

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: P1216452

Luminaire Tested: 24-ID2-72-DBR-L850-U

Issue Date: 12/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1216452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2508-510-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/5/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24-ID2-72-DBR-L850-U
Description: 2X4 IN DEPTH TROFFER WITH 2INCH DOUBLE BARREL REGRESSED
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

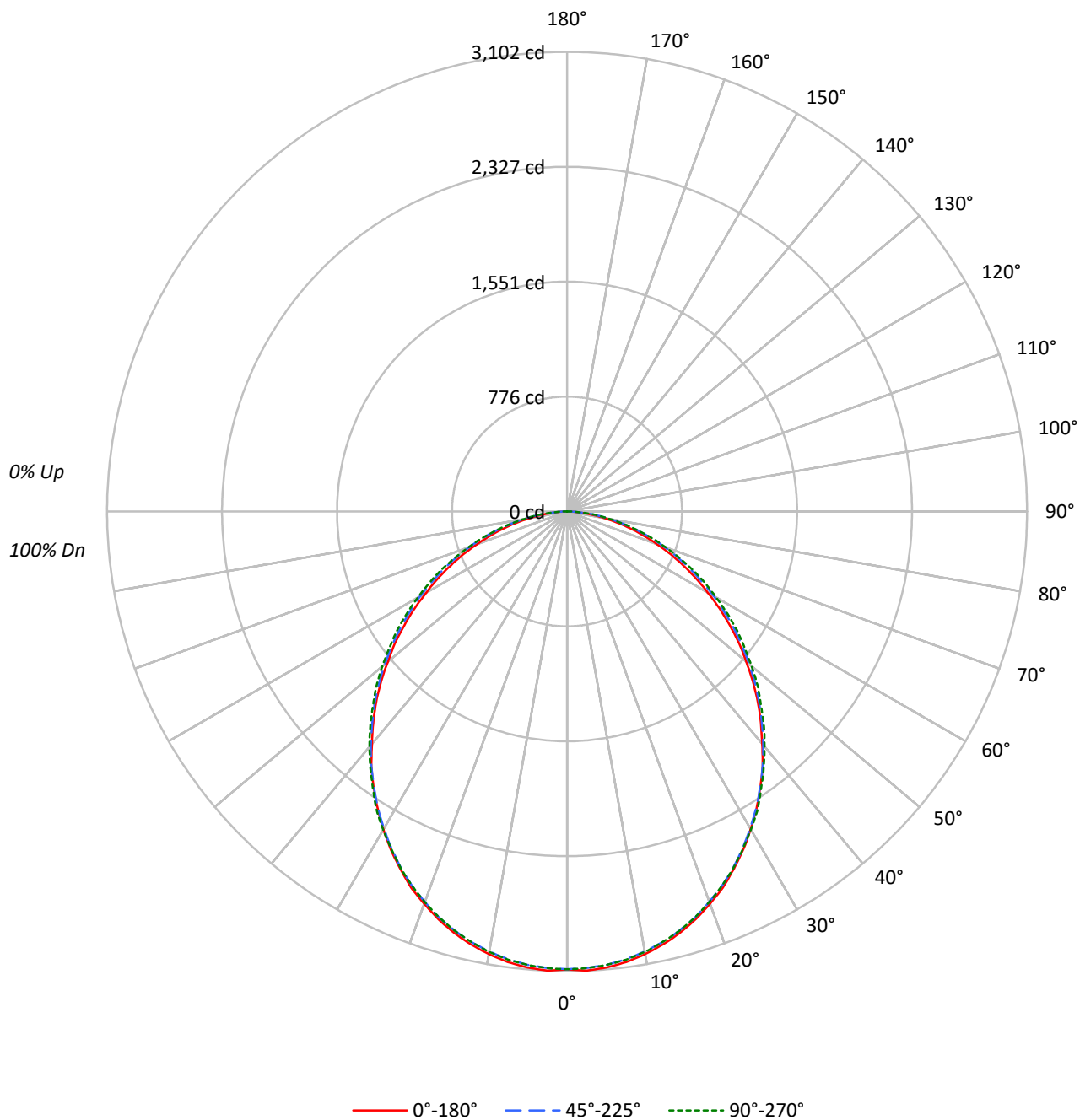
Lumens per Lamp: N/A
Luminaire Lumens: 7946.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.3
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 64.7
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: P1216452
CATALOG NUMBER: 24-ID2-72-DBR-L850-U

Luminous Intensity Polar Plot



TEST NUMBER: P1216452

CATALOG NUMBER: 24-ID2-72-DBR-L850-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		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	85	79	97	89	83	78		86	81	76		83	78	74		80	76	73
3	91	80	72	66	88	79	71	65		76	70	64		73	68	63		71	66	62
4	83	71	63	56	81	70	62	56		68	61	55		65	59	54		63	58	54
5	77	64	55	49	75	63	55	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	52	44	38	64	52	43	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	33		45	38	33		44	38	33
9	57	44	36	31	56	44	36	30		42	35	30		41	35	30		40	34	30
10	54	41	33	28	53	40	33	28		39	32	28		38	32	27		37	32	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4157	4157	4157
5°	4172	4148	4149
10°	4145	4121	4126
15°	4101	4080	4081
20°	4035	4014	4016
25°	3951	3938	3941
30°	3849	3837	3854
35°	3734	3728	3748
40°	3594	3615	3640
45°	3464	3489	3518
50°	3301	3354	3402
55°	3142	3217	3281
60°	2950	3076	3126
65°	2760	2903	2987
70°	2540	2742	2790
75°	2290	2552	2575
80°	1945	2276	2301
85°	1490	1879	1930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 3518 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.7	3.7
10°-20°	825.8	10.4
20°-30°	1221.5	15.4
30°-40°	1421.7	17.9
40°-50°	1414.6	17.8
50°-60°	1224.1	15.4
60°-70°	900.2	11.3
70°-80°	508.4	6.4
80°-90°	138.0	1.7
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°	2339.0	29.4
0°-40°	3760.7	47.3
0°-60°	6399.4	80.5
0°-90°	7946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3090	3090	3090	3090	3090	
5°	3089	3078	3071	3067	3072	293
15°	2944	2935	2929	2923	2930	830
25°	2661	2654	2652	2649	2655	1225
35°	2273	2269	2270	2280	2282	1421
45°	1820	1820	1834	1849	1849	1402
55°	1339	1346	1371	1390	1399	1197
65°	867	884	912	930	938	861
75°	441	465	491	494	495	467
85°	96	114	122	124	125	116
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3089.8	3089.8	3089.8	3089.8	3089.8
2.5°	3101.8	3089.8	3083.2	3079.9	3084.3
5°	3088.7	3077.7	3071.1	3066.8	3072.2
7.5°	3066.8	3054.7	3048.1	3043.7	3051.4
10°	3033.9	3021.8	3016.3	3013.1	3019.6
12.5°	2993.3	2983.5	2976.9	2972.5	2976.9
15°	2944.0	2935.2	2928.7	2923.2	2929.8
17.5°	2885.9	2875.0	2872.8	2866.2	2871.7
20°	2818.0	2809.2	2803.7	2800.4	2804.8
22.5°	2747.8	2735.8	2732.5	2729.2	2733.6
25°	2661.2	2653.5	2652.5	2649.2	2654.6
27.5°	2573.5	2569.2	2563.7	2565.9	2567.0
30°	2477.1	2471.6	2469.4	2473.8	2480.4
32.5°	2377.3	2373.0	2374.1	2378.4	2390.5
35°	2273.2	2268.8	2269.9	2279.8	2282.0
37.5°	2166.9	2159.2	2166.9	2173.5	2179.0
40°	2046.3	2047.4	2058.4	2067.2	2072.6
42.5°	1934.5	1934.5	1945.5	1958.6	1965.2
45°	1820.5	1820.5	1833.7	1849.0	1849.0
47.5°	1700.0	1697.8	1721.9	1738.3	1743.8
50°	1577.2	1581.6	1602.4	1618.9	1625.4
52.5°	1462.1	1464.3	1487.3	1504.9	1508.2
55°	1339.4	1346.0	1371.2	1389.8	1398.6
57.5°	1218.8	1229.8	1255.0	1278.0	1280.2
60°	1096.1	1113.6	1143.2	1155.2	1161.8
62.5°	984.3	1001.8	1025.9	1045.6	1050.0
65°	867.0	884.5	911.9	929.5	938.2
67.5°	757.4	778.2	805.6	818.8	818.8
70°	645.6	668.6	697.1	708.1	709.1
72.5°	540.4	566.7	591.9	600.6	602.8
75°	440.6	464.7	491.0	494.3	495.4
77.5°	343.1	368.3	388.0	394.6	391.3
80°	251.0	276.2	293.7	298.1	297.0
82.5°	171.0	191.8	208.3	208.3	208.3
85°	96.5	114.0	121.7	123.9	125.0
87.5°	31.8	44.9	51.5	51.5	51.5
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	15.87	17.48	16.24	17.79	18.11	16.15	17.76	16.52	18.07	18.39
	3H	17.53	18.98	17.90	19.30	19.67	17.89	19.34	18.26	19.67	20.03
	4H	18.12	19.49	18.52	19.84	20.21	18.54	19.90	18.94	20.25	20.63
	6H	18.54	19.80	18.95	20.17	20.56	19.01	20.28	19.42	20.64	21.03
	8H	18.66	19.86	19.08	20.25	20.65	19.16	20.37	19.59	20.76	21.16
	12H	18.72	19.88	19.15	20.26	20.69	19.26	20.42	19.69	20.80	21.23
4H	2H	16.51	17.87	16.91	18.22	18.60	16.73	18.10	17.13	18.44	18.82
	3H	18.39	19.53	18.80	19.93	20.33	18.69	19.84	19.10	20.24	20.64
	4H	19.12	20.15	19.55	20.56	21.00	19.48	20.51	19.91	20.92	21.36
	6H	19.66	20.56	20.11	21.00	21.46	20.08	20.98	20.54	21.43	21.88
	8H	19.82	20.66	20.28	21.11	21.57	20.28	21.13	20.74	21.57	22.04
	12H	19.93	20.68	20.41	21.16	21.63	20.42	21.18	20.90	21.66	22.13
8H	4H	19.45	20.29	19.91	20.73	21.20	19.76	20.61	20.23	21.05	21.52
	6H	20.11	20.81	20.60	21.30	21.78	20.49	21.19	20.99	21.68	22.16
	8H	20.35	20.97	20.86	21.48	21.97	20.77	21.40	21.28	21.90	22.39
	12H	20.52	21.07	21.02	21.56	22.13	20.98	21.54	21.49	22.03	22.59
12H	4H	19.48	20.24	19.96	20.72	21.19	19.79	20.55	20.27	21.03	21.49
	6H	20.17	20.81	20.68	21.31	21.80	20.54	21.17	21.05	21.68	22.17
	8H	20.47	21.03	20.97	21.52	22.08	20.87	21.43	21.38	21.92	22.48

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

Report Prepared for

Cooper Lighting Solutions

Corelite

Report Number: SP1-2506-458-7

Test Date: 08/26/2025

Luminaire Tested: 22ID2-55-CFR1-L850-U

Data in this report applies to families of products including 22ID2-55-CFR1-L850-U

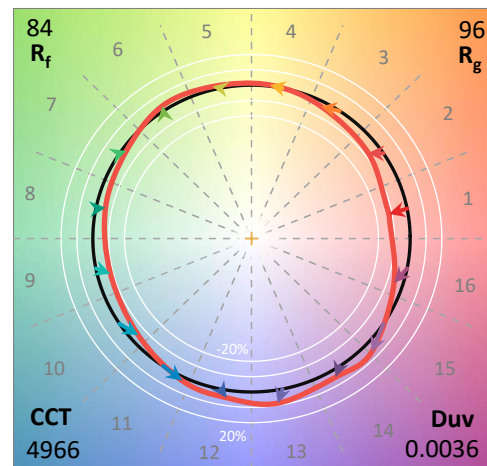
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-458-7
 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-L850-U**
 Description: 2X2 CGTX WITH INDEPTH FRAME AND CFR1 LENS - 5500 LUMEN 5000K 80CRI

Spectral Parameters

CCT (K): 4966
 CIE u' : 0.2093
 CIE v' : 0.4890
 Duv: 0.0036
 CIE x: 0.3468
 CIE y: 0.3601
 CIE z: 0.2931
 Peak Wavelength (nm): 450
 Dominant Wavelength (nm): 570
 Purity: 12.1135
 R_f: 84
 R_g: 96.2

CRI (Ra): 83.1
 R1: 81.0
 R2: 87.8
 R3: 92.7
 R4: 82.4
 R5: 81.0
 R6: 82.6
 R7: 88.5
 R8: 68.6
 R9: 10.3
 R10: 70.9
 R11: 81.3
 R12: 55.9
 R13: 82.8
 R14: 96.1
 R15: 75.1



Test Conditions

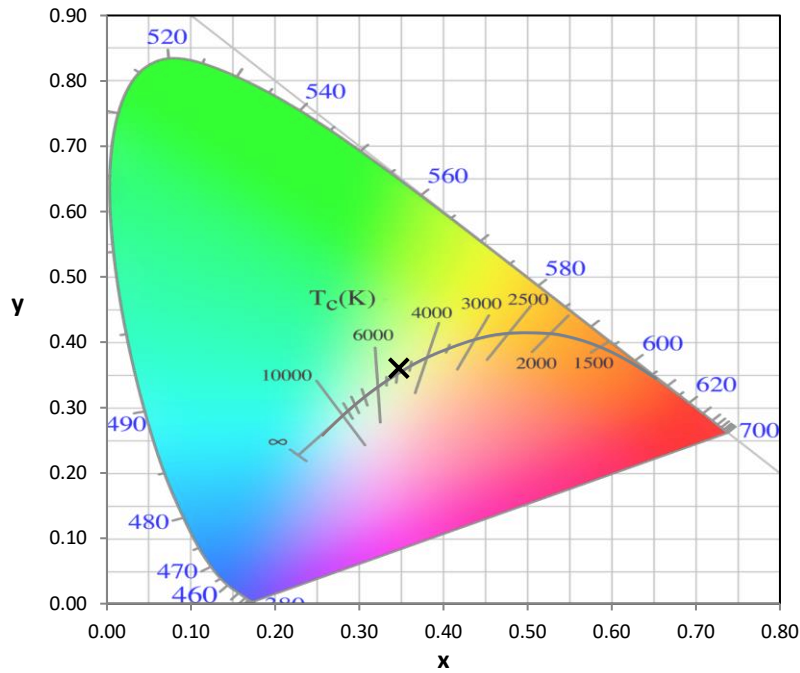
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.2

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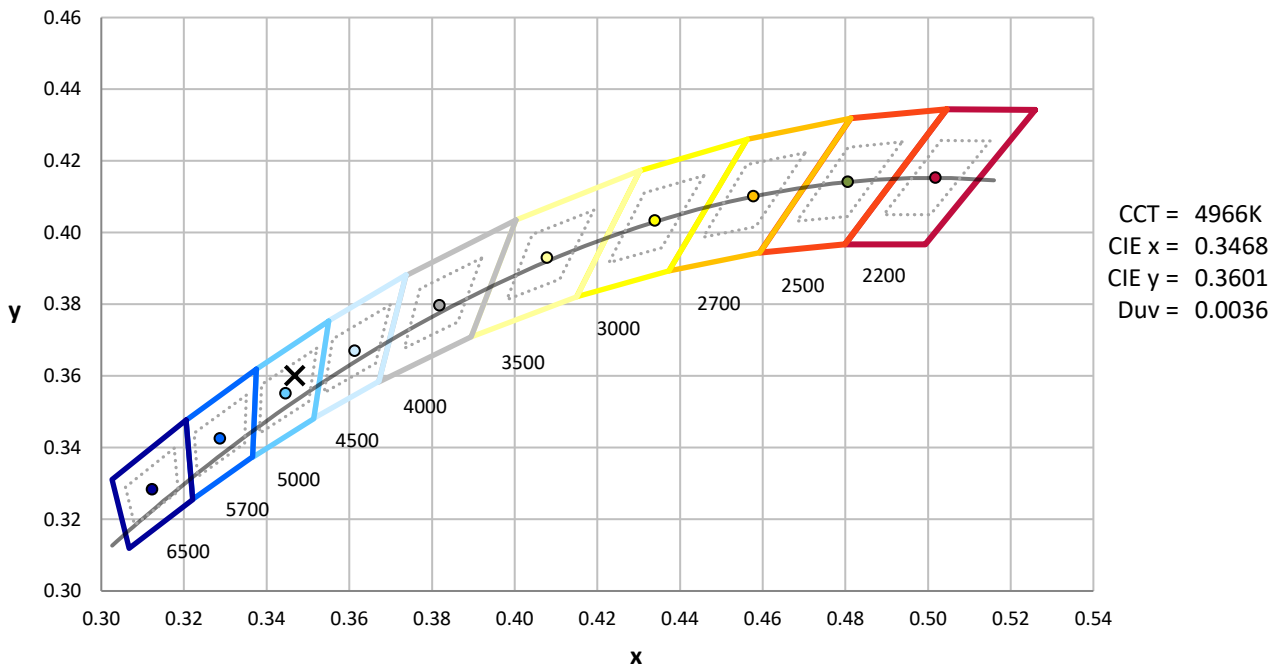
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



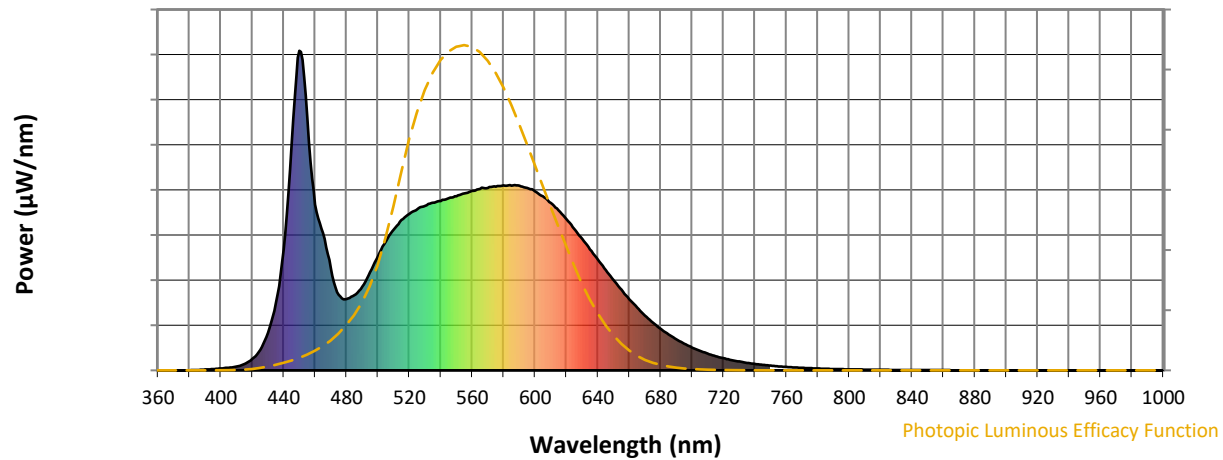
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

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Photopic Flux vs. Wavelength

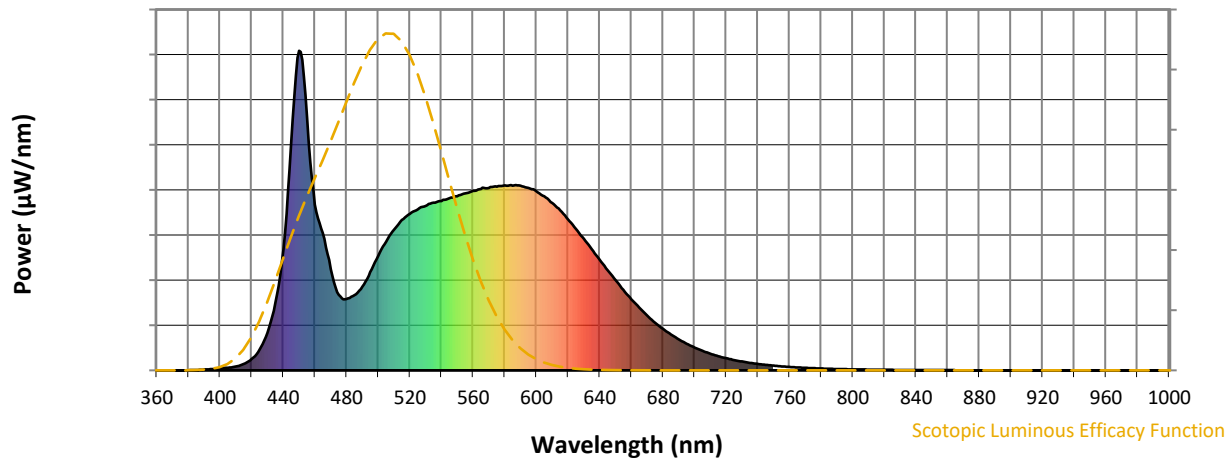


Photopic Lumens: NR

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	262	NR	620	472	NR	750	15	NR	880	0	NR
365	0	NR	495	307	NR	625	443	NR	755	13	NR	885	0	NR
370	0	NR	500	358	NR	630	412	NR	760	11	NR	890	0	NR
375	0	NR	505	403	NR	635	379	NR	765	9	NR	895	0	NR
380	0	NR	510	440	NR	640	346	NR	770	8	NR	900	0	NR
385	1	NR	515	471	NR	645	313	NR	775	7	NR	905	0	NR
390	3	NR	520	490	NR	650	282	NR	780	6	NR	910	0	NR
395	4	NR	525	504	NR	655	252	NR	785	5	NR	915	0	NR
400	6	NR	530	515	NR	660	223	NR	790	4	NR	920	0	NR
405	9	NR	535	524	NR	665	197	NR	795	4	NR	925	0	NR
410	12	NR	540	530	NR	670	171	NR	800	3	NR	930	0	NR
415	20	NR	545	539	NR	675	149	NR	805	3	NR	935	0	NR
420	36	NR	550	545	NR	680	130	NR	810	2	NR	940	0	NR
425	64	NR	555	554	NR	685	112	NR	815	2	NR	945	0	NR
430	117	NR	560	562	NR	690	97	NR	820	2	NR	950	0	NR
435	212	NR	565	567	NR	695	83	NR	825	2	NR	955	0	NR
440	378	NR	570	571	NR	700	71	NR	830	1	NR	960	0	NR
445	709	NR	575	574	NR	705	61	NR	835	1	NR	965	0	NR
450	1000	NR	580	579	NR	710	52	NR	840	1	NR	970	0	NR
455	789	NR	585	578	NR	715	44	NR	845	1	NR	975	0	NR
460	519	NR	590	578	NR	720	38	NR	850	1	NR	980	0	NR
465	429	NR	595	571	NR	725	32	NR	855	1	NR	985	0	NR
470	316	NR	600	560	NR	730	28	NR	860	1	NR	990	0	NR
475	236	NR	605	545	NR	735	24	NR	865	1	NR	995	0	NR
480	224	NR	610	524	NR	740	20	NR	870	0	NR	1000	0	NR
485	235	NR	615	501	NR	745	17	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



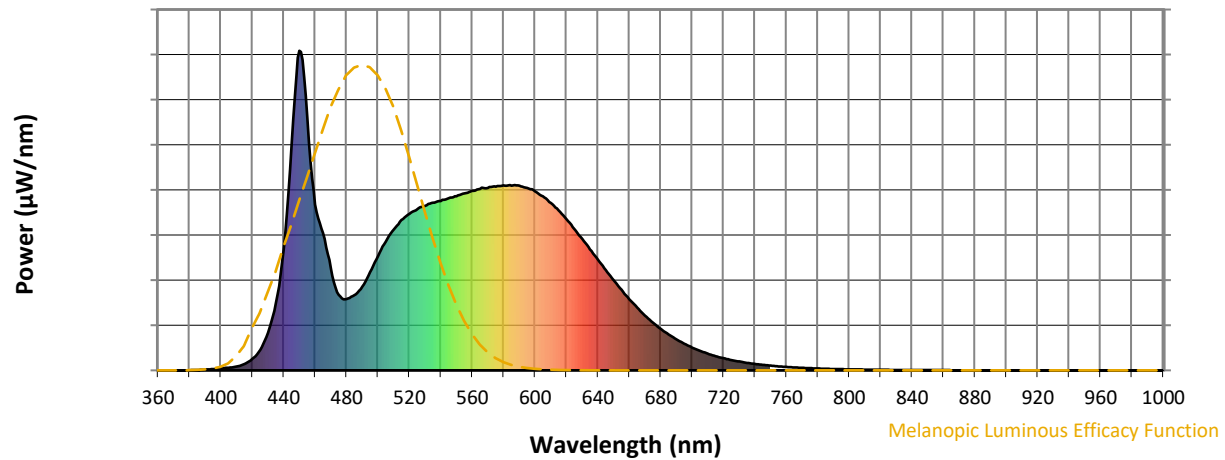
Scotopic Lumens: NR

S/P: 1.94

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	262	NR	620	472	NR	750	15	NR	880	0	NR
365	0	NR	495	307	NR	625	443	NR	755	13	NR	885	0	NR
370	0	NR	500	358	NR	630	412	NR	760	11	NR	890	0	NR
375	0	NR	505	403	NR	635	379	NR	765	9	NR	895	0	NR
380	0	NR	510	440	NR	640	346	NR	770	8	NR	900	0	NR
385	1	NR	515	471	NR	645	313	NR	775	7	NR	905	0	NR
390	3	NR	520	490	NR	650	282	NR	780	6	NR	910	0	NR
395	4	NR	525	504	NR	655	252	NR	785	5	NR	915	0	NR
400	6	NR	530	515	NR	660	223	NR	790	4	NR	920	0	NR
405	9	NR	535	524	NR	665	197	NR	795	4	NR	925	0	NR
410	12	NR	540	530	NR	670	171	NR	800	3	NR	930	0	NR
415	20	NR	545	539	NR	675	149	NR	805	3	NR	935	0	NR
420	36	NR	550	545	NR	680	130	NR	810	2	NR	940	0	NR
425	64	NR	555	554	NR	685	112	NR	815	2	NR	945	0	NR
430	117	NR	560	562	NR	690	97	NR	820	2	NR	950	0	NR
435	212	NR	565	567	NR	695	83	NR	825	2	NR	955	0	NR
440	378	NR	570	571	NR	700	71	NR	830	1	NR	960	0	NR
445	709	NR	575	574	NR	705	61	NR	835	1	NR	965	0	NR
450	1000	NR	580	579	NR	710	52	NR	840	1	NR	970	0	NR
455	789	NR	585	578	NR	715	44	NR	845	1	NR	975	0	NR
460	519	NR	590	578	NR	720	38	NR	850	1	NR	980	0	NR
465	429	NR	595	571	NR	725	32	NR	855	1	NR	985	0	NR
470	316	NR	600	560	NR	730	28	NR	860	1	NR	990	0	NR
475	236	NR	605	545	NR	735	24	NR	865	1	NR	995	0	NR
480	224	NR	610	524	NR	740	20	NR	870	0	NR	1000	0	NR
485	235	NR	615	501	NR	745	17	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 4.11

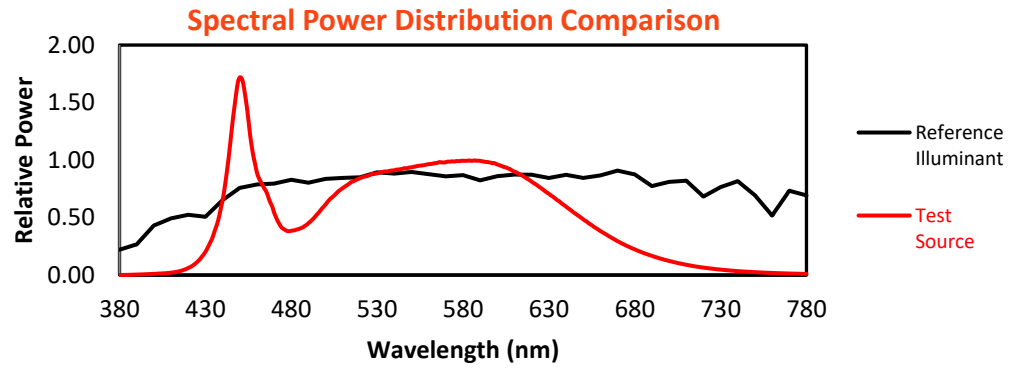
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	262	NR	620	472	NR	750	15	NR	880	0	NR
365	0	NR	495	307	NR	625	443	NR	755	13	NR	885	0	NR
370	0	NR	500	358	NR	630	412	NR	760	11	NR	890	0	NR
375	0	NR	505	403	NR	635	379	NR	765	9	NR	895	0	NR
380	0	NR	510	440	NR	640	346	NR	770	8	NR	900	0	NR
385	1	NR	515	471	NR	645	313	NR	775	7	NR	905	0	NR
390	3	NR	520	490	NR	650	282	NR	780	6	NR	910	0	NR
395	4	NR	525	504	NR	655	252	NR	785	5	NR	915	0	NR
400	6	NR	530	515	NR	660	223	NR	790	4	NR	920	0	NR
405	9	NR	535	524	NR	665	197	NR	795	4	NR	925	0	NR
410	12	NR	540	530	NR	670	171	NR	800	3	NR	930	0	NR
415	20	NR	545	539	NR	675	149	NR	805	3	NR	935	0	NR
420	36	NR	550	545	NR	680	130	NR	810	2	NR	940	0	NR
425	64	NR	555	554	NR	685	112	NR	815	2	NR	945	0	NR
430	117	NR	560	562	NR	690	97	NR	820	2	NR	950	0	NR
435	212	NR	565	567	NR	695	83	NR	825	2	NR	955	0	NR
440	378	NR	570	571	NR	700	71	NR	830	1	NR	960	0	NR
445	709	NR	575	574	NR	705	61	NR	835	1	NR	965	0	NR
450	1000	NR	580	579	NR	710	52	NR	840	1	NR	970	0	NR
455	789	NR	585	578	NR	715	44	NR	845	1	NR	975	0	NR
460	519	NR	590	578	NR	720	38	NR	850	1	NR	980	0	NR
465	429	NR	595	571	NR	725	32	NR	855	1	NR	985	0	NR
470	316	NR	600	560	NR	730	28	NR	860	1	NR	990	0	NR
475	236	NR	605	545	NR	735	24	NR	865	1	NR	995	0	NR
480	224	NR	610	524	NR	740	20	NR	870	0	NR	1000	0	NR
485	235	NR	615	501	NR	745	17	NR	875	0	NR			

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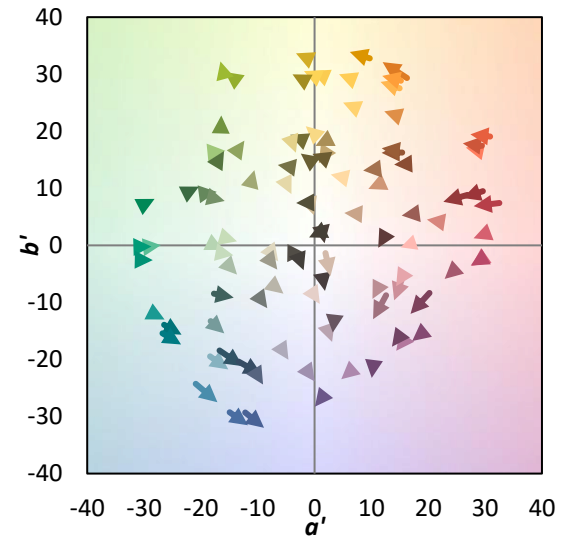
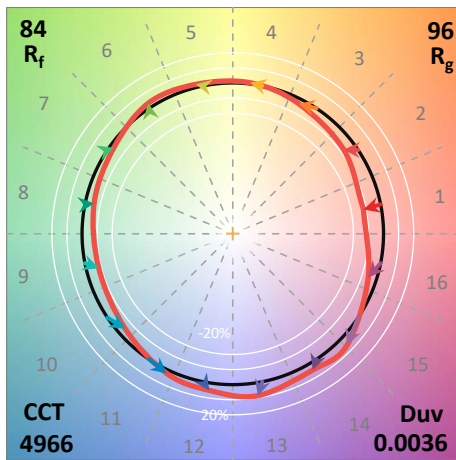
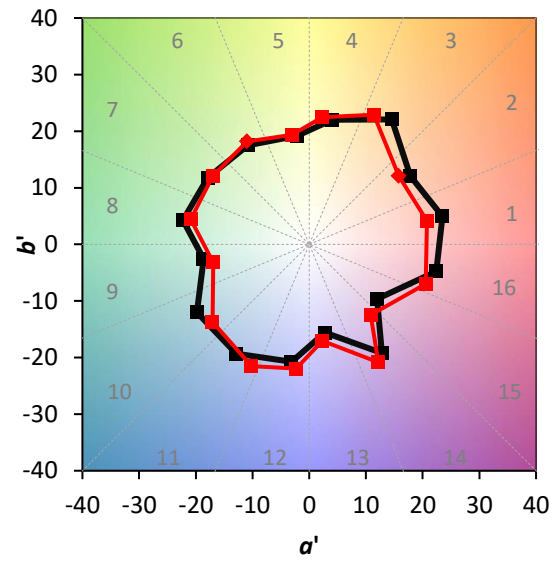
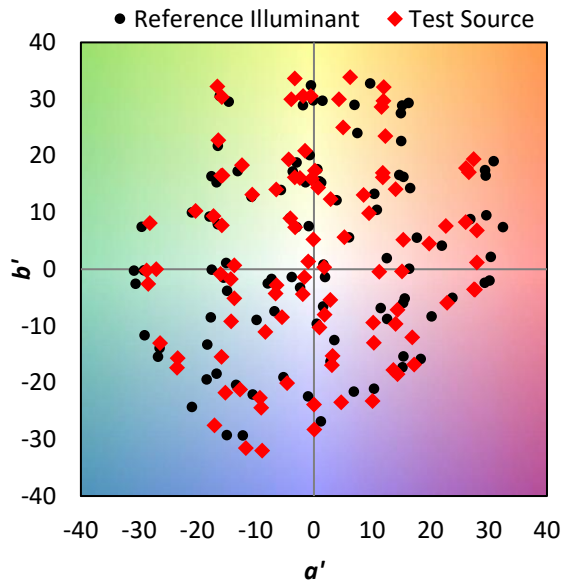
TM-30-18

Summary

$R_f = 84$
 $R_g = 96.2$
 $CIE R_a = 83.1$
 $R_9 = 10.3$

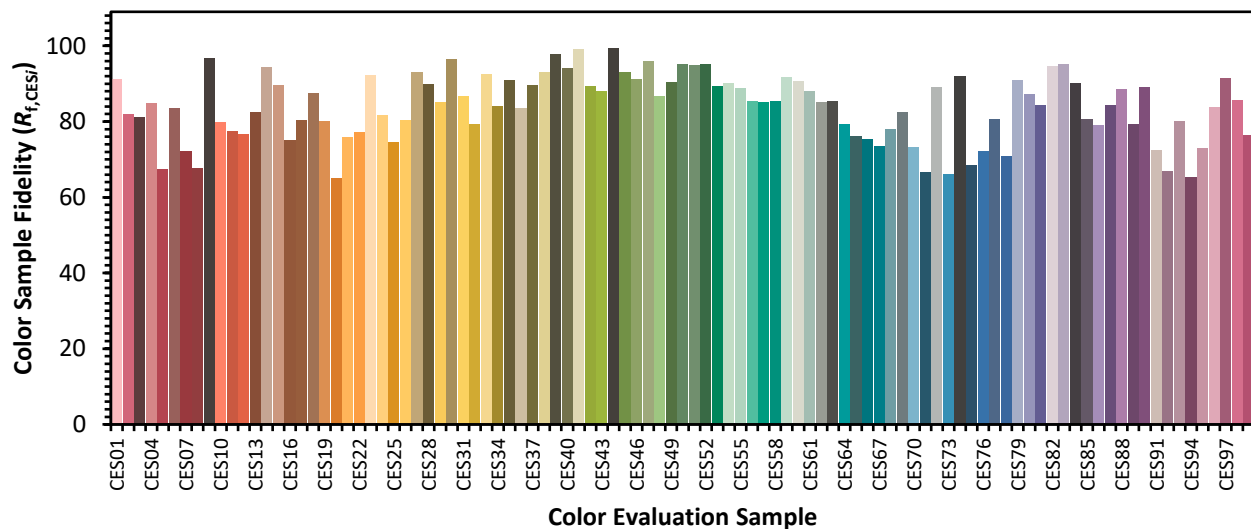


Color Vector Graphics

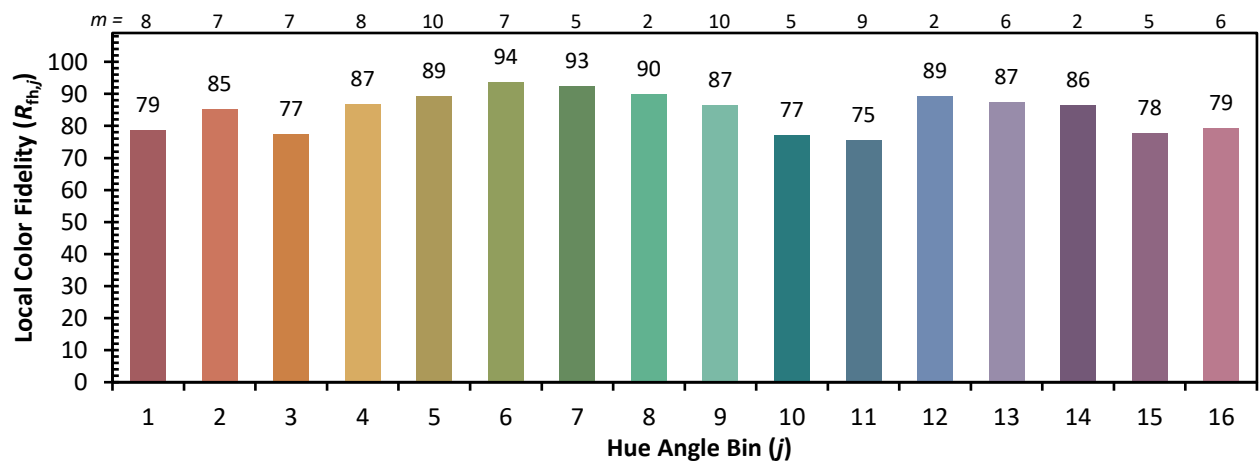
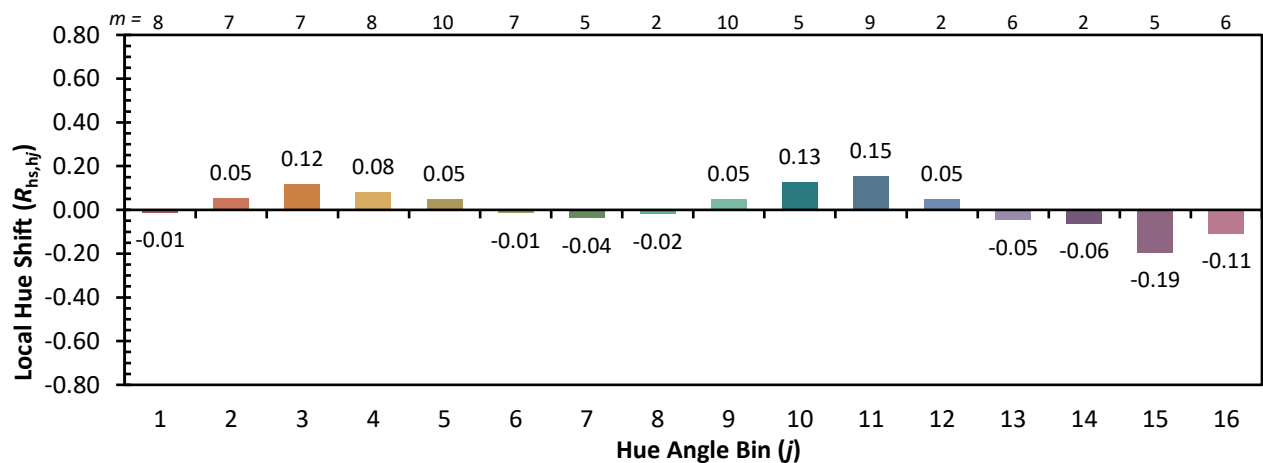
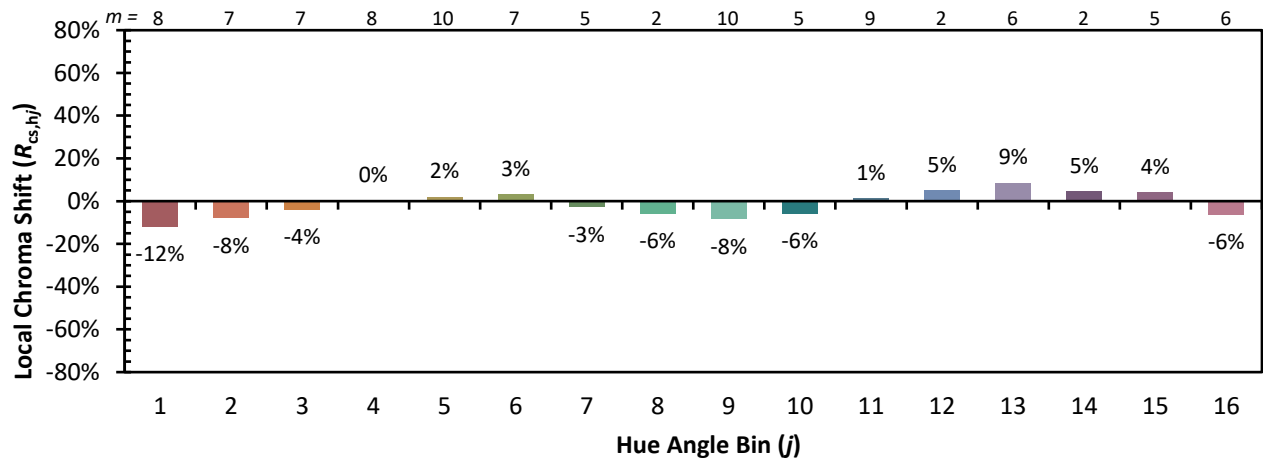


Individual Sample Fidelity Index ($R_{f,i}$)

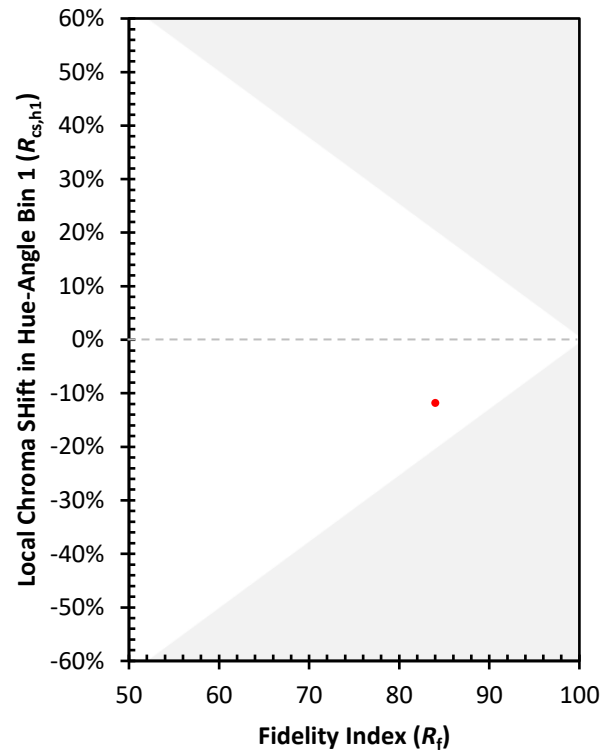
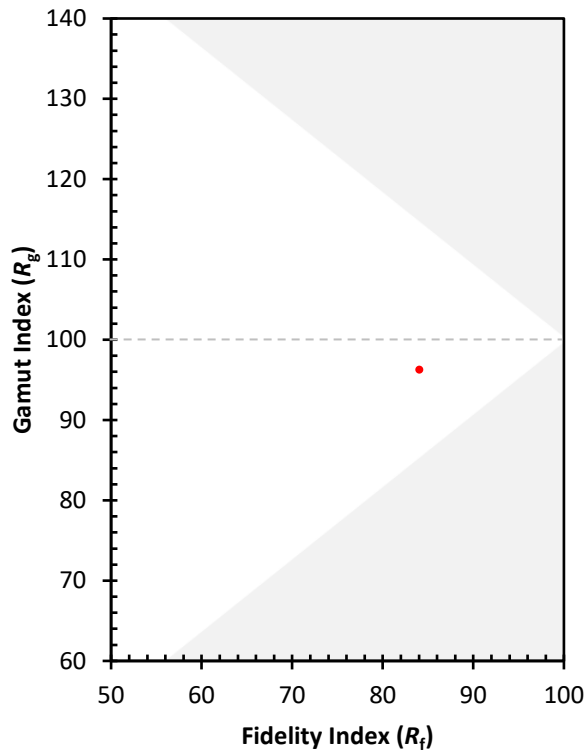
CES01 = 85	CES26 = 80	CES51 = 95	CES76 = 72
CES02 = 60	CES27 = 93	CES52 = 95	CES77 = 81
CES03 = 30	CES28 = 90	CES53 = 89	CES78 = 71
CES04 = 69	CES29 = 85	CES54 = 90	CES79 = 91
CES05 = 47	CES30 = 97	CES55 = 89	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 86	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 85	CES82 = 95
CES08 = 39	CES33 = 92	CES58 = 85	CES83 = 95
CES09 = 29	CES34 = 84	CES59 = 92	CES84 = 90
CES10 = 73	CES35 = 91	CES60 = 91	CES85 = 81
CES11 = 56	CES36 = 83	CES61 = 88	CES86 = 79
CES12 = 62	CES37 = 90	CES62 = 85	CES87 = 84
CES13 = 42	CES38 = 93	CES63 = 85	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 79
CES15 = 71	CES40 = 94	CES65 = 76	CES90 = 89
CES16 = 46	CES41 = 99	CES66 = 75	CES91 = 72
CES17 = 48	CES42 = 89	CES67 = 73	CES92 = 67
CES18 = 55	CES43 = 88	CES68 = 78	CES93 = 80
CES19 = 70	CES44 = 99	CES69 = 82	CES94 = 65
CES20 = 64	CES45 = 93	CES70 = 73	CES95 = 73
CES21 = 85	CES46 = 91	CES71 = 67	CES96 = 84
CES22 = 77	CES47 = 96	CES72 = 89	CES97 = 92
CES23 = 91	CES48 = 87	CES73 = 66	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 92	CES99 = 77
CES25 = 71	CES50 = 95	CES75 = 68	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)