

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: P1215251

Luminaire Tested: 22-ID2-20-DBR-L840-U

Issue Date: 12/4/2025

Test Information

Test Method: LM-79-2019
Report Number: P1215251
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2506-458-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/4/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 22-ID2-20-DBR-L840-U
Description: 2X2 IN DEPTH TROFFER WITH 2INCH DOUBLE BARREL REGRESSED
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

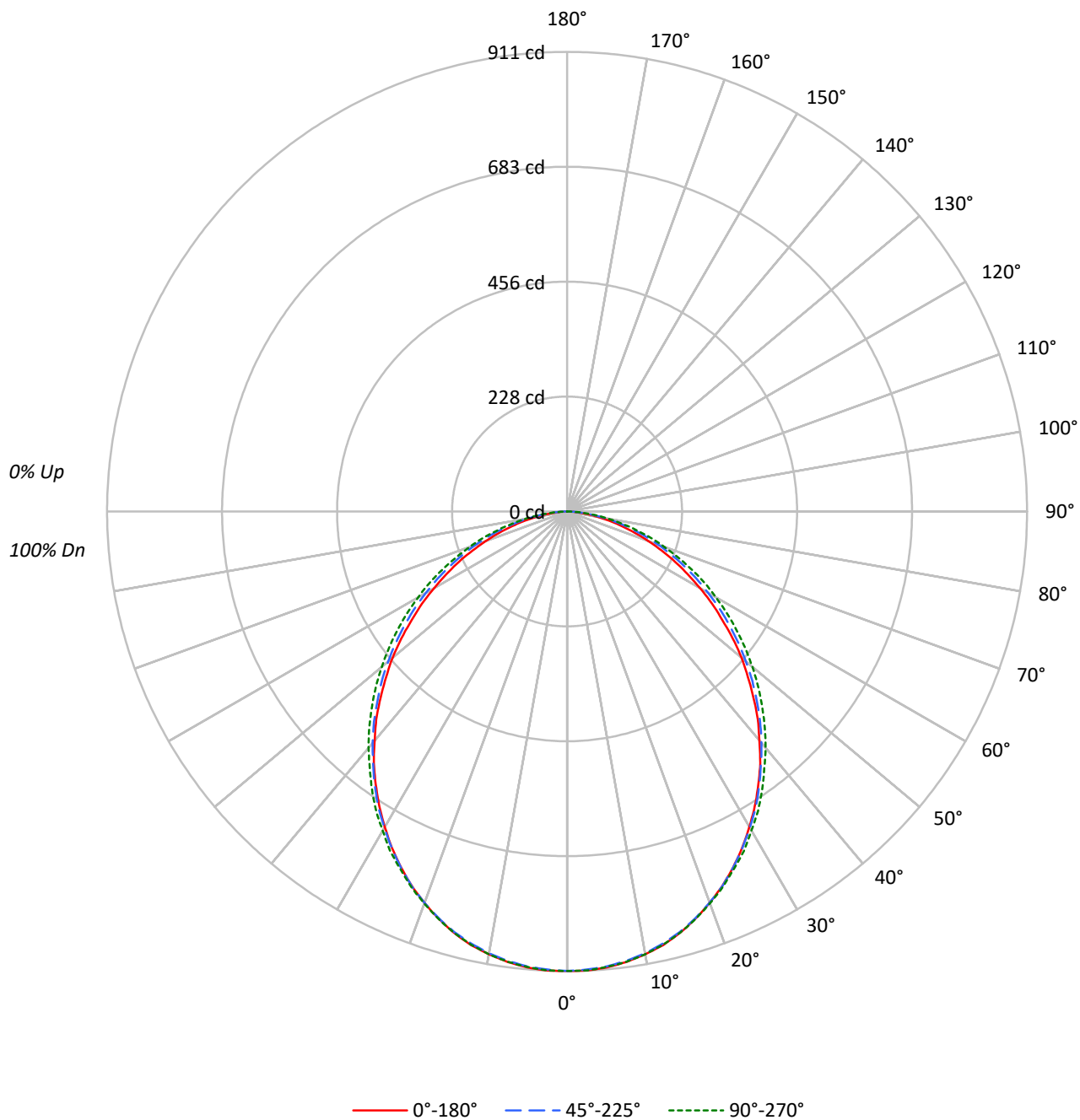
Lumens per Lamp: N/A
Luminaire Lumens: 2290.0 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.2 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 17
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



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CATALOG NUMBER: 22-ID2-20-DBR-L840-U

Luminous Intensity Polar Plot



TEST NUMBER: P1215251

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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	50	30	10	50	30	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	87	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	73	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	59	54	54	54	52
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	58	52	47	47	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	42	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	37	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	34	34	32
9	58	45	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	30	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2451	2451	2451
5°	2450	2445	2448
10°	2435	2430	2435
15°	2409	2404	2409
20°	2365	2364	2369
25°	2311	2311	2321
30°	2243	2249	2269
35°	2169	2180	2213
40°	2082	2103	2148
45°	1988	2022	2079
50°	1889	1935	2005
55°	1762	1840	1924
60°	1637	1736	1832
65°	1506	1629	1736
70°	1352	1510	1611
75°	1169	1355	1467
80°	955	1175	1285
85°	639	902	1010

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2079 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.0	3.8
10°-20°	243.3	10.6
20°-30°	358.8	15.7
30°-40°	416.1	18.2
40°-50°	411.1	18.0
50°-60°	351.2	15.3
60°-70°	252.6	11.0
70°-80°	137.2	6.0
80°-90°	33.9	1.5
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°	688.1	30.0
0°-40°	1104.1	48.2
0°-60°	1866.4	81.5
0°-90°	2290.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2290.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	911	911	911	911	911	
5°	907	906	905	905	906	86
15°	865	864	863	863	865	244
25°	778	778	778	782	782	358
35°	660	661	664	670	674	413
45°	522	524	531	542	546	403
55°	376	381	392	404	410	337
65°	236	242	256	267	273	234
75°	112	121	130	137	141	120
85°	21	24	29	32	33	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.8	910.8	910.8	910.8	910.8
2.5°	910.8	909.7	908.9	909.4	910.6
5°	907.1	906.0	905.2	905.4	906.3
7.5°	900.6	899.5	898.3	899.2	900.3
10°	891.2	890.7	889.3	890.1	891.2
12.5°	880.2	878.2	877.1	878.2	879.3
15°	864.8	863.7	862.9	862.9	864.6
17.5°	846.4	845.8	845.3	846.1	847.0
20°	825.7	825.4	825.4	825.9	827.1
22.5°	803.5	802.7	803.8	804.9	805.8
25°	778.2	777.7	778.5	781.9	781.7
27.5°	751.3	751.6	751.8	756.1	758.7
30°	722.0	722.9	723.7	729.7	730.3
32.5°	692.2	692.8	695.3	701.3	703.9
35°	660.4	661.0	663.5	670.1	673.5
37.5°	628.6	628.3	630.9	640.0	641.7
40°	592.6	593.4	598.8	608.7	611.6
42.5°	559.3	559.6	565.9	575.5	579.5
45°	522.4	524.4	531.2	542.0	546.3
47.5°	485.5	487.8	497.7	508.2	513.3
50°	451.2	452.6	462.2	473.6	479.0
52.5°	413.7	417.4	427.3	439.2	444.6
55°	375.6	380.7	392.1	403.7	410.0
57.5°	340.7	345.5	357.5	369.4	375.1
60°	304.1	310.0	322.5	334.8	340.4
62.5°	269.2	275.7	289.0	301.5	307.8
65°	236.5	241.9	255.8	266.6	272.6
67.5°	202.4	209.8	222.9	234.2	237.6
70°	171.8	178.0	191.9	200.5	204.7
72.5°	140.3	149.3	161.0	168.9	174.0
75°	112.4	121.0	130.3	137.1	141.1
77.5°	85.7	92.6	103.1	108.5	110.7
80°	61.6	67.0	75.8	81.2	82.9
82.5°	40.0	44.9	51.1	54.5	56.2
85°	20.7	24.4	29.2	31.8	32.7
87.5°	6.8	8.5	10.5	11.4	11.9
90°	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	13.79	15.38	14.15	15.70	16.01	14.29	15.89	14.66	16.20	16.52
	3H	15.31	16.75	15.69	17.08	17.44	16.00	17.44	16.38	17.77	18.13
	4H	15.84	17.19	16.24	17.54	17.91	16.63	17.98	17.03	18.33	18.71
	6H	16.17	17.43	16.58	17.79	18.18	17.07	18.33	17.49	18.69	19.08
	8H	16.26	17.46	16.69	17.84	18.24	17.21	18.40	17.63	18.79	19.19
	12H	16.30	17.44	16.73	17.83	18.25	17.29	18.43	17.72	18.82	19.24
4H	2H	14.42	15.78	14.82	16.12	16.50	14.83	16.18	15.23	16.53	16.91
	3H	16.17	17.30	16.58	17.70	18.10	16.76	17.89	17.17	18.29	18.69
	4H	16.81	17.83	17.25	18.25	18.68	17.51	18.53	17.94	18.94	19.38
	6H	17.26	18.15	17.71	18.59	19.05	18.08	18.97	18.54	19.41	19.87
	8H	17.38	18.21	17.84	18.65	19.12	18.26	19.09	18.72	19.54	20.00
	12H	17.45	18.19	17.93	18.67	19.14	18.38	19.13	18.86	19.60	20.07
8H	4H	17.13	17.96	17.59	18.41	18.87	17.75	18.58	18.21	19.03	19.49
	6H	17.68	18.37	18.18	18.86	19.34	18.43	19.12	18.93	19.61	20.09
	8H	17.86	18.48	18.37	18.98	19.47	18.68	19.30	19.19	19.80	20.29
	12H	17.97	18.52	18.48	19.01	19.57	18.86	19.41	19.37	19.90	20.46
12H	4H	17.16	17.91	17.65	18.39	18.86	17.76	18.51	18.25	18.99	19.46
	6H	17.74	18.36	18.25	18.86	19.35	18.46	19.08	18.97	19.59	20.08
	8H	17.97	18.51	18.47	19.00	19.57	18.76	19.30	19.26	19.79	20.36

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

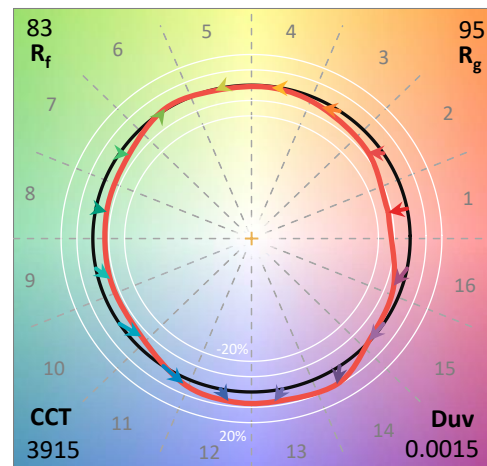
Test Information

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

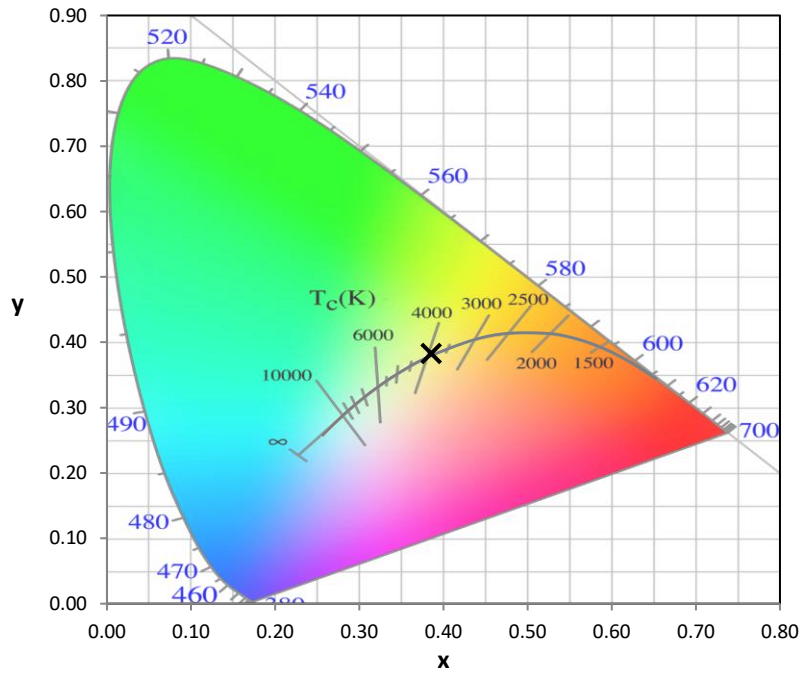
Stabilization Time: 34M
 Operation Time: 1H 34M
 Sphere Temperature (°C): 25.2

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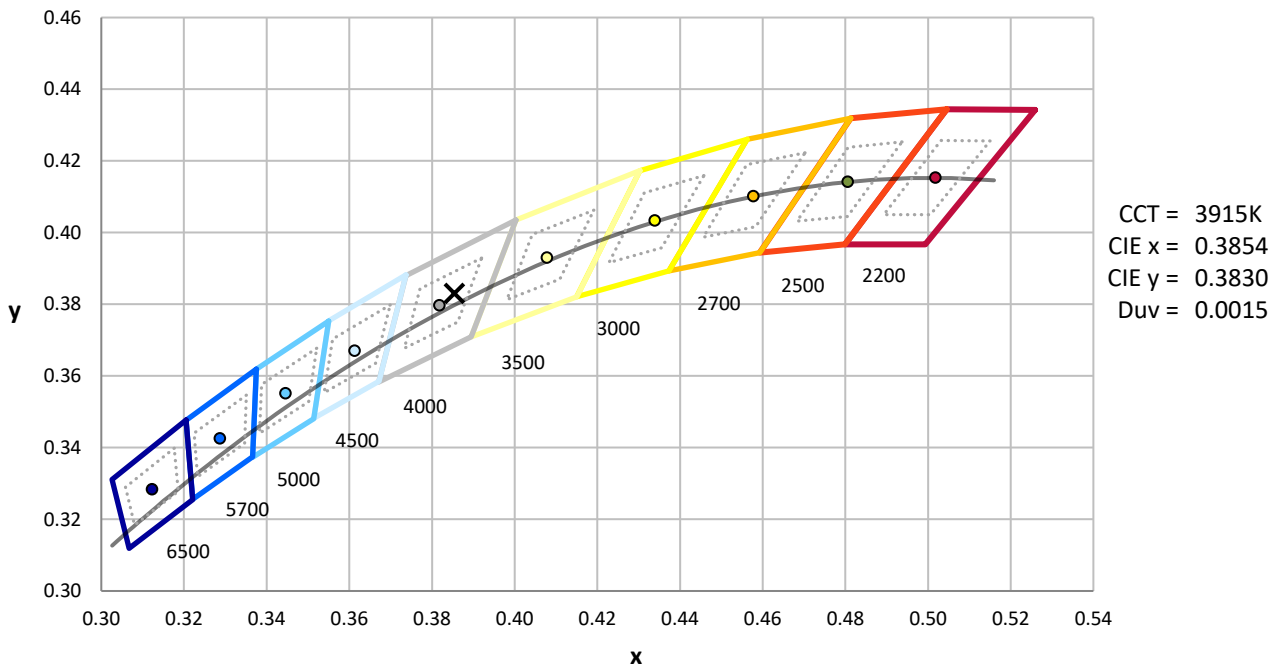
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



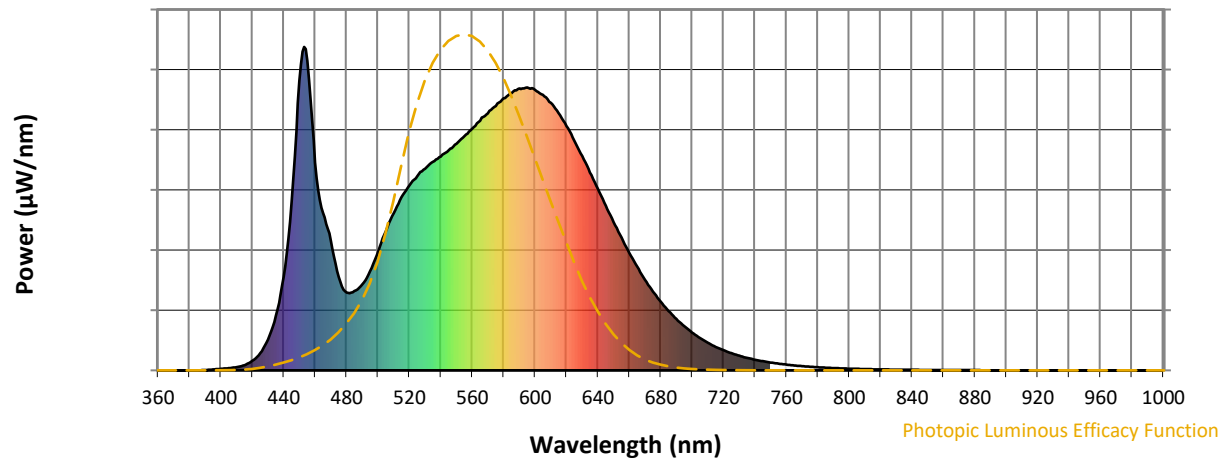
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength

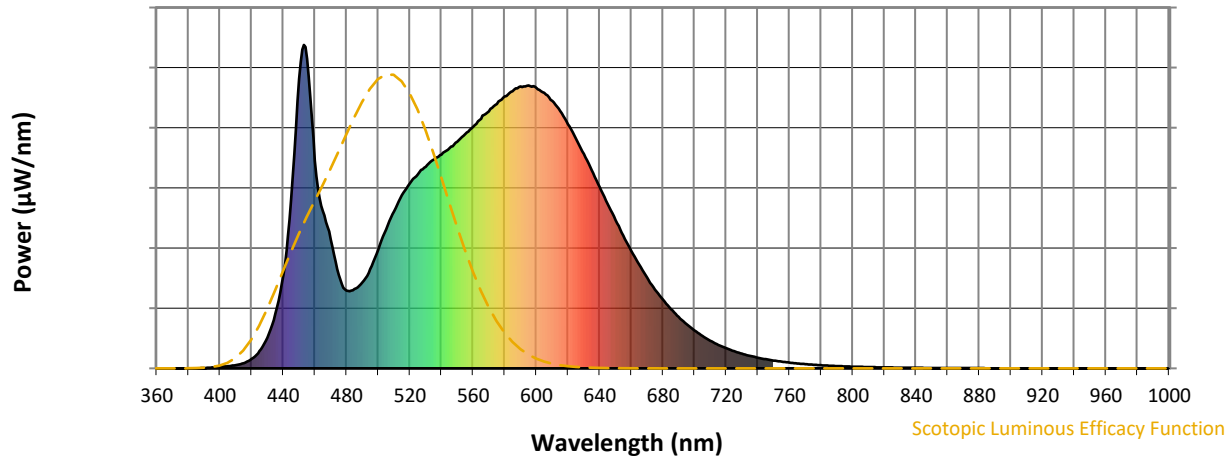


Photopic Lumens: NR

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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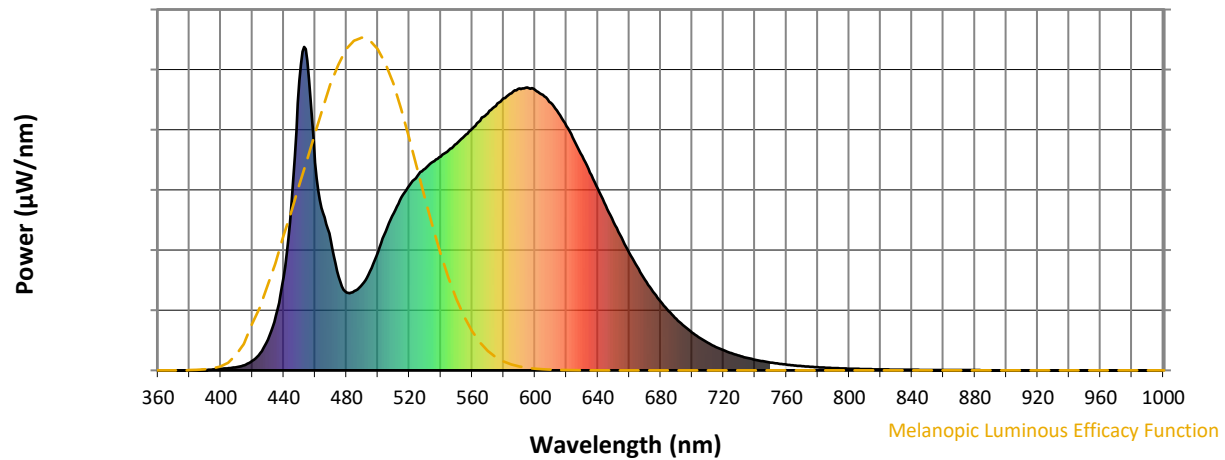
Scotopic Flux vs. Wavelength


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

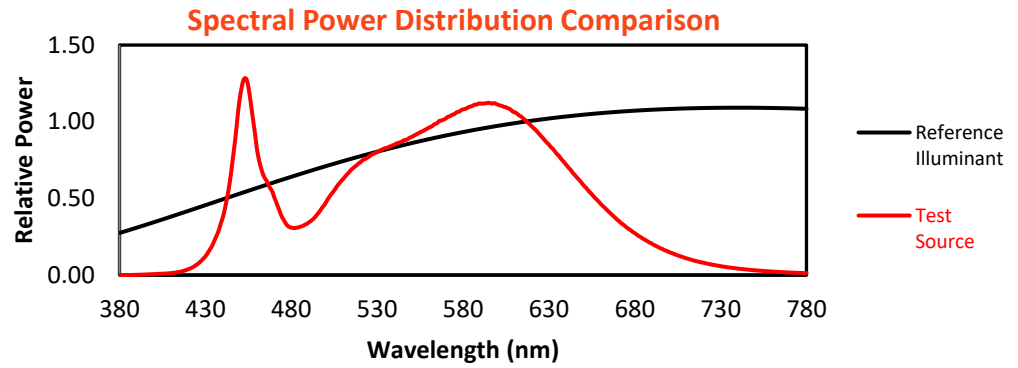
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	266	NR	620	755	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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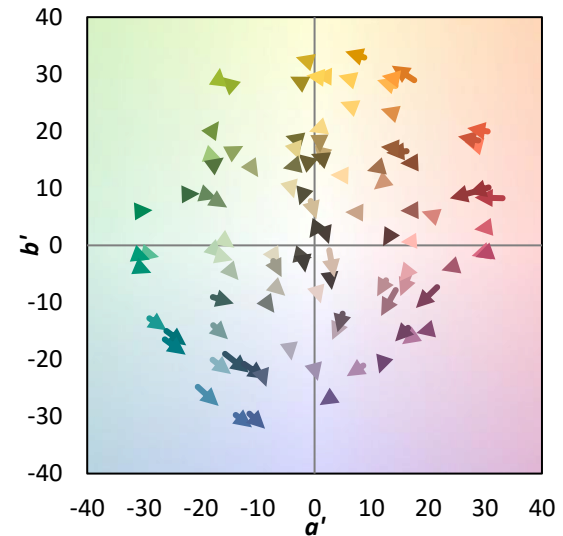
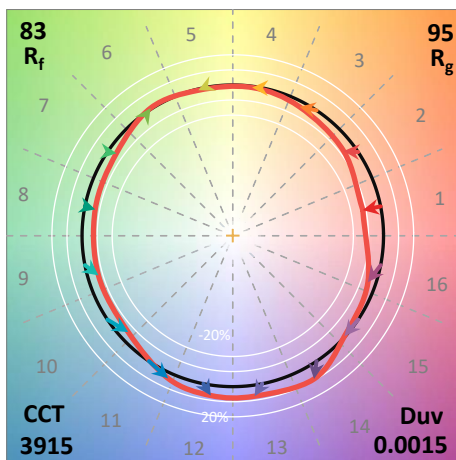
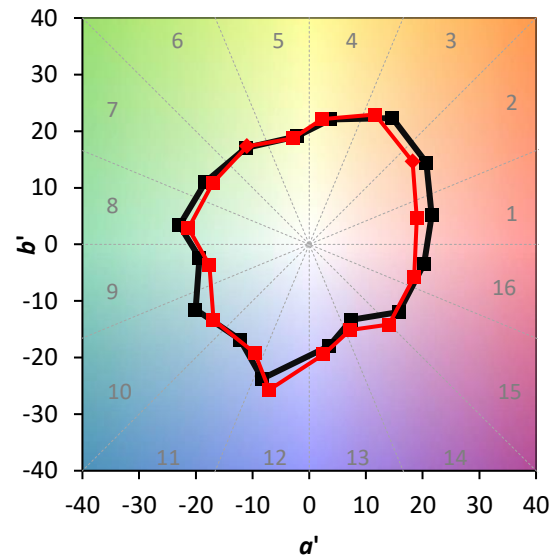
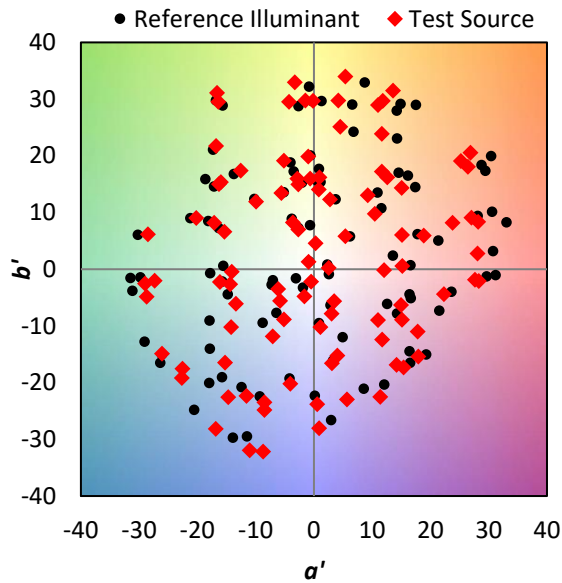
TM-30-18

Summary

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

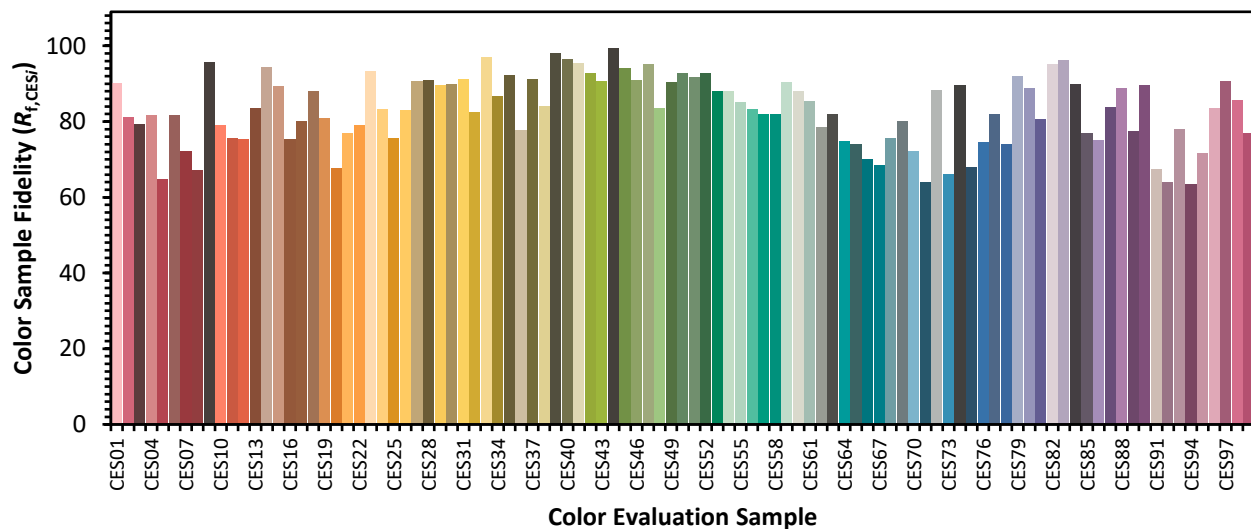


Color Vector Graphics

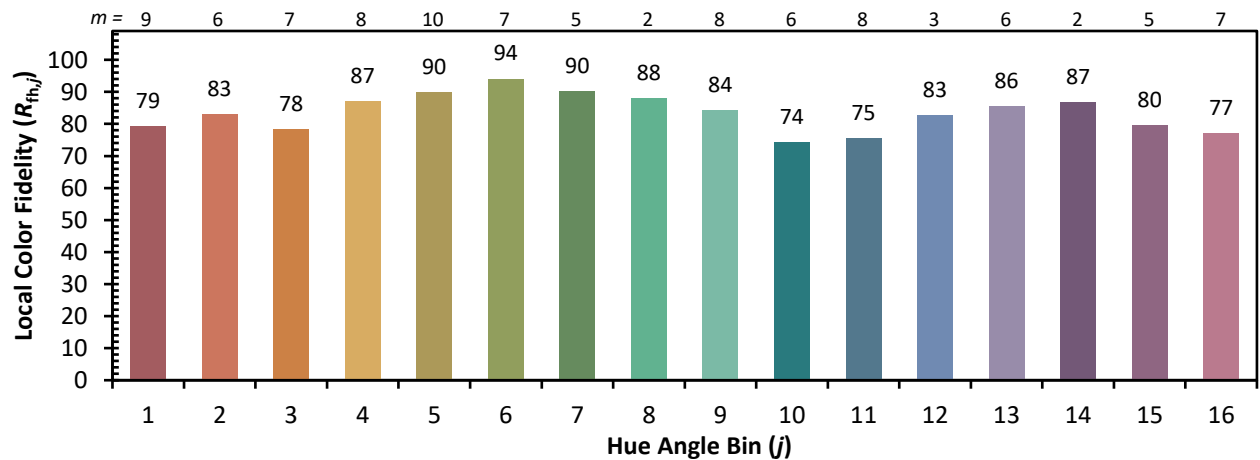
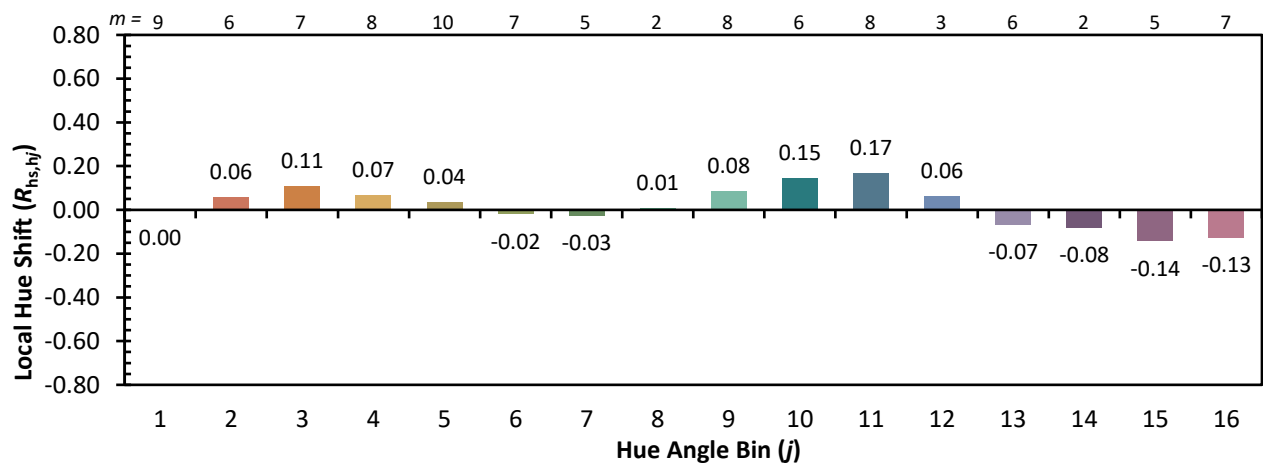
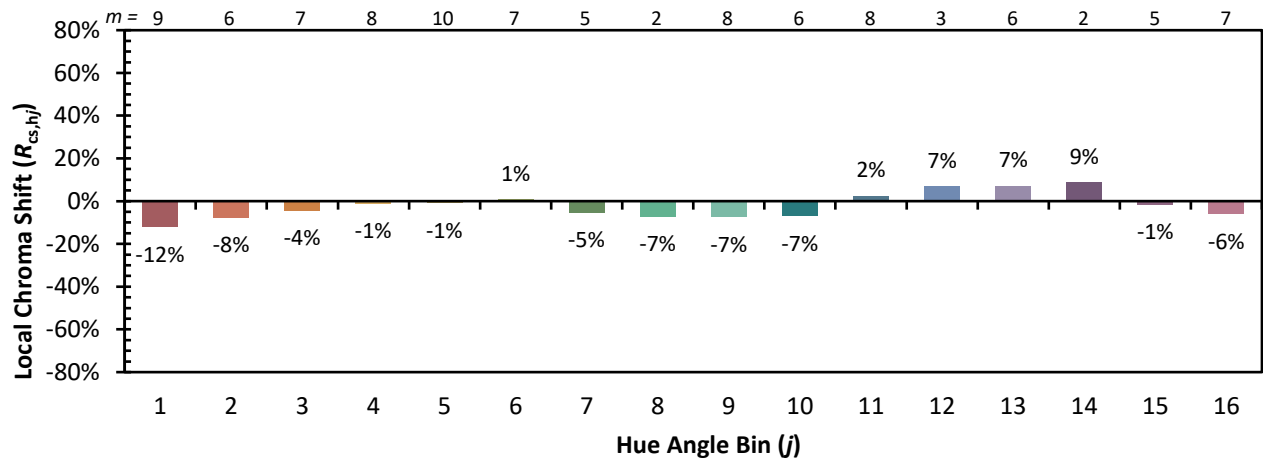


Individual Sample Fidelity Index ($R_{f,i}$)

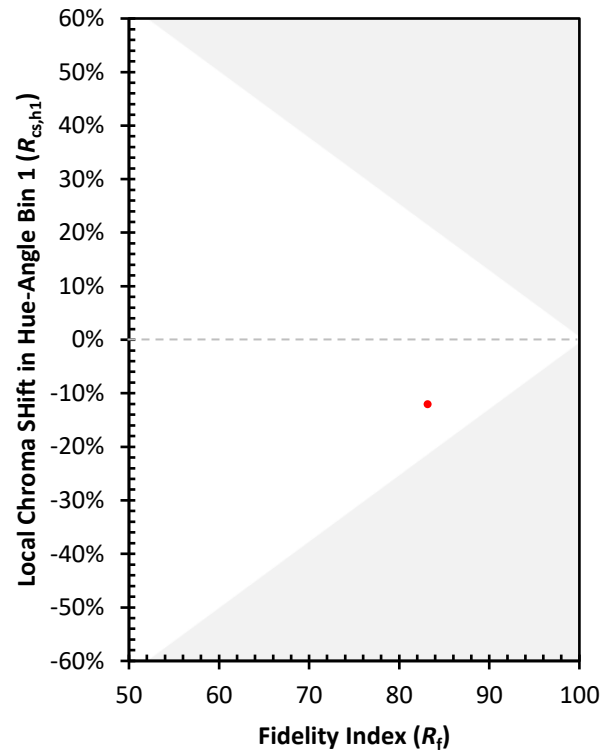
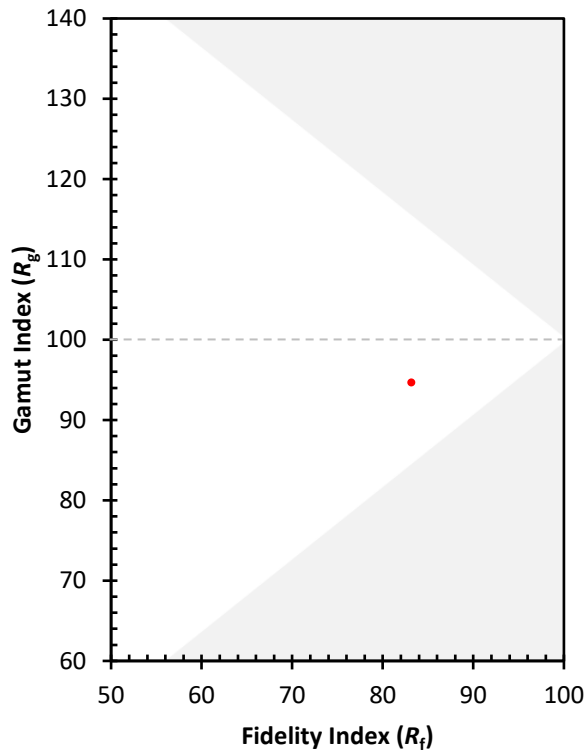
CES01 = 86	CES26 = 83	CES51 = 92	CES76 = 75
CES02 = 61	CES27 = 91	CES52 = 93	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 88	CES78 = 74
CES04 = 70	CES29 = 90	CES54 = 88	CES79 = 92
CES05 = 48	CES30 = 90	CES55 = 85	CES80 = 89
CES06 = 50	CES31 = 91	CES56 = 83	CES81 = 81
CES07 = 41	CES32 = 83	CES57 = 82	CES82 = 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)