

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: P1356733

Luminaire Tested: 1ASL4-20VHE-3-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356733
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: 1ASL4-20VHE-3-A59-UNV
Description: 1FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

Summary

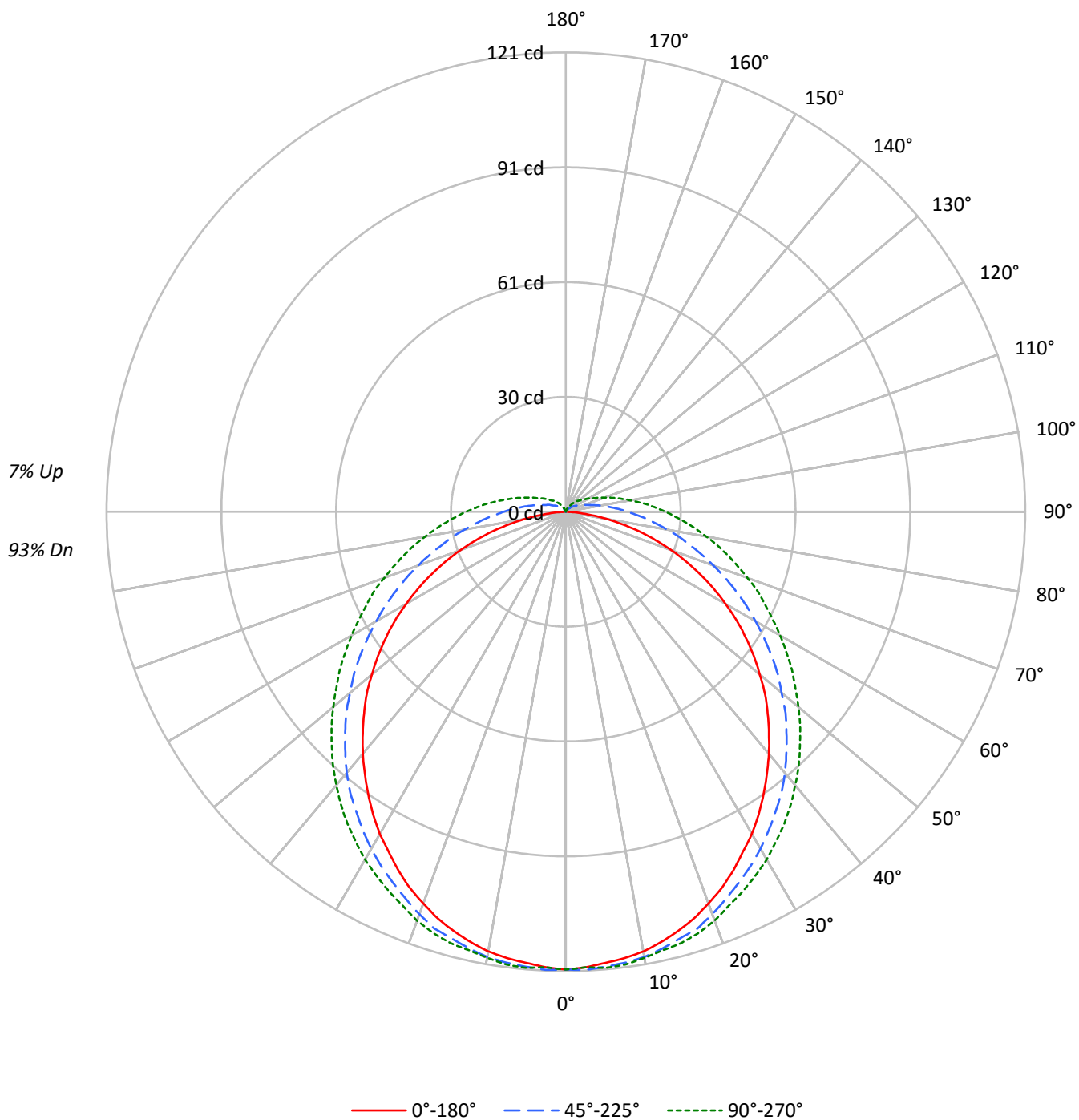
Lumens per Lamp: N/A
Luminaire Lumens: 410.1 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 0.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 11.7
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: P1356733

CATALOG NUMBER: 1ASL4-20VHE-3-A59-UNV

Luminous Intensity Polar Plot



TEST NUMBER: P1356733

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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	90	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	31	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°	3977	3977	3977
5°	3913	3882	3886
10°	3866	3790	3786
15°	3794	3679	3705
20°	3710	3574	3611
25°	3616	3447	3503
30°	3516	3333	3413
35°	3402	3211	3313
40°	3288	3096	3206
45°	3170	2958	3099
50°	3037	2814	2991
55°	2890	2675	2890
60°	2707	2515	2790
65°	2484	2357	2705
70°	2209	2201	2641
75°	1833	2046	2594
80°	1303	1921	2576
85°	649	1838	2615

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3170 cd/sqm

TEST NUMBER: P1356733

CATALOG NUMBER: 1ASL4-20VHE-3-A59-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.4	2.8
10°-20°	32.8	8.0
20°-30°	49.6	12.1
30°-40°	60.1	14.7
40°-50°	63.1	15.4
50°-60°	58.9	14.4
60°-70°	48.7	11.9
70°-80°	35.0	8.5
80°-90°	21.8	5.3
90°-100°	12.8	3.1
100°-110°	7.3	1.8
110°-120°	4.1	1.0
120°-130°	2.4	0.6
130°-140°	1.3	0.3
140°-150°	0.5	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	93.9	22.9
0°-40°	154.0	37.6
0°-60°	276.0	67.3
0°-90°	381.5	93.0
90°-120°	24.2	5.9
90°-150°	28.4	6.9
90°-180°	29.0	7.1
0°-180°	410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	121	121	121	121	121	
5°	119	120	120	120	121	11
15°	114	116	116	117	118	32
25°	104	106	108	109	110	48
35°	91	93	96	99	100	57
45°	75	78	82	86	87	58
55°	58	61	66	71	73	52
65°	39	43	49	56	58	39
75°	20	25	34	41	44	21
85°	4	11	21	29	32	5
90°	0	7	16	23	26	0
95°	0	4	12	19	22	0
105°	0	2	7	12	14	0
115°	0	1	4	7	8	0
125°	0	0	2	5	6	0
135°	0	0	2	3	4	0
145°	0	0	1	2	2	0
155°	0	0	0	0	1	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P1356733

CATALOG NUMBER: 1ASL4-20VHE-3-A59-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	120.6	120.6	120.6	120.6	120.6
2.5°	120.1	120.8	120.8	120.1	120.1
5°	119.3	120.3	120.3	120.3	120.6
7.5°	118.6	119.8	119.8	119.8	120.3
10°	117.6	118.8	119.1	119.1	119.3
12.5°	116.1	117.6	117.8	118.1	118.3
15°	114.3	115.8	116.3	117.1	117.6
17.5°	112.3	114.1	115.1	115.8	116.3
20°	109.8	111.6	112.8	113.8	114.6
22.5°	107.3	108.8	110.3	111.6	112.3
25°	104.3	106.0	107.8	109.3	110.3
27.5°	101.0	103.0	105.3	107.0	108.1
30°	98.0	100.0	102.5	104.8	105.8
32.5°	94.5	96.8	99.5	101.8	103.0
35°	90.8	93.3	96.3	99.0	100.3
37.5°	87.0	89.5	93.3	96.0	97.3
40°	83.2	85.7	89.8	92.8	94.0
42.5°	79.2	81.7	86.0	89.2	90.8
45°	75.2	78.0	82.2	85.7	87.2
47.5°	71.2	74.0	78.5	82.2	83.7
50°	66.7	69.7	74.2	78.5	80.0
52.5°	62.4	65.4	70.4	74.7	76.2
55°	57.9	61.2	66.2	70.9	72.7
57.5°	53.4	56.7	61.9	66.9	68.9
60°	48.6	52.1	57.7	62.9	65.2
62.5°	43.9	47.6	53.6	59.2	61.4
65°	39.1	42.9	49.4	55.7	57.9
67.5°	34.3	38.4	45.4	51.9	54.7
70°	29.6	33.8	41.4	48.1	50.9
72.5°	24.8	29.3	37.6	44.6	47.4
75°	20.1	25.1	33.8	41.1	44.1
77.5°	15.3	21.1	30.6	37.9	40.9
80°	11.0	17.5	27.1	34.6	37.6
82.5°	7.0	14.0	24.1	31.6	34.6
85°	3.8	11.3	21.3	28.8	31.6
87.5°	1.3	8.8	18.6	26.1	28.8
90°	0.0	6.8	16.3	23.3	26.3
92.5°	0.0	5.3	14.3	21.1	23.8
95°	0.0	4.3	12.3	18.8	21.6
97.5°	0.0	3.5	10.8	16.8	19.3
100°	0.0	2.8	9.3	15.0	17.3
102.5°	0.0	2.3	8.0	13.3	15.5
105°	0.0	1.5	6.8	11.8	13.8
107.5°	0.0	1.3	5.8	10.5	12.3
110°	0.0	1.0	5.3	9.0	10.8

TEST NUMBER: P1356733

CATALOG NUMBER: 1ASL4-20VHE-3-A59-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.8	4.8	8.0	9.8
115°	0.0	0.8	4.0	7.3	8.5
117.5°	0.0	0.8	3.5	6.5	7.8
120°	0.0	0.5	3.3	5.8	7.0
122.5°	0.0	0.5	2.8	5.3	6.3
125°	0.0	0.5	2.5	4.8	5.5
127.5°	0.0	0.3	2.3	4.3	5.0
130°	0.0	0.3	2.0	3.8	4.5
132.5°	0.0	0.3	1.8	3.5	4.3
135°	0.0	0.0	1.5	3.0	3.8
137.5°	0.0	0.0	1.3	2.8	3.3
140°	0.0	0.0	1.0	2.3	3.0
142.5°	0.0	0.0	0.8	2.0	2.5
145°	0.0	0.0	0.8	1.8	2.0
147.5°	0.0	0.0	0.5	1.3	1.8
150°	0.0	0.0	0.3	1.0	1.3
152.5°	0.0	0.0	0.0	0.8	1.0
155°	0.0	0.0	0.0	0.5	0.8
157.5°	0.0	0.0	0.0	0.0	0.3
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: P1356733

CATALOG NUMBER: 1ASL4-20VHE-3-A59-UNV

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	14.04	15.58	14.51	16.03	16.52	15.82	17.36	16.29	17.81	18.30
	3H	15.54	16.94	16.02	17.41	17.93	18.18	19.59	18.66	20.05	20.58
	4H	16.02	17.36	16.53	17.84	18.38	19.30	20.63	19.80	21.11	21.65
	6H	16.30	17.54	16.82	18.04	18.59	20.43	21.66	20.94	22.16	22.72
	8H	16.35	17.54	16.88	18.06	18.62	20.98	22.17	21.51	22.69	23.25
	12H	16.37	17.51	16.90	18.02	18.61	21.55	22.69	22.08	23.20	23.79
4H	2H	14.87	16.20	15.37	16.68	17.22	16.26	17.60	16.77	18.08	18.62
	3H	16.60	17.74	17.12	18.26	18.83	18.86	19.99	19.37	20.52	21.08
	4H	17.21	18.25	17.75	18.79	19.38	20.14	21.18	20.68	21.72	22.31
	6H	17.61	18.53	18.17	19.09	19.70	21.46	22.38	22.02	22.94	23.55
	8H	17.71	18.57	18.27	19.13	19.75	22.12	22.98	22.68	23.54	24.16
	12H	17.75	18.54	18.34	19.13	19.75	22.81	23.59	23.39	24.18	24.81
8H	4H	17.84	18.70	18.40	19.27	19.89	20.37	21.23	20.93	21.79	22.41
	6H	18.42	19.15	19.01	19.75	20.38	21.86	22.59	22.45	23.20	23.82
	8H	18.60	19.26	19.20	19.87	20.51	22.66	23.32	23.26	23.93	24.57
	12H	18.72	19.30	19.32	19.91	20.61	23.53	24.12	24.14	24.73	25.43
12H	4H	18.01	18.79	18.59	19.38	20.01	20.38	21.16	20.96	21.75	22.38
	6H	18.68	19.34	19.28	19.96	20.59	21.90	22.56	22.51	23.18	23.82
	8H	18.95	19.54	19.56	20.15	20.85	22.77	23.36	23.38	23.96	24.67

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

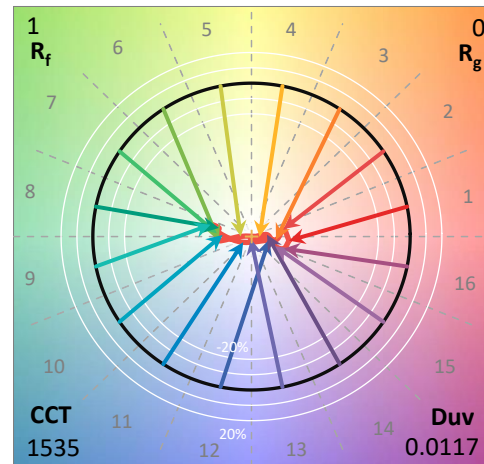
Data in this report applies to families of products including 4ASL

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	CRI (Ra):	-20.0		
CIE u':	0.3534	R1:	-32.1	R9:	-380.5
CIE v':	0.5468	R2:	53.1	R10:	29.9
Duv:	0.0117	R3:	18.5	R11:	-92.0
CIE x:	0.5921	R4:	-65.7	R12:	-8.5
CIE y:	0.4072	R5:	-38.6	R13:	-13.5
CIE z:	0.0007	R6:	42.8	R14:	47.1
Peak Wavelength (nm):	598	R7:	-6.2	R15:	-65.4
Dominant Wavelength (nm):	592	R8:	-132.3		
Purity:	99.97894				
Rf:	1.3				
Rg:	0.1				



Test Conditions

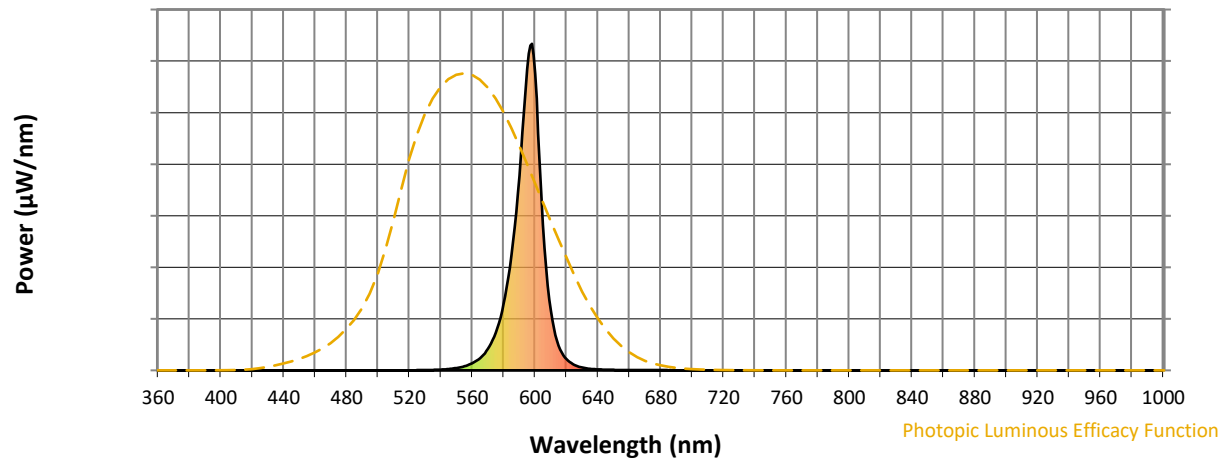
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

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

REPORT NUMBER: SP1-2511-597-9

Photopic Flux vs. Wavelength

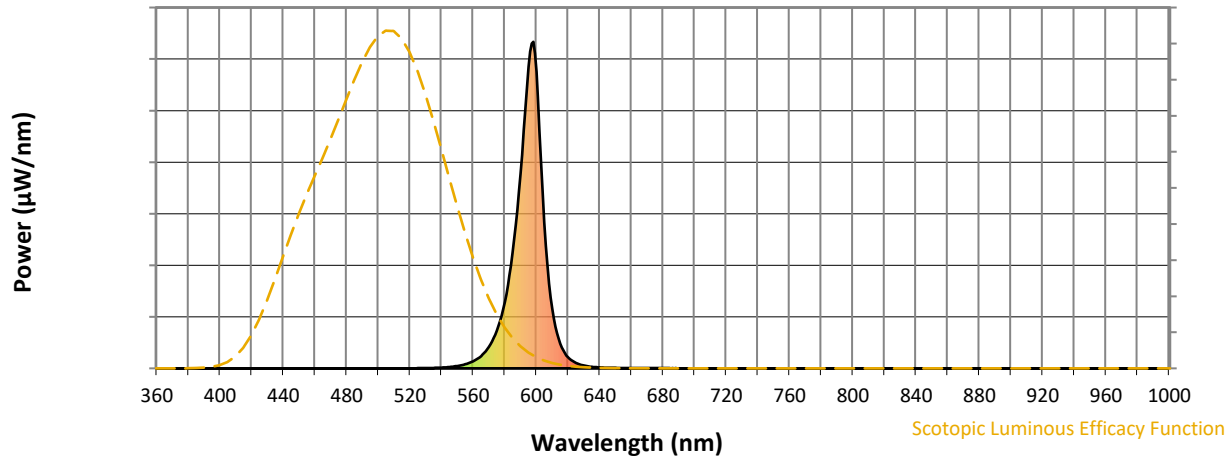


Photopic Lumens: NR

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	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			

REPORT NUMBER: SP1-2511-597-9

Scotopic Flux vs. Wavelength



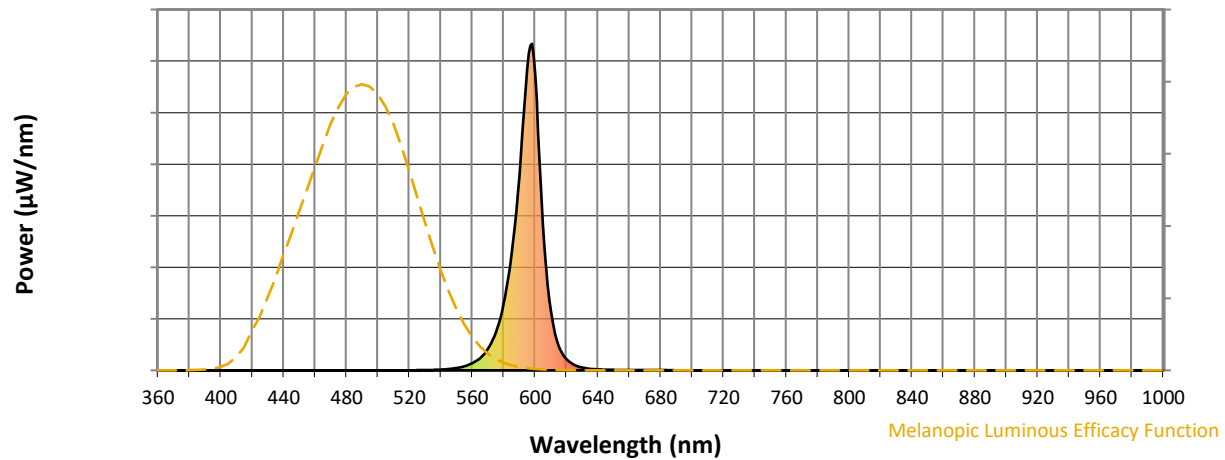
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2511-597-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 0.12

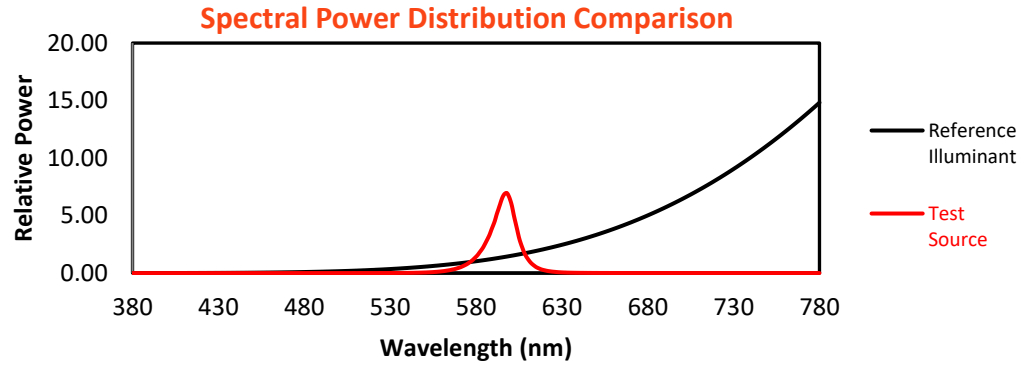
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	0	NR	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			

REPORT NUMBER: SP1-2511-597-9

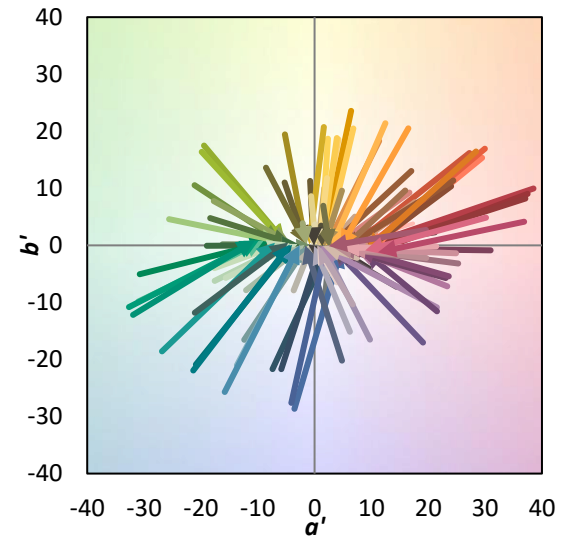
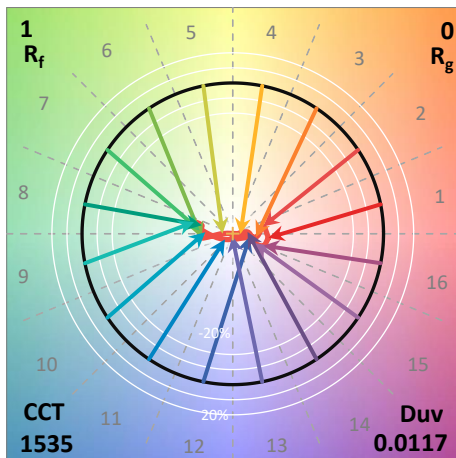
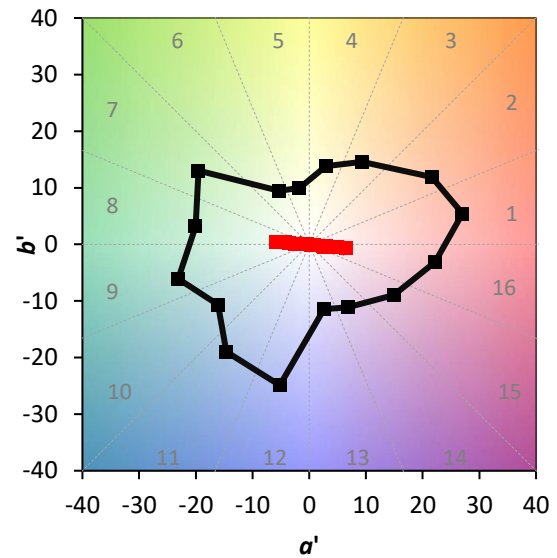
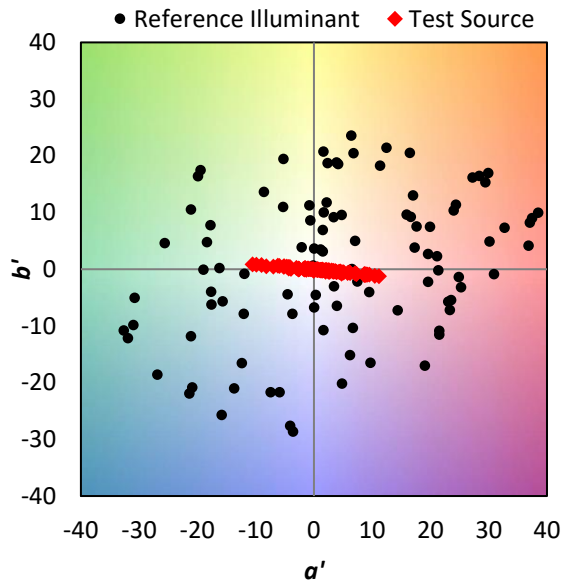
TM-30-18

Summary

$R_f = 1.3$
 $R_g = 0.1$
 $CIE\ R_a = -20.0$
 $R_g = -380.5$

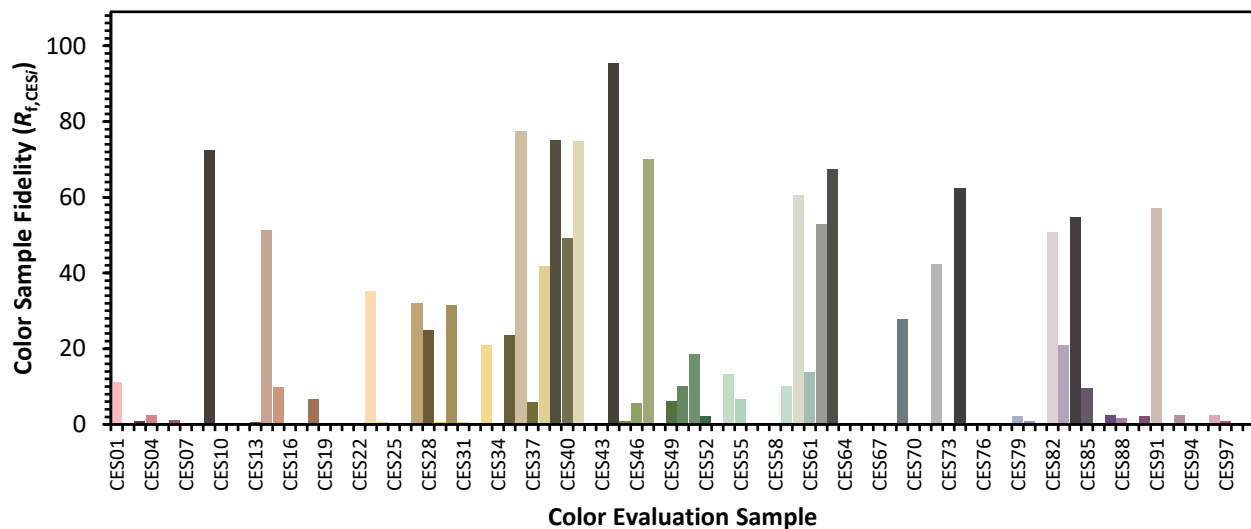


Color Vector Graphics

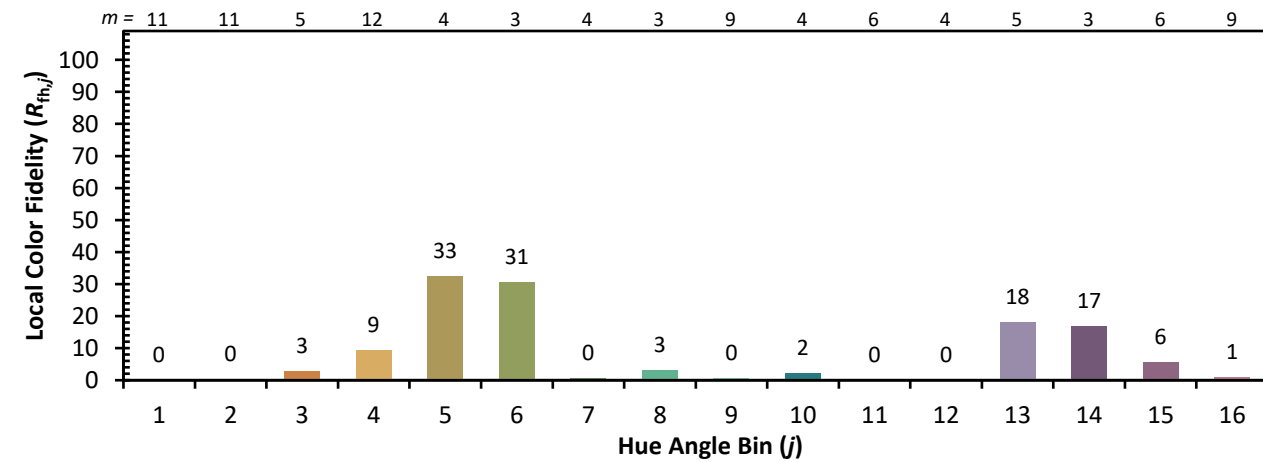
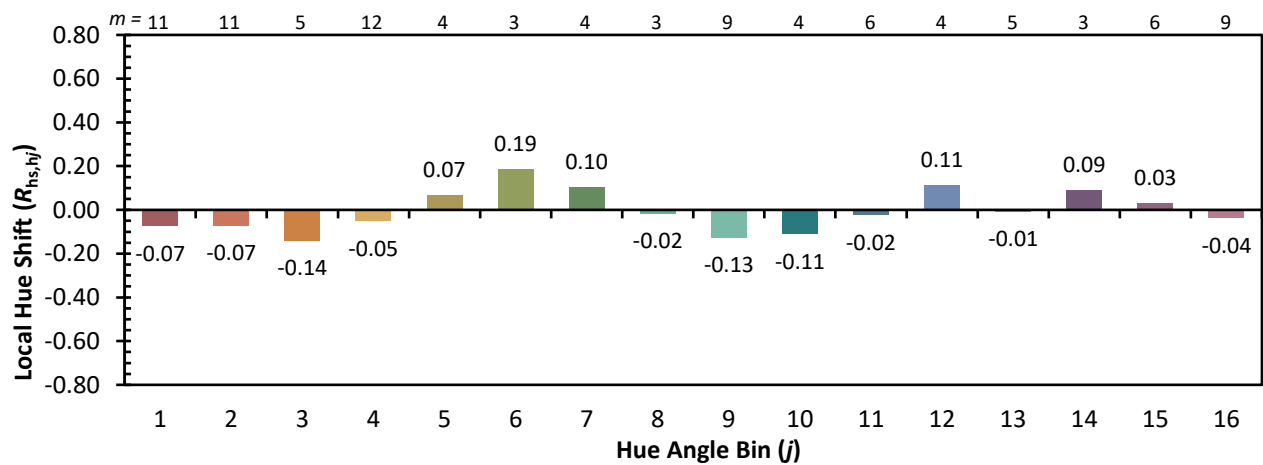
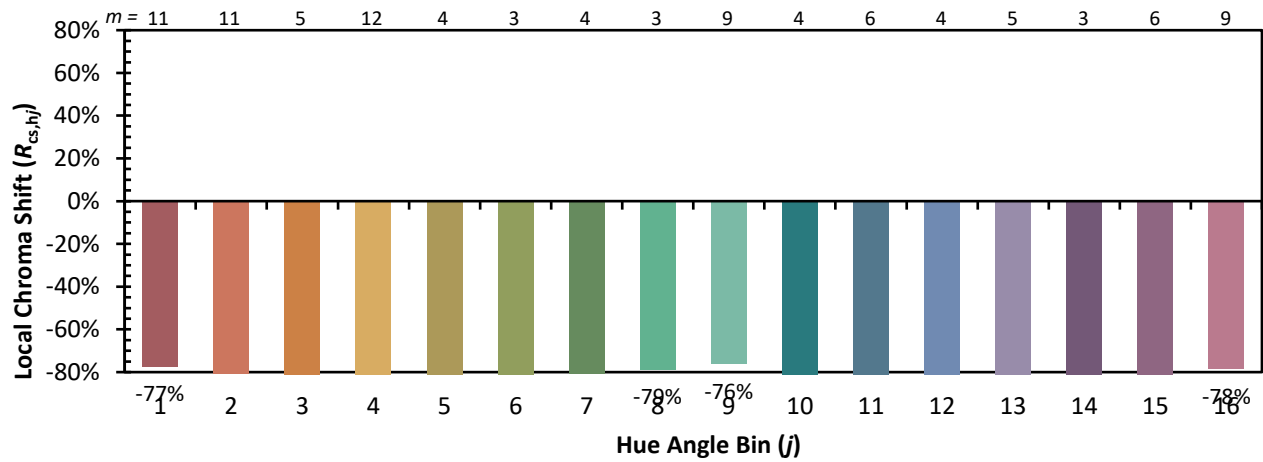


Individual Sample Fidelity Index (R_{fi})

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	



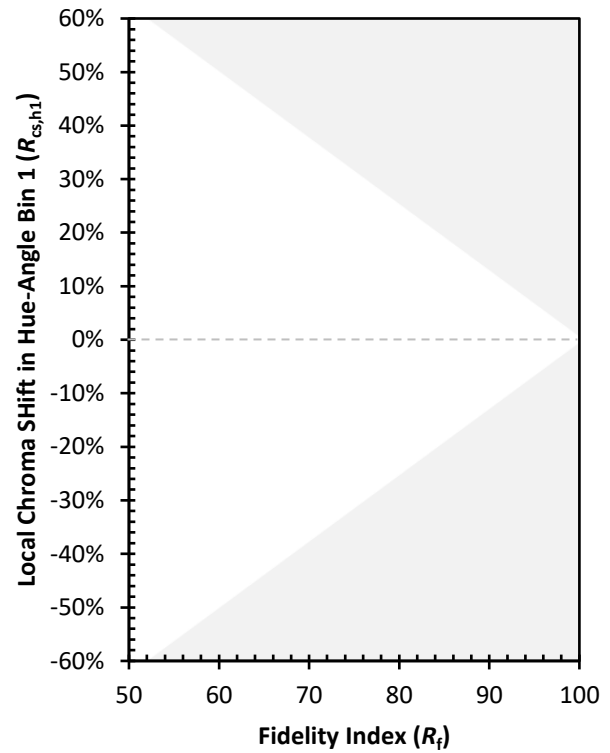
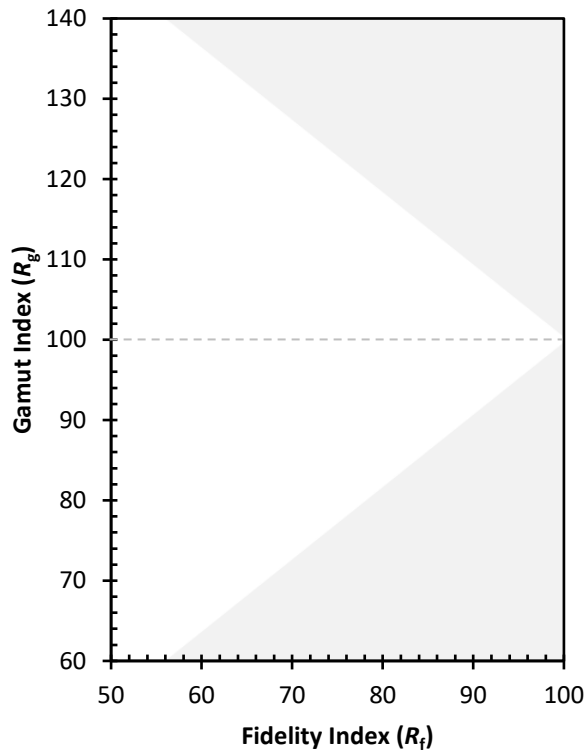
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2511-597-9

TM-30-18

Measure Comparisons



(END OF REPORT)