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: P1357155

Luminaire Tested: 4ASL4-15HE-2-R63-UNV

Issue Date: 2/17/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1357155
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab:	INNOVATION CENTER
Issue Date:	2/17/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	FAIL-SAFE
Catalog Number:	4ASL4-15HE-2-R63-UNV
Description:	4FT 1500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 2 ROW
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1600.0 lumens
Efficiency:	N/A
Efficacy:	41.6 lumens/watt
Spacing Criteria (0/90/45):	1.21 / 1.3 / 1.4
Luminous Opening:	Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	38.5
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

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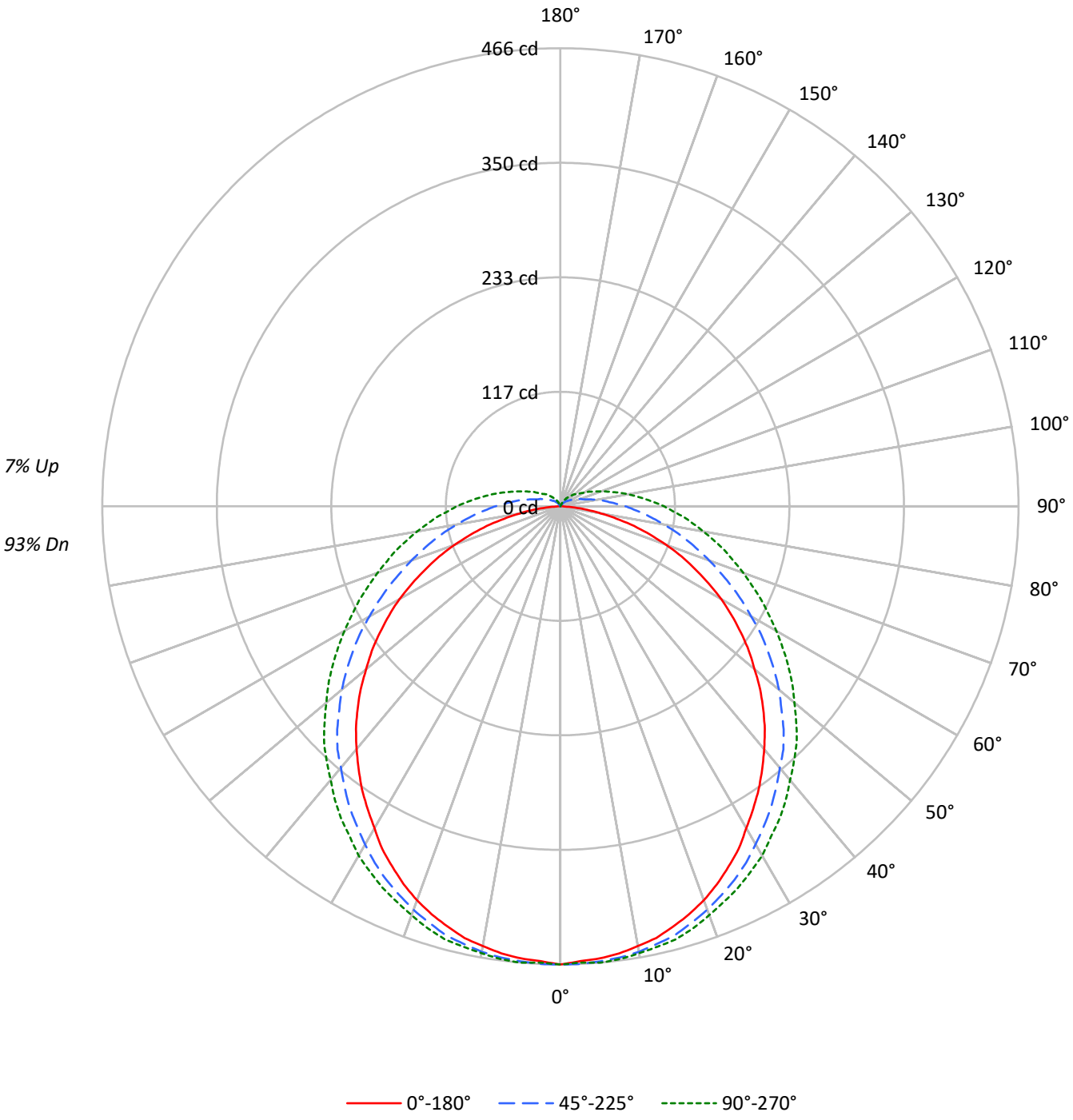
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	65	70	66	63	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	55	62	57	53	50
4	79	66	57	50	76	64	56	49	61	54	48	58	51	46	55	49	45	42
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	34	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	28	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3783	3783	3783
5°	3753	3707	3696
10°	3726	3639	3606
15°	3693	3564	3534
20°	3649	3470	3432
25°	3578	3377	3345
30°	3490	3270	3258
35°	3422	3171	3157
40°	3342	3064	3051
45°	3262	2972	2973
50°	3158	2850	2858
55°	3058	2719	2767
60°	2936	2572	2671
65°	2745	2436	2595
70°	2530	2307	2526
75°	2219	2209	2503
80°	1729	2121	2495
85°	1054	2118	2566

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3262 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	2.8
10°-20°	127.1	7.9
20°-30°	192.5	12.0
30°-40°	232.8	14.6
40°-50°	245.5	15.3
50°-60°	229.1	14.3
60°-70°	189.2	11.8
70°-80°	137.2	8.6
80°-90°	86.7	5.4
90°-100°	51.8	3.2
100°-110°	29.7	1.9
110°-120°	16.8	1.1
120°-130°	9.6	0.6
130°-140°	5.2	0.3
140°-150°	2.3	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	363.8	22.7
0°-40°	596.6	37.3
0°-60°	1071.2	66.9
0°-90°	1484.2	92.8
90°-120°	98.3	6.1
90°-150°	115.4	7.2
90°-180°	116.0	7.2
0°-180°	1600.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	462	466	465	465	466	44
15°	443	448	451	453	456	125
25°	404	410	419	425	428	186
35°	352	360	374	384	388	220
45°	292	303	321	334	340	225
55°	224	237	258	276	283	200
65°	151	167	192	215	226	150
75°	78	98	133	161	173	82
85°	15	45	85	114	126	18
90°	0	28	66	94	106	1
95°	0	18	50	76	86	0
105°	0	6	28	48	56	0
115°	0	3	16	29	35	0
125°	0	2	10	19	22	0
135°	0	0	6	12	15	0
145°	0	0	3	7	9	0
155°	0	0	0	2	3	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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TEST NUMBER: P1357155
CATALOG NUMBER: 4ASL4-15HE-2-R63-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	466.1	*466.1*	466.1	466.1	466.1
2.5°	*463.1*	*467.5*	*466.1*	*464.6*	*464.6*
5°	461.7	*466.1*	464.6	464.6	466.1
7.5°	458.7	*463.1*	463.1	463.1	464.6
10°	454.3	*460.2*	460.2	460.2	461.7
12.5°	449.9	*454.3*	455.8	457.3	458.7
15°	442.6	*448.5*	451.4	452.9	455.8
17.5°	435.3	*439.7*	444.1	448.5	449.9
20°	426.5	*432.4*	436.8	441.1	442.6
22.5°	416.2	*422.1*	428.0	432.4	435.3
25°	404.5	*410.4*	419.2	425.0	428.0
27.5°	392.8	*398.6*	408.9	416.2	419.2
30°	378.1	*386.9*	397.2	406.0	410.4
32.5°	364.9	*373.7*	385.5	395.7	398.6
35°	351.7	*360.5*	373.7	384.0	388.4
37.5°	337.1	*347.3*	360.5	372.3	376.7
40°	322.4	*332.7*	347.3	360.5	363.5
42.5°	307.8	*318.0*	335.6	347.3	351.7
45°	291.7	*303.4*	321.0	334.2	340.0
47.5°	275.5	*287.3*	304.8	319.5	325.4
50°	257.9	*271.1*	290.2	304.8	310.7
52.5°	241.8	*255.0*	274.1	290.2	297.5
55°	224.2	*237.4*	257.9	275.5	282.9
57.5°	206.7	*219.8*	241.8	260.9	268.2
60°	189.1	*202.3*	224.2	246.2	253.6
62.5°	170.0	*184.7*	208.1	230.1	238.9
65°	151.0	*167.1*	192.0	215.4	225.7
67.5°	133.4	*149.5*	175.9	202.3	211.0
70°	114.3	*131.9*	161.2	187.6	197.9
72.5°	95.3	*114.3*	146.6	174.4	184.7
75°	77.7	*98.2*	133.4	161.2	172.9
77.5°	58.6	*83.5*	120.2	149.5	159.8
80°	42.5	*68.9*	107.0	137.8	148.0
82.5°	27.8	*55.7*	95.3	126.0	136.3
85°	14.7	*45.4*	85.0	114.3	126.0
87.5°	4.4	*35.2*	74.7	104.1	114.3
90°	0.0	*27.8*	66.0	93.8	105.5
92.5°	0.0	*22.0*	57.2	85.0	95.3
95°	0.0	*17.6*	49.8	76.2	86.5
97.5°	0.0	*14.7*	44.0	68.9	77.7
100°	0.0	*11.7*	38.1	61.6	70.3
102.5°	0.0	*8.8*	32.2	54.2	63.0
105°	0.0	*5.9*	27.8	48.4	55.7
107.5°	0.0	*4.4*	23.4	42.5	49.8
110°	0.0	*4.4*	22.0	36.6	44.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*2.9*	19.1	33.7	39.6
115°	0.0	*2.9*	16.1	29.3	35.2
117.5°	0.0	*2.9*	14.7	26.4	32.2
120°	0.0	*2.9*	13.2	23.4	27.8
122.5°	0.0	*1.5*	11.7	20.5	24.9
125°	0.0	*1.5*	10.3	19.1	22.0
127.5°	0.0	*1.5*	8.8	17.6	20.5
130°	0.0	*1.5*	8.8	16.1	19.1
132.5°	0.0	*0.0*	7.3	14.7	17.6
135°	0.0	*0.0*	5.9	11.7	14.7
137.5°	0.0	*0.0*	5.9	10.3	13.2
140°	0.0	*0.0*	4.4	10.3	11.7
142.5°	0.0	*0.0*	2.9	8.8	10.3
145°	0.0	*0.0*	2.9	7.3	8.8
147.5°	0.0	*0.0*	1.5	5.9	7.3
150°	0.0	*0.0*	1.5	4.4	5.9
152.5°	0.0	*0.0*	0.0	2.9	4.4
155°	0.0	*0.0*	0.0	1.5	2.9
157.5°	0.0	*0.0*	0.0	0.0	1.5
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	13.93	15.47	14.41	15.93	16.42	15.99	17.53	16.47	17.99	18.48
	3H	15.44	16.84	15.92	17.31	17.84	18.44	19.85	18.93	20.32	20.85
	4H	15.92	17.24	16.42	17.73	18.28	19.65	20.98	20.16	21.47	22.01
	6H	16.19	17.43	16.71	17.93	18.49	20.93	22.16	21.44	22.66	23.22
	8H	16.24	17.43	16.78	17.95	18.52	21.58	22.77	22.12	23.29	23.86
	12H	16.26	17.40	16.80	17.92	18.51	22.31	23.45	22.85	23.97	24.57
4H	2H	14.81	16.14	15.32	16.63	17.17	16.42	17.75	16.93	18.24	18.78
	3H	16.56	17.69	17.08	18.22	18.79	19.11	20.24	19.62	20.77	21.34
	4H	17.16	18.20	17.70	18.74	19.34	20.49	21.53	21.03	22.07	22.67
	6H	17.57	18.48	18.12	19.05	19.66	21.96	22.87	22.52	23.44	24.05
	8H	17.66	18.52	18.23	19.09	19.72	22.73	23.59	23.29	24.15	24.78
	12H	17.71	18.49	18.30	19.09	19.72	23.58	24.36	24.17	24.96	25.59
8H	4H	17.86	18.72	18.42	19.29	19.91	20.71	21.57	21.27	22.14	22.76
	6H	18.45	19.18	19.04	19.79	20.42	22.35	23.09	22.95	23.69	24.33
	8H	18.63	19.29	19.24	19.91	20.56	23.26	23.93	23.87	24.54	25.19
	12H	18.76	19.34	19.37	19.95	20.66	24.31	24.89	24.92	25.50	26.21
12H	4H	18.06	18.84	18.65	19.44	20.07	20.72	21.50	21.30	22.10	22.73
	6H	18.75	19.41	19.36	20.03	20.67	22.39	23.05	23.00	23.67	24.32
	8H	19.04	19.63	19.65	20.24	20.95	23.37	23.96	23.98	24.57	25.28

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-7

Test Date: 01/21/2026

Luminaire Tested: 4ASL-2-R630-UNV-OPL-1_600mA

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

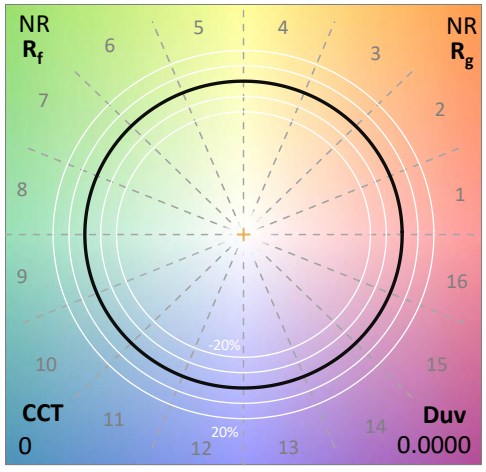
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2511-597-7
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-R630-UNV-OPL-1_600mA**
Description:	2foot 4ASL LED LUMINAIRE WITH OPL LENS AND RED 630NM LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	0	CRI (Ra):	0.0		
CIE u':	0.5395	R1:	0.0	R9:	0.0
CIE v':	0.5190	R2:	0.0	R10:	0.0
Duv:	0.0000	R3:	0.0	R11:	0.0
CIE x:	0.7004	R4:	0.0	R12:	0.0
CIE y:	0.2995	R5:	0.0	R13:	0.0
CIE z:	0.0001	R6:	0.0	R14:	0.0
Peak Wavelength (nm):	638	R7:	0.0	R15:	0.0
Dominant Wavelength (nm):	624	R8:	0.0		
Purity:	99.9862				

Rf:	NR
Rg:	NR



Test Conditions

Stabilization Time:	69M
Operation Time:	2H 9M
Sphere Temperature (°C):	25.1

REPORT NUMBER: SP1-2511-597-7

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

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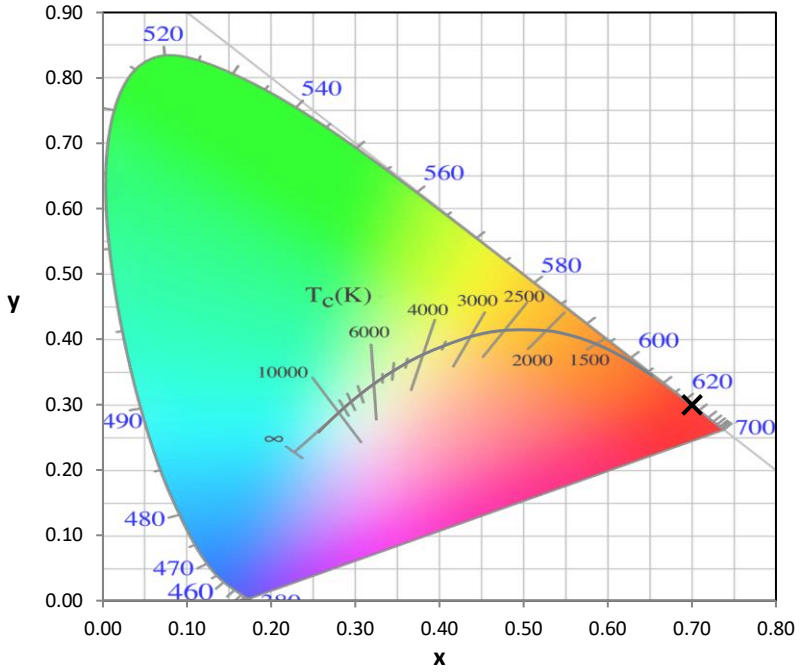
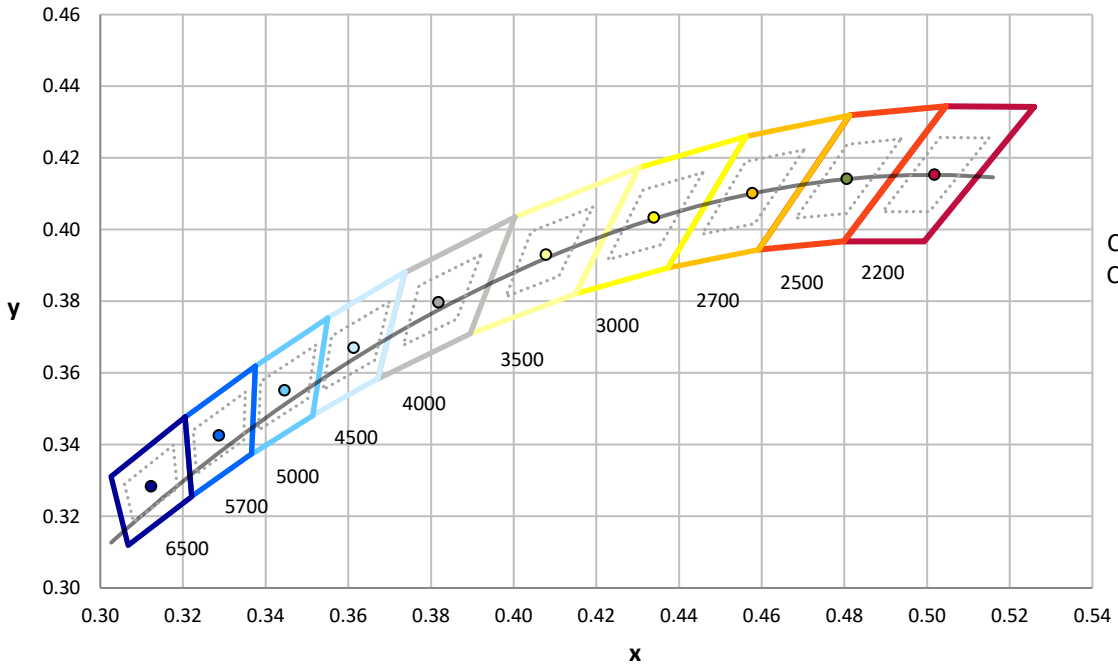
CIE 1931 Chromaticity Diagram



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

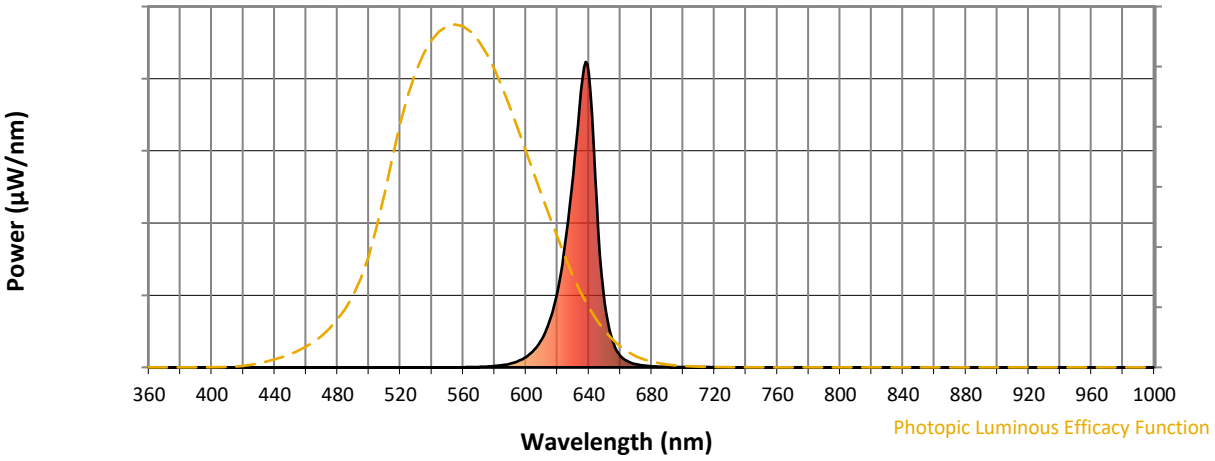


CCT = 0K
CIE x = 0.7004
CIE y = 0.2995
Duv = 0.0000

Point lies outside the range

REPORT NUMBER: SP1-2511-597-7

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	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

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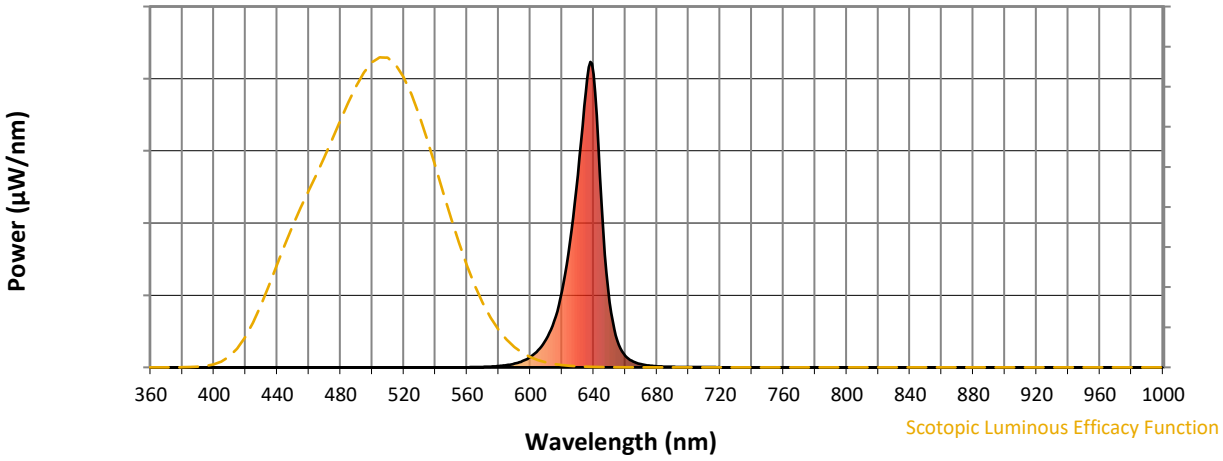
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 0.05**

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	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

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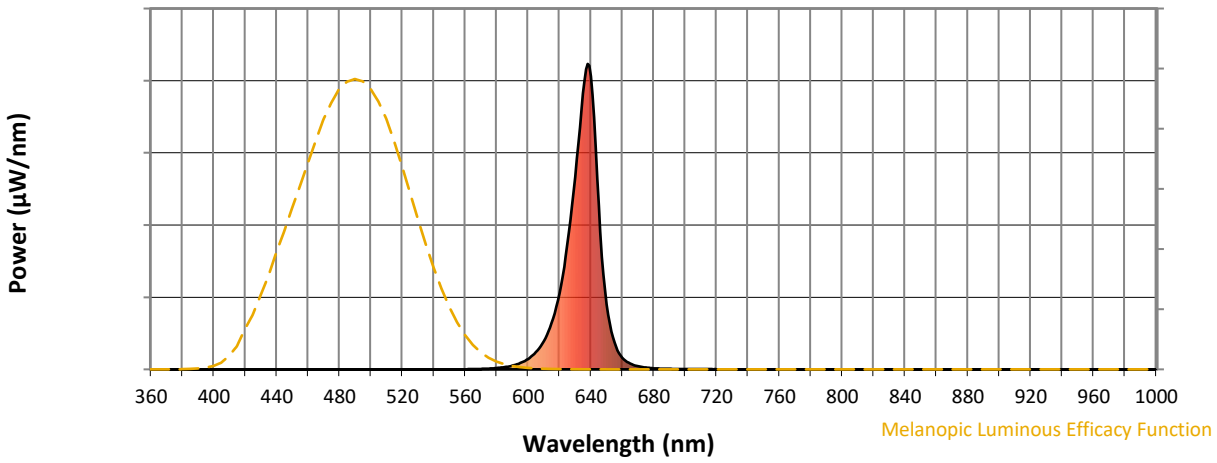
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 0.02**

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	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

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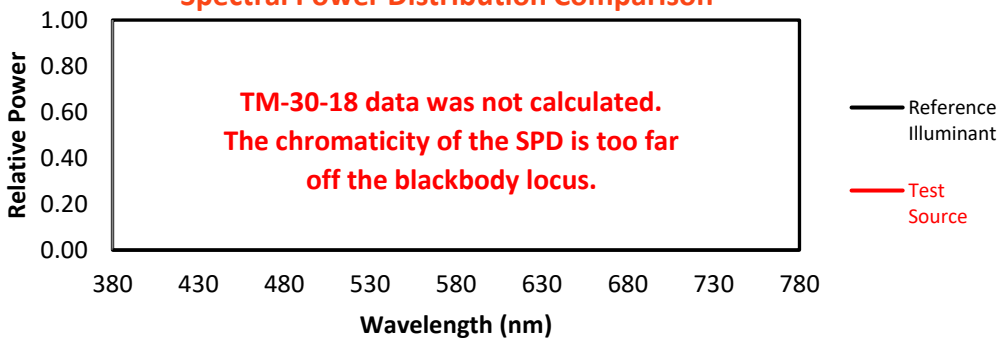
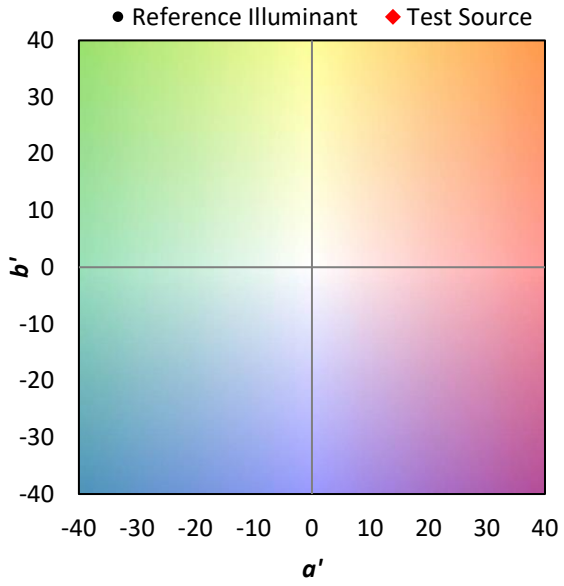
Summary

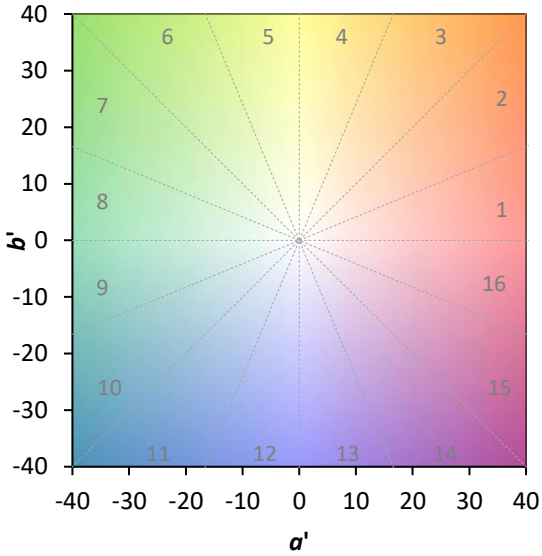
R_f = 0
R_g = 0
CIE R_a = 0.0
R_9 = 0.0

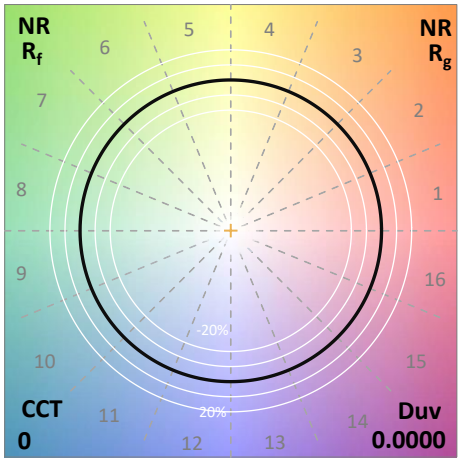
Spectral Power Distribution Comparison

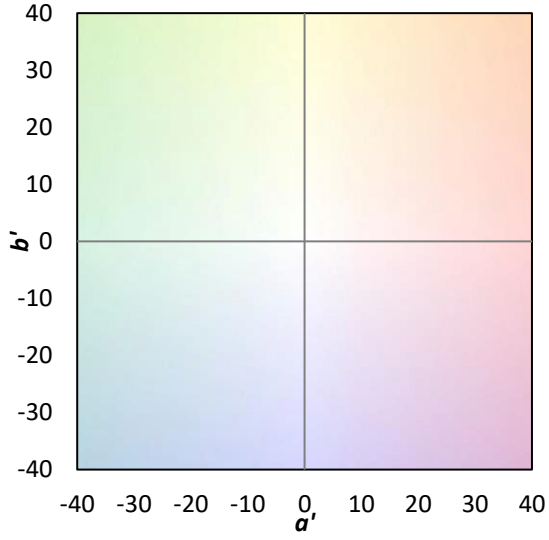


Color Vector Graphics









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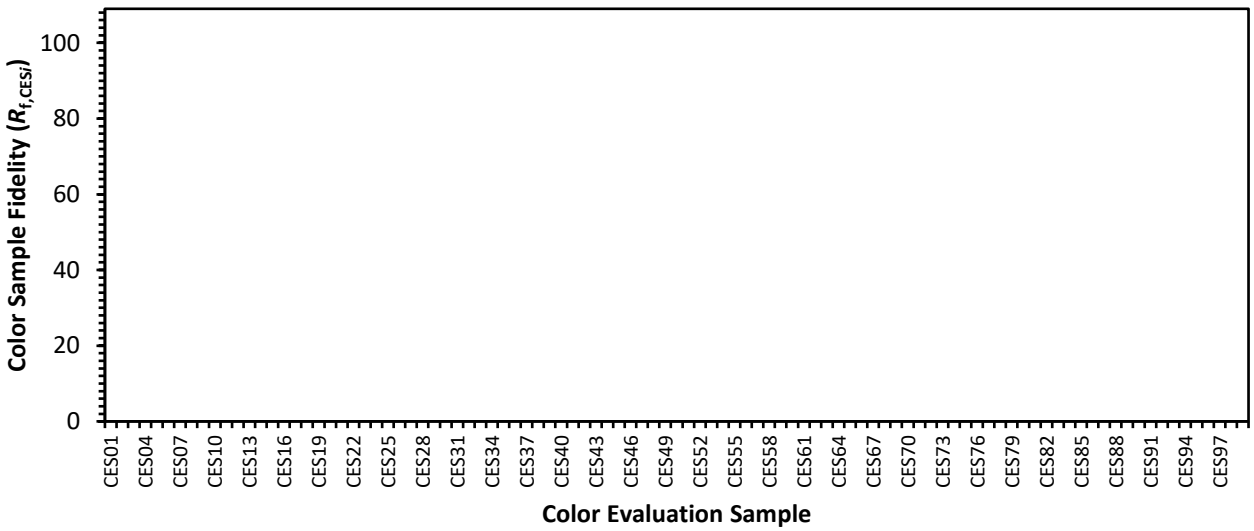
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 0	CES26 = 0	CES51 = 0	CES76 = 0
CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
CES09 = 0	CES34 = 0	CES59 = 0	CES84 = 0
CES10 = 0	CES35 = 0	CES60 = 0	CES85 = 0
CES11 = 0	CES36 = 0	CES61 = 0	CES86 = 0
CES12 = 0	CES37 = 0	CES62 = 0	CES87 = 0
CES13 = 0	CES38 = 0	CES63 = 0	CES88 = 0
CES14 = 0	CES39 = 0	CES64 = 0	CES89 = 0
CES15 = 0	CES40 = 0	CES65 = 0	CES90 = 0
CES16 = 0	CES41 = 0	CES66 = 0	CES91 = 0
CES17 = 0	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 0	CES43 = 0	CES68 = 0	CES93 = 0
CES19 = 0	CES44 = 0	CES69 = 0	CES94 = 0
CES20 = 0	CES45 = 0	CES70 = 0	CES95 = 0
CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
CES23 = 0	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 0	CES49 = 0	CES74 = 0	CES99 = 0
CES25 = 0	CES50 = 0	CES75 = 0	



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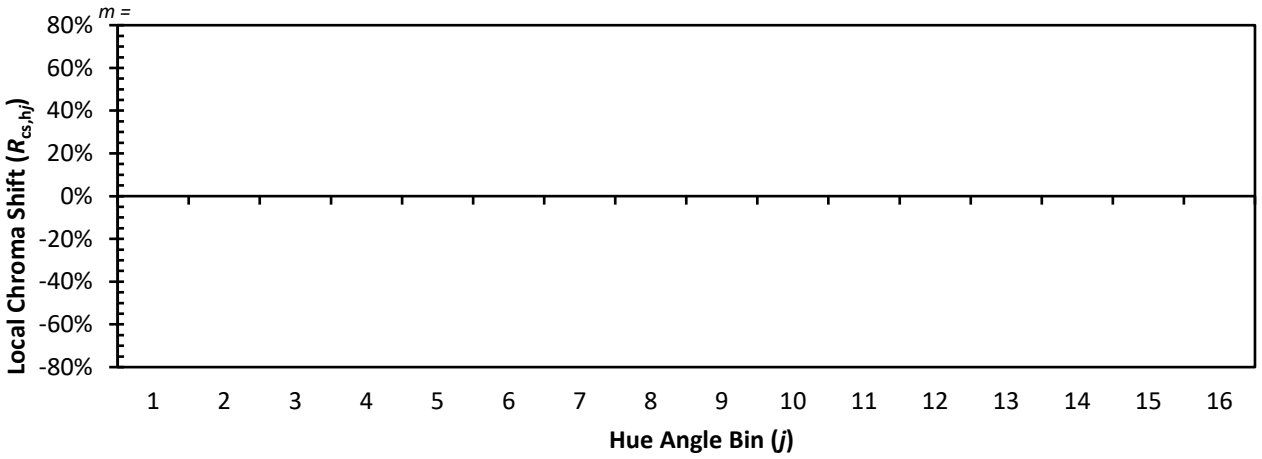
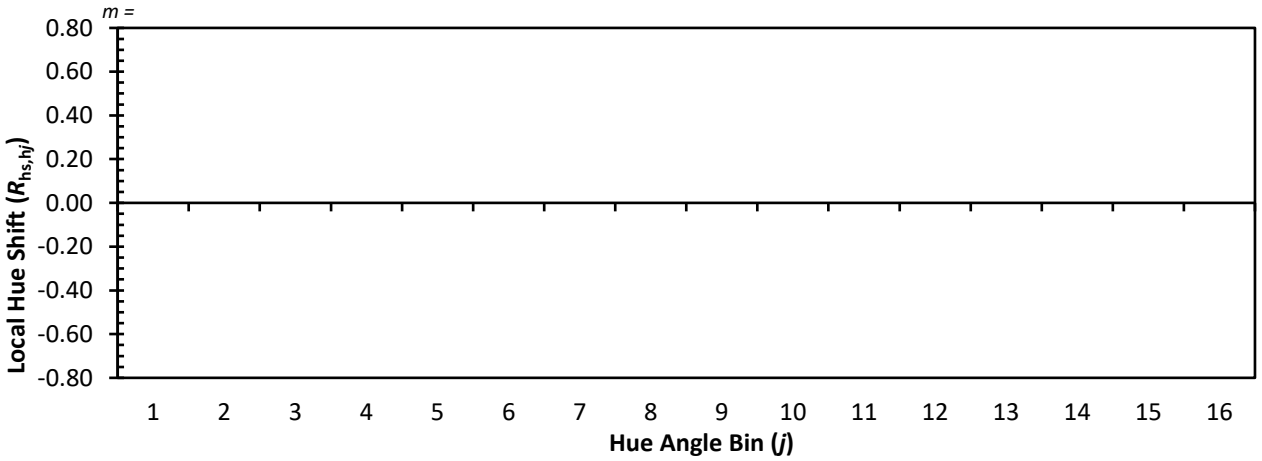
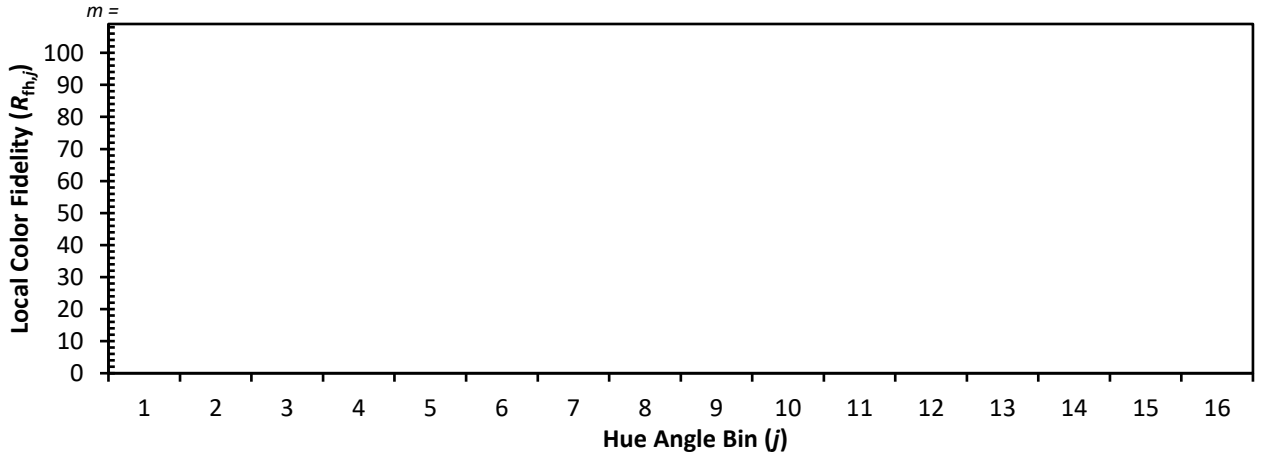
Color Rendition by Hue-Angle Bin







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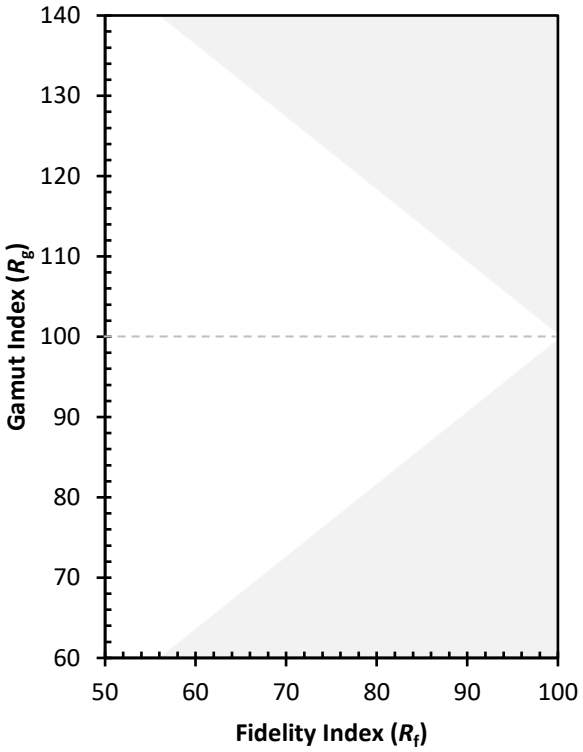
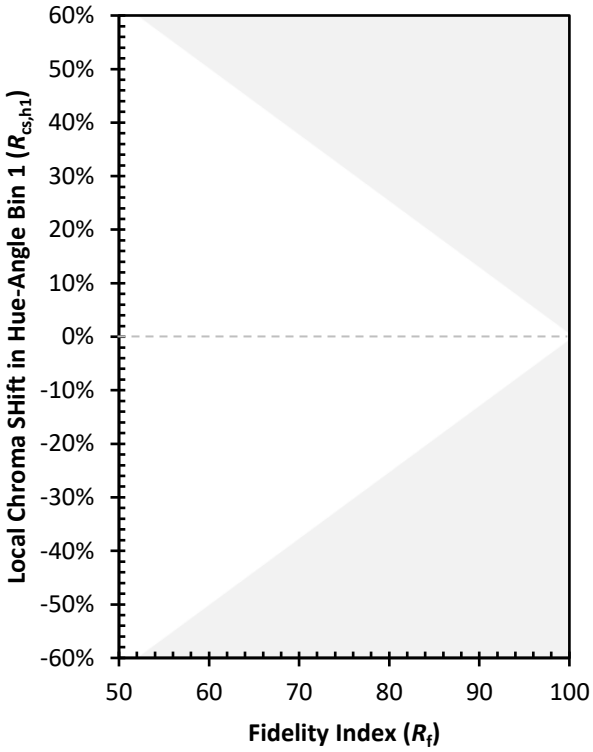
Measure Comparisons





(END OF REPORT)