.18	24.06	24.93	24.63	25.49	26.11
	12H	19.18	19.96	19.76	20.55	21.18	24.88	25.66	25.46	26.25	26.88
8H	4H	19.32	20.18	19.88	20.74	21.36	22.12	22.98	22.68	23.54	24.16
	6H	19.89	20.63	20.49	21.23	21.86	23.71	24.45	24.31	25.05	25.67
	8H	20.08	20.74	20.68	21.35	21.99	24.59	25.25	25.20	25.87	26.51
	12H	20.19	20.78	20.80	21.38	22.09	25.59	26.18	26.20	26.79	27.49
12H	4H	19.51	20.29	20.09	20.88	21.50	22.12	22.91	22.71	23.50	24.12
	6H	20.18	20.85	20.79	21.46	22.10	23.75	24.41	24.36	25.03	25.66
	8H	20.46	21.05	21.07	21.66	22.36	24.70	25.29	25.31	25.89	26.60

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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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

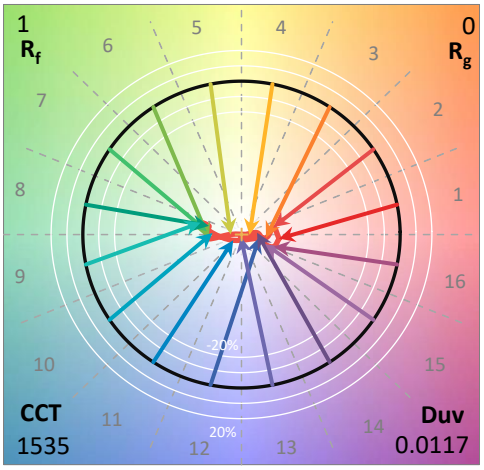
Test Information

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
Rf:	1.3
Rg:	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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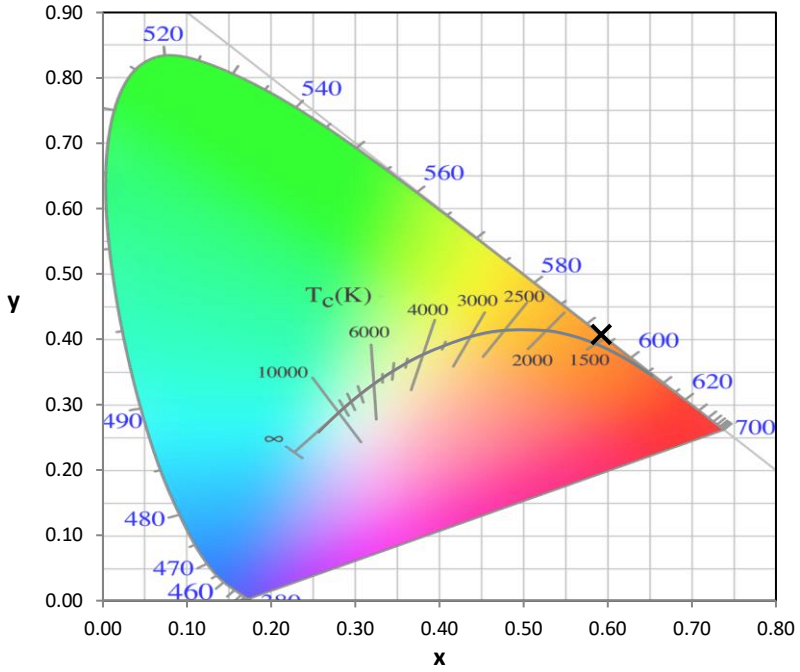
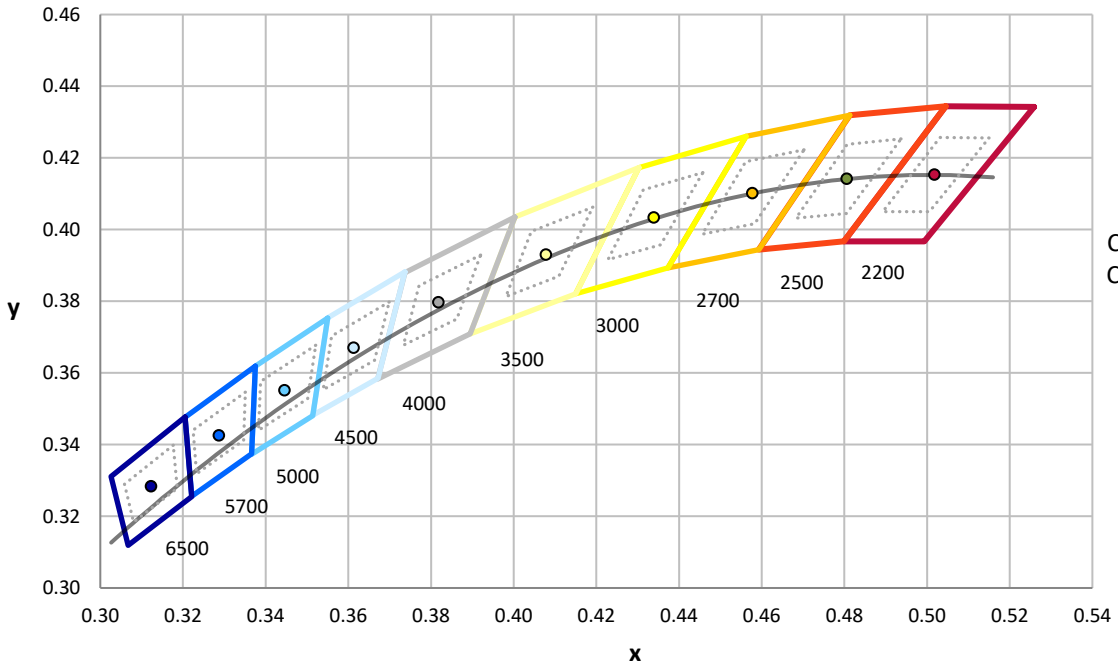
CIE 1931 Chromaticity Diagram



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

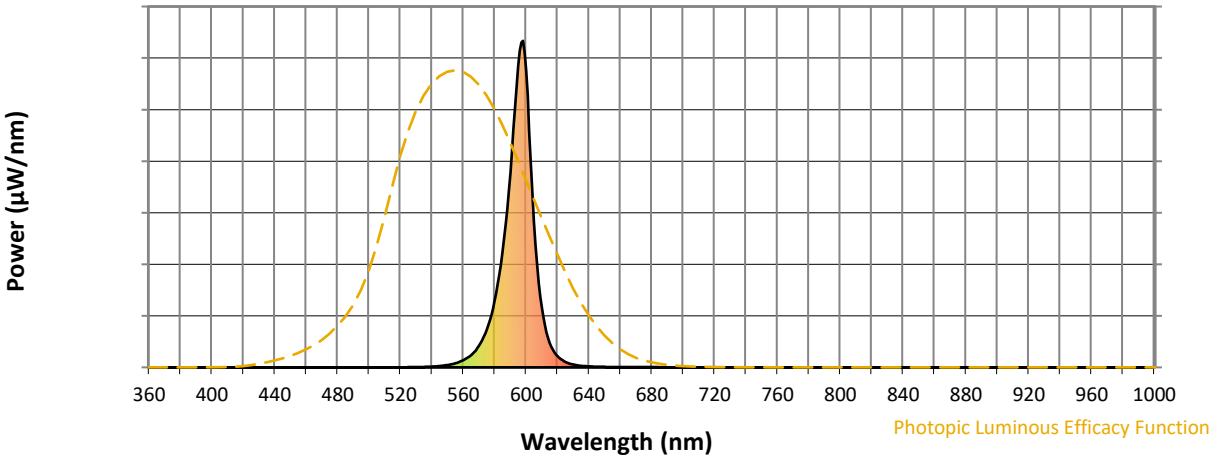


CCT = 1535K
CIE x = 0.5921
CIE y = 0.4072
Duv = 0.0117

Point lies outside the range

REPORT NUMBER: SP1-2511-597-9

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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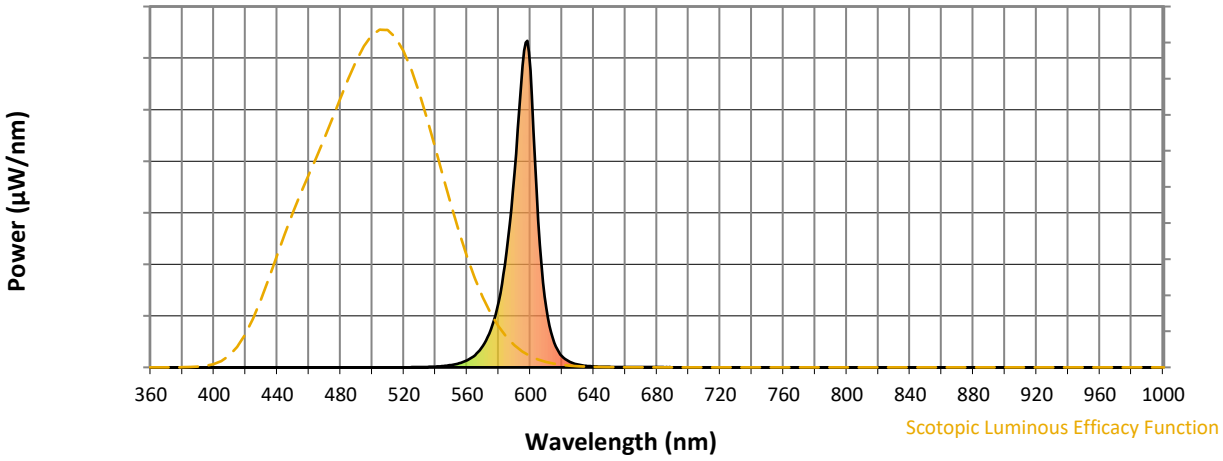
Scotopic Flux vs. Wavelength



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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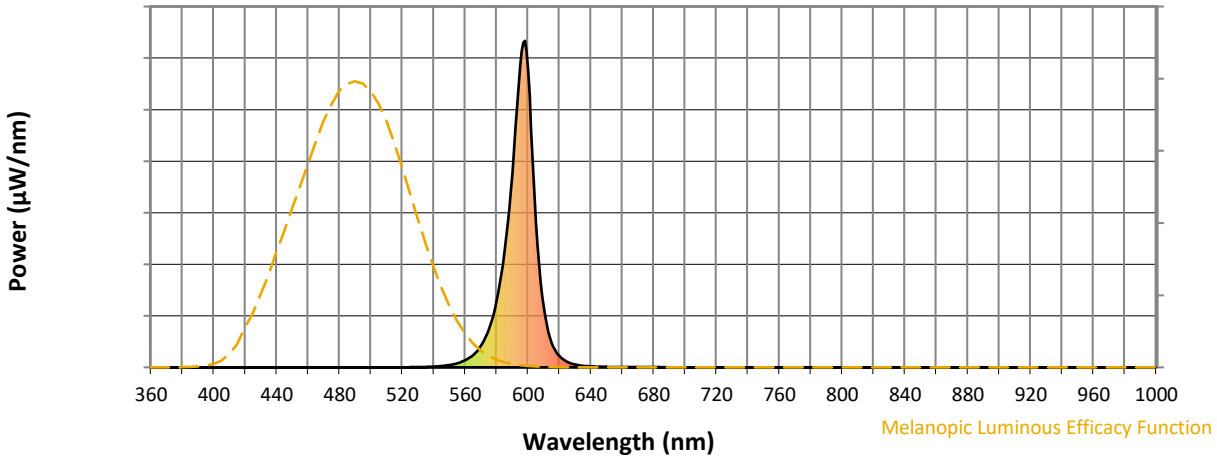
Melanopic Flux vs. Wavelength



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			

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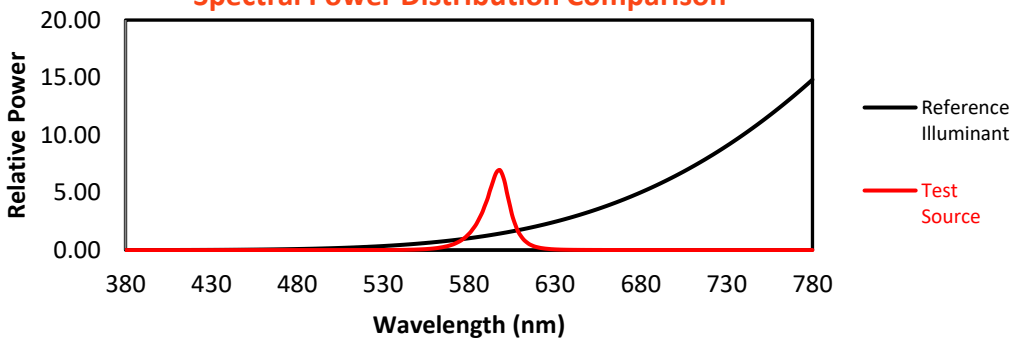
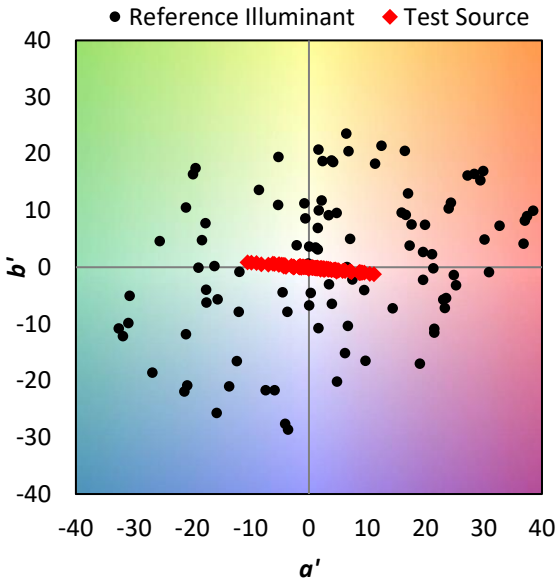
Summary

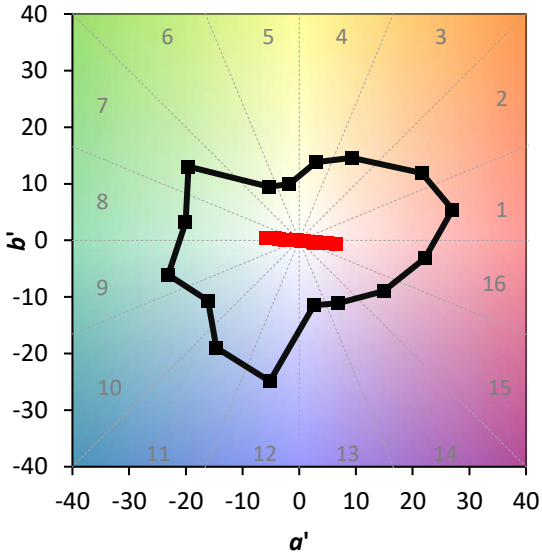
R_f = 1.3
R_g = 0.1
CIE R_a = -20.0
R_9 = -380.5

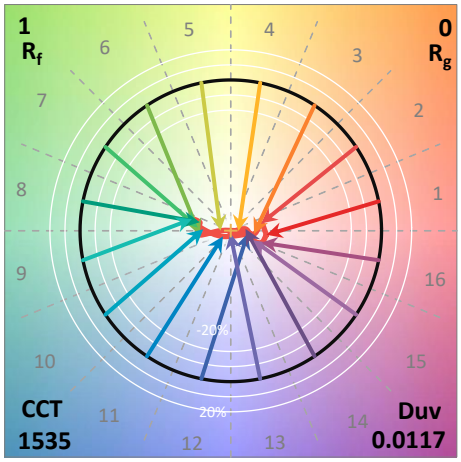
Spectral Power Distribution Comparison

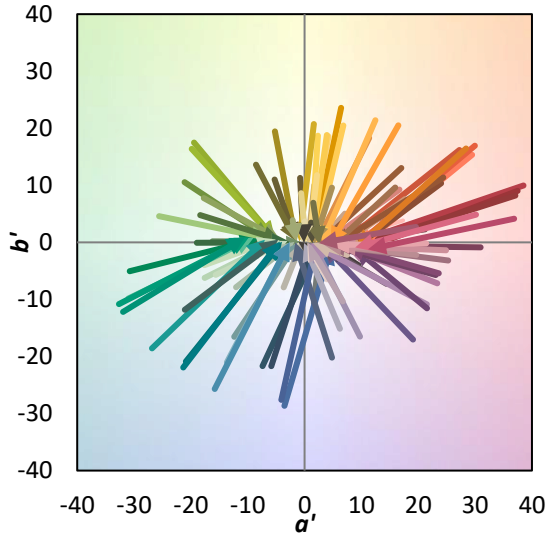


Color Vector Graphics









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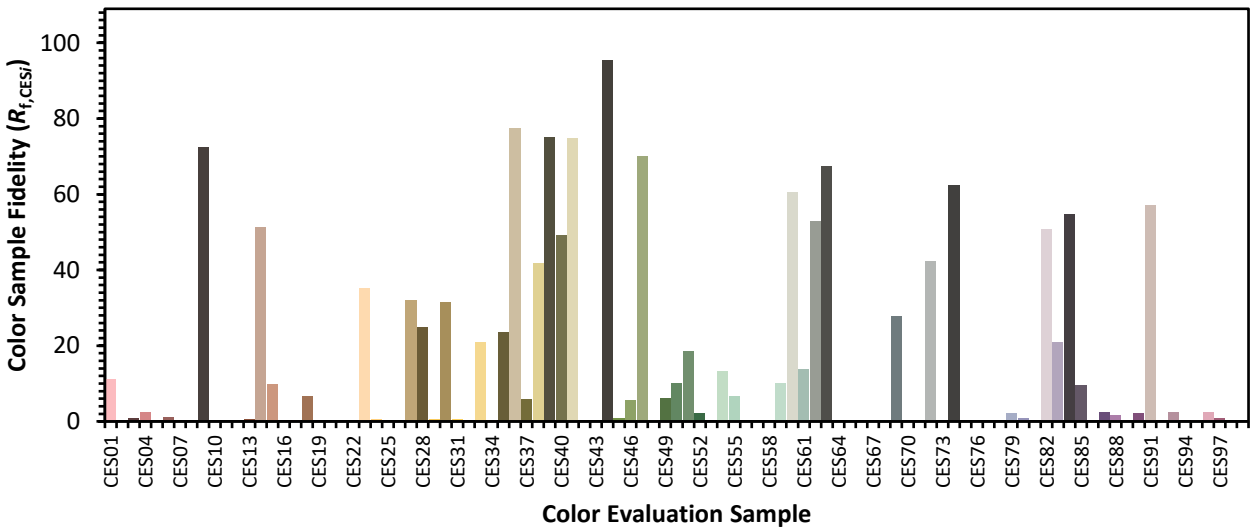
Individual Sample Fidelity Index ($R_{f,i}$)

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	



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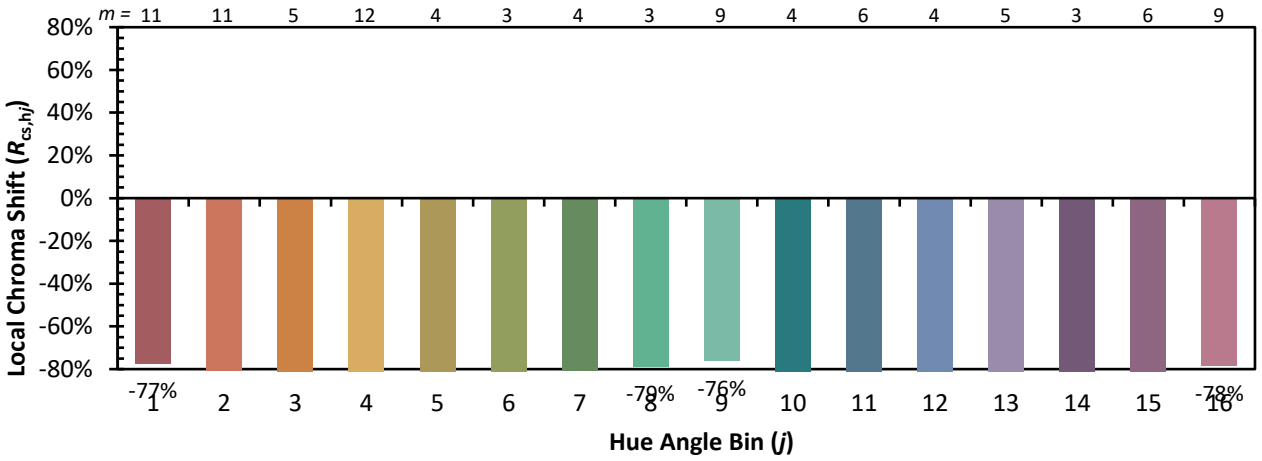
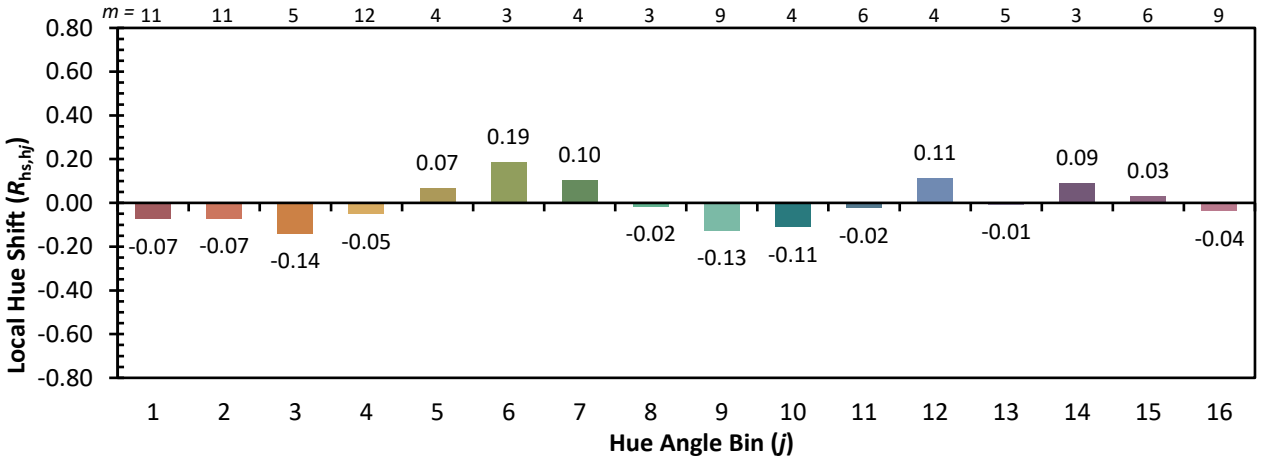
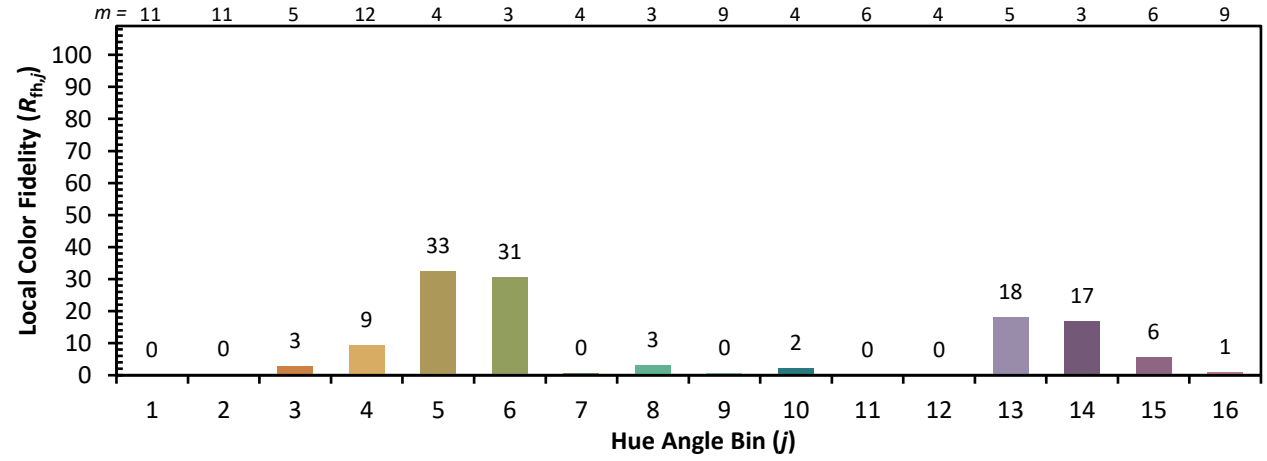
Color Rendition by Hue-Angle Bin







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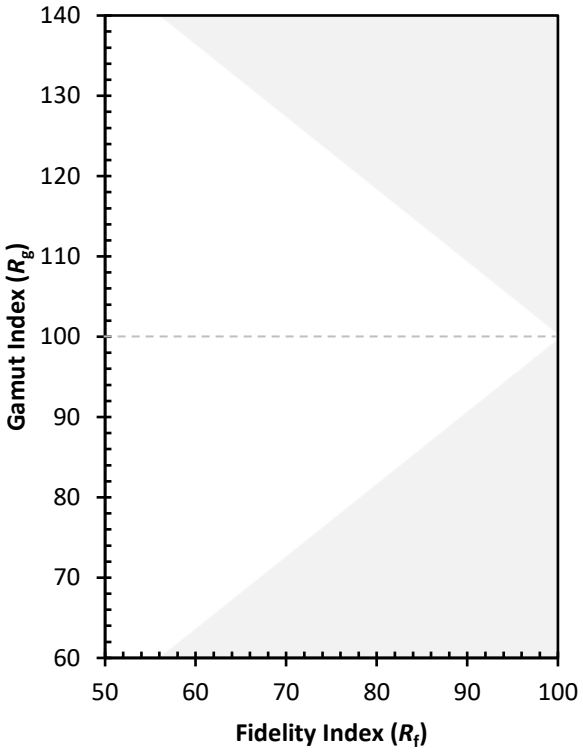
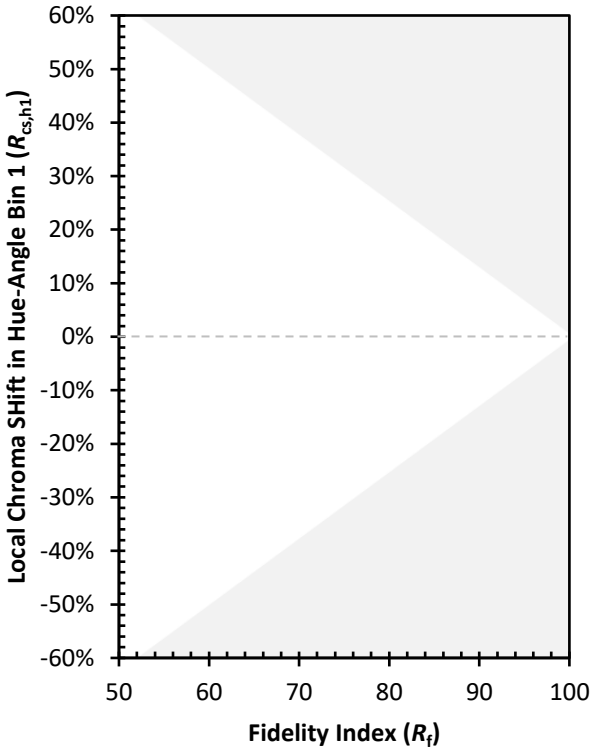
Measure Comparisons





(END OF REPORT)