

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: P1357550

Luminaire Tested: 8ASL4-5-1-50-UNV

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1357550  
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: 8ASL4-5-1-50-UNV  
Description: 8FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS 1 ROW  
Light Source: -  
Ballast/Driver: -

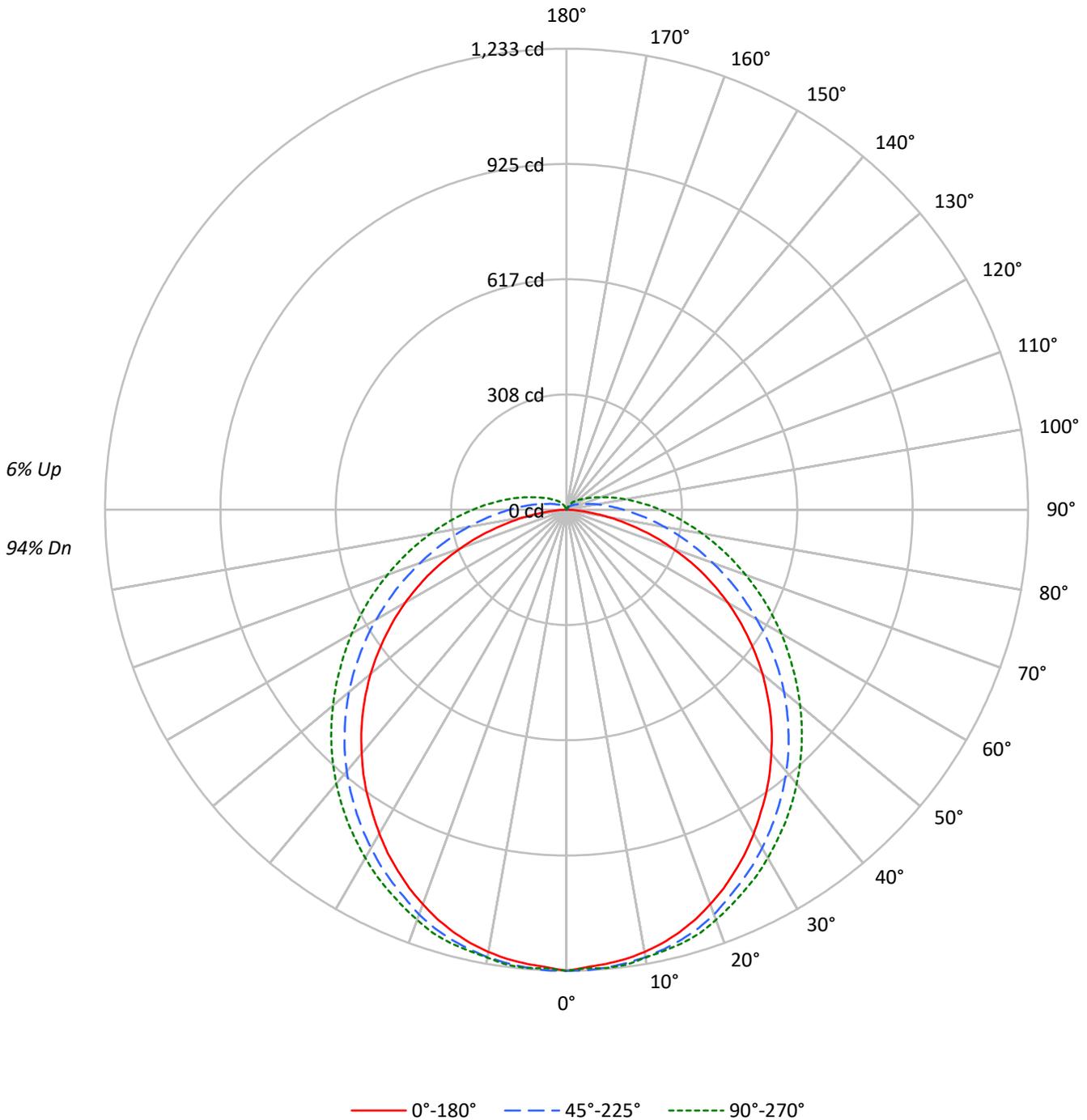
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4128.0 lumens  
Efficiency: N/A  
Efficacy: 122.9 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): 33.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P1357550  
CATALOG NUMBER: 8ASL4-5-1-50-UNV

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4990	4990	4990
5°	4947	4893	4865
10°	4924	4798	4737
15°	4880	4695	4637
20°	4813	4578	4514
25°	4730	4438	4382
30°	4639	4309	4257
35°	4548	4178	4133
40°	4446	4045	4005
45°	4350	3900	3874
50°	4237	3749	3737
55°	4096	3577	3599
60°	3941	3398	3479
65°	3742	3210	3359
70°	3426	3012	3241
75°	3015	2839	3151
80°	2452	2693	3095
85°	1523	2604	3117

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4350 cd/sqm



TEST NUMBER: P1357550  
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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.8	2.8
10°-20°	335.2	8.1
20°-30°	506.8	12.3
30°-40°	612.6	14.8
40°-50°	644.0	15.6
50°-60°	600.0	14.5
60°-70°	492.9	11.9
70°-80°	349.9	8.5
80°-90°	211.0	5.1
90°-100°	118.2	2.9
100°-110°	65.4	1.6
110°-120°	36.5	0.9
120°-130°	21.0	0.5
130°-140°	11.5	0.3
140°-150°	5.1	0.1
150°-160°	1.2	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	958.7	23.2
0°-40°	1571.3	38.1
0°-60°	2815.3	68.2
0°-90°	3869.1	93.7
90°-120°	220.1	5.3
90°-150°	257.7	6.2
90°-180°	259.0	6.3
0°-180°	4128.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1233	1233	1233	1233	1233	
5°	1219	1230	1229	1227	1230	116
15°	1169	1184	1190	1195	1200	330
25°	1066	1085	1100	1116	1124	491
35°	929	953	982	1007	1020	581
45°	770	798	838	873	888	594
55°	591	625	674	718	738	529
65°	402	438	501	559	586	396
75°	202	254	338	407	437	216
85°	38	109	204	279	307	47
90°	0	64	152	223	250	2
95°	0	38	112	176	201	0
105°	0	14	59	106	126	0
115°	0	7	36	64	77	0
125°	0	4	22	42	49	0
135°	0	1	14	26	34	0
145°	1	0	6	15	20	1
155°	1	1	0	4	6	1
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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CATALOG NUMBER: 8ASL4-5-1-50-UNV

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1233.0	1233.0	1233.0	1233.0	1233.0
2.5°	1224.6	1235.8	1233.0	1227.4	1227.4
5°	1219.1	1230.2	1228.8	1227.4	1230.2
7.5°	1212.1	1223.2	1223.2	1224.6	1227.4
10°	1200.9	1214.9	1214.9	1214.9	1216.3
12.5°	1187.0	1200.9	1203.7	1205.1	1207.9
15°	1168.8	1184.2	1189.8	1195.3	1199.5
17.5°	1147.9	1163.3	1173.0	1180.0	1187.0
20°	1122.8	1139.5	1152.1	1160.5	1167.4
22.5°	1096.3	1113.0	1125.6	1138.2	1146.5
25°	1065.6	1085.2	1100.5	1115.8	1124.2
27.5°	1034.9	1054.5	1074.0	1092.1	1101.9
30°	1000.1	1022.4	1044.7	1065.6	1075.4
32.5°	963.8	987.5	1014.0	1036.3	1047.5
35°	928.9	952.6	981.9	1007.0	1019.6
37.5°	891.3	915.0	948.5	976.4	988.9
40°	850.8	877.3	913.6	942.9	956.8
42.5°	811.8	838.3	877.3	909.4	923.4
45°	769.9	797.8	838.3	873.1	888.5
47.5°	726.7	756.0	799.2	835.5	852.2
50°	683.4	714.1	758.8	797.8	814.6
52.5°	637.4	669.5	716.9	758.8	776.9
55°	591.4	624.9	673.7	718.3	737.8
57.5°	545.4	578.8	631.8	679.3	700.2
60°	497.9	532.8	587.2	638.8	662.5
62.5°	449.1	485.4	542.6	598.4	623.5
65°	401.7	438.0	500.7	559.3	585.8
67.5°	351.5	390.5	457.5	518.9	546.8
70°	299.9	344.5	415.6	481.2	509.1
72.5°	253.9	299.9	376.6	443.5	472.8
75°	202.2	253.9	337.5	407.3	436.6
77.5°	157.6	213.4	301.3	372.4	401.7
80°	113.0	174.3	266.4	338.9	368.2
82.5°	72.5	139.5	234.3	308.2	336.1
85°	37.7	108.8	203.6	279.0	306.9
87.5°	11.2	83.7	175.7	249.7	277.6
90°	0.0	64.2	152.0	223.2	249.7
92.5°	0.0	48.8	131.1	199.5	226.0
95°	0.0	37.7	111.6	175.7	200.9
97.5°	0.0	29.3	96.2	154.8	179.9
100°	0.0	23.7	82.3	136.7	160.4
102.5°	0.0	19.5	71.1	121.3	142.3
105°	0.0	13.9	58.6	106.0	125.5
107.5°	0.0	9.8	51.6	93.5	110.2
110°	0.0	8.4	46.0	80.9	97.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	7.0	40.4	72.5	86.5
115°	0.0	7.0	36.3	64.2	76.7
117.5°	0.0	5.6	30.7	57.2	68.3
120°	0.0	5.6	27.9	51.6	61.4
122.5°	0.0	4.2	25.1	46.0	55.8
125°	0.0	4.2	22.3	41.8	48.8
127.5°	0.0	2.8	19.5	37.7	44.6
130°	0.0	2.8	18.1	33.5	40.4
132.5°	0.0	1.4	16.7	30.7	36.3
135°	0.0	1.4	13.9	26.5	33.5
137.5°	0.0	0.0	12.6	23.7	29.3
140°	0.0	0.0	9.8	20.9	26.5
142.5°	1.4	0.0	8.4	18.1	22.3
145°	1.4	0.0	5.6	15.3	19.5
147.5°	1.4	1.4	4.2	12.6	15.3
150°	1.4	1.4	2.8	8.4	12.6
152.5°	1.4	1.4	1.4	5.6	8.4
155°	1.4	1.4	0.0	4.2	5.6
157.5°	1.4	1.4	0.0	1.4	2.8
160°	1.4	1.4	0.0	0.0	1.4
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	15.01	16.56	15.46	17.00	17.47	17.03	18.58	17.49	19.02	19.49
	3H	16.50	17.91	16.97	18.36	18.87	19.46	20.87	19.93	21.33	21.84
	4H	16.97	18.31	17.46	18.78	19.30	20.64	21.98	21.13	22.45	22.97
	6H	17.25	18.50	17.75	18.98	19.52	21.88	23.12	22.38	23.61	24.15
	8H	17.30	18.50	17.82	19.00	19.55	22.52	23.71	23.04	24.22	24.77
	12H	17.31	18.46	17.84	18.96	19.54	23.24	24.38	23.76	24.89	25.46
4H	2H	15.88	17.22	16.37	17.69	18.21	17.46	18.80	17.96	19.27	19.80
	3H	17.61	18.75	18.11	19.26	19.81	20.11	21.26	20.62	21.77	22.32
	4H	18.20	19.25	18.73	19.77	20.35	21.46	22.51	21.99	23.03	23.61
	6H	18.60	19.52	19.15	20.07	20.66	22.89	23.81	23.43	24.36	24.95
	8H	18.69	19.56	19.24	20.11	20.72	23.63	24.50	24.18	25.05	25.66
	12H	18.74	19.52	19.31	20.10	20.71	24.48	25.26	25.05	25.84	26.45
8H	4H	18.86	19.73	19.42	20.28	20.89	21.67	22.54	22.23	23.09	23.70
	6H	19.43	20.17	20.02	20.76	21.37	23.26	24.00	23.85	24.59	25.20
	8H	19.61	20.27	20.21	20.88	21.50	24.15	24.81	24.74	25.42	26.04
	12H	19.72	20.31	20.32	20.90	21.59	25.17	25.76	25.77	26.36	27.05
12H	4H	19.05	19.84	19.62	20.42	21.03	21.68	22.47	22.26	23.05	23.66
	6H	19.71	20.38	20.31	20.98	21.60	23.30	23.96	23.89	24.57	25.19
	8H	19.98	20.57	20.58	21.17	21.86	24.25	24.84	24.85	25.43	26.12

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-5

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:  $4\pi$   
 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<sub>f</sub>: 90.4  
 R<sub>g</sub>: 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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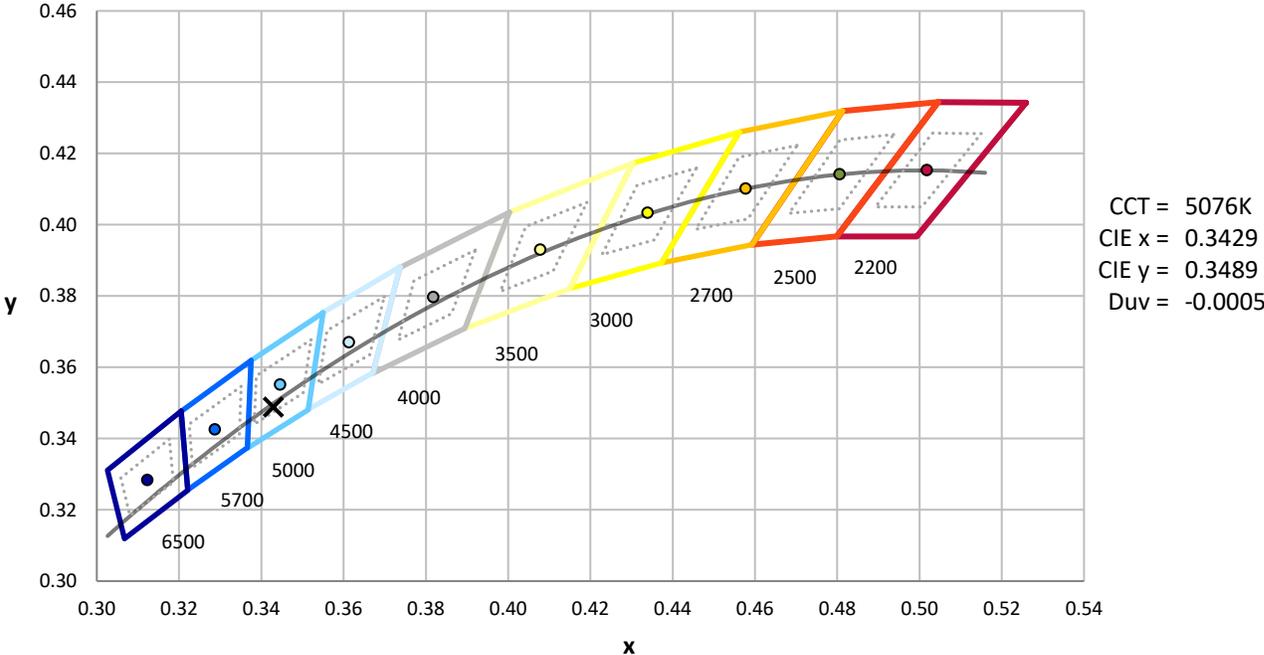
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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



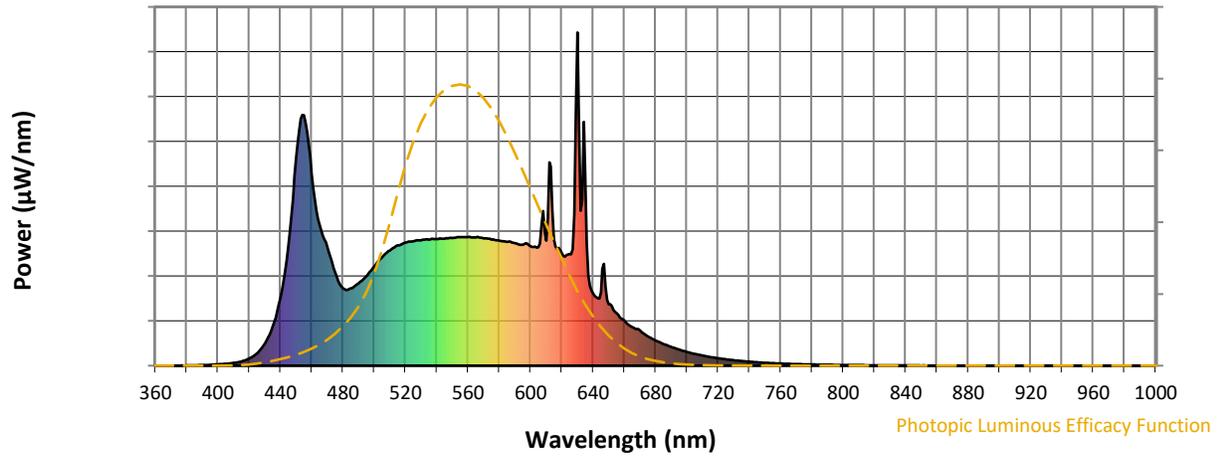
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

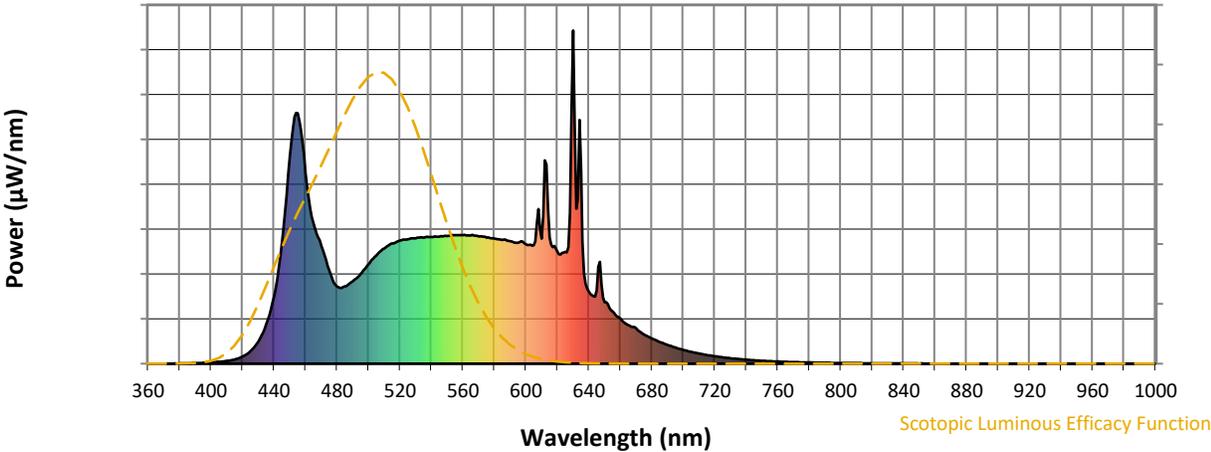


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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



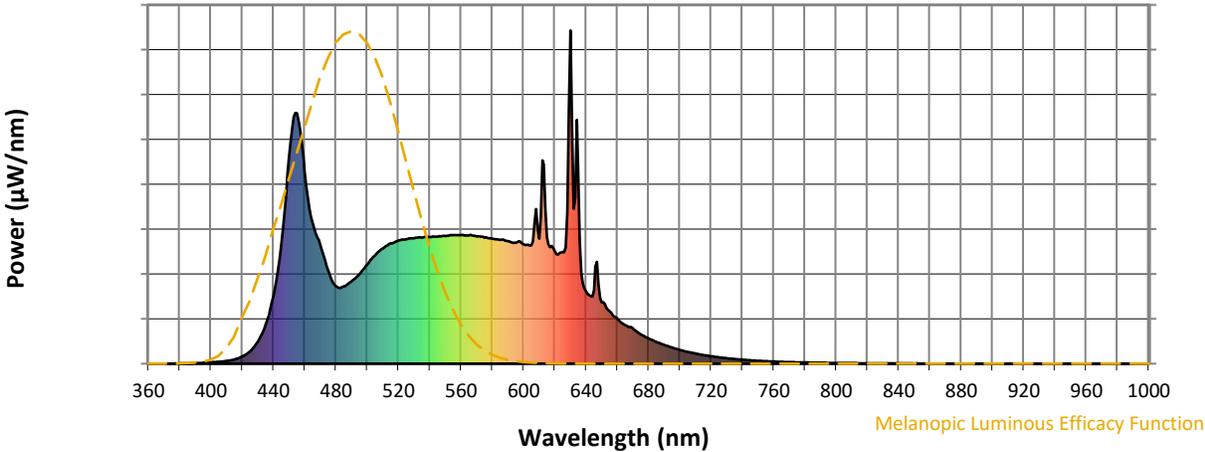
Scotopic Lumens: NR

S/P: 2.12

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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



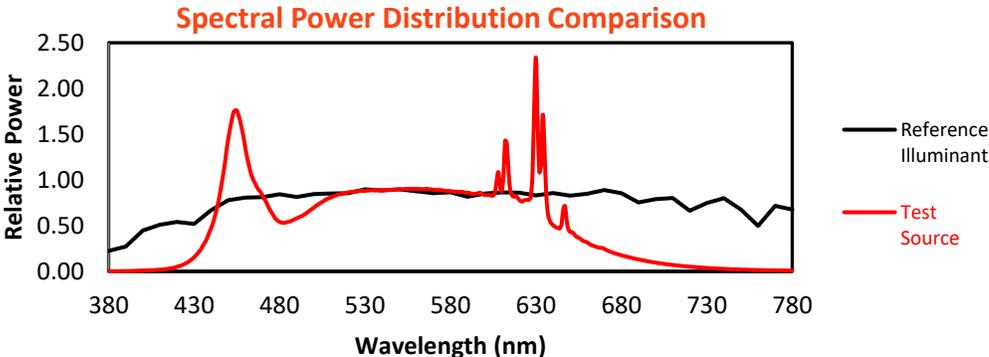
Melanopic Lumens: NR

M/P: 4.65

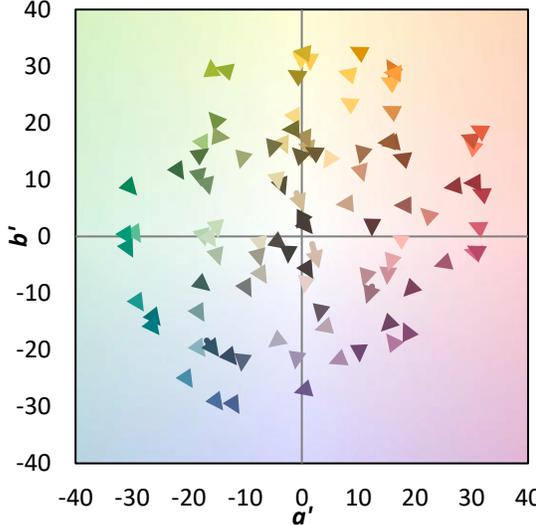
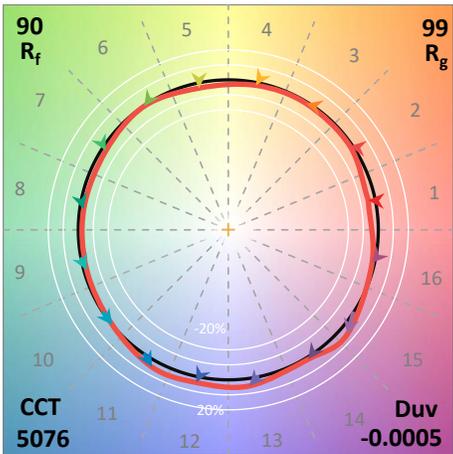
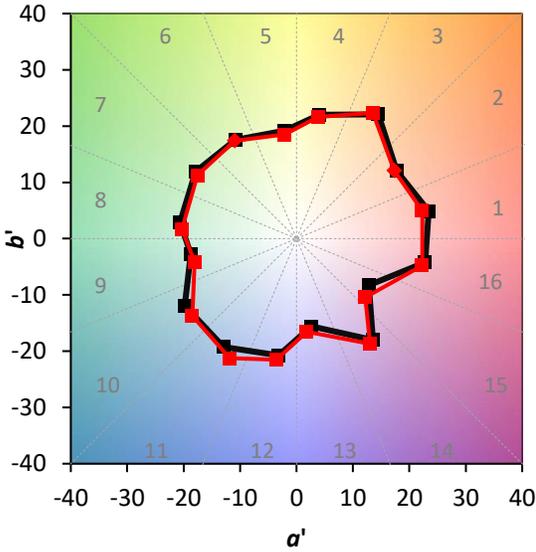
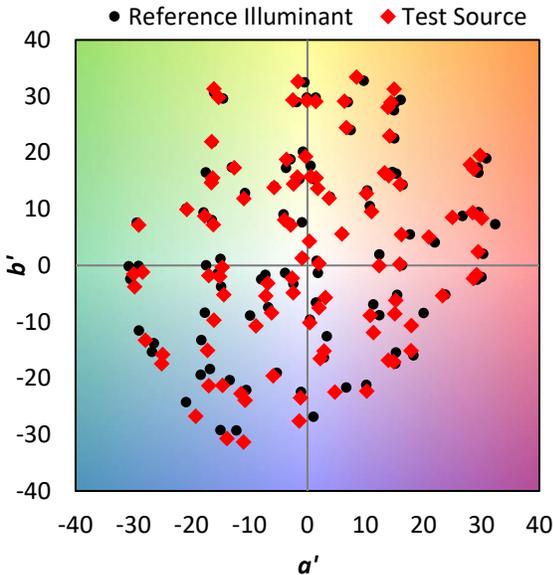
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	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**

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

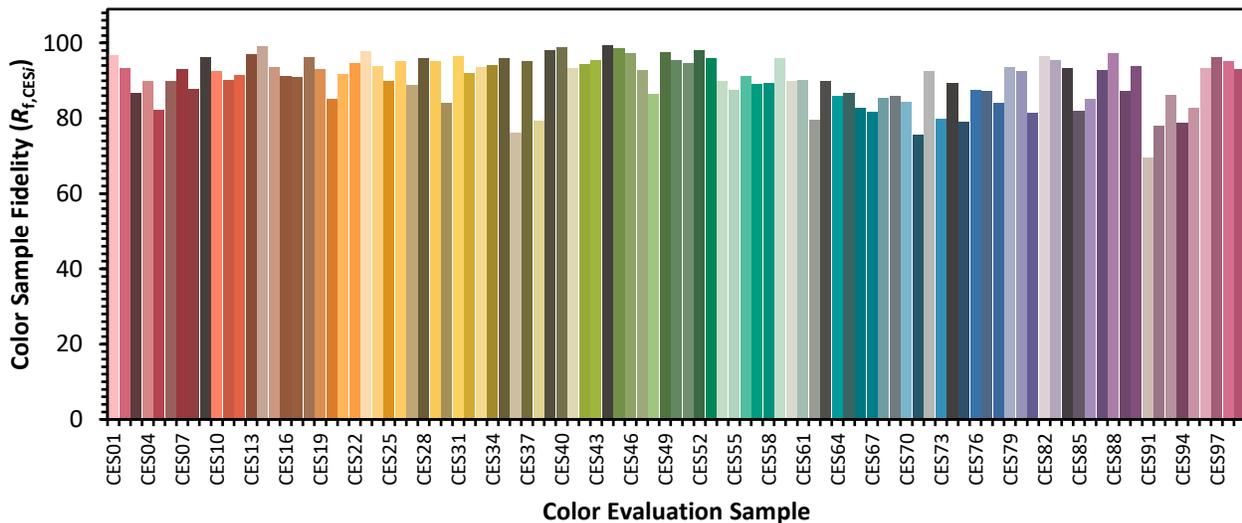


**Color Vector Graphics**

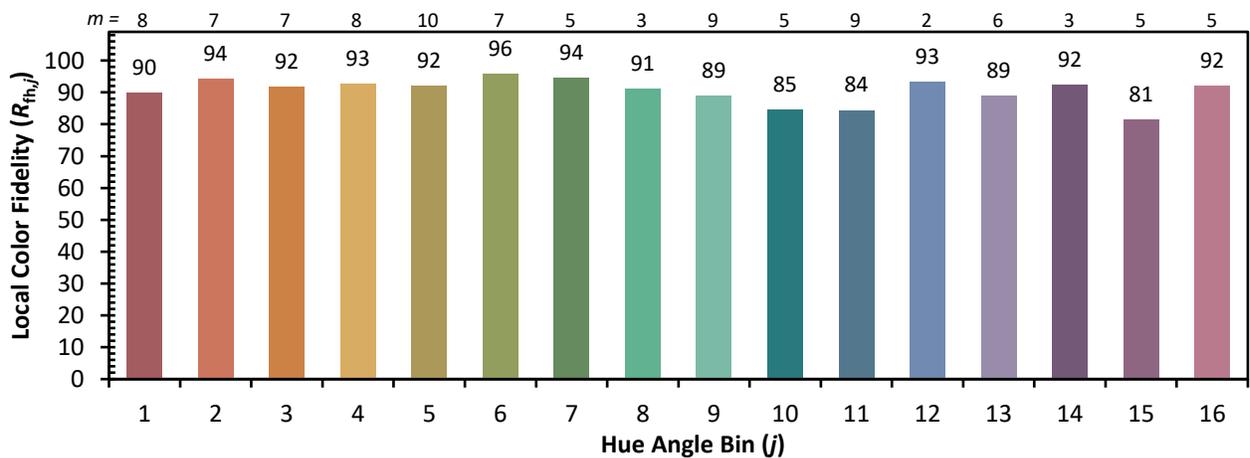
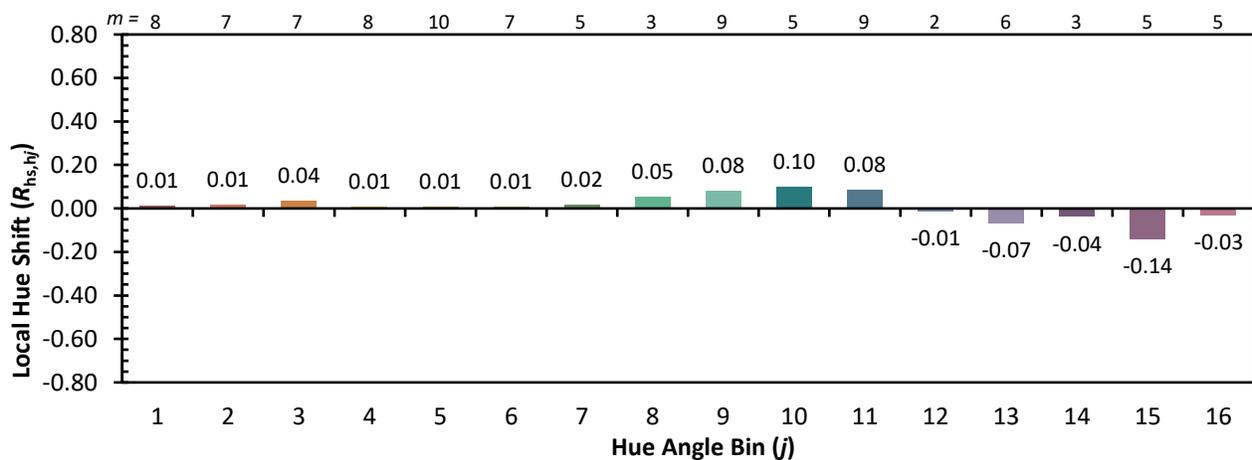
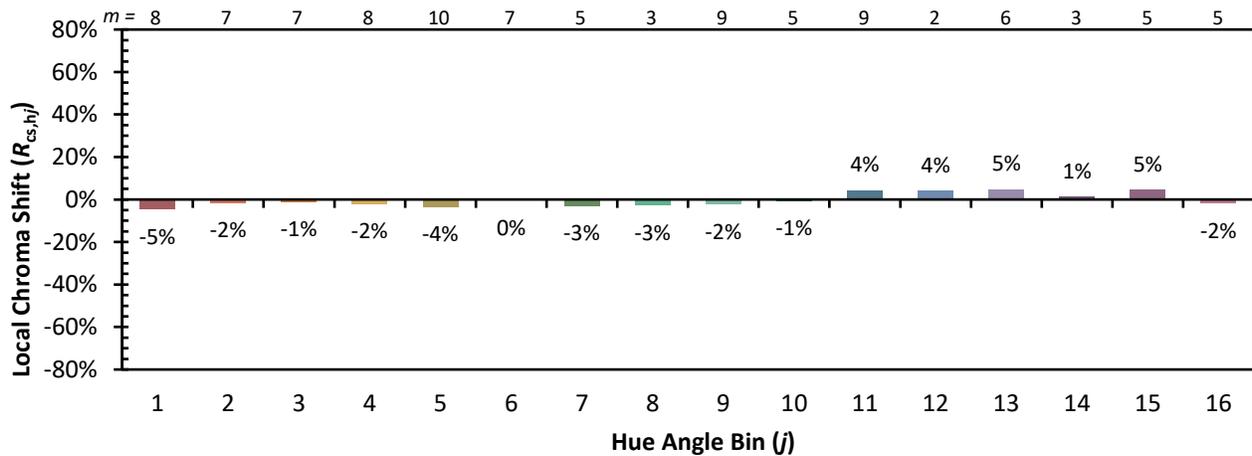


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

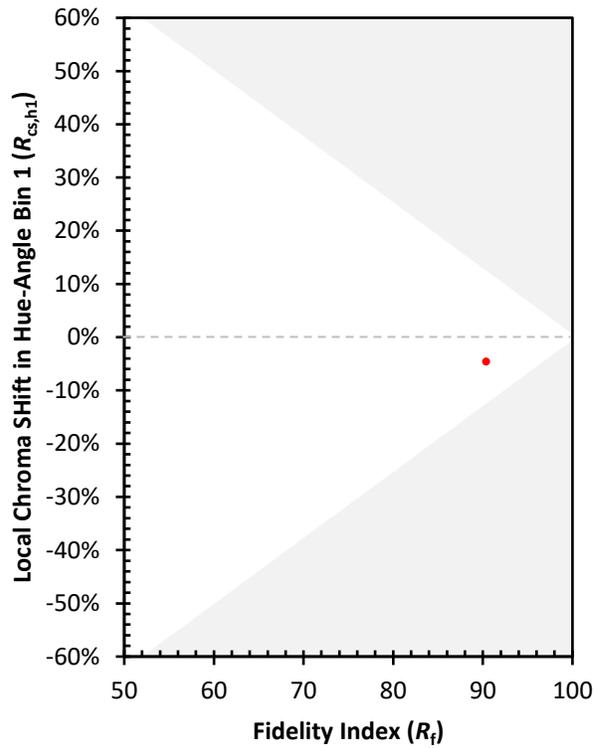
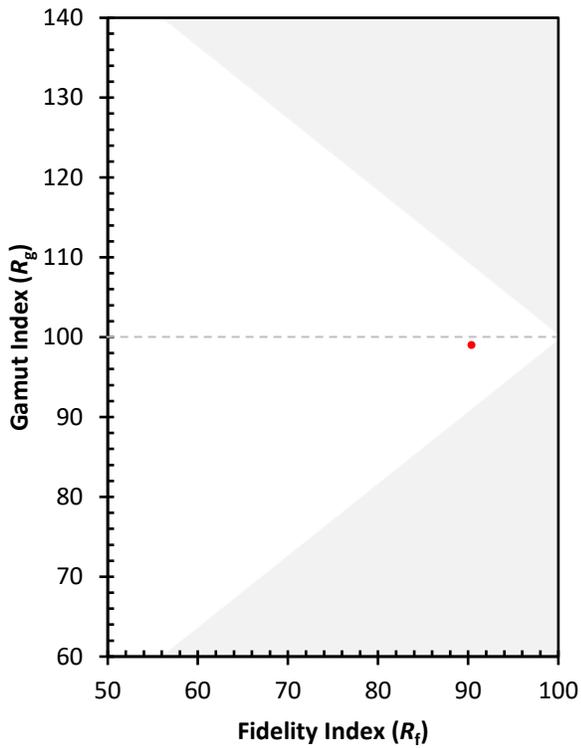
CES01 = 85	CES26 = 95	CES51 = 95	CES76 = 87
CES02 = 61	CES27 = 89	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 96	CES53 = 96	CES78 = 84
CES04 = 69	CES29 = 95	CES54 = 90	CES79 = 94
CES05 = 48	CES30 = 84	CES55 = 88	CES80 = 93
CES06 = 50	CES31 = 96	CES56 = 91	CES81 = 81
CES07 = 41	CES32 = 92	CES57 = 89	CES82 = 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)