

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: P1357548

Luminaire Tested: 8ASL4-5-1-35-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357548
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: 8ASL4-5-1-35-UNV
Description: 8FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 3500K LEDS 1 ROW
Light Source: -
Ballast/Driver: -

Summary

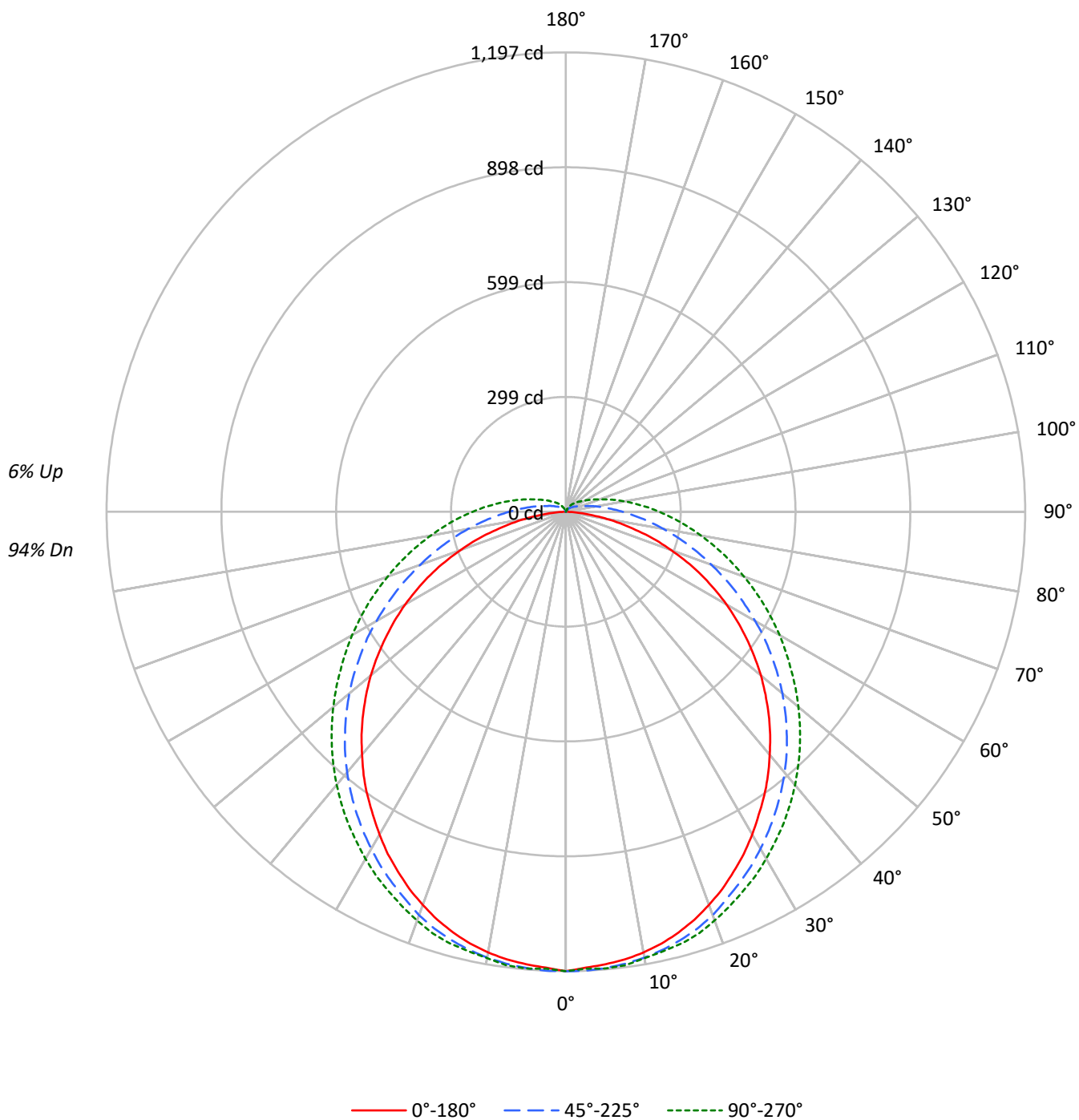
Lumens per Lamp: N/A
Luminaire Lumens: 4008.0 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 33.6
Input Voltage (V): NR
Input Current (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: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-UNV

Luminous Intensity Polar Plot



TEST NUMBER: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-UNV

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108		102	102	102		96
1	106	100	95	91	102	97	93	89	92	88	85		87	84	81		82
2	95	86	79	73	92	84	77	71	79	74	69		75	70	66		71
3	87	76	67	60	84	73	65	59	69	63	57		66	60	55		62
4	79	67	57	50	76	65	56	50	62	54	48		58	52	47		56
5	73	59	50	43	70	58	49	43	55	47	42		52	46	41		50
6	67	53	44	38	65	52	43	37	50	42	36		47	41	35		45
7	62	48	39	33	60	47	39	33	45	37	32		43	36	31		41
8	58	44	35	29	56	43	35	29	41	34	29		39	33	28		38
9	54	40	32	26	52	39	32	26	38	31	26		36	30	25		35
10	51	37	29	24	49	36	29	24	35	28	23		34	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4845	4845	4845
5°	4803	4751	4723
10°	4781	4658	4599
15°	4738	4559	4503
20°	4673	4445	4383
25°	4592	4309	4254
30°	4504	4184	4133
35°	4416	4056	4013
40°	4317	3927	3888
45°	4223	3787	3762
50°	4114	3640	3628
55°	3977	3473	3495
60°	3827	3299	3378
65°	3633	3117	3261
70°	3326	2925	3147
75°	2928	2756	3060
80°	2380	2615	3005
85°	1479	2528	3026

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4223 cd/sqm

TEST NUMBER: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.4	2.8
10°-20°	325.4	8.1
20°-30°	492.0	12.3
30°-40°	594.8	14.8
40°-50°	625.3	15.6
50°-60°	582.5	14.5
60°-70°	478.6	11.9
70°-80°	339.7	8.5
80°-90°	204.8	5.1
90°-100°	114.7	2.9
100°-110°	63.5	1.6
110°-120°	35.4	0.9
120°-130°	20.4	0.5
130°-140°	11.2	0.3
140°-150°	5.0	0.1
150°-160°	1.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	930.8	23.2
0°-40°	1525.6	38.1
0°-60°	2733.5	68.2
0°-90°	3756.6	93.7
90°-120°	213.7	5.3
90°-150°	250.2	6.2
90°-180°	251.0	6.3
0°-180°	4008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1184	1194	1193	1192	1194	112
15°	1135	1150	1155	1161	1165	320
25°	1035	1054	1068	1083	1092	477
35°	902	925	953	978	990	564
45°	748	775	814	848	863	576
55°	574	607	654	697	716	513
65°	390	425	486	543	569	385
75°	196	246	328	395	424	210
85°	37	106	198	271	298	45
90°	0	62	148	217	242	1
95°	0	37	108	171	195	0
105°	0	14	57	103	122	0
115°	0	7	35	62	74	0
125°	0	4	22	41	47	0
135°	0	1	14	26	32	0
145°	1	0	5	15	19	1
155°	1	1	0	4	5	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1197.2	1197.2	1197.2	1197.2	1197.2
2.5°	1189.0	1199.9	1197.2	1191.7	1191.7
5°	1183.6	1194.4	1193.1	1191.7	1194.4
7.5°	1176.8	1187.7	1187.7	1189.0	1191.7
10°	1166.0	1179.6	1179.6	1179.6	1180.9
12.5°	1152.5	1166.0	1168.7	1170.1	1172.8
15°	1134.9	1149.8	1155.2	1160.6	1164.7
17.5°	1114.5	1129.4	1138.9	1145.7	1152.5
20°	1090.2	1106.4	1118.6	1126.7	1133.5
22.5°	1064.4	1080.7	1092.9	1105.1	1113.2
25°	1034.6	1053.6	1068.5	1083.4	1091.5
27.5°	1004.9	1023.8	1042.8	1060.4	1069.9
30°	971.0	992.7	1014.3	1034.6	1044.1
32.5°	935.8	958.8	984.5	1006.2	1017.0
35°	901.9	925.0	953.4	977.8	990.0
37.5°	865.4	888.4	920.9	948.0	960.2
40°	826.1	851.8	887.0	915.5	929.0
42.5°	788.2	813.9	851.8	883.0	896.5
45°	747.5	774.6	813.9	847.8	862.7
47.5°	705.6	734.0	776.0	811.2	827.4
50°	663.6	693.4	736.7	774.6	790.9
52.5°	618.9	650.0	696.1	736.7	754.3
55°	574.2	606.7	654.1	697.4	716.4
57.5°	529.5	562.0	613.5	659.5	679.8
60°	483.5	517.3	570.1	620.2	643.3
62.5°	436.1	471.3	526.8	581.0	605.3
65°	390.0	425.2	486.2	543.1	568.8
67.5°	341.3	379.2	444.2	503.8	530.9
70°	291.2	334.5	403.6	467.2	494.3
72.5°	246.5	291.2	365.6	430.7	459.1
75°	196.4	246.5	327.7	395.4	423.9
77.5°	153.0	207.2	292.5	361.6	390.0
80°	109.7	169.3	258.7	329.1	357.5
82.5°	70.4	135.4	227.5	299.3	326.4
85°	36.6	105.6	197.7	270.8	297.9
87.5°	10.8	81.3	170.6	242.4	269.5
90°	0.0	62.3	147.6	216.7	242.4
92.5°	0.0	47.4	127.3	193.7	219.4
95°	0.0	36.6	108.3	170.6	195.0
97.5°	0.0	28.4	93.4	150.3	174.7
100°	0.0	23.0	79.9	132.7	155.7
102.5°	0.0	19.0	69.1	117.8	138.1
105°	0.0	13.5	56.9	102.9	121.9
107.5°	0.0	9.5	50.1	90.7	107.0
110°	0.0	8.1	44.7	78.5	94.8

TEST NUMBER: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	6.8	39.3	70.4	84.0
115°	0.0	6.8	35.2	62.3	74.5
117.5°	0.0	5.4	29.8	55.5	66.4
120°	0.0	5.4	27.1	50.1	59.6
122.5°	0.0	4.1	24.4	44.7	54.2
125°	0.0	4.1	21.7	40.6	47.4
127.5°	0.0	2.7	19.0	36.6	43.3
130°	0.0	2.7	17.6	32.5	39.3
132.5°	0.0	1.4	16.3	29.8	35.2
135°	0.0	1.4	13.5	25.7	32.5
137.5°	0.0	0.0	12.2	23.0	28.4
140°	0.0	0.0	9.5	20.3	25.7
142.5°	1.4	0.0	8.1	17.6	21.7
145°	1.4	0.0	5.4	14.9	19.0
147.5°	1.4	1.4	4.1	12.2	14.9
150°	1.4	1.4	2.7	8.1	12.2
152.5°	1.4	1.4	1.4	5.4	8.1
155°	1.4	1.4	0.0	4.1	5.4
157.5°	1.4	1.4	0.0	1.4	2.7
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

TEST NUMBER: P1357548

CATALOG NUMBER: 8ASL4-5-1-35-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	14.90	16.45	15.36	16.90	17.36	16.93	18.48	17.39	18.92	19.39
	3H	16.39	17.81	16.86	18.26	18.77	19.36	20.77	19.83	21.22	21.73
	4H	16.87	18.21	17.36	18.68	19.20	20.54	21.88	21.03	22.35	22.87
	6H	17.15	18.39	17.65	18.88	19.42	21.77	23.02	22.28	23.51	24.04
	8H	17.20	18.39	17.72	18.90	19.45	22.42	23.61	22.93	24.12	24.66
	12H	17.21	18.36	17.73	18.86	19.43	23.13	24.28	23.66	24.78	25.36
4H	2H	15.77	17.12	16.27	17.59	18.11	17.36	18.70	17.85	19.17	19.69
	3H	17.50	18.64	18.01	19.16	19.70	20.01	21.15	20.52	21.67	22.21
	4H	18.10	19.15	18.63	19.67	20.25	21.36	22.41	21.89	22.93	23.51
	6H	18.50	19.42	19.04	19.97	20.56	22.78	23.71	23.33	24.26	24.85
	8H	18.59	19.46	19.14	20.01	20.61	23.53	24.40	24.08	24.95	25.55
	12H	18.63	19.42	19.21	20.00	20.61	24.37	25.16	24.95	25.74	26.35
8H	4H	18.76	19.63	19.31	20.18	20.78	21.57	22.44	22.12	22.99	23.60
	6H	19.33	20.06	19.91	20.66	21.27	23.16	23.90	23.74	24.49	25.10
	8H	19.51	20.17	20.10	20.77	21.40	24.05	24.71	24.64	25.31	25.94
	12H	19.62	20.21	20.21	20.80	21.49	25.07	25.66	25.67	26.25	26.95
12H	4H	18.95	19.73	19.52	20.31	20.92	21.58	22.37	22.15	22.95	23.56
	6H	19.61	20.27	20.21	20.88	21.50	23.19	23.86	23.79	24.46	25.09
	8H	19.88	20.47	20.48	21.07	21.76	24.15	24.74	24.74	25.33	26.02

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-1

Test Date: 11/17/2025

Luminaire Tested: 4ASL-2-35-UNV-OPL-1_600mA

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

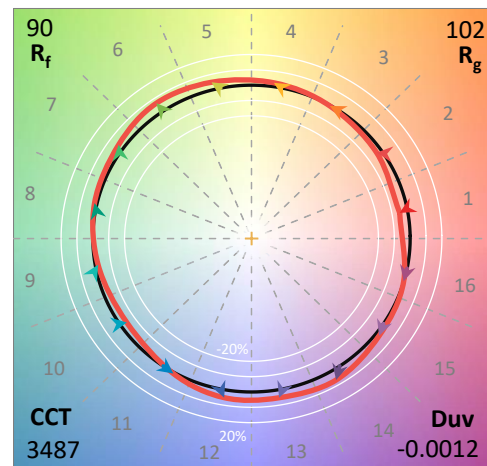
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-1
 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-2-35-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 3500K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K): 3487
 CIE u' : 0.2366
 CIE v' : 0.5099
 Duv: -0.0012
 CIE x : 0.4047
 CIE y : 0.3876
 CIE z : 0.2077
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 581
 Purity: 37.79273
 R_f: 90
 R_g: 102.4

CRI (Ra): 92.5
 R1: 94.7
 R2: 94.3
 R3: 92.9
 R4: 93.3
 R5: 93.9
 R6: 93.4
 R7: 92.5
 R8: 85.2
 R9: 61.3
 R10: 85.5
 R11: 93.7
 R12: 80.8
 R13: 94.3
 R14: 95.1
 R15: 90.9



Test Conditions

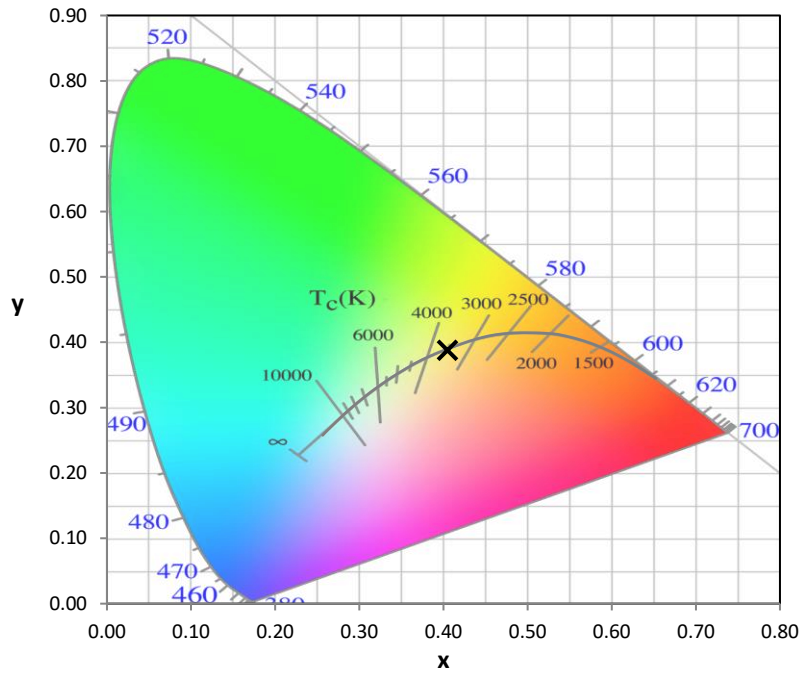
Stabilization Time: 31M
 Operation Time: 1H 31M
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2511-597-1

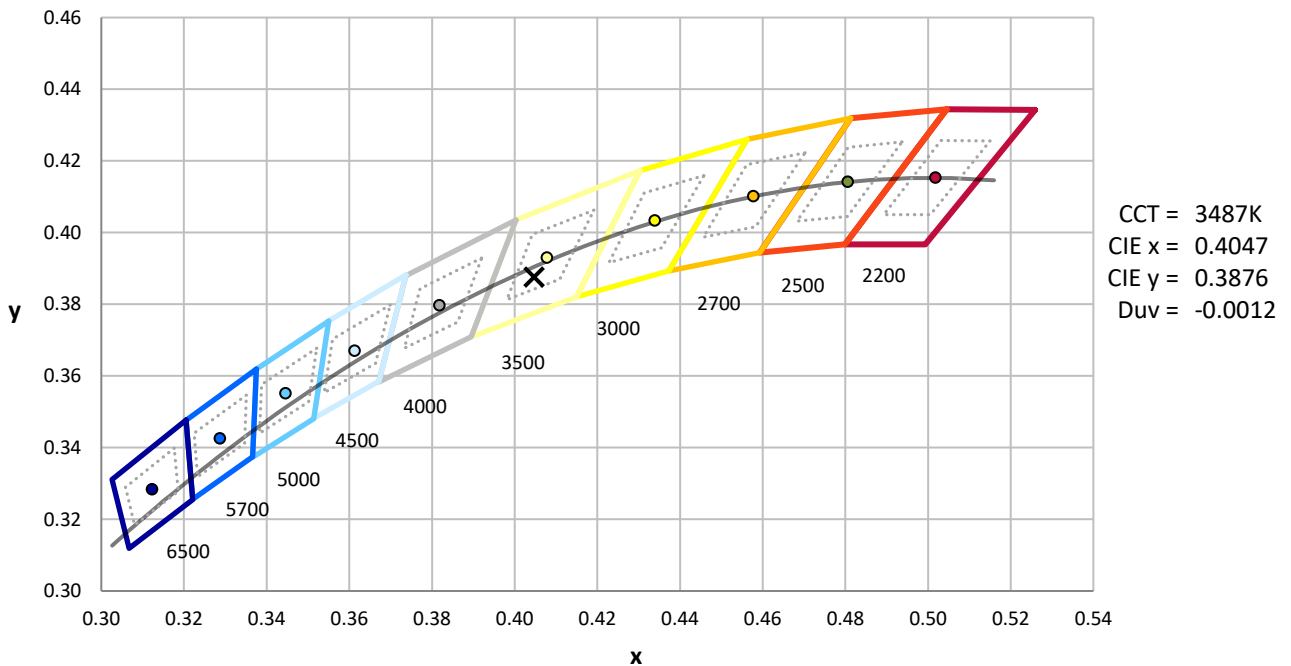
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2511-597-1

CIE 1931 Chromaticity Diagram



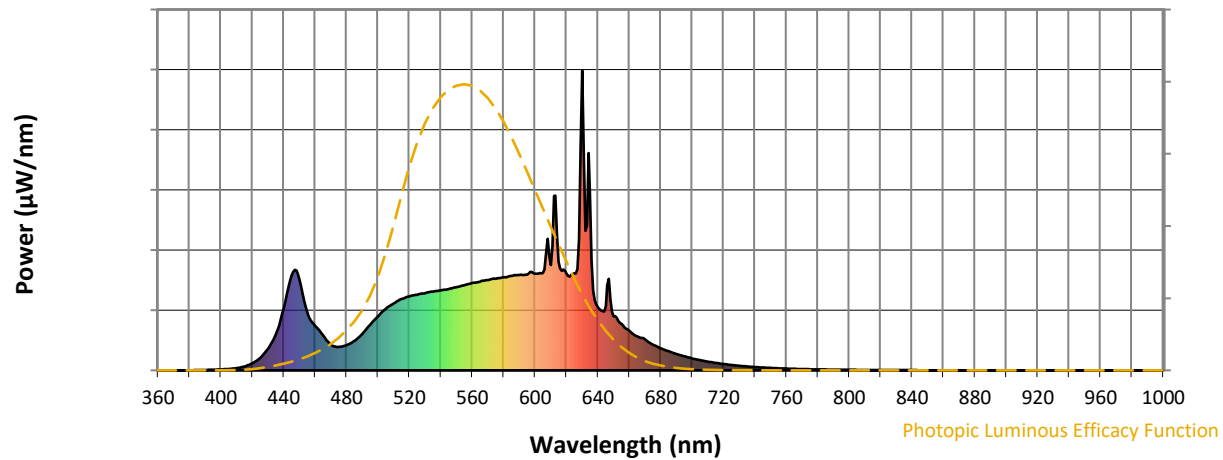
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2511-597-1

Photopic Flux vs. Wavelength

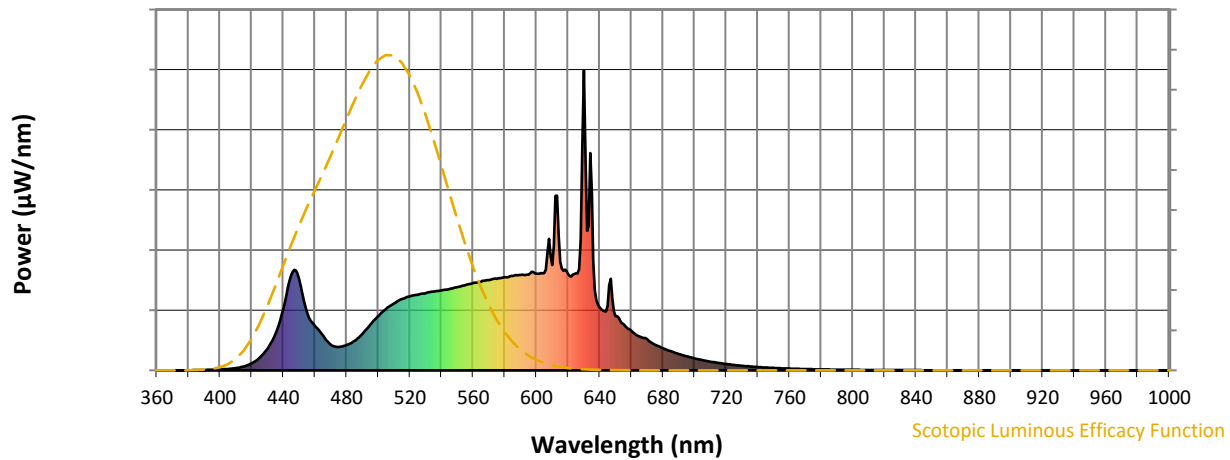


Photopic Lumens: NR

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	122	NR	620	322	NR	750	8	NR	880	0	NR
365	0	NR	495	152	NR	625	323	NR	755	7	NR	885	0	NR
370	0	NR	500	180	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	205	NR	635	589	NR	765	5	NR	895	0	NR
380	0	NR	510	223	NR	640	210	NR	770	4	NR	900	0	NR
385	1	NR	515	238	NR	645	214	NR	775	4	NR	905	0	NR
390	1	NR	520	247	NR	650	181	NR	780	3	NR	910	0	NR
395	2	NR	525	252	NR	655	155	NR	785	3	NR	915	0	NR
400	3	NR	530	258	NR	660	133	NR	790	2	NR	920	0	NR
405	5	NR	535	262	NR	665	113	NR	795	2	NR	925	0	NR
410	7	NR	540	267	NR	670	104	NR	800	2	NR	930	0	NR
415	13	NR	545	271	NR	675	86	NR	805	2	NR	935	0	NR
420	24	NR	550	277	NR	680	74	NR	810	1	NR	940	0	NR
425	42	NR	555	284	NR	685	64	NR	815	1	NR	945	0	NR
430	72	NR	560	291	NR	690	55	NR	820	1	NR	950	0	NR
435	122	NR	565	296	NR	695	47	NR	825	1	NR	955	0	NR
440	207	NR	570	301	NR	700	40	NR	830	1	NR	960	0	NR
445	317	NR	575	306	NR	705	34	NR	835	1	NR	965	0	NR
450	304	NR	580	310	NR	710	29	NR	840	1	NR	970	0	NR
455	193	NR	585	315	NR	715	25	NR	845	1	NR	975	0	NR
460	149	NR	590	318	NR	720	21	NR	850	0	NR	980	0	NR
465	117	NR	595	320	NR	725	18	NR	855	0	NR	985	0	NR
470	85	NR	600	322	NR	730	15	NR	860	0	NR	990	0	NR
475	78	NR	605	325	NR	735	13	NR	865	0	NR	995	0	NR
480	84	NR	610	351	NR	740	11	NR	870	0	NR	1000	0	NR
485	98	NR	615	362	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-1

Scotopic Flux vs. Wavelength



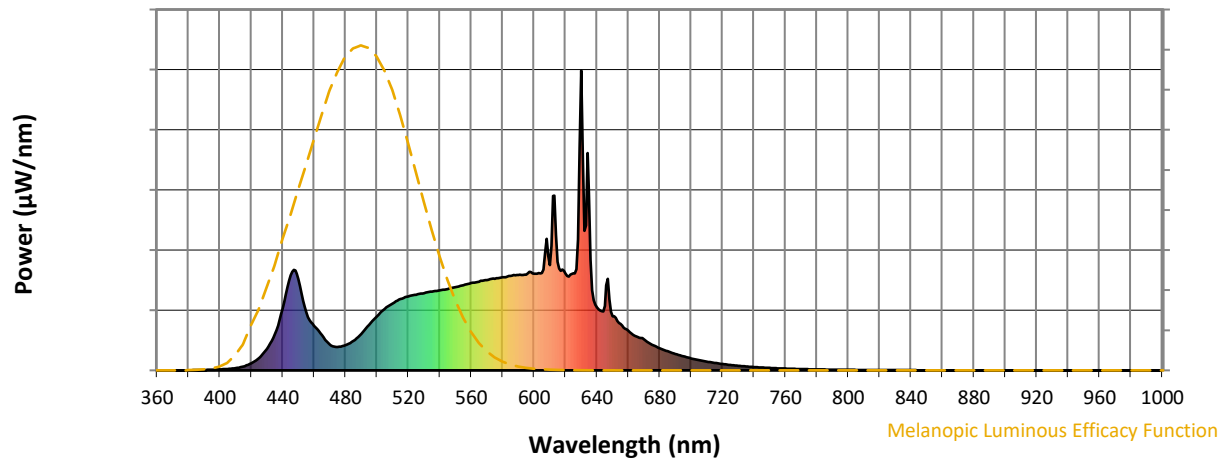
Scotopic Lumens: NR

S/P: 1.58

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	122	NR	620	322	NR	750	8	NR	880	0	NR
365	0	NR	495	152	NR	625	323	NR	755	7	NR	885	0	NR
370	0	NR	500	180	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	205	NR	635	589	NR	765	5	NR	895	0	NR
380	0	NR	510	223	NR	640	210	NR	770	4	NR	900	0	NR
385	1	NR	515	238	NR	645	214	NR	775	4	NR	905	0	NR
390	1	NR	520	247	NR	650	181	NR	780	3	NR	910	0	NR
395	2	NR	525	252	NR	655	155	NR	785	3	NR	915	0	NR
400	3	NR	530	258	NR	660	133	NR	790	2	NR	920	0	NR
405	5	NR	535	262	NR	665	113	NR	795	2	NR	925	0	NR
410	7	NR	540	267	NR	670	104	NR	800	2	NR	930	0	NR
415	13	NR	545	271	NR	675	86	NR	805	2	NR	935	0	NR
420	24	NR	550	277	NR	680	74	NR	810	1	NR	940	0	NR
425	42	NR	555	284	NR	685	64	NR	815	1	NR	945	0	NR
430	72	NR	560	291	NR	690	55	NR	820	1	NR	950	0	NR
435	122	NR	565	296	NR	695	47	NR	825	1	NR	955	0	NR
440	207	NR	570	301	NR	700	40	NR	830	1	NR	960	0	NR
445	317	NR	575	306	NR	705	34	NR	835	1	NR	965	0	NR
450	304	NR	580	310	NR	710	29	NR	840	1	NR	970	0	NR
455	193	NR	585	315	NR	715	25	NR	845	1	NR	975	0	NR
460	149	NR	590	318	NR	720	21	NR	850	0	NR	980	0	NR
465	117	NR	595	320	NR	725	18	NR	855	0	NR	985	0	NR
470	85	NR	600	322	NR	730	15	NR	860	0	NR	990	0	NR
475	78	NR	605	325	NR	735	13	NR	865	0	NR	995	0	NR
480	84	NR	610	351	NR	740	11	NR	870	0	NR	1000	0	NR
485	98	NR	615	362	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.15

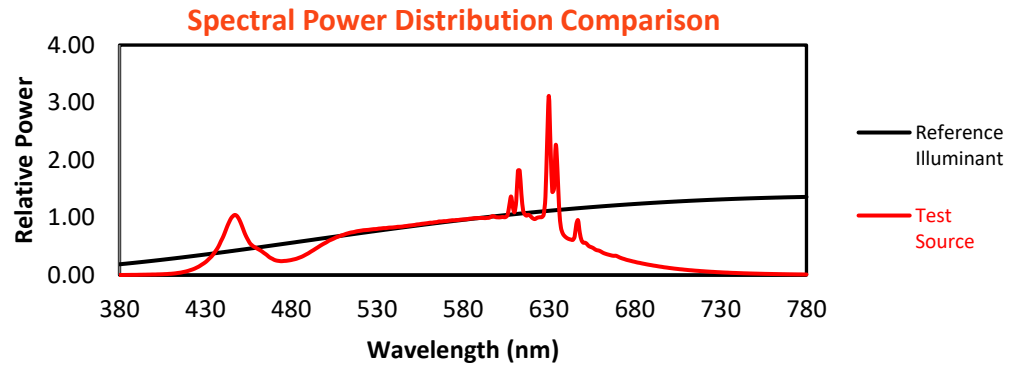
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	122	NR	620	322	NR	750	8	NR	880	0	NR
365	0	NR	495	152	NR	625	323	NR	755	7	NR	885	0	NR
370	0	NR	500	180	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	205	NR	635	589	NR	765	5	NR	895	0	NR
380	0	NR	510	223	NR	640	210	NR	770	4	NR	900	0	NR
385	1	NR	515	238	NR	645	214	NR	775	4	NR	905	0	NR
390	1	NR	520	247	NR	650	181	NR	780	3	NR	910	0	NR
395	2	NR	525	252	NR	655	155	NR	785	3	NR	915	0	NR
400	3	NR	530	258	NR	660	133	NR	790	2	NR	920	0	NR
405	5	NR	535	262	NR	665	113	NR	795	2	NR	925	0	NR
410	7	NR	540	267	NR	670	104	NR	800	2	NR	930	0	NR
415	13	NR	545	271	NR	675	86	NR	805	2	NR	935	0	NR
420	24	NR	550	277	NR	680	74	NR	810	1	NR	940	0	NR
425	42	NR	555	284	NR	685	64	NR	815	1	NR	945	0	NR
430	72	NR	560	291	NR	690	55	NR	820	1	NR	950	0	NR
435	122	NR	565	296	NR	695	47	NR	825	1	NR	955	0	NR
440	207	NR	570	301	NR	700	40	NR	830	1	NR	960	0	NR
445	317	NR	575	306	NR	705	34	NR	835	1	NR	965	0	NR
450	304	NR	580	310	NR	710	29	NR	840	1	NR	970	0	NR
455	193	NR	585	315	NR	715	25	NR	845	1	NR	975	0	NR
460	149	NR	590	318	NR	720	21	NR	850	0	NR	980	0	NR
465	117	NR	595	320	NR	725	18	NR	855	0	NR	985	0	NR
470	85	NR	600	322	NR	730	15	NR	860	0	NR	990	0	NR
475	78	NR	605	325	NR	735	13	NR	865	0	NR	995	0	NR
480	84	NR	610	351	NR	740	11	NR	870	0	NR	1000	0	NR
485	98	NR	615	362	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-1

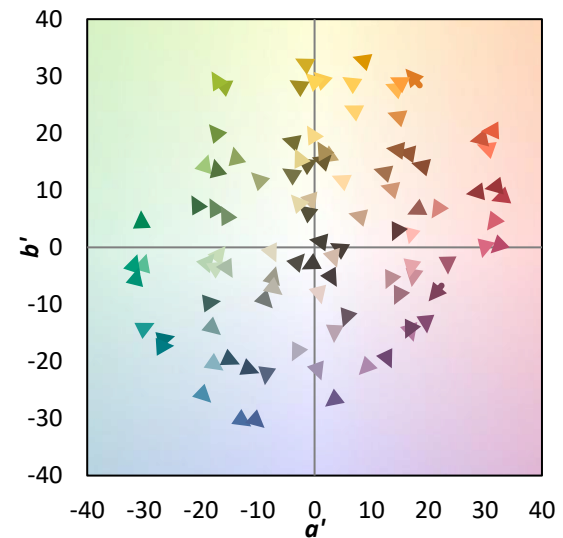
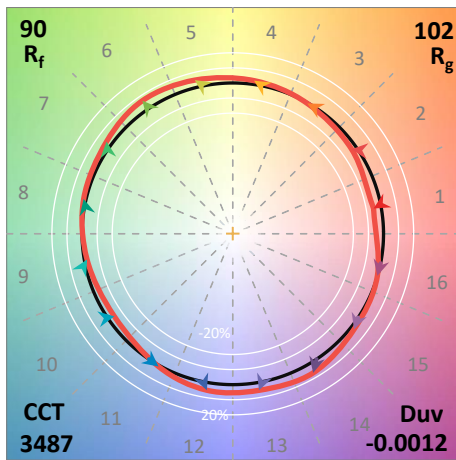
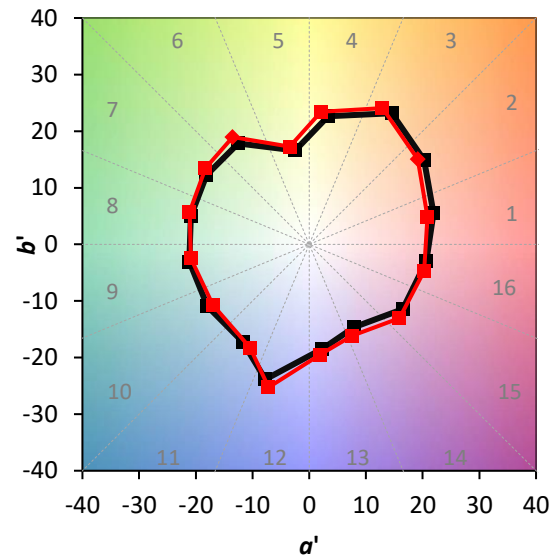
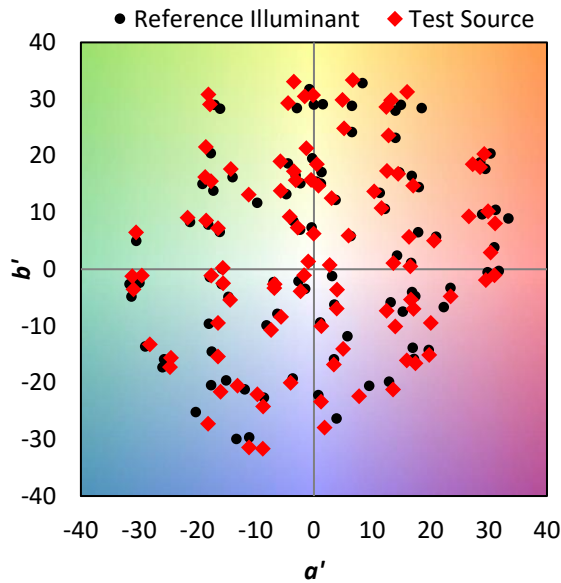
TM-30-18

Summary

$R_f = 90$
 $R_g = 102.4$
 $CIE R_a = 92.5$
 $R_9 = 61.3$

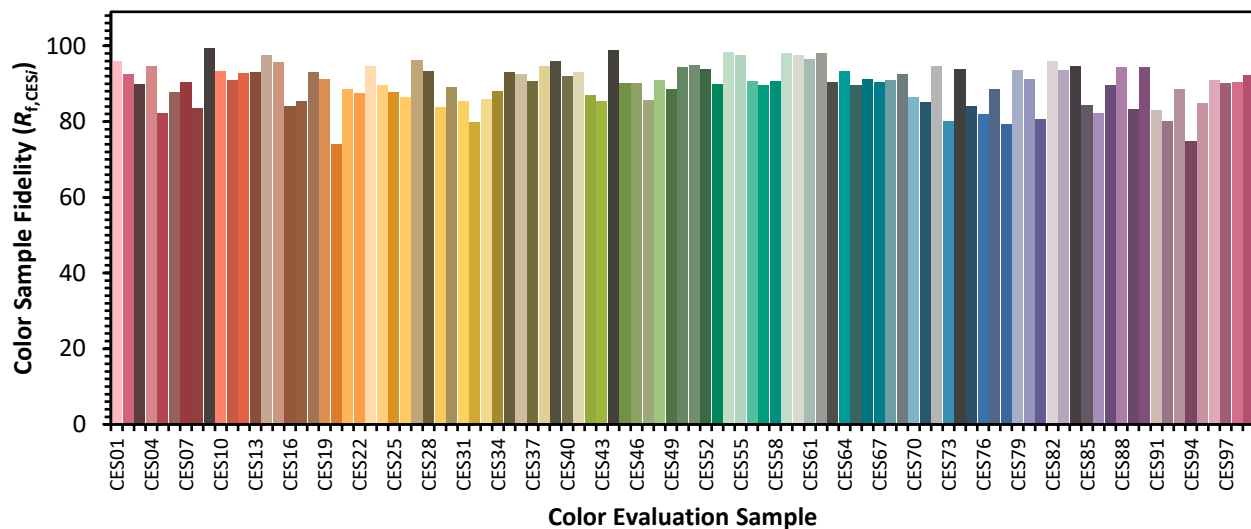


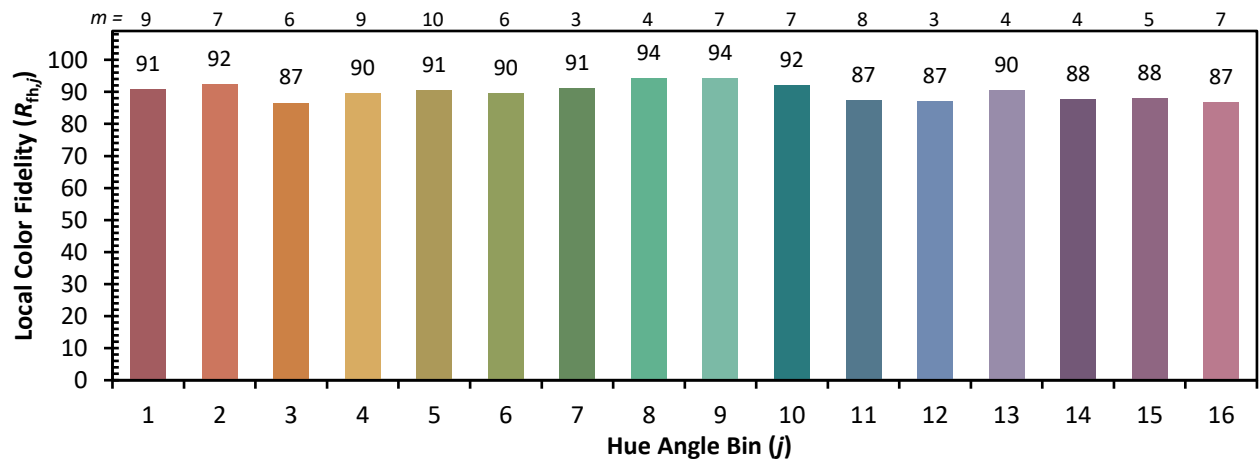
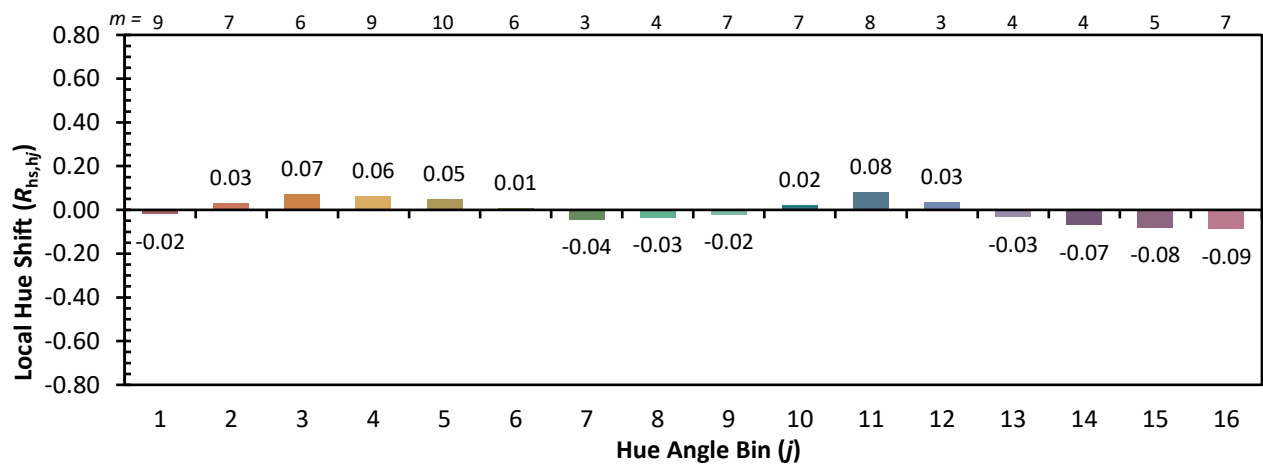
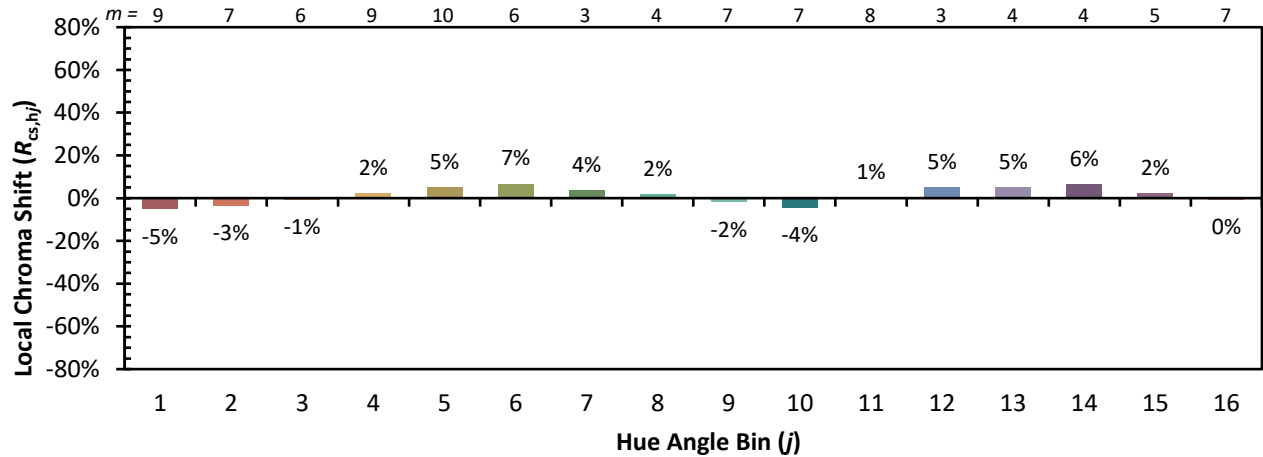
Color Vector Graphics



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

CES01 = 86	CES26 = 87	CES51 = 95	CES76 = 82
CES02 = 62	CES27 = 96	CES52 = 94	CES77 = 89
CES03 = 31	CES28 = 93	CES53 = 90	CES78 = 79
CES04 = 70	CES29 = 84	CES54 = 98	CES79 = 93
CES05 = 50	CES30 = 89	CES55 = 97	CES80 = 91
CES06 = 51	CES31 = 85	CES56 = 91	CES81 = 81
CES07 = 43	CES32 = 80	CES57 = 90	CES82 = 96
CES08 = 41	CES33 = 86	CES58 = 91	CES83 = 94
CES09 = 29	CES34 = 88	CES59 = 98	CES84 = 95
CES10 = 75	CES35 = 93	CES60 = 97	CES85 = 84
CES11 = 58	CES36 = 93	CES61 = 96	CES86 = 82
CES12 = 64	CES37 = 91	CES62 = 98	CES87 = 90
CES13 = 43	CES38 = 95	CES63 = 91	CES88 = 94
CES14 = 74	CES39 = 96	CES64 = 93	CES89 = 83
CES15 = 71	CES40 = 92	CES65 = 90	CES90 = 94
CES16 = 47	CES41 = 93	CES66 = 91	CES91 = 83
CES17 = 49	CES42 = 87	CES67 = 91	CES92 = 80
CES18 = 56	CES43 = 85	CES68 = 91	CES93 = 89
CES19 = 71	CES44 = 99	CES69 = 93	CES94 = 75
CES20 = 66	CES45 = 90	CES70 = 87	CES95 = 85
CES21 = 86	CES46 = 90	CES71 = 85	CES96 = 91
CES22 = 78	CES47 = 86	CES72 = 95	CES97 = 90
CES23 = 91	CES48 = 91	CES73 = 80	CES98 = 91
CES24 = 90	CES49 = 88	CES74 = 94	CES99 = 92
CES25 = 71	CES50 = 94	CES75 = 84	

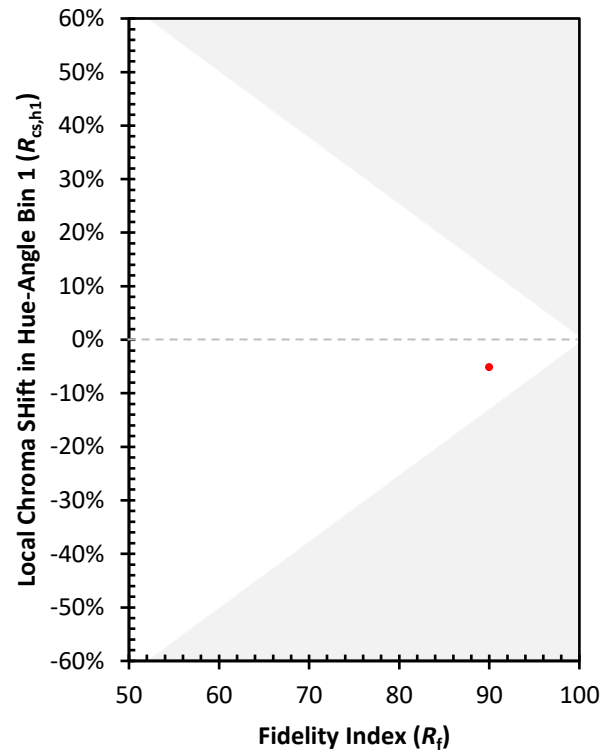
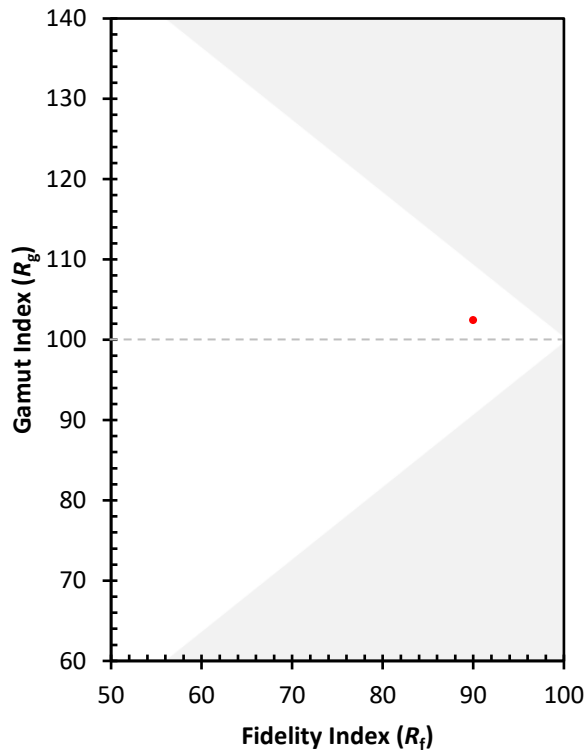


Color Rendition by Hue-Angle Bin


REPORT NUMBER: SP1-2511-597-1

TM-30-18

Measure Comparisons



(END OF REPORT)