

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: CORELITE

Report Number: P1215739

Luminaire Tested: 24-ID2-80-CFR2-L840-U

Issue Date: 12/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1215739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2508-510-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/5/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24-ID2-80-CFR2-L840-U
Description: 2X4 IN DEPTH TROFFER WITH 2INCH CUBE REGRESS LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

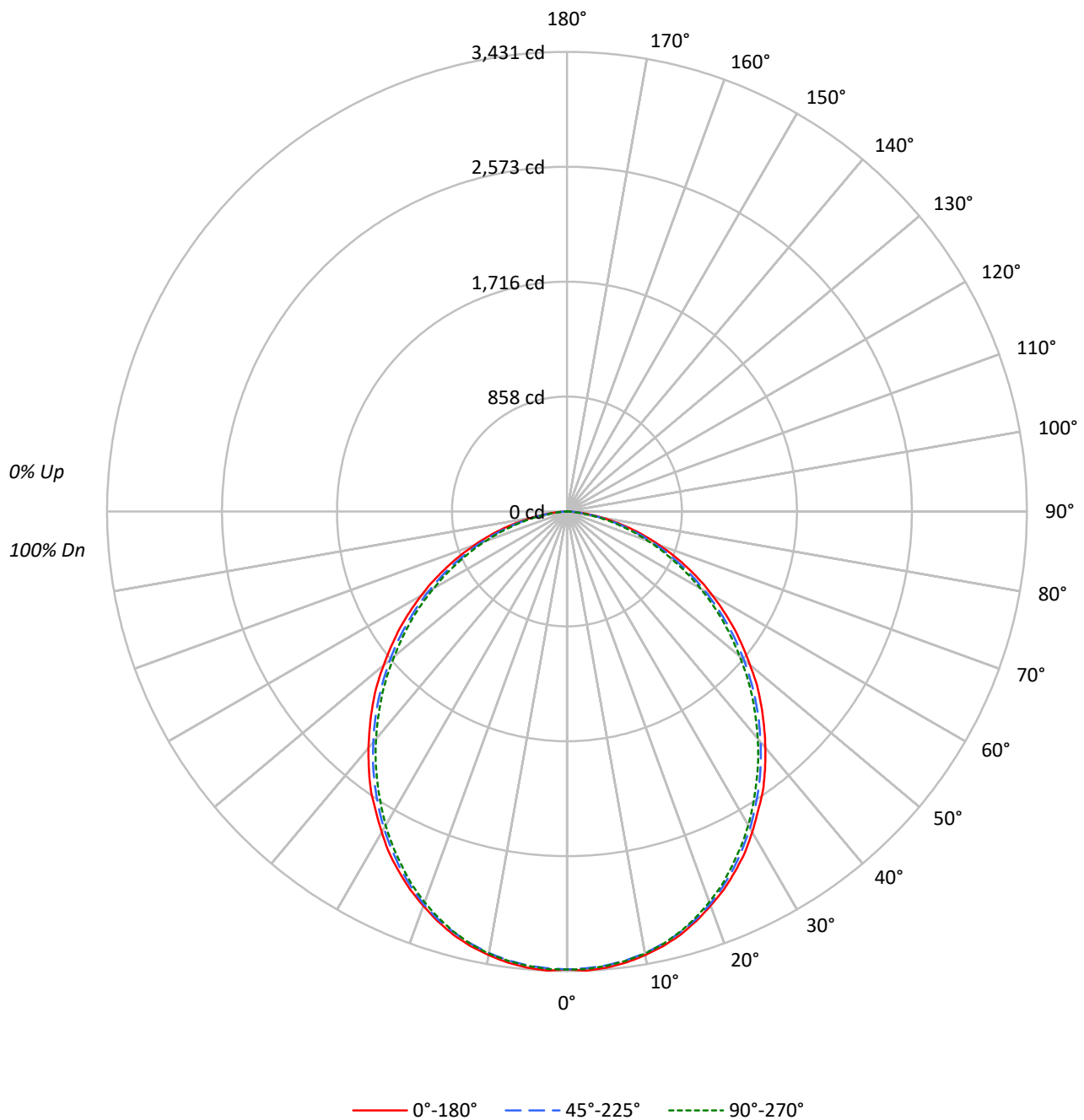
Lumens per Lamp: N/A
Luminaire Lumens: 8509.5 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.29
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 69.1
Input Voltage (V): 120
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: P1215739
CATALOG NUMBER: 24-ID2-80-CFR2-L840-U

Luminous Intensity Polar Plot



TEST NUMBER: P1215739

CATALOG NUMBER: 24-ID2-80-CFR2-L840-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	105	101	97	107	103	99	96	98	95	93		95	92	90		85
2	100	92	86	80	97	90	84	79	87	82	77		83	79	76		72
3	91	81	74	67	89	80	73	67	77	71	65		74	69	64		61
4	84	72	64	57	82	71	63	57	69	62	56		66	60	55		53
5	77	65	56	50	75	64	56	49	62	54	49		60	53	48		46
6	72	59	50	44	70	58	49	43	56	49	43		54	48	43		40
7	67	53	45	39	65	53	44	39	51	44	38		50	43	38		36
8	62	49	40	35	60	48	40	35	47	40	34		46	39	34		32
9	58	45	37	31	57	44	37	31	43	36	31		42	36	31		29
10	54	41	34	29	53	41	33	28	40	33	28		39	33	28		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4601	4601	4601
5°	4617	4593	4598
10°	4596	4573	4580
15°	4557	4533	4528
20°	4485	4468	4445
25°	4404	4366	4329
30°	4294	4244	4204
35°	4187	4103	4050
40°	4045	3947	3892
45°	3902	3783	3719
50°	3733	3604	3519
55°	3570	3410	3322
60°	3377	3198	3086
65°	3155	2963	2826
70°	2880	2692	2546
75°	2549	2320	2150
80°	2053	1828	1674
85°	1363	1166	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3902 cd/sqm

TEST NUMBER: P1215739
 CATALOG NUMBER: 24-ID2-80-CFR2-L840-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.2	3.8
10°-20°	917.1	10.8
20°-30°	1353.3	15.9
30°-40°	1564.9	18.4
40°-50°	1539.1	18.1
50°-60°	1307.1	15.4
60°-70°	926.6	10.9
70°-80°	477.7	5.6
80°-90°	100.5	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2593.7	30.5
0°-40°	4158.6	48.9
0°-60°	7004.8	82.3
0°-90°	8509.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8509.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3419	3419	3419	3419	3419	
5°	3418	3405	3401	3397	3404	325
15°	3272	3259	3254	3247	3251	921
25°	2966	2956	2941	2922	2916	1366
35°	2549	2535	2498	2476	2466	1590
45°	2051	2033	1988	1960	1954	1581
55°	1522	1499	1454	1428	1416	1359
65°	991	967	931	900	888	982
75°	490	469	446	421	414	519
85°	88	84	76	67	62	112
90°	0	0	0	0	0	

TEST NUMBER: P1215739

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3419.4	3419.4	3419.4	3419.4	3419.4
2.5°	3431.0	3419.4	3412.4	3410.1	3418.2
5°	3418.2	3405.4	3400.8	3397.3	3404.3
7.5°	3396.1	3383.4	3378.7	3375.2	3382.2
10°	3363.6	3352.0	3347.3	3343.9	3352.0
12.5°	3322.9	3311.3	3305.5	3302.0	3307.8
15°	3271.8	3259.0	3254.4	3247.4	3250.9
17.5°	3206.8	3197.5	3194.0	3181.2	3182.4
20°	3132.4	3125.4	3120.8	3102.2	3104.5
22.5°	3055.7	3046.4	3034.8	3018.5	3018.5
25°	2966.3	2955.8	2940.7	2922.1	2916.3
27.5°	2873.3	2861.7	2837.3	2821.0	2815.2
30°	2764.1	2757.1	2731.6	2710.6	2706.0
32.5°	2652.5	2647.9	2615.4	2597.9	2586.3
35°	2549.1	2535.2	2498.0	2475.9	2465.5
37.5°	2427.1	2414.4	2374.9	2355.1	2343.5
40°	2302.8	2286.6	2247.1	2230.8	2215.7
42.5°	2176.2	2164.6	2119.3	2093.7	2083.2
45°	2050.7	2033.3	1988.0	1960.1	1954.3
47.5°	1924.1	1899.7	1855.5	1826.5	1820.6
50°	1783.5	1766.0	1721.9	1691.7	1681.2
52.5°	1651.0	1630.1	1590.6	1561.6	1547.6
55°	1522.0	1498.8	1453.5	1427.9	1416.3
57.5°	1386.1	1365.2	1324.5	1292.0	1282.7
60°	1254.8	1228.1	1188.6	1161.9	1146.8
62.5°	1125.9	1099.1	1060.8	1027.1	1020.1
65°	991.1	966.7	930.7	900.4	887.7
67.5°	860.9	836.5	801.7	778.5	766.8
70°	732.0	712.2	684.3	654.1	647.2
72.5°	608.8	590.2	561.2	535.6	529.8
75°	490.3	469.4	446.2	420.6	413.6
77.5°	370.6	360.2	335.8	321.8	313.7
80°	264.9	252.1	235.9	223.1	216.1
82.5°	165.0	160.3	149.9	138.3	131.3
85°	88.3	83.7	75.5	67.4	61.6
87.5°	24.4	26.7	26.7	25.6	25.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1215739

CATALOG NUMBER: 24-ID2-80-CFR2-L840-U

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	16.42	18.00	16.78	18.32	18.63	16.01	17.59	16.37	17.90	18.22
	3H	18.04	19.47	18.42	19.80	20.16	17.53	18.95	17.90	19.28	19.64
	4H	18.61	19.95	19.01	20.30	20.68	18.02	19.36	18.42	19.71	20.09
	6H	18.97	20.21	19.38	20.58	20.97	18.33	19.57	18.74	19.93	20.32
	8H	19.06	20.24	19.48	20.63	21.03	18.39	19.57	18.81	19.96	20.36
	12H	19.10	20.23	19.53	20.61	21.04	18.41	19.54	18.84	19.92	20.35
4H	2H	16.93	18.28	17.33	18.62	19.00	16.60	17.94	17.00	18.29	18.67
	3H	18.77	19.89	19.18	20.28	20.68	18.33	19.44	18.74	19.84	20.24
	4H	19.45	20.45	19.88	20.87	21.31	18.92	19.93	19.36	20.35	20.78
	6H	19.92	20.79	20.37	21.24	21.69	19.32	20.20	19.78	20.64	21.10
	8H	20.04	20.86	20.50	21.30	21.77	19.41	20.23	19.88	20.68	21.14
	12H	20.10	20.84	20.58	21.31	21.78	19.45	20.19	19.93	20.66	21.13
8H	4H	19.65	20.47	20.12	20.92	21.38	19.18	20.00	19.64	20.45	20.91
	6H	20.21	20.89	20.70	21.38	21.85	19.66	20.34	20.16	20.83	21.31
	8H	20.37	20.98	20.88	21.49	21.98	19.79	20.40	20.31	20.91	21.40
	12H	20.48	21.02	20.99	21.51	22.07	19.87	20.41	20.38	20.90	21.46
12H	4H	19.66	20.39	20.14	20.87	21.34	19.20	19.93	19.68	20.41	20.88
	6H	20.22	20.83	20.73	21.34	21.82	19.69	20.30	20.20	20.81	21.30
	8H	20.43	20.96	20.94	21.46	22.02	19.86	20.40	20.37	20.89	21.45

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

Report Prepared for

Cooper Lighting Solutions

Corelite

Report Number: SP1-2506-458-5

Test Date: 08/26/2025

Luminaire Tested: 22ID2-55-CFR1-L840-U

Data in this report applies to families of products including 22ID2-55-CFR1-L840-U

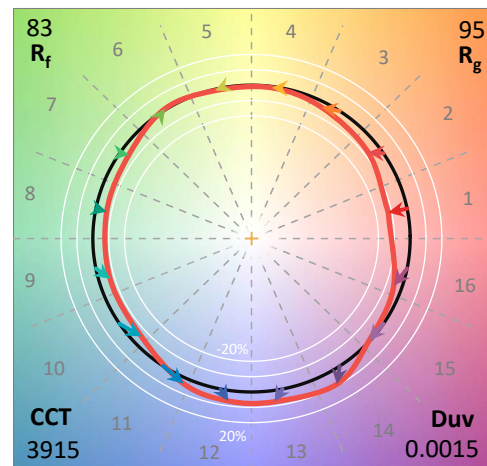
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-458-5
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/27/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Corelite
 Catalog Number: **22ID2-55-CFR1-L840-U**
 Description: 2X2 CGTX WITH INDEPTH FRAME AND CFR1 LENS - 5500 LUMEN 4000K 80CRI

Spectral Parameters

CCT (K): 3915
 CIE u' : 0.2259
 CIE v' : 0.5051
 Duv: 0.0015
 CIE x: 0.3854
 CIE y: 0.3830
 CIE z: 0.2316
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 578
 Purity: 30.6207
 R_f: 83.2
 R_g: 94.6

CRI (Ra): 82.3
 R1: 80.6
 R2: 88.9
 R3: 94.6
 R4: 80.5
 R5: 80.0
 R6: 84.0
 R7: 86.1
 R8: 64.0
 R9: 7.6
 R10: 72.9
 R11: 78.7
 R12: 57.3
 R13: 82.7
 R14: 97.1
 R15: 74.3



Test Conditions

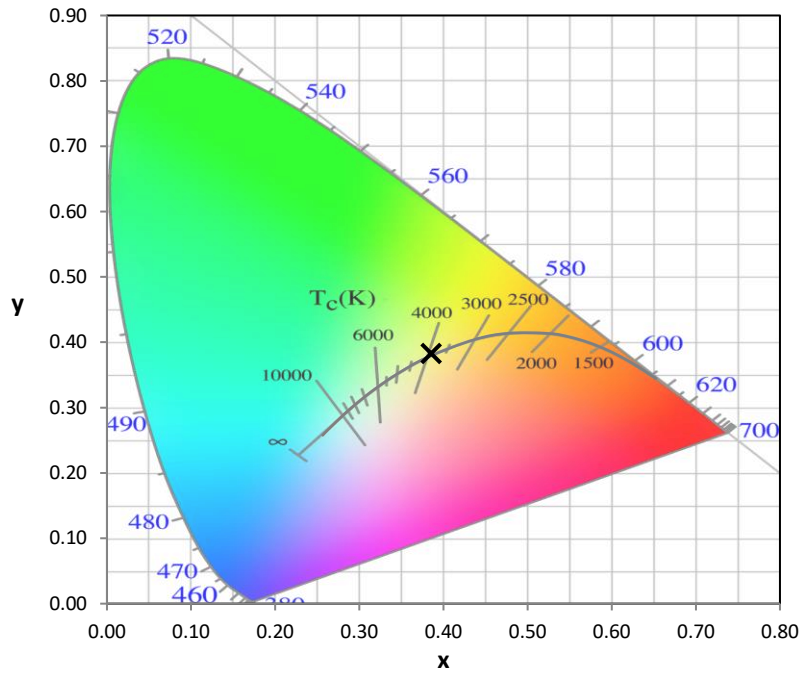
Stabilization Time: 34M
 Operation Time: 1H 34M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2506-458-5

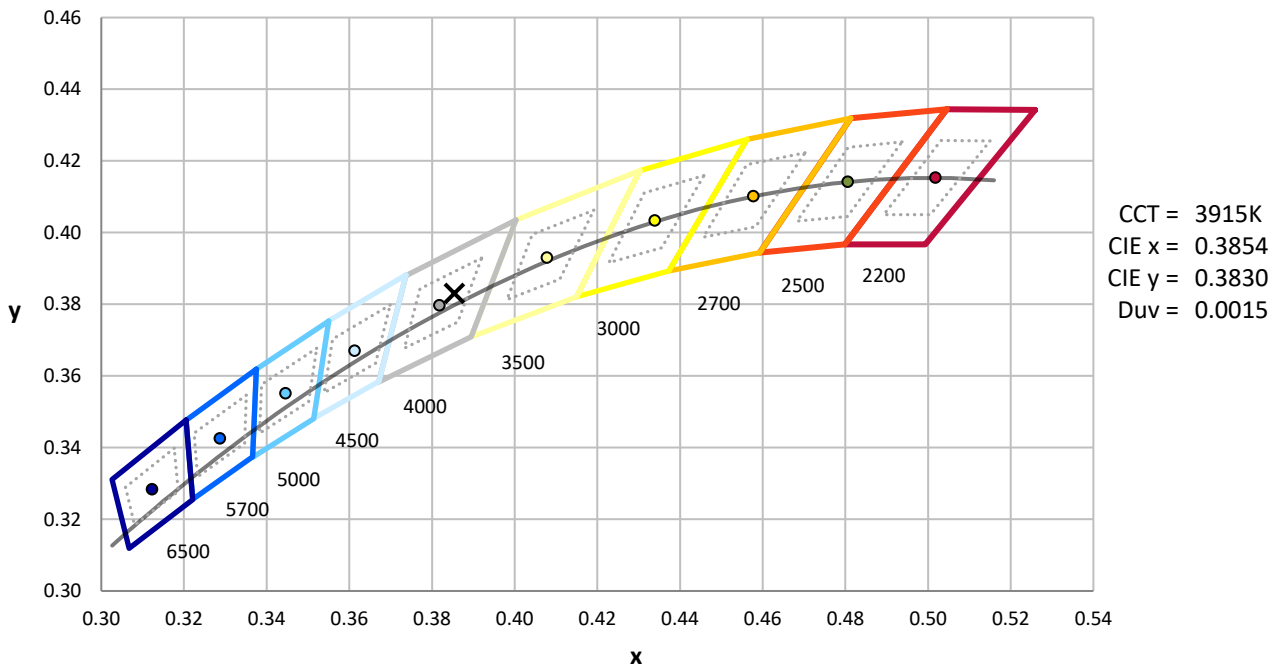
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208	10/22/2024	10/22/2025
Sphere Thermometer	ONSET IN0085	10/22/2024	10/22/2025
Room Thermometer	ONSET IN0046	10/22/2024	10/22/2025

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CIE 1931 Chromaticity Diagram



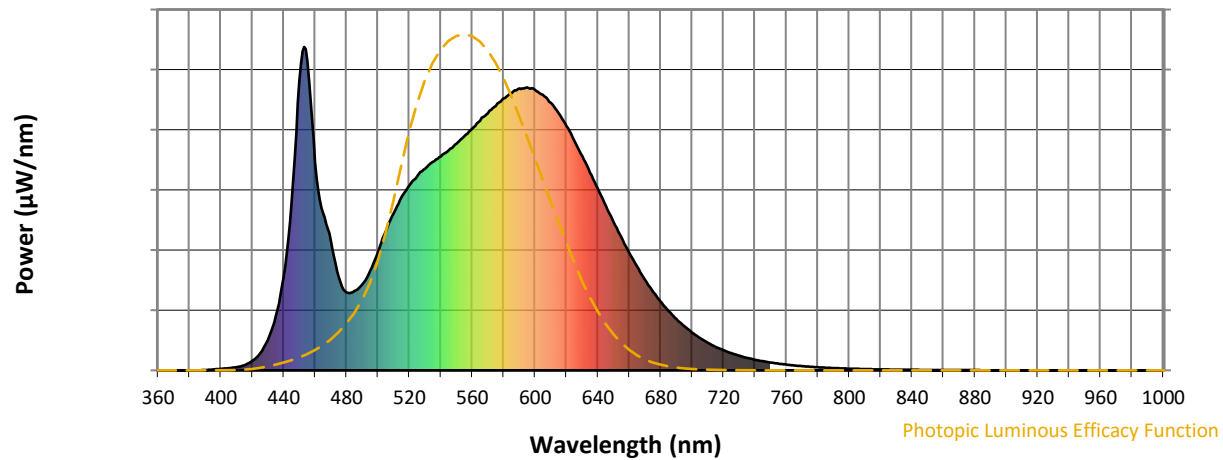
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength

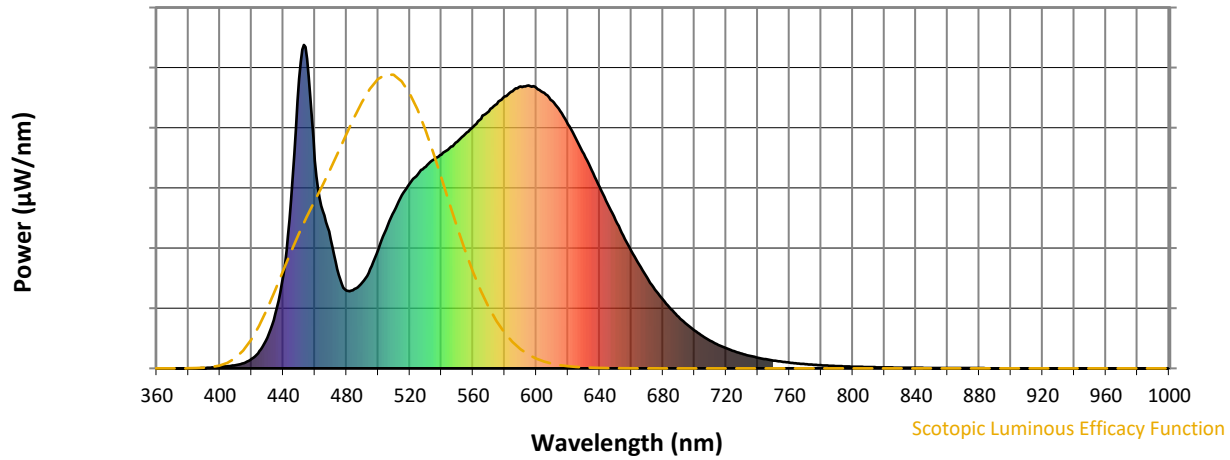


Photopic Lumens: NR

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	266	NR	620	755	NR	750	24	NR	880	1	NR
365	0	NR	495	307	NR	625	710	NR	755	21	NR	885	0	NR
370	0	NR	500	366	NR	630	663	NR	760	18	NR	890	0	NR
375	0	NR	505	430	NR	635	612	NR	765	15	NR	895	0	NR
380	0	NR	510	486	NR	640	561	NR	770	13	NR	900	0	NR
385	0	NR	515	536	NR	645	509	NR	775	11	NR	905	0	NR
390	1	NR	520	571	NR	650	458	NR	780	10	NR	910	0	NR
395	3	NR	525	600	NR	655	410	NR	785	8	NR	915	0	NR
400	5	NR	530	624	NR	660	363	NR	790	7	NR	920	0	NR
405	7	NR	535	645	NR	665	321	NR	795	6	NR	925	0	NR
410	10	NR	540	661	NR	670	280	NR	800	5	NR	930	0	NR
415	16	NR	545	681	NR	675	244	NR	805	5	NR	935	0	NR
420	30	NR	550	701	NR	680	213	NR	810	4	NR	940	0	NR
425	53	NR	555	724	NR	685	183	NR	815	3	NR	945	0	NR
430	95	NR	560	747	NR	690	159	NR	820	3	NR	950	0	NR
435	170	NR	565	772	NR	695	136	NR	825	3	NR	955	0	NR
440	289	NR	570	795	NR	700	117	NR	830	2	NR	960	0	NR
445	522	NR	575	817	NR	705	100	NR	835	2	NR	965	0	NR
450	895	NR	580	841	NR	710	85	NR	840	2	NR	970	0	NR
455	957	NR	585	857	NR	715	72	NR	845	1	NR	975	0	NR
460	642	NR	590	871	NR	720	62	NR	850	1	NR	980	0	NR
465	487	NR	595	875	NR	725	53	NR	855	1	NR	985	0	NR
470	397	NR	600	866	NR	730	45	NR	860	1	NR	990	0	NR
475	289	NR	605	852	NR	735	39	NR	865	1	NR	995	0	NR
480	241	NR	610	827	NR	740	33	NR	870	1	NR	1000	0	NR
485	245	NR	615	796	NR	745	28	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



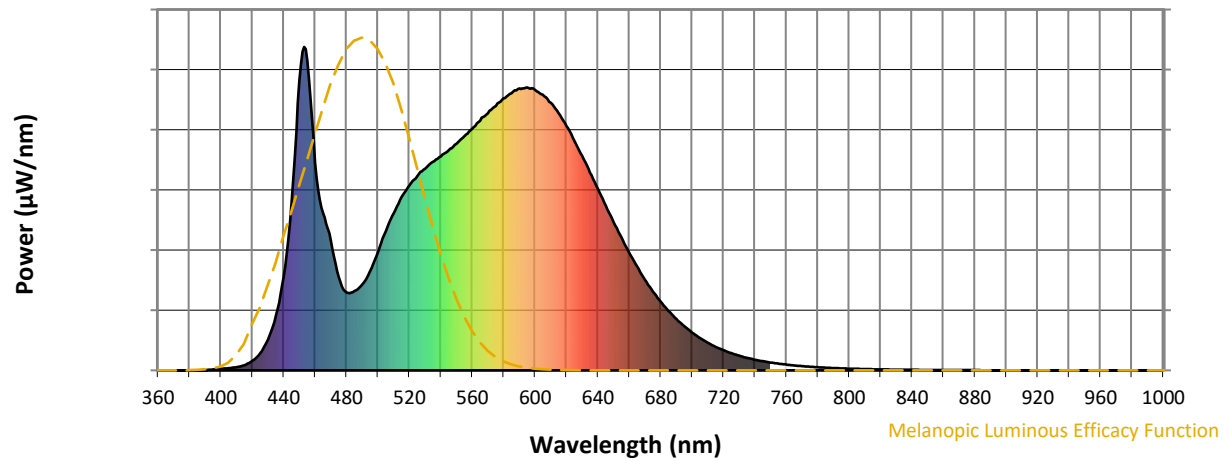
Scotopic Lumens: NR

S/P: 1.65

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	266	NR	620	755	NR	750	24	NR	880	1	NR
365	0	NR	495	307	NR	625	710	NR	755	21	NR	885	0	NR
370	0	NR	500	366	NR	630	663	NR	760	18	NR	890	0	NR
375	0	NR	505	430	NR	635	612	NR	765	15	NR	895	0	NR
380	0	NR	510	486	NR	640	561	NR	770	13	NR	900	0	NR
385	0	NR	515	536	NR	645	509	NR	775	11	NR	905	0	NR
390	1	NR	520	571	NR	650	458	NR	780	10	NR	910	0	NR
395	3	NR	525	600	NR	655	410	NR	785	8	NR	915	0	NR
400	5	NR	530	624	NR	660	363	NR	790	7	NR	920	0	NR
405	7	NR	535	645	NR	665	321	NR	795	6	NR	925	0	NR
410	10	NR	540	661	NR	670	280	NR	800	5	NR	930	0	NR
415	16	NR	545	681	NR	675	244	NR	805	5	NR	935	0	NR
420	30	NR	550	701	NR	680	213	NR	810	4	NR	940	0	NR
425	53	NR	555	724	NR	685	183	NR	815	3	NR	945	0	NR
430	95	NR	560	747	NR	690	159	NR	820	3	NR	950	0	NR
435	170	NR	565	772	NR	695	136	NR	825	3	NR	955	0	NR
440	289	NR	570	795	NR	700	117	NR	830	2	NR	960	0	NR
445	522	NR	575	817	NR	705	100	NR	835	2	NR	965	0	NR
450	895	NR	580	841	NR	710	85	NR	840	2	NR	970	0	NR
455	957	NR	585	857	NR	715	72	NR	845	1	NR	975	0	NR
460	642	NR	590	871	NR	720	62	NR	850	1	NR	980	0	NR
465	487	NR	595	875	NR	725	53	NR	855	1	NR	985	0	NR
470	397	NR	600	866	NR	730	45	NR	860	1	NR	990	0	NR
475	289	NR	605	852	NR	735	39	NR	865	1	NR	995	0	NR
480	241	NR	610	827	NR	740	33	NR	870	1	NR	1000	0	NR
485	245	NR	615	796	NR	745	28	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.36

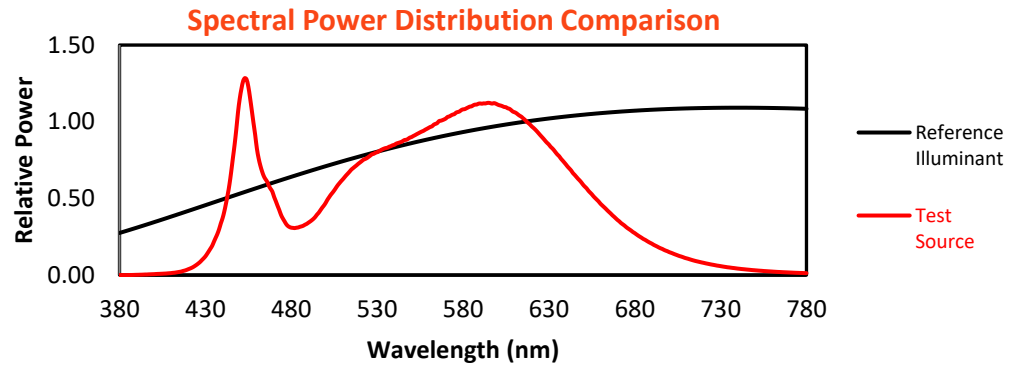
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	266	NR	620	755	NR	750	24	NR	880	1	NR
365	0	NR	495	307	NR	625	710	NR	755	21	NR	885	0	NR
370	0	NR	500	366	NR	630	663	NR	760	18	NR	890	0	NR
375	0	NR	505	430	NR	635	612	NR	765	15	NR	895	0	NR
380	0	NR	510	486	NR	640	561	NR	770	13	NR	900	0	NR
385	0	NR	515	536	NR	645	509	NR	775	11	NR	905	0	NR
390	1	NR	520	571	NR	650	458	NR	780	10	NR	910	0	NR
395	3	NR	525	600	NR	655	410	NR	785	8	NR	915	0	NR
400	5	NR	530	624	NR	660	363	NR	790	7	NR	920	0	NR
405	7	NR	535	645	NR	665	321	NR	795	6	NR	925	0	NR
410	10	NR	540	661	NR	670	280	NR	800	5	NR	930	0	NR
415	16	NR	545	681	NR	675	244	NR	805	5	NR	935	0	NR
420	30	NR	550	701	NR	680	213	NR	810	4	NR	940	0	NR
425	53	NR	555	724	NR	685	183	NR	815	3	NR	945	0	NR
430	95	NR	560	747	NR	690	159	NR	820	3	NR	950	0	NR
435	170	NR	565	772	NR	695	136	NR	825	3	NR	955	0	NR
440	289	NR	570	795	NR	700	117	NR	830	2	NR	960	0	NR
445	522	NR	575	817	NR	705	100	NR	835	2	NR	965	0	NR
450	895	NR	580	841	NR	710	85	NR	840	2	NR	970	0	NR
455	957	NR	585	857	NR	715	72	NR	845	1	NR	975	0	NR
460	642	NR	590	871	NR	720	62	NR	850	1	NR	980	0	NR
465	487	NR	595	875	NR	725	53	NR	855	1	NR	985	0	NR
470	397	NR	600	866	NR	730	45	NR	860	1	NR	990	0	NR
475	289	NR	605	852	NR	735	39	NR	865	1	NR	995	0	NR
480	241	NR	610	827	NR	740	33	NR	870	1	NR	1000	0	NR
485	245	NR	615	796	NR	745	28	NR	875	1	NR			

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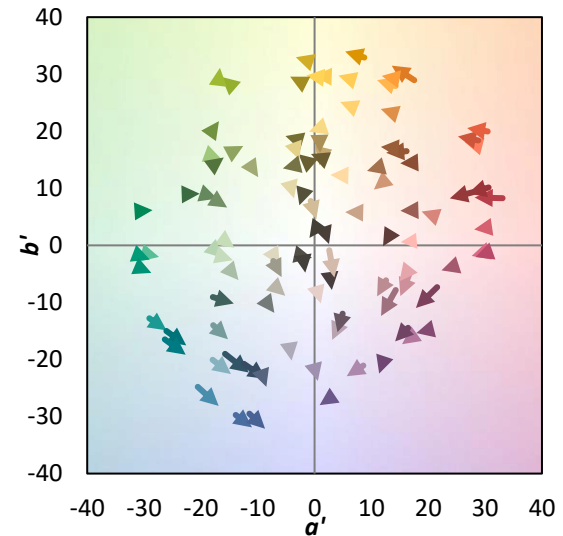
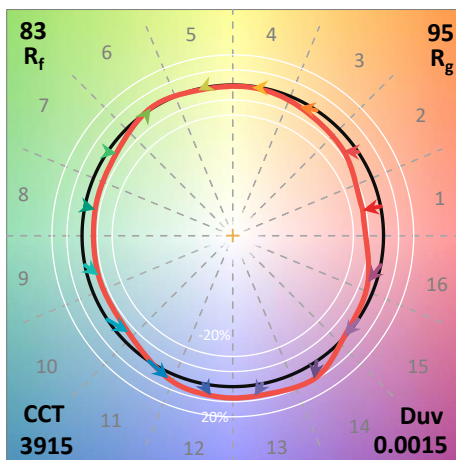
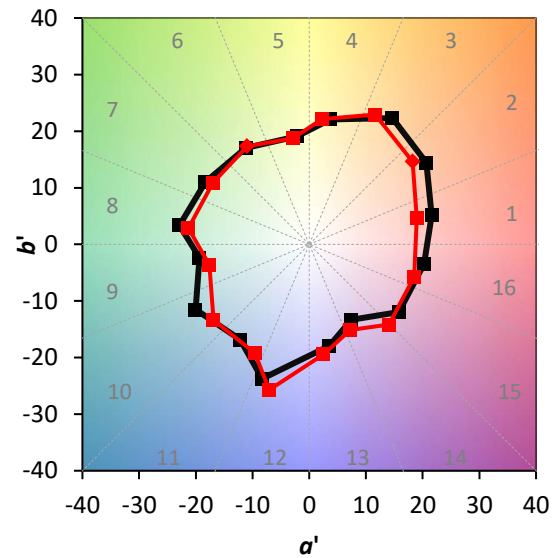
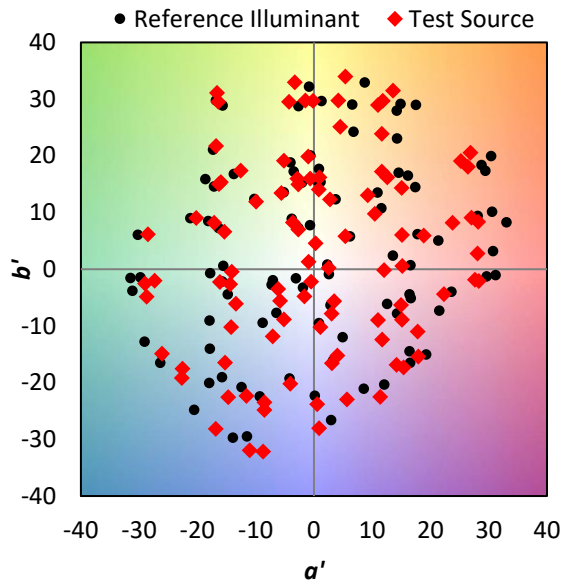
TM-30-18

Summary

$R_f = 83.2$
 $R_g = 94.6$
 $CIE R_a = 82.3$
 $R_9 = 7.6$

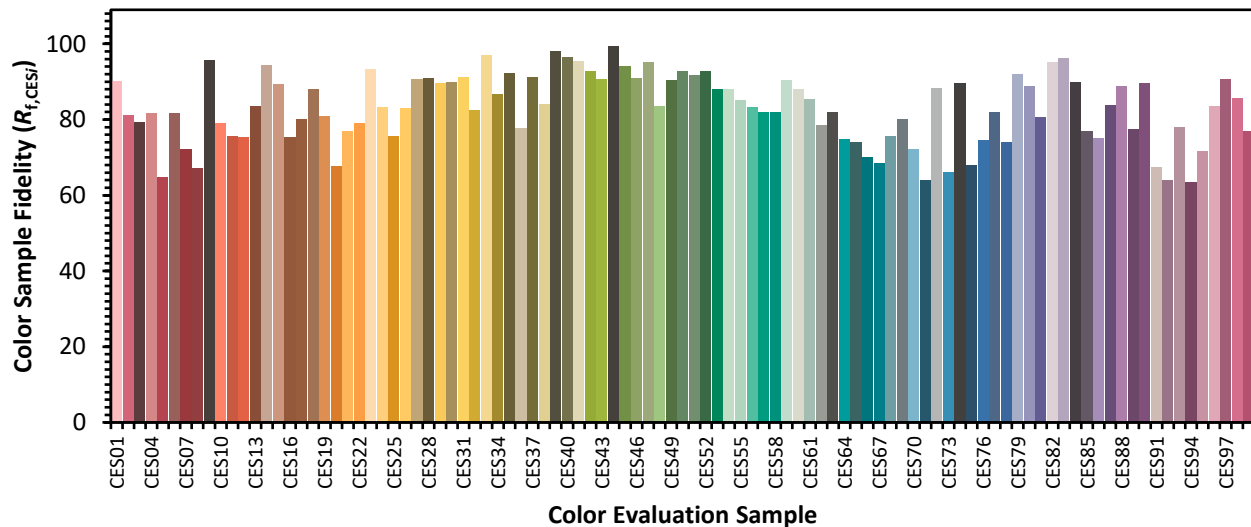


Color Vector Graphics

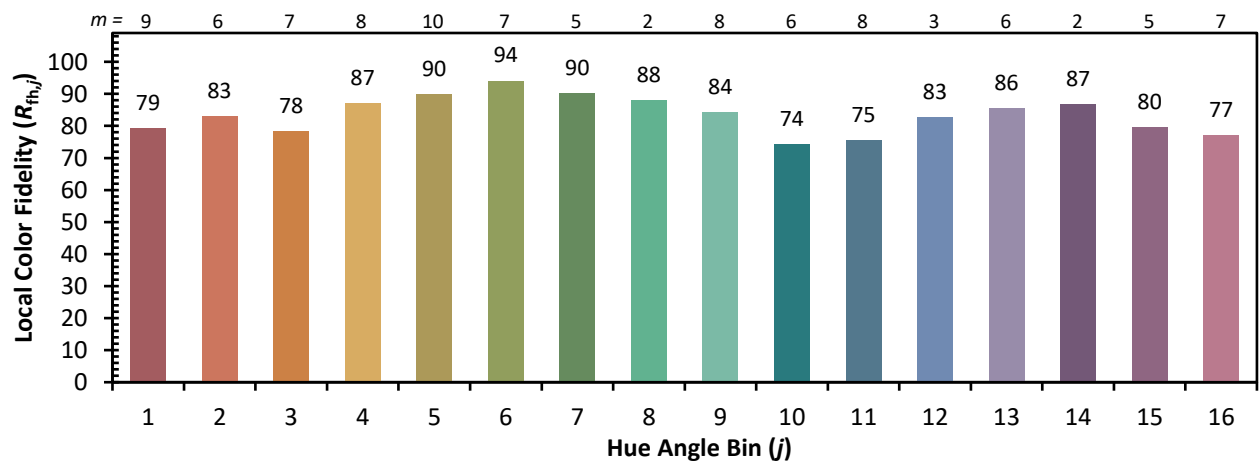
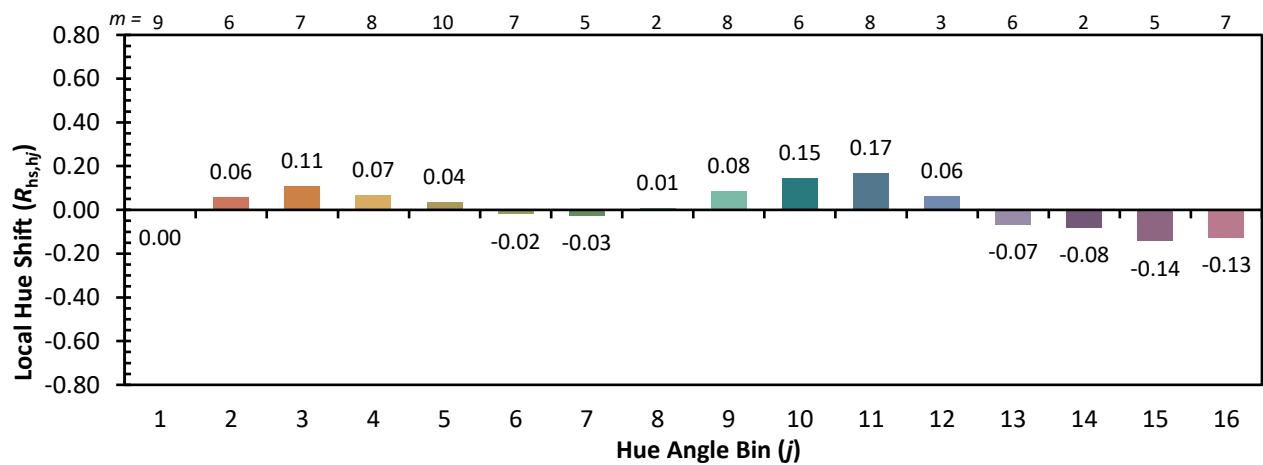
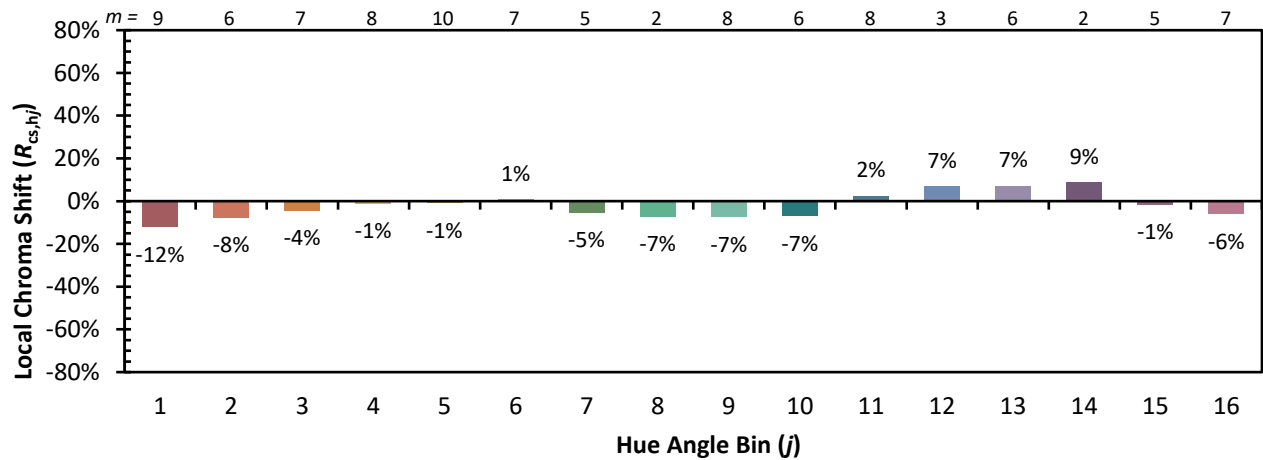


Individual Sample Fidelity Index ($R_{f,i}$)

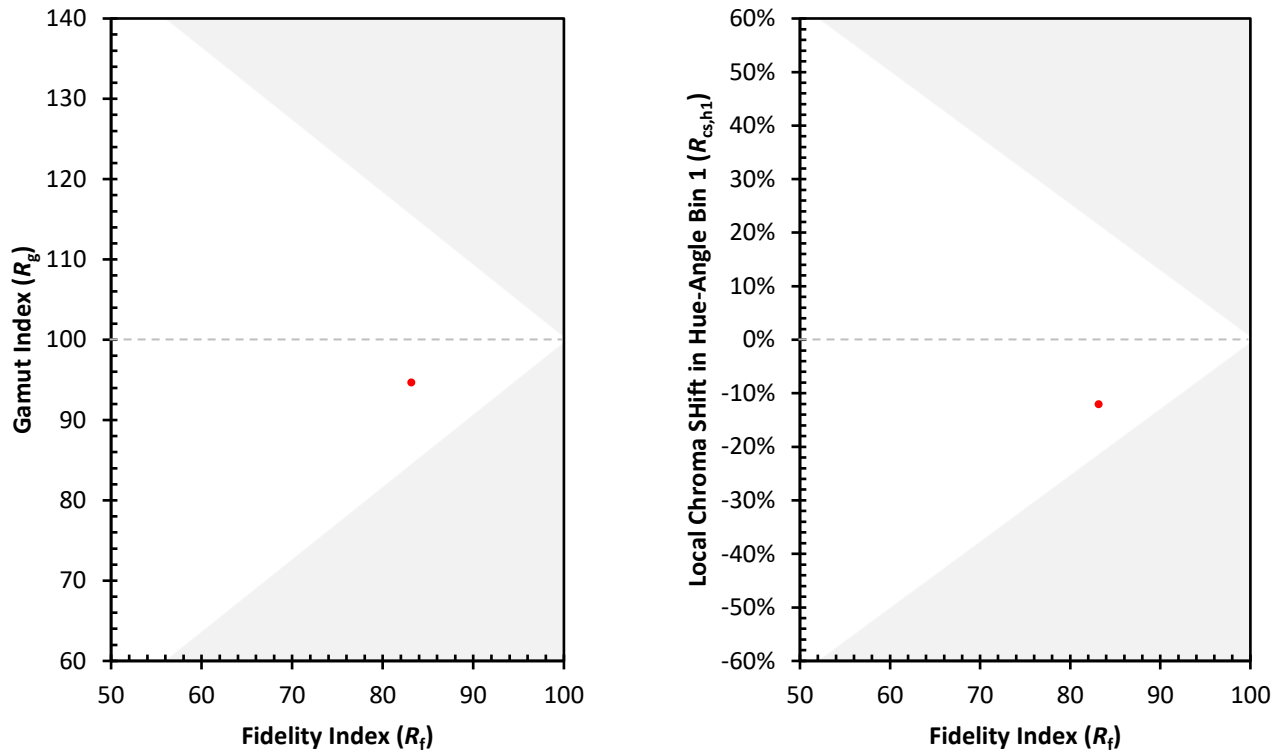
CES01 = 86	CES26 = 83	CES51 = 92	CES76 = 75
CES02 = 61	CES27 = 91	CES52 = 93	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 88	CES78 = 74
CES04 = 70	CES29 = 90	CES54 = 88	CES79 = 92
CES05 = 48	CES30 = 90	CES55 = 85	CES80 = 89
CES06 = 50	CES31 = 91	CES56 = 83	CES81 = 81
CES07 = 41	CES32 = 83	CES57 = 82	CES82 = 95
CES08 = 40	CES33 = 97	CES58 = 82	CES83 = 96
CES09 = 29	CES34 = 87	CES59 = 90	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 88	CES85 = 77
CES11 = 57	CES36 = 78	CES61 = 85	CES86 = 75
CES12 = 63	CES37 = 91	CES62 = 79	CES87 = 84
CES13 = 42	CES38 = 84	CES63 = 82	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 75	CES89 = 77
CES15 = 71	CES40 = 96	CES65 = 74	CES90 = 90
CES16 = 47	CES41 = 95	CES66 = 70	CES91 = 67
CES17 = 49	CES42 = 93	CES67 = 69	CES92 = 64
CES18 = 56	CES43 = 91	CES68 = 76	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 80	CES94 = 63
CES20 = 65	CES45 = 94	CES70 = 72	CES95 = 72
CES21 = 86	CES46 = 91	CES71 = 64	CES96 = 84
CES22 = 78	CES47 = 95	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 83	CES73 = 66	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 90	CES99 = 77
CES25 = 71	CES50 = 93	CES75 = 68	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)