

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: P1357343

Luminaire Tested: 6ASL4-20VHE-3-50-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357343
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: 6ASL4-20VHE-3-50-UNV
Description: 6FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS 3 ROW
Light Source: -
Ballast/Driver: -

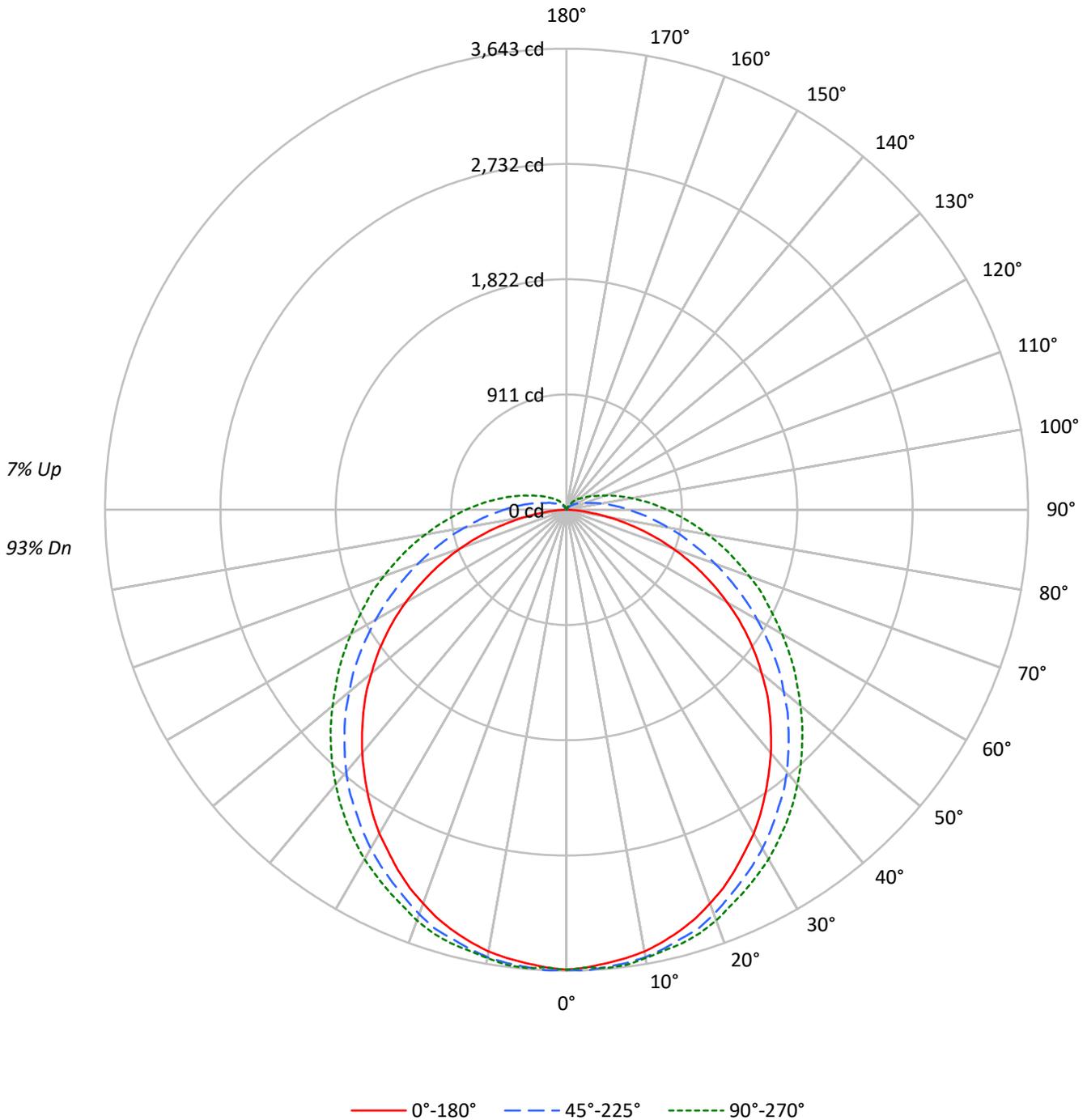
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12360.0 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 5.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 100.8
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

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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	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°	19633	19633	19633
5°	19474	19274	19183
10°	19379	18909	18699
15°	19180	18454	18287
20°	18906	18017	17824
25°	18584	17466	17296
30°	18245	16989	16849
35°	17821	16447	16353
40°	17435	15952	15830
45°	17021	15352	15305
50°	16547	14707	14760
55°	16039	14092	14269
60°	15373	13373	13771
65°	14524	12682	13358
70°	13439	12000	13035
75°	11846	11381	12813
80°	9411	10927	12719
85°	5860	10857	12907

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17021 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.7	2.8
10°-20°	989.7	8.0
20°-30°	1496.4	12.1
30°-40°	1811.9	14.7
40°-50°	1903.1	15.4
50°-60°	1775.5	14.4
60°-70°	1467.3	11.9
70°-80°	1056.5	8.5
80°-90°	656.5	5.3
90°-100°	384.7	3.1
100°-110°	220.1	1.8
110°-120°	124.3	1.0
120°-130°	71.5	0.6
130°-140°	38.5	0.3
140°-150°	16.2	0.1
150°-160°	3.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2830.9	22.9
0°-40°	4642.8	37.6
0°-60°	8321.4	67.3
0°-90°	11501.8	93.1
90°-120°	729.0	5.9
90°-150°	855.2	6.9
90°-180°	858.0	6.9
0°-180°	12360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3635	3635	3635	3635	3635	
5°	3598	3628	3628	3628	3635	342
15°	3446	3492	3507	3529	3544	972
25°	3144	3197	3250	3295	3325	1448
35°	2736	2812	2902	2985	3023	1713
45°	2267	2350	2479	2585	2630	1749
55°	1746	1844	1995	2139	2192	1560
65°	1179	1292	1489	1678	1746	1167
75°	605	756	1020	1240	1330	639
85°	113	340	642	869	952	139
90°	0	204	491	703	794	5
95°	0	128	370	567	650	0
105°	0	45	204	355	416	0
115°	0	23	121	219	257	0
125°	0	15	76	144	166	0
135°	0	0	45	91	113	0
145°	0	0	23	53	60	0
155°	0	0	0	15	23	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°	3635.2	3635.2	3635.2	3635.2	3635.2
2.5°	3620.1	3642.8	3642.8	3620.1	3620.1
5°	3597.5	3627.7	3627.7	3627.7	3635.2
7.5°	3574.8	3612.6	3612.6	3612.6	3627.7
10°	3544.5	3582.3	3589.9	3589.9	3597.5
12.5°	3499.2	3544.5	3552.1	3559.7	3567.2
15°	3446.3	3491.6	3506.8	3529.4	3544.5
17.5°	3385.8	3438.7	3469.0	3491.6	3506.8
20°	3310.3	3363.2	3401.0	3431.2	3453.9
22.5°	3234.7	3280.0	3325.4	3363.2	3385.8
25°	3144.0	3196.9	3249.8	3295.1	3325.4
27.5°	3045.7	3106.2	3174.2	3227.1	3257.4
30°	2955.1	3015.5	3091.1	3159.1	3189.3
32.5°	2849.2	2917.3	3000.4	3068.4	3106.2
35°	2735.9	2811.5	2902.1	2985.3	3023.1
37.5°	2622.5	2698.1	2811.5	2894.6	2932.4
40°	2509.1	2584.7	2705.6	2796.3	2834.1
42.5°	2388.2	2463.8	2592.3	2690.5	2735.9
45°	2267.3	2350.4	2478.9	2584.7	2630.1
47.5°	2146.4	2229.5	2365.6	2478.9	2524.3
50°	2010.3	2101.0	2237.1	2365.6	2410.9
52.5°	1881.9	1972.6	2123.7	2252.2	2297.5
55°	1745.8	1844.1	1995.2	2138.8	2191.7
57.5°	1609.8	1708.0	1866.7	2017.9	2078.4
60°	1466.2	1572.0	1738.3	1897.0	1965.0
62.5°	1322.6	1436.0	1617.3	1783.6	1851.6
65°	1179.0	1292.4	1488.9	1677.8	1745.8
67.5°	1035.4	1156.3	1367.9	1564.4	1647.6
70°	891.8	1020.3	1247.0	1451.1	1534.2
72.5°	748.2	884.2	1133.7	1345.3	1428.4
75°	604.6	755.8	1020.3	1239.5	1330.2
77.5°	461.0	634.8	922.0	1141.2	1231.9
80°	332.5	529.0	816.2	1043.0	1133.7
82.5°	211.6	423.2	725.5	952.3	1043.0
85°	113.4	340.1	642.4	869.1	952.3
87.5°	37.8	264.5	559.3	786.0	869.1
90°	0.0	204.1	491.2	702.9	793.6
92.5°	0.0	158.7	430.8	634.8	718.0
95°	0.0	128.5	370.3	566.8	650.0
97.5°	0.0	105.8	325.0	506.4	581.9
100°	0.0	83.1	279.6	453.5	521.5
102.5°	0.0	68.0	241.8	400.6	468.6
105°	0.0	45.3	204.1	355.2	415.7
107.5°	0.0	37.8	173.8	317.4	370.3
110°	0.0	30.2	158.7	272.1	325.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	22.7	143.6	241.8	294.7
115°	0.0	22.7	120.9	219.2	257.0
117.5°	0.0	22.7	105.8	196.5	234.3
120°	0.0	15.1	98.2	173.8	211.6
122.5°	0.0	15.1	83.1	158.7	188.9
125°	0.0	15.1	75.6	143.6	166.3
127.5°	0.0	7.6	68.0	128.5	151.2
130°	0.0	7.6	60.5	113.4	136.0
132.5°	0.0	7.6	52.9	105.8	128.5
135°	0.0	0.0	45.3	90.7	113.4
137.5°	0.0	0.0	37.8	83.1	98.2
140°	0.0	0.0	30.2	68.0	90.7
142.5°	0.0	0.0	22.7	60.5	75.6
145°	0.0	0.0	22.7	52.9	60.5
147.5°	0.0	0.0	15.1	37.8	52.9
150°	0.0	0.0	7.6	30.2	37.8
152.5°	0.0	0.0	0.0	22.7	30.2
155°	0.0	0.0	0.0	15.1	22.7
157.5°	0.0	0.0	0.0	0.0	7.6
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	19.69	21.23	20.16	21.68	22.17	21.74	23.28	22.21	23.74	24.22
	3H	21.18	22.59	21.66	23.05	23.58	24.22	25.62	24.70	26.09	26.61
	4H	21.66	22.99	22.17	23.48	24.01	25.43	26.76	25.93	27.24	27.78
	6H	21.94	23.18	22.45	23.67	24.23	26.70	27.94	27.21	28.43	28.99
	8H	21.99	23.18	22.52	23.70	24.26	27.36	28.55	27.89	29.07	29.63
	12H	22.00	23.14	22.54	23.66	24.25	28.09	29.23	28.63	29.74	30.33
4H	2H	20.57	21.90	21.07	22.38	22.92	22.17	23.51	22.68	23.99	24.53
	3H	22.30	23.44	22.82	23.96	24.52	24.88	26.01	25.39	26.54	27.10
	4H	22.91	23.95	23.44	24.48	25.07	26.25	27.29	26.79	27.83	28.42
	6H	23.31	24.22	23.86	24.78	25.39	27.72	28.63	28.27	29.20	29.80
	8H	23.40	24.26	23.96	24.82	25.44	28.48	29.35	29.04	29.91	30.53
	12H	23.44	24.23	24.03	24.82	25.44	29.34	30.13	29.93	30.72	31.34
8H	4H	23.60	24.46	24.16	25.02	25.64	26.47	27.33	27.03	27.90	28.51
	6H	24.17	24.91	24.77	25.51	26.14	28.10	28.83	28.69	29.44	30.06
	8H	24.36	25.02	24.96	25.63	26.27	29.01	29.67	29.61	30.28	30.92
	12H	24.47	25.06	25.08	25.66	26.37	30.05	30.64	30.66	31.25	31.95
12H	4H	23.79	24.58	24.37	25.17	25.79	26.48	27.26	27.06	27.85	28.48
	6H	24.47	25.13	25.08	25.75	26.39	28.14	28.80	28.74	29.41	30.05
	8H	24.75	25.34	25.36	25.95	26.65	29.12	29.70	29.72	30.31	31.01

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-5

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-50-UNV-OPL-1_600mA

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

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-5
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/18/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Fail-Safe
 Catalog Number: **4ASL-2-50-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDs with 1 rows at 600mA

Spectral Parameters

CCT (K): 5076
 CIE u': 0.2110
 CIE v': 0.4830
 Duv: -0.0005
 CIE x: 0.3429
 CIE y: 0.3489
 CIE z: 0.3082
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 572
 Purity: 7.553016
 R_f: 90.4
 R_g: 99

CRI (Ra):	94.9		
R1:	96.7	R9:	74.0
R2:	98.2	R10:	93.9
R3:	96.6	R11:	96.2
R4:	95.6	R12:	72.4
R5:	95.1	R13:	98.1
R6:	93.6	R14:	97.8
R7:	94.0	R15:	95.6
R8:	89.6		



Test Conditions

Stabilization Time: 24M
 Operation Time: 1H 24M
 Sphere Temperature (°C): 24.1

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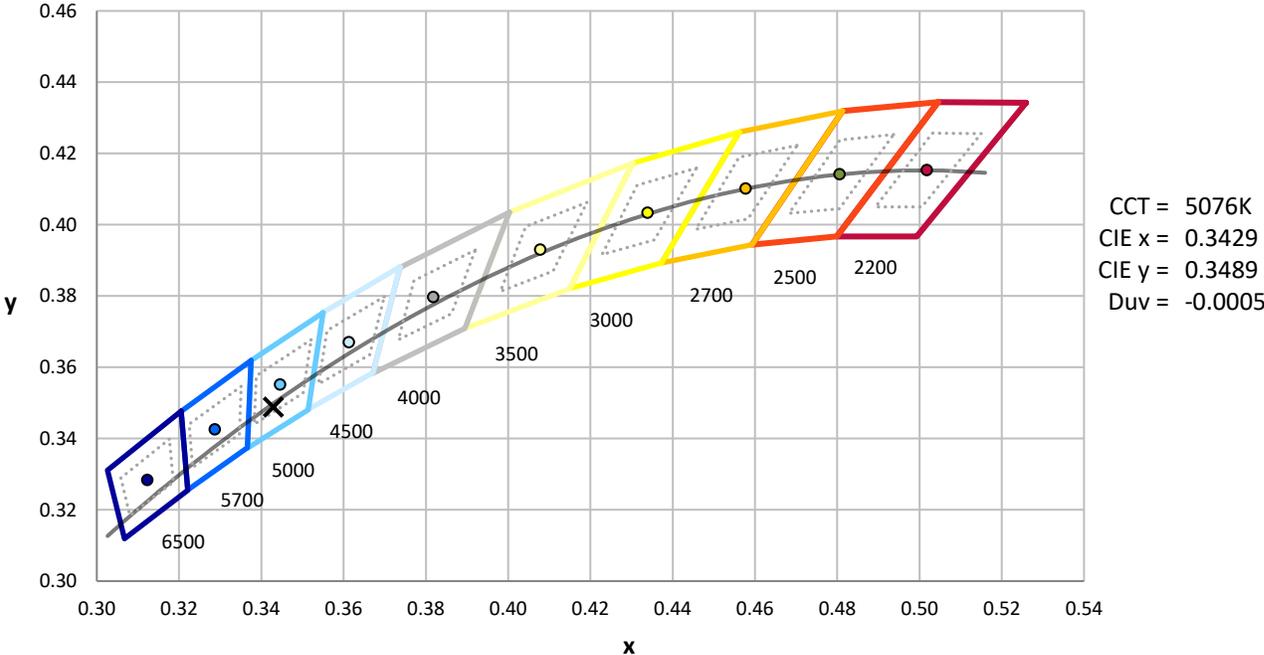
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



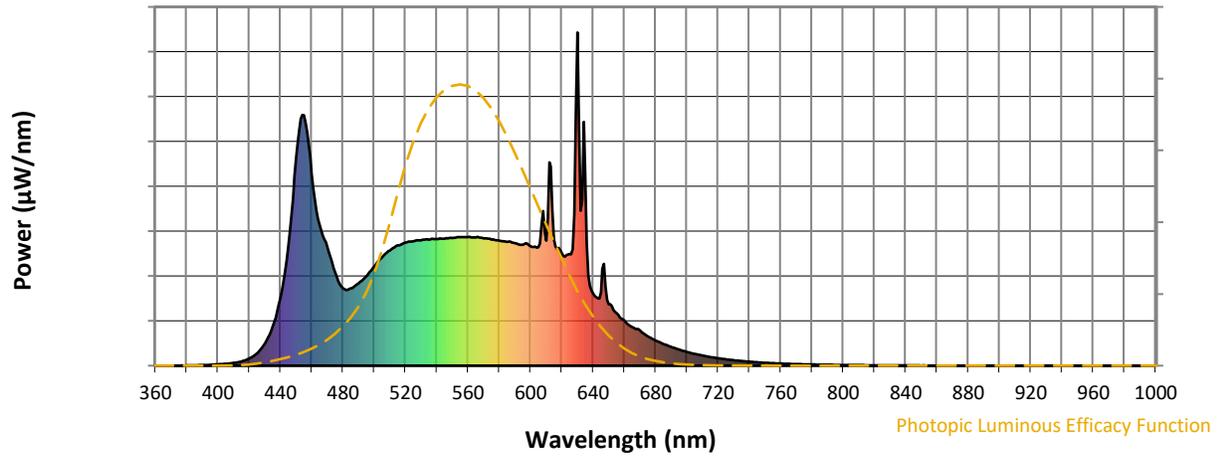
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

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Photopic Flux vs. Wavelength

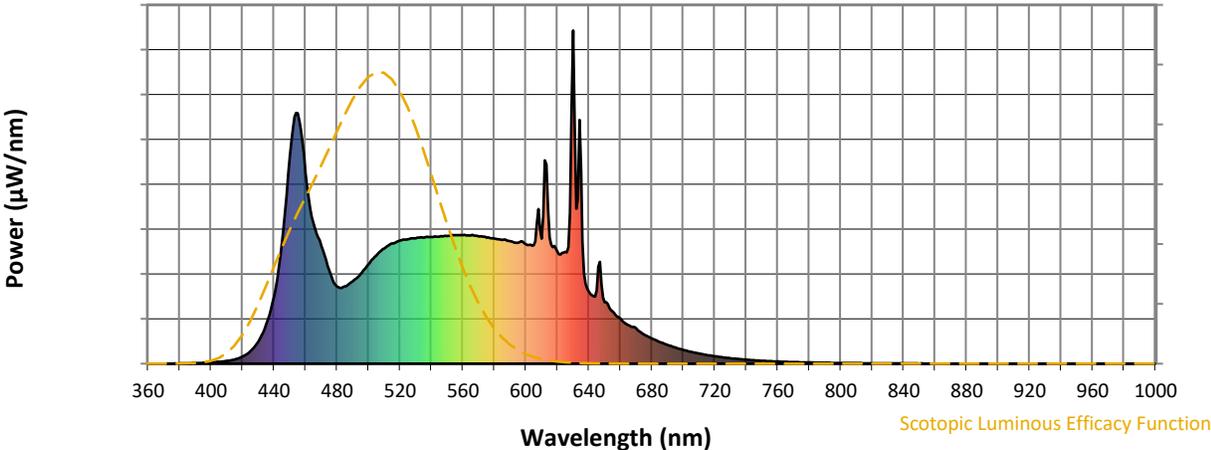


Photopic Lumens: NR

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	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



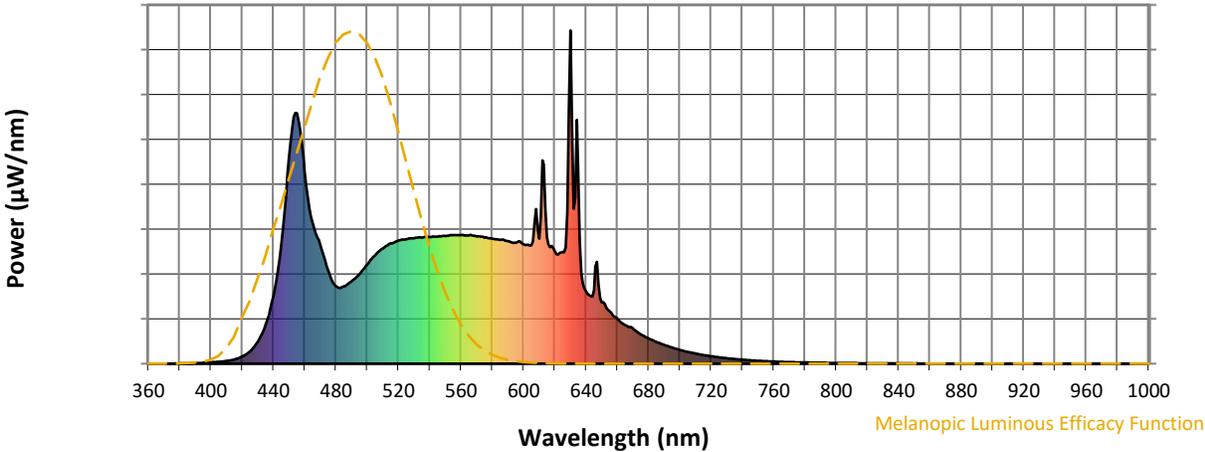
Scotopic Lumens: NR

S/P: 2.12

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	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



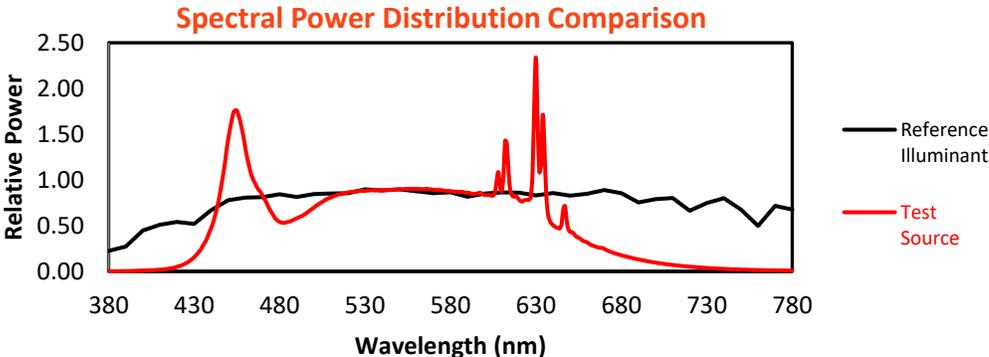
Melanopic Lumens: NR

M/P: 4.65

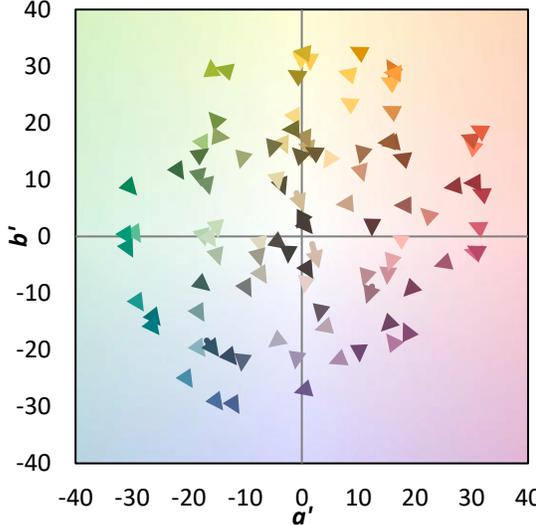
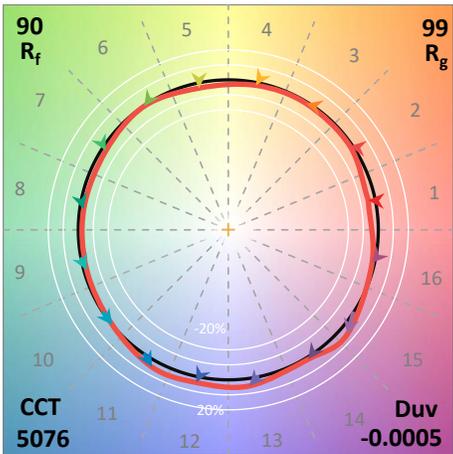
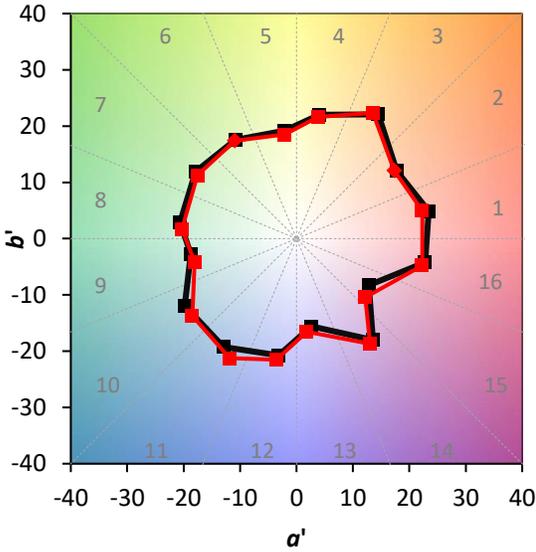
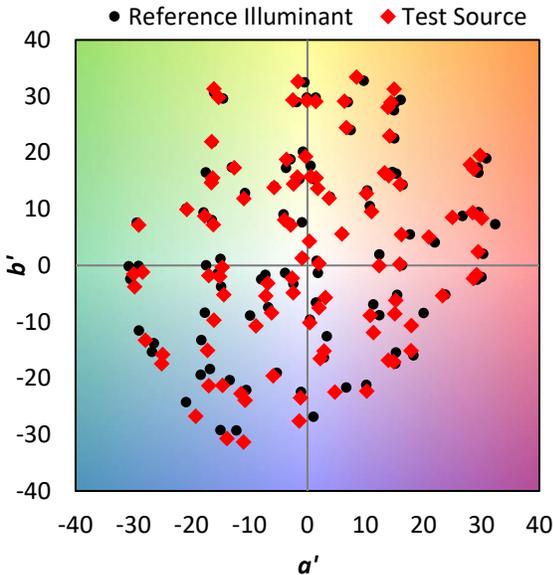
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

Summary

$R_f = 90.4$
 $R_g = 99$
 $CIE R_a = 94.9$
 $R_9 = 74.0$

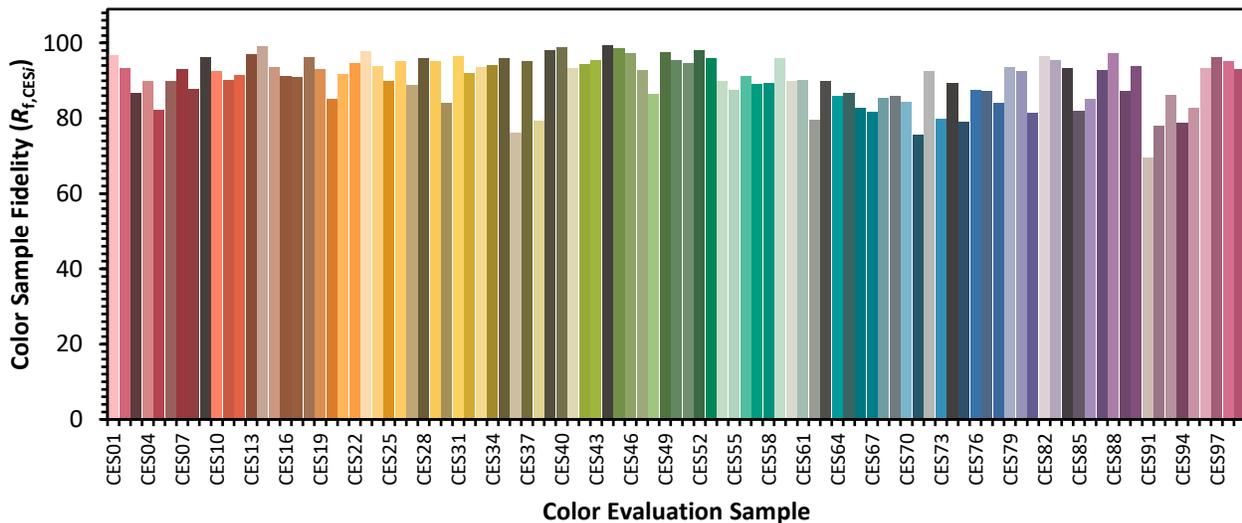


Color Vector Graphics

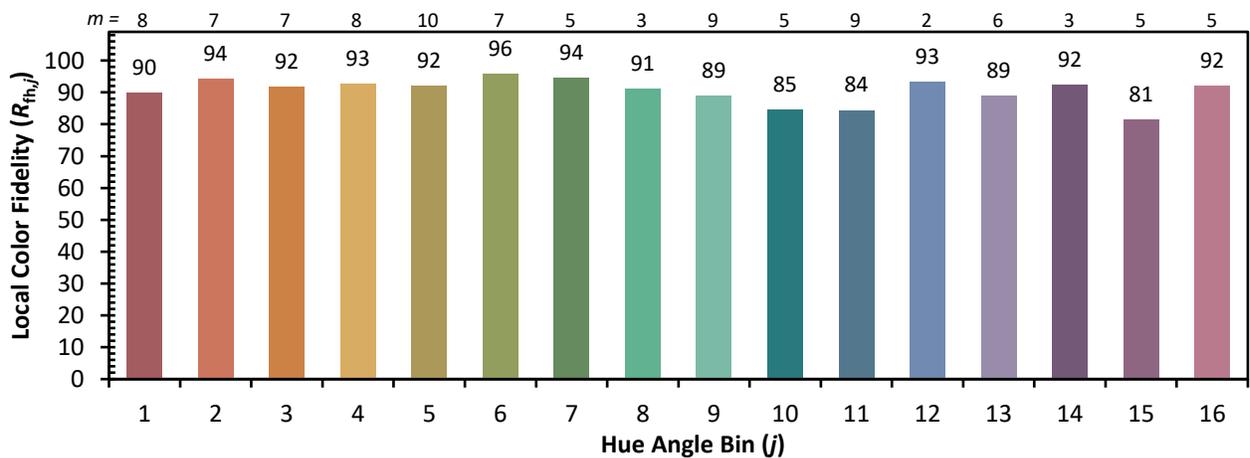
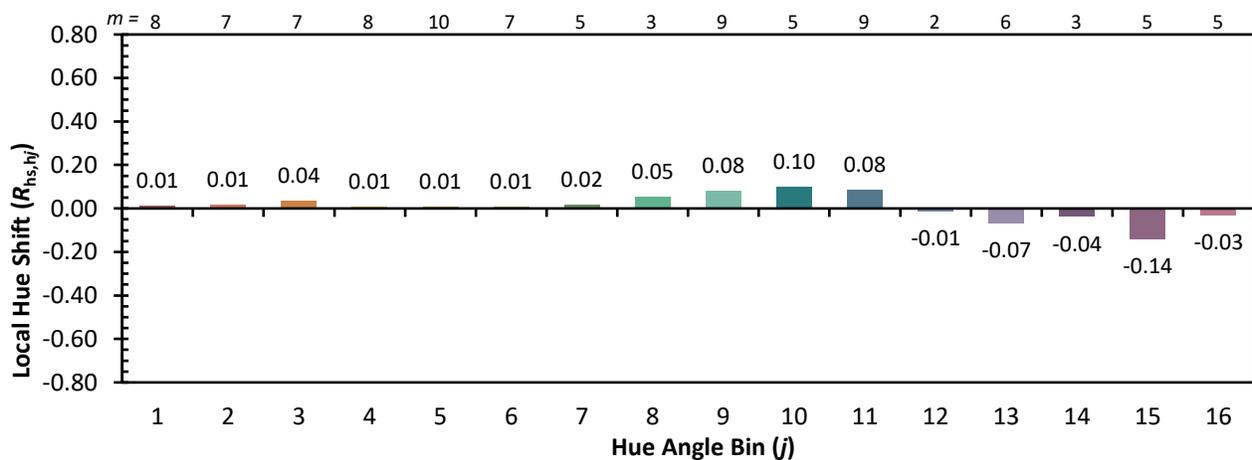
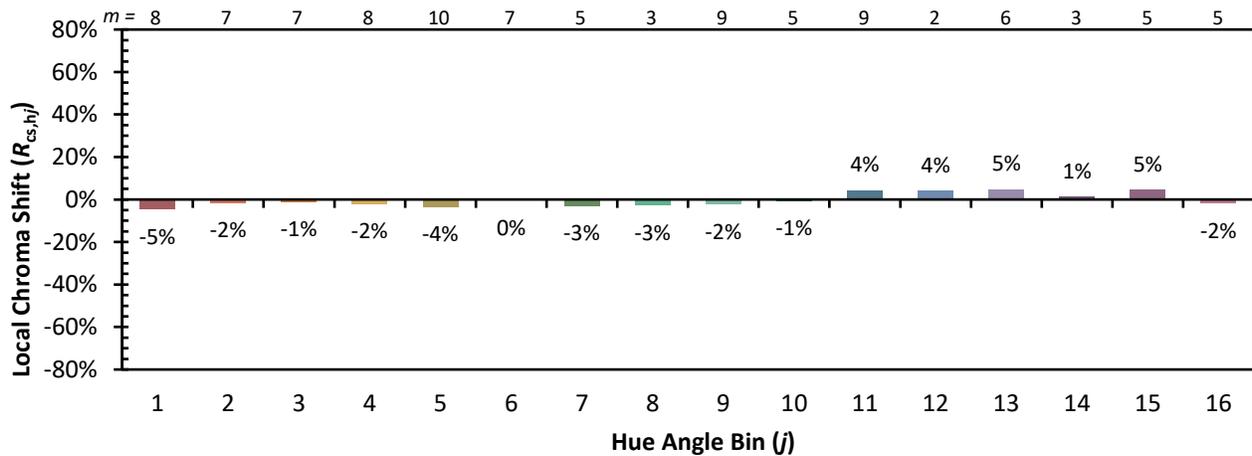


Individual Sample Fidelity Index ($R_{f,i}$)

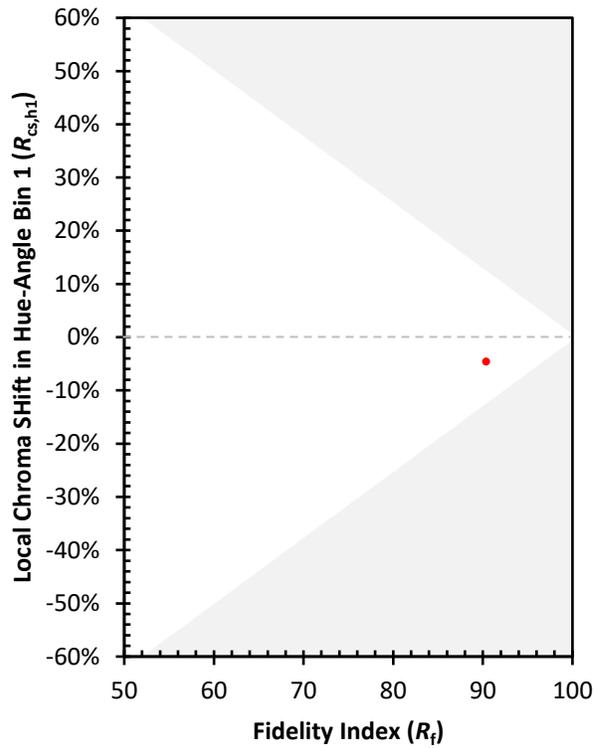
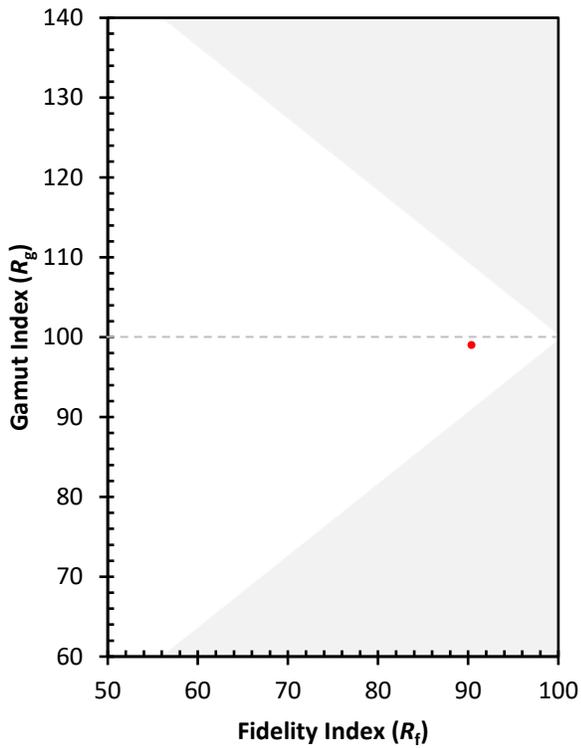
CES01 = 85	CES26 = 95	CES51 = 95	CES76 = 87
CES02 = 61	CES27 = 89	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 96	CES53 = 96	CES78 = 84
CES04 = 69	CES29 = 95	CES54 = 90	CES79 = 94
CES05 = 48	CES30 = 84	CES55 = 88	CES80 = 93
CES06 = 50	CES31 = 96	CES56 = 91	CES81 = 81
CES07 = 41	CES32 = 92	CES57 = 89	CES82 = 97
CES08 = 40	CES33 = 94	CES58 = 89	CES83 = 95
CES09 = 29	CES34 = 94	CES59 = 96	CES84 = 93
CES10 = 73	CES35 = 96	CES60 = 90	CES85 = 82
CES11 = 56	CES36 = 76	CES61 = 90	CES86 = 85
CES12 = 62	CES37 = 95	CES62 = 80	CES87 = 93
CES13 = 42	CES38 = 79	CES63 = 90	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 86	CES89 = 87
CES15 = 71	CES40 = 99	CES65 = 87	CES90 = 94
CES16 = 47	CES41 = 93	CES66 = 83	CES91 = 70
CES17 = 48	CES42 = 94	CES67 = 82	CES92 = 78
CES18 = 56	CES43 = 95	CES68 = 85	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 86	CES94 = 79
CES20 = 65	CES45 = 99	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 76	CES96 = 93
CES22 = 77	CES47 = 93	CES72 = 92	CES97 = 96
CES23 = 91	CES48 = 86	CES73 = 80	CES98 = 95
CES24 = 90	CES49 = 98	CES74 = 89	CES99 = 93
CES25 = 70	CES50 = 96	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)