

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: P1356913

Luminaire Tested: 2ASL4-30VHE-3-40-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356913
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: 2ASL4-30VHE-3-40-UNV
Description: 2FT 3000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 4000K LEDS 3 ROW
Light Source: -
Ballast/Driver: -

Summary

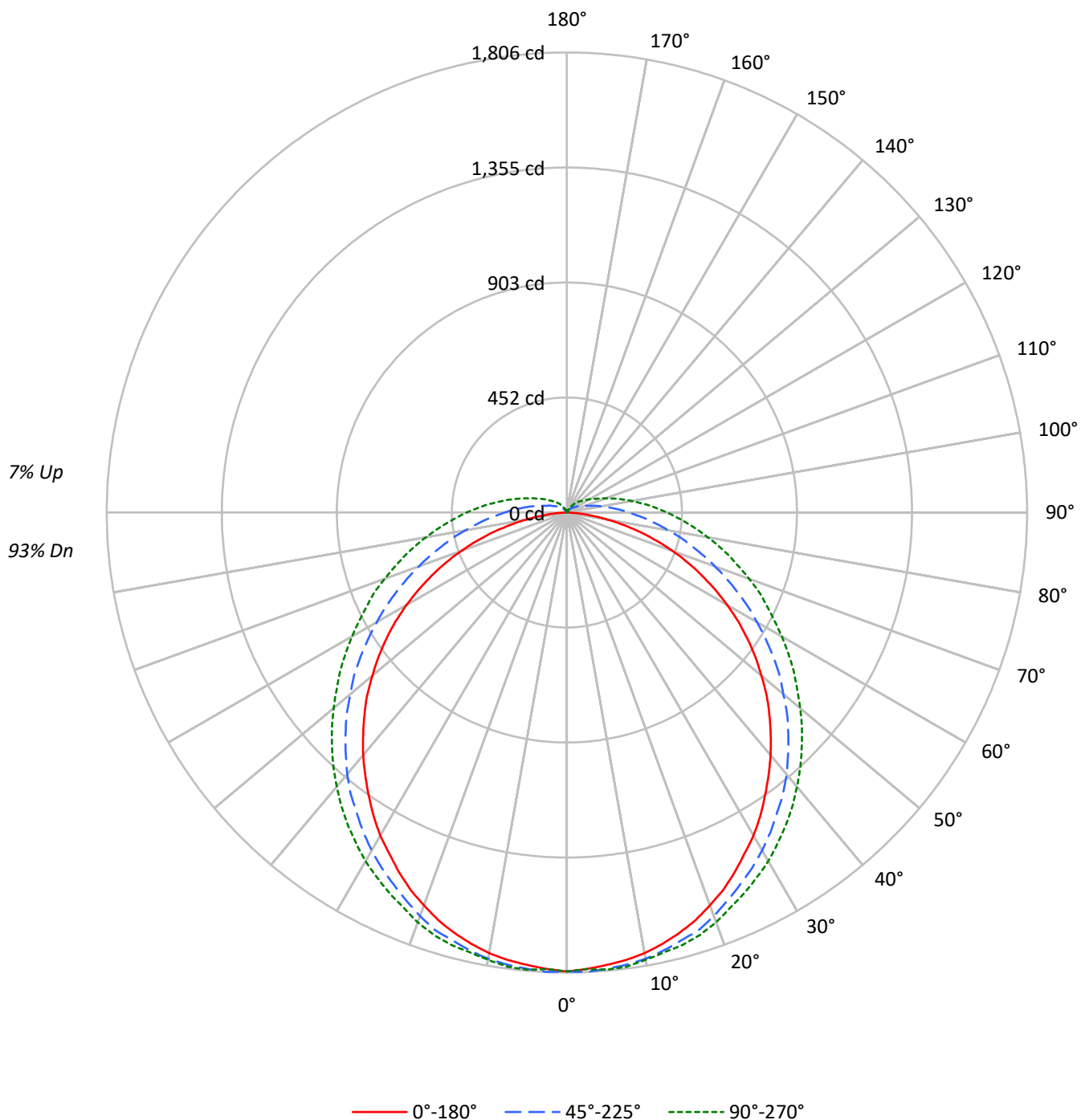
Lumens per Lamp: N/A
Luminaire Lumens: 6126.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 52.6
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

TEST NUMBER: P1356913

CATALOG NUMBER: 2ASL4-30VHE-3-40-UNV

Luminous Intensity Polar Plot



TEST NUMBER: P1356913

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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
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	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	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	63	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29396	29396	29396
5°	29069	28798	28723
10°	28838	28195	27997
15°	28451	27459	27382
20°	27952	26753	26687
25°	27382	25881	25898
30°	26779	25119	25229
35°	26049	24264	24485
40°	25367	23476	23703
45°	24632	22532	22916
50°	23799	21522	22100
55°	22894	20552	21365
60°	21732	19425	20619
65°	20270	18336	20002
70°	18422	17250	19517
75°	15791	16235	19186
80°	11925	15423	19044
85°	6569	15086	19327

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 24632 cd/sqm

TEST NUMBER: P1356913

CATALOG NUMBER: 2ASL4-30VHE-3-40-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	2.8
10°-20°	490.6	8.0
20°-30°	741.7	12.1
30°-40°	898.0	14.7
40°-50°	943.2	15.4
50°-60°	880.0	14.4
60°-70°	727.3	11.9
70°-80°	523.6	8.5
80°-90°	325.4	5.3
90°-100°	190.7	3.1
100°-110°	109.1	1.8
110°-120°	61.6	1.0
120°-130°	35.4	0.6
130°-140°	19.1	0.3
140°-150°	8.0	0.1
150°-160°	1.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1403.1	22.9
0°-40°	2301.1	37.6
0°-60°	4124.3	67.3
0°-90°	5700.6	93.1
90°-120°	361.3	5.9
90°-150°	423.9	6.9
90°-180°	425.0	6.9
0°-180°	6126.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1802	1802	1802	1802	1802	
5°	1783	1798	1798	1798	1802	169
15°	1708	1731	1738	1749	1757	482
25°	1558	1584	1611	1633	1648	718
35°	1356	1393	1438	1480	1498	849
45°	1124	1165	1229	1281	1304	867
55°	865	914	989	1060	1086	773
65°	584	640	738	832	865	578
75°	300	375	506	614	659	317
85°	56	169	318	431	472	69
90°	0	101	244	348	393	3
95°	0	64	184	281	322	0
105°	0	22	101	176	206	0
115°	0	11	60	109	127	0
125°	0	8	38	71	82	0
135°	0	0	22	45	56	0
145°	0	0	11	26	30	0
155°	0	0	0	8	11	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P1356913

CATALOG NUMBER: 2ASL4-30VHE-3-40-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1801.7	1801.7	1801.7	1801.7	1801.7
2.5°	1794.2	1805.5	1805.5	1794.2	1794.2
5°	1783.0	1798.0	1798.0	1798.0	1801.7
7.5°	1771.8	1790.5	1790.5	1790.5	1798.0
10°	1756.8	1775.5	1779.3	1779.3	1783.0
12.5°	1734.3	1756.8	1760.5	1764.3	1768.0
15°	1708.1	1730.6	1738.1	1749.3	1756.8
17.5°	1678.1	1704.3	1719.3	1730.6	1738.1
20°	1640.7	1666.9	1685.6	1700.6	1711.8
22.5°	1603.2	1625.7	1648.2	1666.9	1678.1
25°	1558.3	1584.5	1610.7	1633.2	1648.2
27.5°	1509.6	1539.5	1573.2	1599.5	1614.4
30°	1464.6	1494.6	1532.0	1565.8	1580.7
32.5°	1412.2	1445.9	1487.1	1520.8	1539.5
35°	1356.0	1393.4	1438.4	1479.6	1498.3
37.5°	1299.8	1337.3	1393.4	1434.6	1453.4
40°	1243.6	1281.1	1341.0	1386.0	1404.7
42.5°	1183.7	1221.1	1284.8	1333.5	1356.0
45°	1123.7	1164.9	1228.6	1281.1	1303.5
47.5°	1063.8	1105.0	1172.4	1228.6	1251.1
50°	996.4	1041.3	1108.8	1172.4	1194.9
52.5°	932.7	977.7	1052.6	1116.3	1138.7
55°	865.3	914.0	988.9	1060.1	1086.3
57.5°	797.9	846.6	925.2	1000.1	1030.1
60°	726.7	779.1	861.5	940.2	973.9
62.5°	655.5	711.7	801.6	884.0	917.7
65°	584.3	640.5	737.9	831.6	865.3
67.5°	513.2	573.1	678.0	775.4	816.6
70°	442.0	505.7	618.1	719.2	760.4
72.5°	370.8	438.3	561.9	666.8	708.0
75°	299.7	374.6	505.7	614.3	659.3
77.5°	228.5	314.6	457.0	565.6	610.6
80°	164.8	262.2	404.5	516.9	561.9
82.5°	104.9	209.8	359.6	472.0	516.9
85°	56.2	168.6	318.4	430.8	472.0
87.5°	18.7	131.1	277.2	389.6	430.8
90°	0.0	101.1	243.5	348.4	393.3
92.5°	0.0	78.7	213.5	314.6	355.9
95°	0.0	63.7	183.5	280.9	322.1
97.5°	0.0	52.4	161.1	251.0	288.4
100°	0.0	41.2	138.6	224.7	258.5
102.5°	0.0	33.7	119.9	198.5	232.2
105°	0.0	22.5	101.1	176.1	206.0
107.5°	0.0	18.7	86.2	157.3	183.5
110°	0.0	15.0	78.7	134.8	161.1

TEST NUMBER: P1356913

CATALOG NUMBER: 2ASL4-30VHE-3-40-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	11.2	71.2	119.9	146.1
115°	0.0	11.2	59.9	108.6	127.4
117.5°	0.0	11.2	52.4	97.4	116.1
120°	0.0	7.5	48.7	86.2	104.9
122.5°	0.0	7.5	41.2	78.7	93.6
125°	0.0	7.5	37.5	71.2	82.4
127.5°	0.0	3.7	33.7	63.7	74.9
130°	0.0	3.7	30.0	56.2	67.4
132.5°	0.0	3.7	26.2	52.4	63.7
135°	0.0	0.0	22.5	44.9	56.2
137.5°	0.0	0.0	18.7	41.2	48.7
140°	0.0	0.0	15.0	33.7	44.9
142.5°	0.0	0.0	11.2	30.0	37.5
145°	0.0	0.0	11.2	26.2	30.0
147.5°	0.0	0.0	7.5	18.7	26.2
150°	0.0	0.0	3.7	15.0	18.7
152.5°	0.0	0.0	0.0	11.2	15.0
155°	0.0	0.0	0.0	7.5	11.2
157.5°	0.0	0.0	0.0	0.0	3.7
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

TEST NUMBER: P1356913

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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	21.05	22.59	21.52	23.04	23.53	22.99	24.53	23.46	24.99	25.47
	3H	22.55	23.95	23.03	24.42	24.94	25.42	26.82	25.90	27.29	27.81
	4H	23.03	24.36	23.53	24.84	25.38	26.59	27.92	27.09	28.40	28.94
	6H	23.31	24.55	23.82	25.04	25.60	27.79	29.03	28.30	29.53	30.08
	8H	23.36	24.55	23.89	25.07	25.63	28.40	29.59	28.93	30.11	30.67
	12H	23.37	24.51	23.91	25.02	25.61	29.05	30.19	29.58	30.70	31.29
4H	2H	21.91	23.24	22.41	23.72	24.26	23.43	24.76	23.93	25.24	25.78
	3H	23.65	24.78	24.16	25.31	25.87	26.08	27.22	26.60	27.74	28.30
	4H	24.25	25.29	24.79	25.82	26.42	27.42	28.46	27.96	29.00	29.59
	6H	24.65	25.57	25.20	26.13	26.74	28.82	29.74	29.37	30.30	30.90
	8H	24.74	25.61	25.30	26.17	26.79	29.53	30.40	30.09	30.96	31.58
	12H	24.79	25.57	25.37	26.16	26.79	30.31	31.09	30.89	31.68	32.31
8H	4H	24.91	25.78	25.47	26.34	26.96	27.64	28.51	28.20	29.07	29.69
	6H	25.49	26.22	26.08	26.83	27.45	29.21	29.94	29.80	30.55	31.17
	8H	25.67	26.33	26.28	26.95	27.59	30.07	30.73	30.67	31.34	31.98
	12H	25.79	26.38	26.40	26.98	27.69	31.03	31.62	31.63	32.22	32.92
12H	4H	25.10	25.88	25.68	26.47	27.10	27.65	28.44	28.23	29.03	29.65
	6H	25.77	26.43	26.38	27.05	27.69	29.25	29.91	29.85	30.52	31.16
	8H	26.05	26.64	26.66	27.24	27.95	30.17	30.76	30.78	31.37	32.07

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-4

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-40-UNV-OPL-1_600mA

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

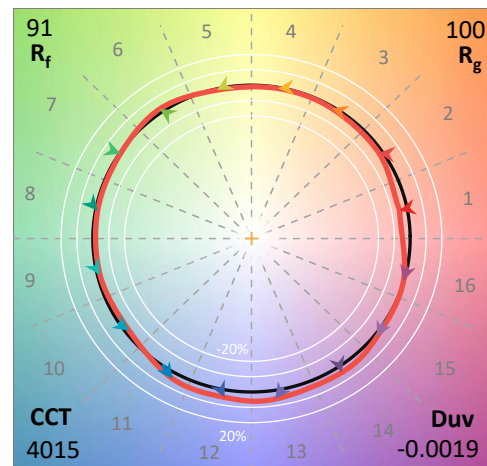
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-4
 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-2-40-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 4000K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K): 4015
 CIE u' : 0.2259
 CIE v' : 0.4990
 Duv: -0.0019
 CIE x: 0.3785
 CIE y: 0.3715
 CIE z: 0.2500
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 580
 Purity: 25.06827
 R_f: 90.7
 R_g: 100.2

CRI (Ra): 93.9
 R1: 95.7
 R2: 96.3
 R3: 94.8
 R4: 95.2
 R5: 94.6
 R6: 93.5
 R7: 94.0
 R8: 87.2
 R9: 66.3
 R10: 89.1
 R11: 95.0
 R12: 73.8
 R13: 96.0
 R14: 96.4
 R15: 93.2



Test Conditions

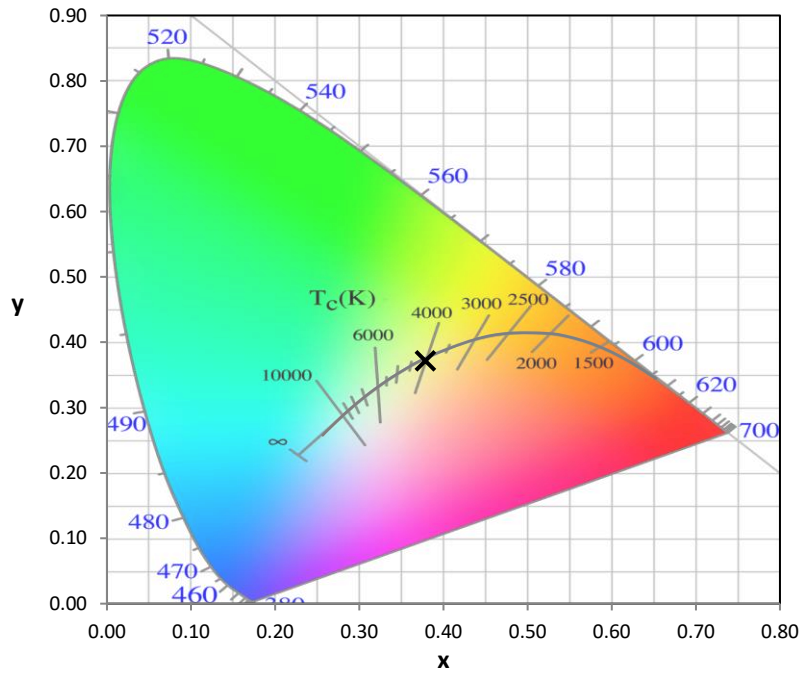
Stabilization Time: 23M
 Operation Time: 1H 23M
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2511-597-4

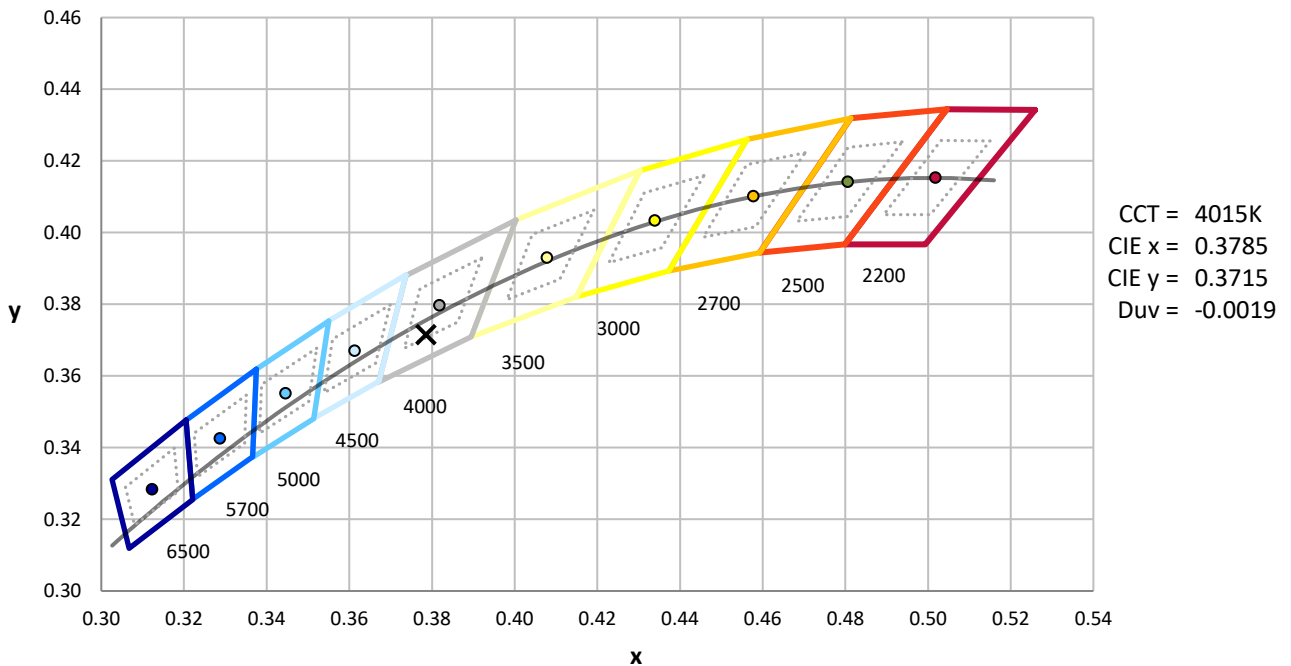
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

REPORT NUMBER: SP1-2511-597-4

CIE 1931 Chromaticity Diagram



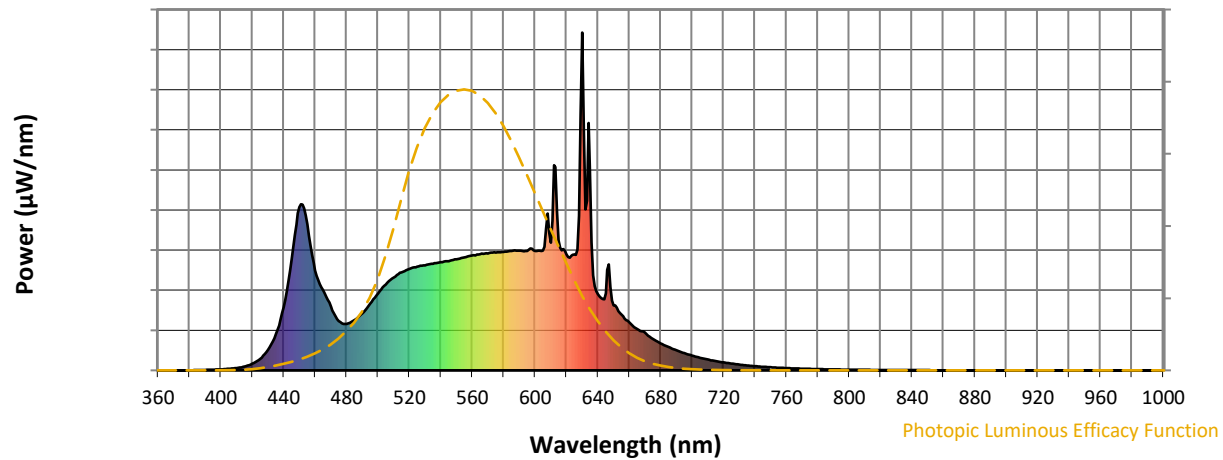
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2511-597-4

Photopic Flux vs. Wavelength

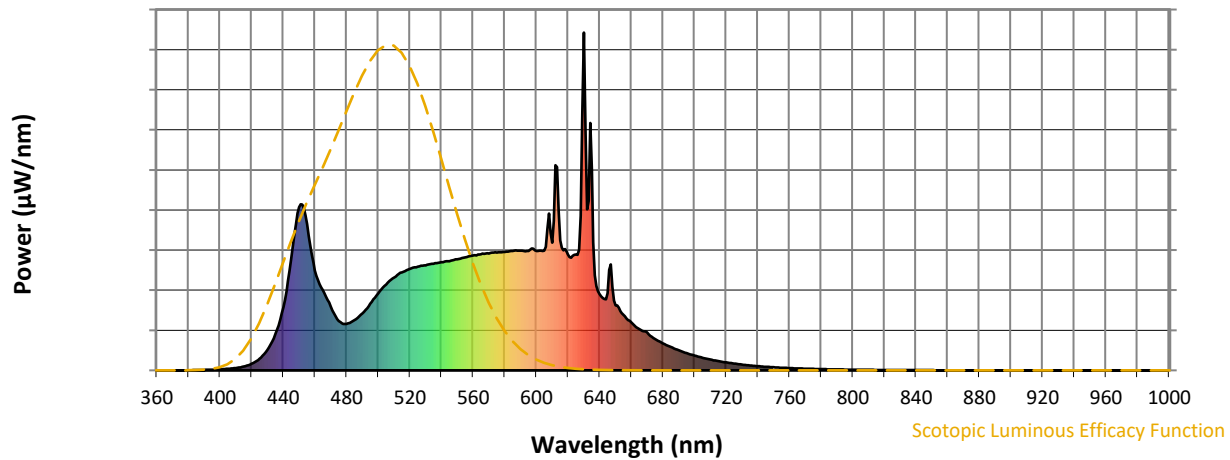


Photopic Lumens: NR

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	169	NR	620	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-4

Scotopic Flux vs. Wavelength



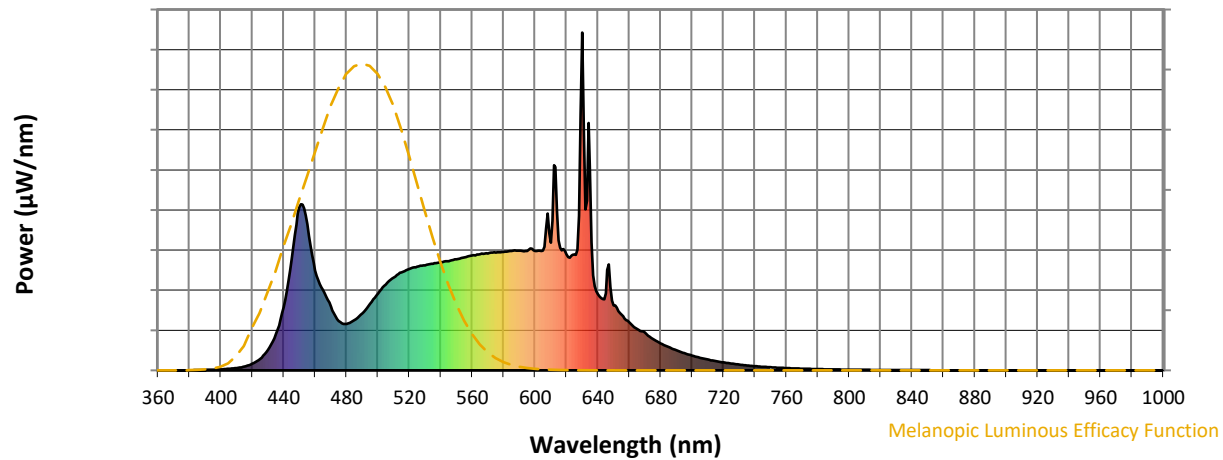
Scotopic Lumens: NR

S/P: 1.79

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	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.74

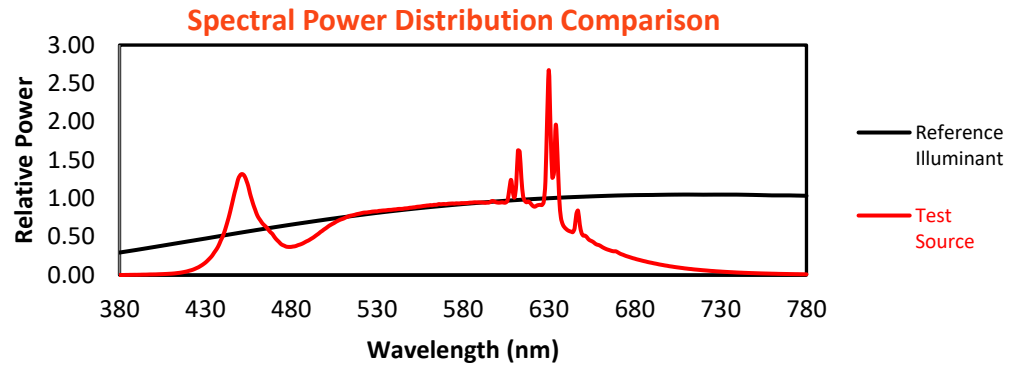
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	169	NR	620	343	NR	750	9	NR	880	0	NR
365	0	NR	495	197	NR	625	343	NR	755	8	NR	885	0	NR
370	0	NR	500	228	NR	630	1000	NR	760	7	NR	890	0	NR
375	0	NR	505	254	NR	635	591	NR	765	6	NR	895	0	NR
380	0	NR	510	274	NR	640	225	NR	770	5	NR	900	0	NR
385	1	NR	515	290	NR	645	229	NR	775	4	NR	905	0	NR
390	1	NR	520	300	NR	650	193	NR	780	4	NR	910	0	NR
395	2	NR	525	307	NR	655	165	NR	785	3	NR	915	0	NR
400	3	NR	530	311	NR	660	142	NR	790	3	NR	920	0	NR
405	5	NR	535	316	NR	665	122	NR	795	2	NR	925	0	NR
410	7	NR	540	320	NR	670	112	NR	800	2	NR	930	0	NR
415	11	NR	545	323	NR	675	93	NR	805	2	NR	935	0	NR
420	20	NR	550	329	NR	680	80	NR	810	2	NR	940	0	NR
425	35	NR	555	334	NR	685	69	NR	815	1	NR	945	0	NR
430	61	NR	560	340	NR	690	59	NR	820	1	NR	950	0	NR
435	108	NR	565	344	NR	695	51	NR	825	1	NR	955	0	NR
440	187	NR	570	346	NR	700	43	NR	830	1	NR	960	0	NR
445	329	NR	575	349	NR	705	37	NR	835	1	NR	965	0	NR
450	484	NR	580	351	NR	710	32	NR	840	1	NR	970	0	NR
455	433	NR	585	353	NR	715	27	NR	845	1	NR	975	0	NR
460	296	NR	590	354	NR	720	23	NR	850	1	NR	980	0	NR
465	237	NR	595	353	NR	725	20	NR	855	0	NR	985	0	NR
470	188	NR	600	354	NR	730	17	NR	860	0	NR	990	0	NR
475	146	NR	605	354	NR	735	15	NR	865	0	NR	995	0	NR
480	138	NR	610	378	NR	740	12	NR	870	0	NR	1000	0	NR
485	149	NR	615	385	NR	745	11	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-4

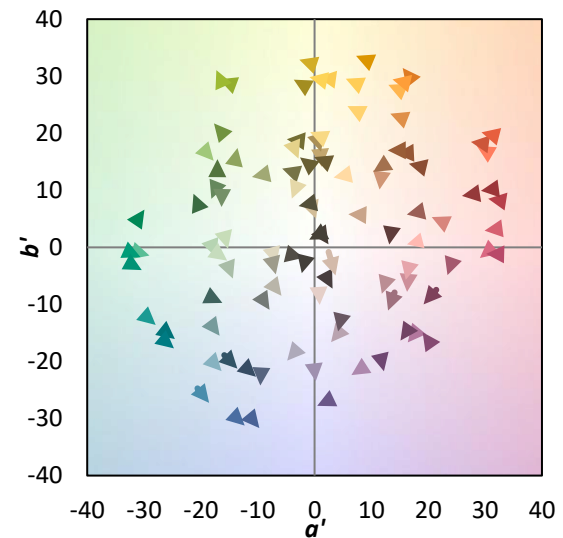
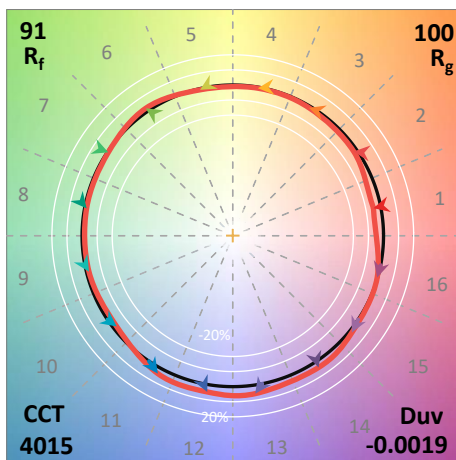
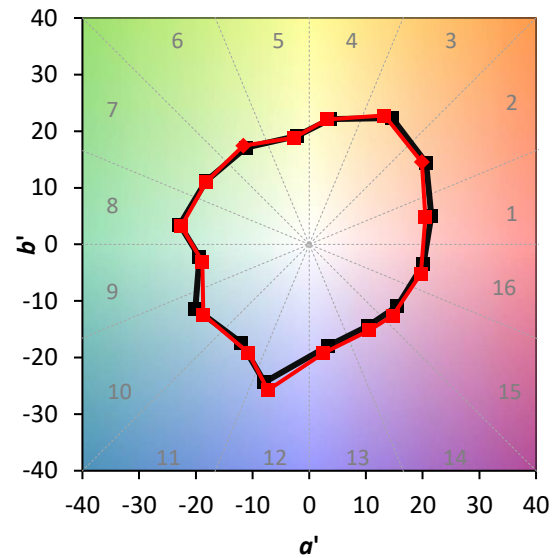
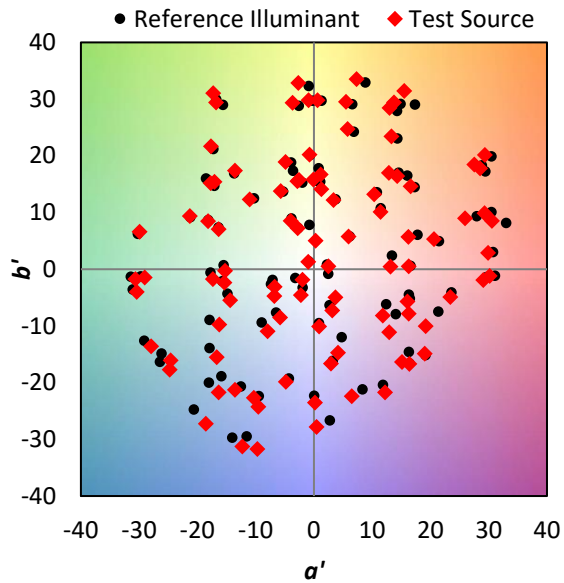
TM-30-18

Summary

$R_f = 90.7$
 $R_g = 100.2$
 CIE $R_a = 93.9$
 $R_9 = 66.3$

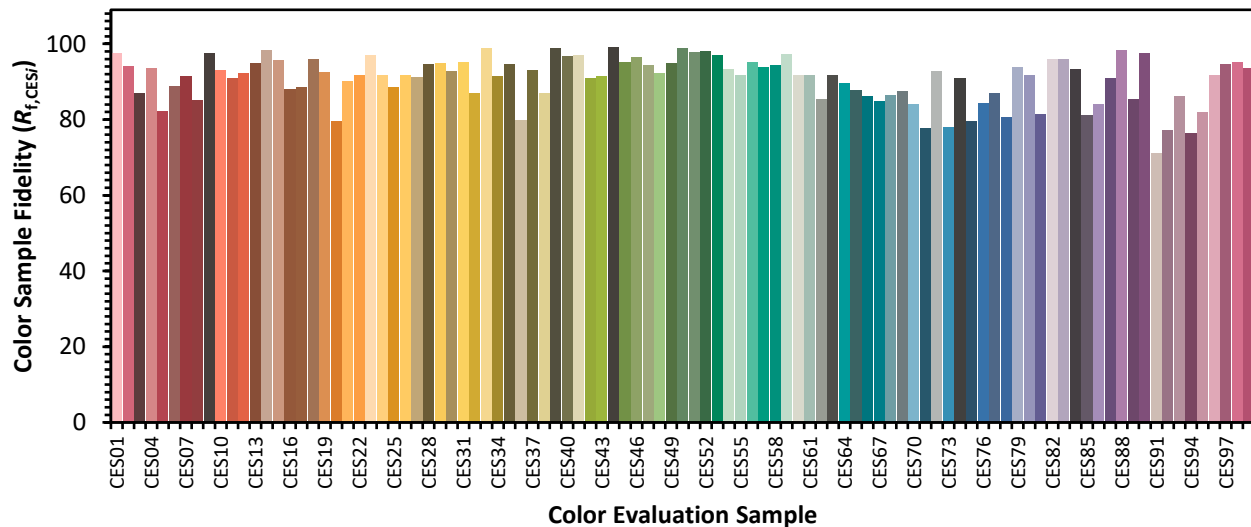


Color Vector Graphics

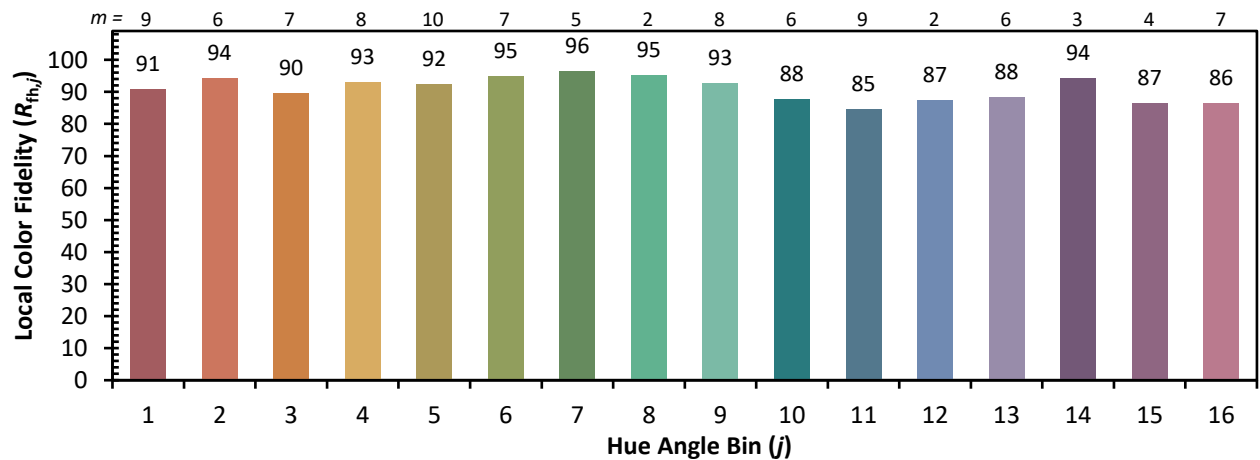
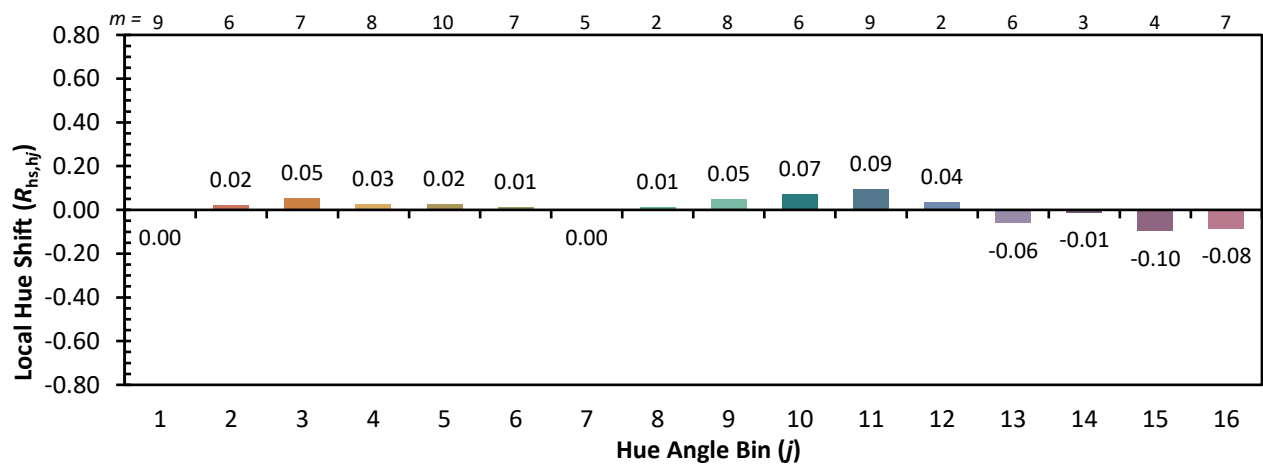
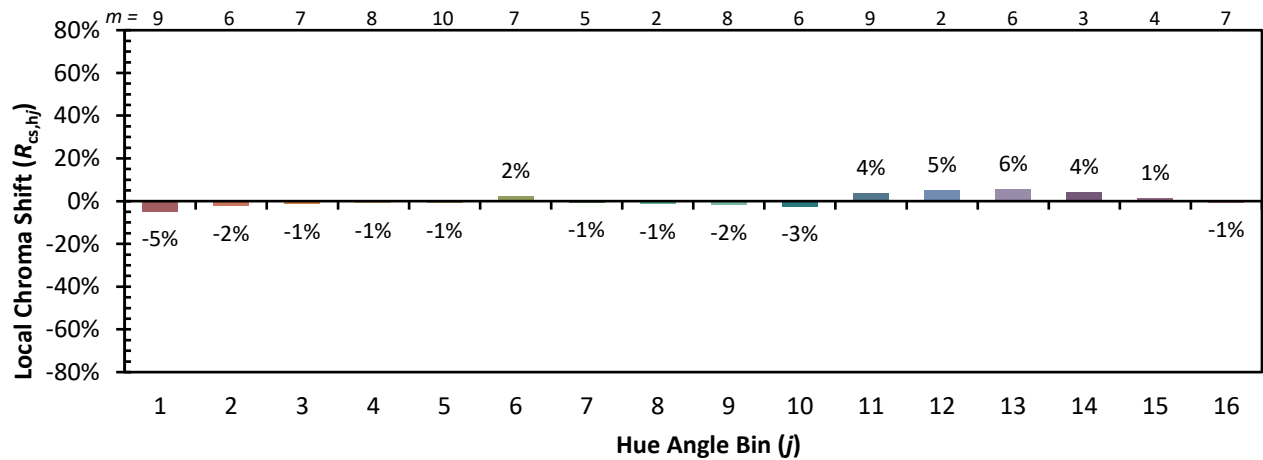


Individual Sample Fidelity Index ($R_{f,i}$)

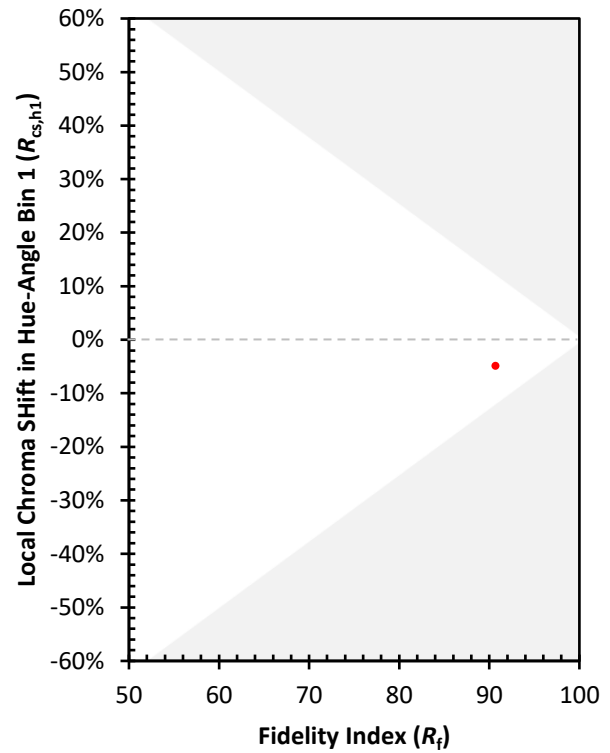
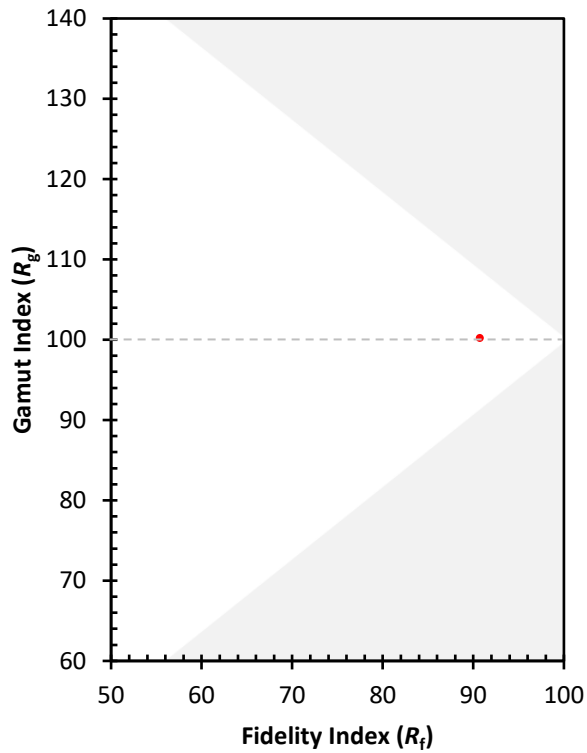
CES01 = 86	CES26 = 92	CES51 = 98	CES76 = 84
CES02 = 62	CES27 = 91	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 95	CES53 = 97	CES78 = 81
CES04 = 69	CES29 = 95	CES54 = 93	CES79 = 94
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 92
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 81
CES07 = 42	CES32 = 87	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 91	CES59 = 97	CES84 = 93
CES10 = 74	CES35 = 95	CES60 = 92	CES85 = 81
CES11 = 57	CES36 = 80	CES61 = 92	CES86 = 84
CES12 = 63	CES37 = 93	CES62 = 85	CES87 = 91
CES13 = 43	CES38 = 87	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 90	CES89 = 85
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 86	CES91 = 71
CES17 = 49	CES42 = 91	CES67 = 85	CES92 = 77
CES18 = 56	CES43 = 91	CES68 = 87	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 87	CES94 = 76
CES20 = 66	CES45 = 95	CES70 = 84	CES95 = 82
CES21 = 85	CES46 = 96	CES71 = 78	CES96 = 92
CES22 = 78	CES47 = 94	CES72 = 93	CES97 = 95
CES23 = 91	CES48 = 92	CES73 = 78	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 91	CES99 = 94
CES25 = 71	CES50 = 99	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)