

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: P1215991

Luminaire Tested: 24-ID2-90-CFD2-L940-U

Issue Date: 12/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1215991
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2506-458-28)
Test Lab: INNOVATION CENTER
Issue Date: 12/5/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: 24-ID2-90-CFD2-L940-U
Description: 2X4 IN DEPTH TROFFER WITH 2INCH CUBE DROP LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

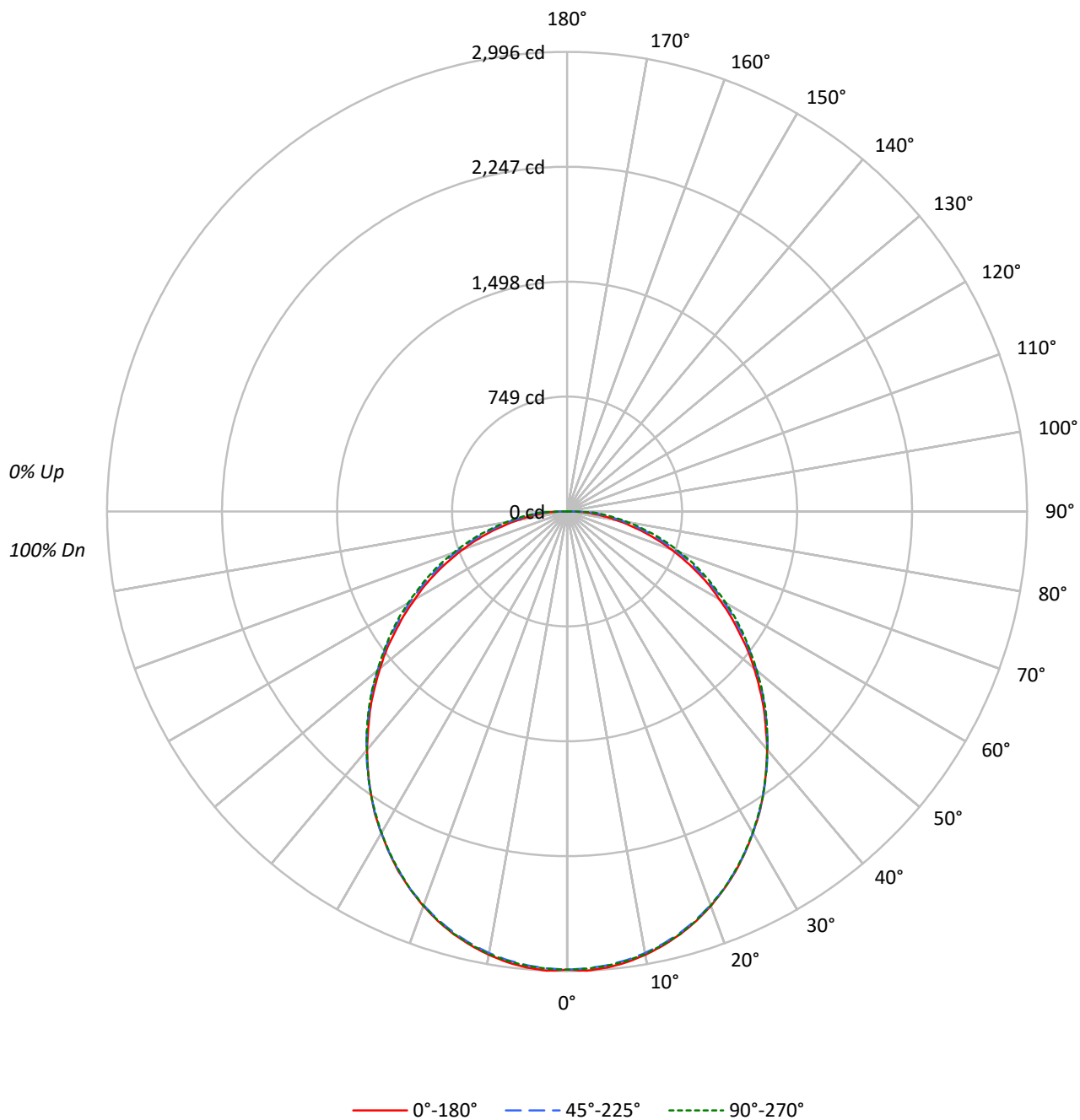
Lumens per Lamp: N/A
Luminaire Lumens: 8103.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.16')
CIE Type: Direct

Input Watts (W): 78
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: P1215991
CATALOG NUMBER: 24-ID2-90-CFD2-L940-U

Luminous Intensity Polar Plot



TEST NUMBER: P1215991

CATALOG NUMBER: 24-ID2-90-CFD2-L940-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	100		
1	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83		
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69		
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43		
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38		
7	65	51	43	36	63	51	42	36	49	42	36	48	41	36	46	40	36	34		
8	61	47	38	33	59	46	38	32	45	38	32	44	37	32	43	36	32	30		
9	57	43	35	29	55	43	35	29	41	34	29	40	34	29	39	33	29	27		
10	53	40	32	27	52	39	32	27	38	31	26	37	31	26	37	31	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4019	4019	4019
5°	4017	3982	3988
10°	3981	3934	3946
15°	3932	3873	3886
20°	3863	3792	3803
25°	3779	3696	3703
30°	3675	3584	3589
35°	3565	3460	3473
40°	3444	3331	3338
45°	3314	3196	3221
50°	3176	3061	3081
55°	3031	2914	2959
60°	2882	2770	2825
65°	2745	2607	2695
70°	2553	2443	2536
75°	2339	2207	2361
80°	2066	1967	2150
85°	1805	1719	1943

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3314 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.3	3.5
10°-20°	802.0	9.9
20°-30°	1191.6	14.7
30°-40°	1396.1	17.2
40°-50°	1405.3	17.3
50°-60°	1245.5	15.4
60°-70°	958.3	11.8
70°-80°	592.5	7.3
80°-90°	229.7	2.8
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°	2275.9	28.1
0°-40°	3672.0	45.3
0°-60°	6322.7	78.0
0°-90°	8103.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8103.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2987	2987	2987	2987	2987	
5°	2985	2976	2970	2968	2973	283
15°	2853	2845	2844	2843	2850	804
25°	2593	2588	2588	2587	2587	1193
35°	2231	2233	2231	2233	2233	1395
45°	1811	1817	1822	1825	1828	1396
55°	1366	1382	1393	1405	1405	1224
65°	936	950	968	986	992	925
75°	517	535	559	586	590	547
85°	170	192	219	239	241	188
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2987.0	2987.0	2987.0	2987.0	2987.0
2.5°	2996.1	2987.0	2981.3	2977.9	2983.6
5°	2984.7	2975.6	2970.0	2967.7	2973.4
7.5°	2964.3	2955.2	2950.6	2949.5	2955.2
10°	2934.7	2925.6	2922.2	2921.1	2929.0
12.5°	2897.2	2889.3	2887.0	2888.1	2892.7
15°	2852.9	2845.0	2843.8	2842.7	2849.5
17.5°	2798.4	2791.6	2791.6	2789.3	2796.1
20°	2737.0	2729.1	2730.2	2729.1	2733.6
22.5°	2666.6	2662.0	2665.5	2664.3	2665.5
25°	2592.7	2588.2	2588.2	2587.1	2587.1
27.5°	2508.7	2507.5	2507.5	2504.1	2505.3
30°	2420.0	2421.2	2420.0	2418.9	2416.6
32.5°	2331.4	2329.2	2329.2	2329.2	2325.7
35°	2231.4	2232.6	2231.4	2232.6	2232.6
37.5°	2129.2	2136.0	2133.7	2136.0	2130.3
40°	2026.9	2029.2	2031.5	2031.5	2028.1
42.5°	1915.6	1928.1	1929.2	1929.2	1929.2
45°	1811.1	1816.7	1822.4	1824.7	1828.1
47.5°	1699.7	1709.9	1720.2	1717.9	1722.4
50°	1589.5	1603.1	1610.0	1615.6	1612.2
52.5°	1482.7	1490.7	1502.0	1508.8	1507.7
55°	1365.7	1381.6	1392.9	1405.4	1405.4
57.5°	1258.9	1277.1	1286.1	1300.9	1303.2
60°	1145.3	1165.7	1180.5	1194.1	1195.3
62.5°	1044.1	1057.8	1073.7	1093.0	1089.6
65°	936.2	949.8	968.0	986.2	991.9
67.5°	824.9	844.2	865.8	883.9	891.9
70°	720.3	740.8	765.8	784.0	786.2
72.5°	618.1	639.7	660.1	682.8	688.5
75°	517.0	535.1	559.0	586.3	589.7
77.5°	415.8	440.8	464.7	489.7	490.8
80°	327.2	347.7	376.1	398.8	403.3
82.5°	240.9	263.6	290.9	314.7	317.0
85°	170.4	192.0	219.3	238.6	240.9
87.5°	114.8	136.3	161.3	180.7	182.9
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	15.57	17.21	15.93	17.52	17.84	15.84	17.48	16.21	17.80	18.11
	3H	17.28	18.77	17.66	19.09	19.45	17.73	19.22	18.11	19.55	19.91
	4H	17.92	19.32	18.31	19.67	20.04	18.50	19.90	18.89	20.24	20.62
	6H	18.38	19.68	18.79	20.05	20.44	19.12	20.42	19.53	20.79	21.18
	8H	18.53	19.77	18.95	20.16	20.56	19.37	20.61	19.79	21.00	21.40
	12H	18.64	19.83	19.07	20.21	20.64	19.58	20.77	20.01	21.16	21.58
4H	2H	16.21	17.61	16.61	17.96	18.33	16.43	17.83	16.82	18.17	18.55
	3H	18.15	19.33	18.56	19.73	20.13	18.54	19.72	18.95	20.12	20.52
	4H	18.91	19.98	19.34	20.40	20.83	19.44	20.51	19.87	20.93	21.36
	6H	19.51	20.44	19.96	20.88	21.34	20.21	21.15	20.67	21.59	22.05
	8H	19.70	20.59	20.16	21.03	21.49	20.52	21.41	20.98	21.85	22.31
	12H	19.86	20.65	20.34	21.13	21.60	20.81	21.60	21.29	22.07	22.54
8H	4H	19.26	20.15	19.72	20.59	21.05	19.73	20.61	20.19	21.05	21.52
	6H	19.99	20.73	20.48	21.21	21.69	20.64	21.38	21.13	21.87	22.34
	8H	20.27	20.93	20.77	21.43	21.92	21.05	21.71	21.56	22.22	22.70
	12H	20.51	21.09	21.01	21.58	22.14	21.44	22.03	21.95	22.52	23.08
12H	4H	19.32	20.11	19.80	20.59	21.06	19.76	20.56	20.24	21.03	21.50
	6H	20.07	20.74	20.58	21.24	21.73	20.70	21.36	21.20	21.87	22.35
	8H	20.42	21.01	20.92	21.50	22.06	21.17	21.76	21.67	22.25	22.81

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

Report Prepared for

Cooper Lighting Solutions

Corelite

Report Number: SP1-2506-458-11

Test Date: 08/26/2025

Luminaire Tested: 22ID2-55-CFR1-L940-U

Data in this report applies to families of products including 22ID2-55-CFR1-L940-U

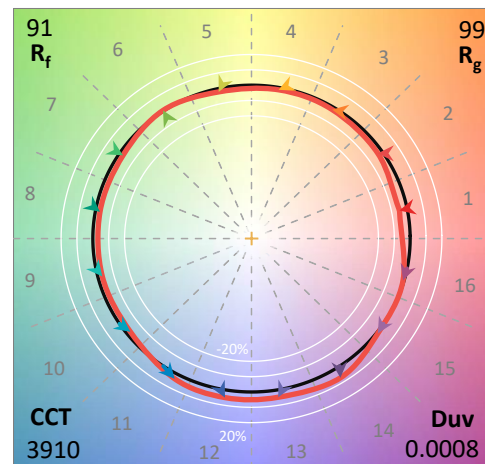
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-458-11
 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-L940-U**
 Description: 2X2 CGTX WITH INDEPTH FRAME AND CFR1 LENS - 5500 LUMEN 4000K 90CRI

Spectral Parameters

CCT (K): 3910
 CIE u' : 0.2263
 CIE v' : 0.5043
 Duv: 0.0008
 CIE x: 0.3851
 CIE y: 0.3813
 CIE z: 0.2336
 Peak Wavelength (nm): 451
 Dominant Wavelength (nm): 578
 Purity: 30.01895
 R_f: 90.8
 R_g: 98.8

CRI (Ra): 92.4
 R1: 92.5
 R2: 94.9
 R3: 95.8
 R4: 92.7
 R5: 91.7
 R6: 92.1
 R7: 94.3
 R8: 85.2
 R9: 62.0
 R10: 87.0
 R11: 92.8
 R12: 71.7
 R13: 93.2
 R14: 97.3
 R15: 89.6



Test Conditions

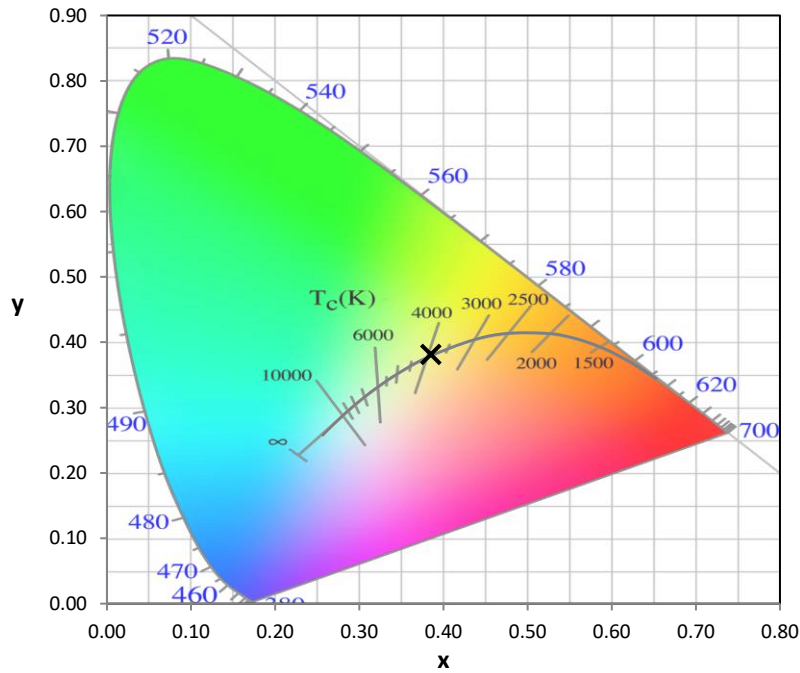
Stabilization Time: 31M
 Operation Time: 1H 31M
 Sphere Temperature (°C): 25.2.

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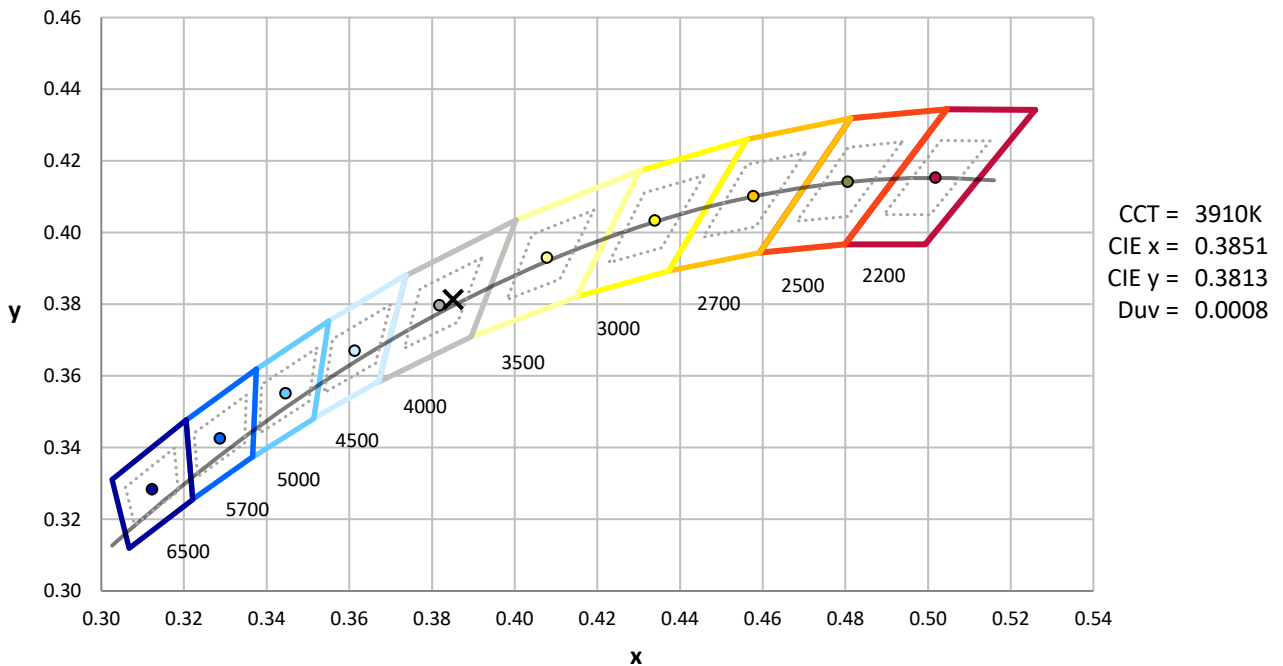
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



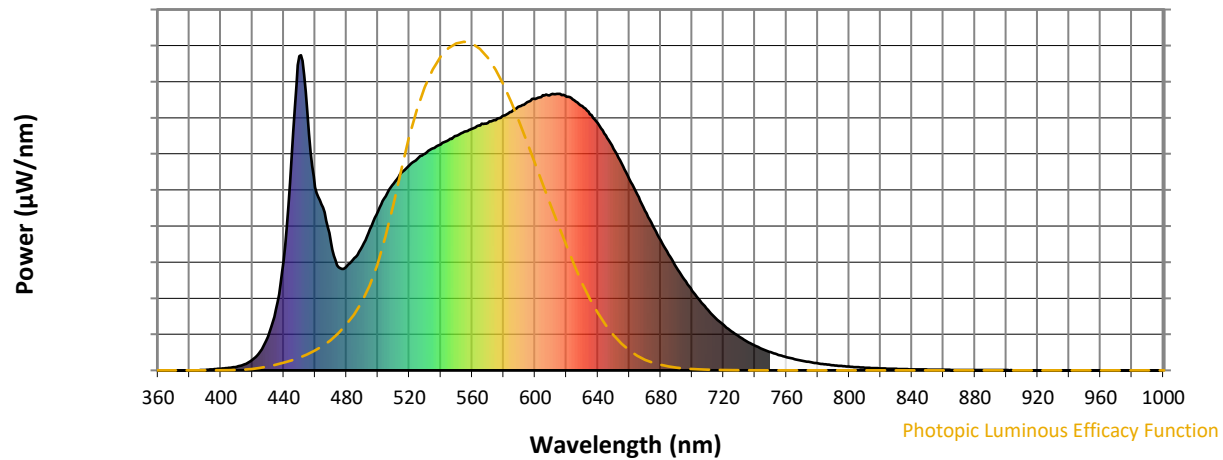
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength

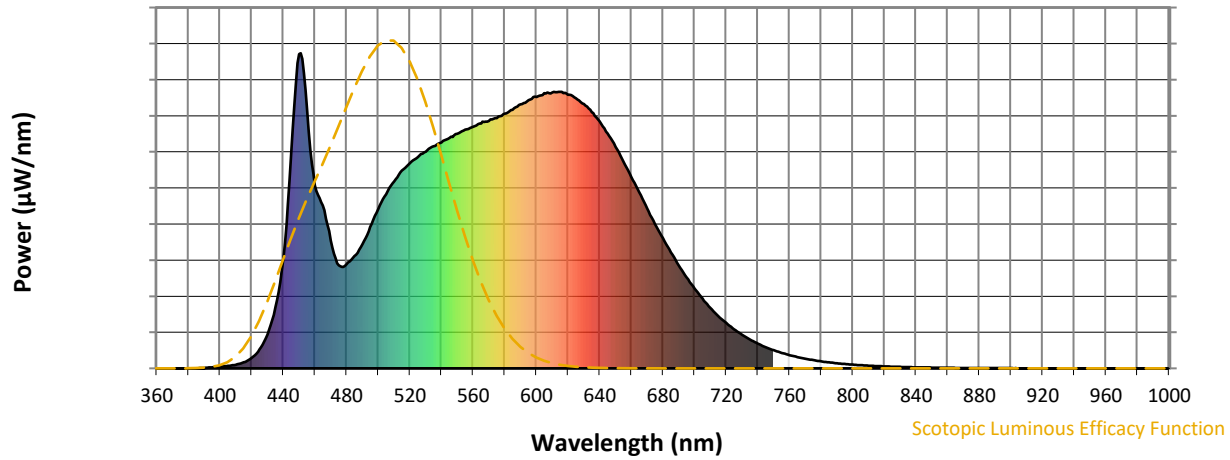


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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	394	NR	620	868	NR	750	58	NR	880	1	NR
365	0	NR	495	449	NR	625	858	NR	755	49	NR	885	1	NR
370	0	NR	500	505	NR	630	839	NR	760	42	NR	890	1	NR
375	0	NR	505	553	NR	635	813	NR	765	36	NR	895	1	NR
380	0	NR	510	593	NR	640	783	NR	770	31	NR	900	1	NR
385	0	NR	515	628	NR	645	746	NR	775	26	NR	905	1	NR
390	1	NR	520	651	NR	650	702	NR	780	22	NR	910	0	NR
395	4	NR	525	670	NR	655	657	NR	785	19	NR	915	0	NR
400	5	NR	530	687	NR	660	607	NR	790	16	NR	920	0	NR
405	8	NR	535	705	NR	665	559	NR	795	14	NR	925	0	NR
410	12	NR	540	717	NR	670	507	NR	800	12	NR	930	0	NR
415	19	NR	545	731	NR	675	458	NR	805	10	NR	935	0	NR
420	34	NR	550	745	NR	680	413	NR	810	9	NR	940	0	NR
425	60	NR	555	757	NR	685	367	NR	815	7	NR	945	0	NR
430	107	NR	560	767	NR	690	328	NR	820	6	NR	950	0	NR
435	194	NR	565	777	NR	695	289	NR	825	5	NR	955	0	NR
440	349	NR	570	785	NR	700	253	NR	830	5	NR	960	0	NR
445	678	NR	575	794	NR	705	221	NR	835	4	NR	965	0	NR
450	997	NR	580	809	NR	710	192	NR	840	3	NR	970	0	NR
455	819	NR	585	820	NR	715	165	NR	845	3	NR	975	0	NR
460	581	NR	590	838	NR	720	144	NR	850	2	NR	980	0	NR
465	517	NR	595	851	NR	725	124	NR	855	2	NR	985	0	NR
470	406	NR	600	861	NR	730	107	NR	860	2	NR	990	0	NR
475	327	NR	605	873	NR	735	91	NR	865	2	NR	995	0	NR
480	330	NR	610	875	NR	740	78	NR	870	1	NR	1000	0	NR
485	356	NR	615	877	NR	745	67	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



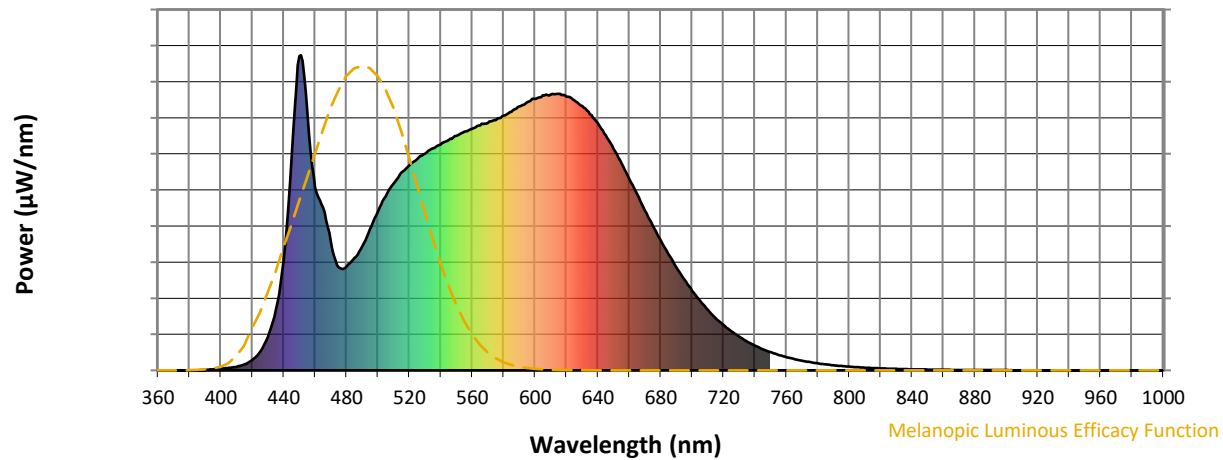
Scotopic Lumens: NR

S/P: 1.75

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	394	NR	620	868	NR	750	58	NR	880	1	NR
365	0	NR	495	449	NR	625	858	NR	755	49	NR	885	1	NR
370	0	NR	500	505	NR	630	839	NR	760	42	NR	890	1	NR
375	0	NR	505	553	NR	635	813	NR	765	36	NR	895	1	NR
380	0	NR	510	593	NR	640	783	NR	770	31	NR	900	1	NR
385	0	NR	515	628	NR	645	746	NR	775	26	NR	905	1	NR
390	1	NR	520	651	NR	650	702	NR	780	22	NR	910	0	NR
395	4	NR	525	670	NR	655	657	NR	785	19	NR	915	0	NR
400	5	NR	530	687	NR	660	607	NR	790	16	NR	920	0	NR
405	8	NR	535	705	NR	665	559	NR	795	14	NR	925	0	NR
410	12	NR	540	717	NR	670	507	NR	800	12	NR	930	0	NR
415	19	NR	545	731	NR	675	458	NR	805	10	NR	935	0	NR
420	34	NR	550	745	NR	680	413	NR	810	9	NR	940	0	NR
425	60	NR	555	757	NR	685	367	NR	815	7	NR	945	0	NR
430	107	NR	560	767	NR	690	328	NR	820	6	NR	950	0	NR
435	194	NR	565	777	NR	695	289	NR	825	5	NR	955	0	NR
440	349	NR	570	785	NR	700	253	NR	830	5	NR	960	0	NR
445	678	NR	575	794	NR	705	221	NR	835	4	NR	965	0	NR
450	997	NR	580	809	NR	710	192	NR	840	3	NR	970	0	NR
455	819	NR	585	820	NR	715	165	NR	845	3	NR	975	0	NR
460	581	NR	590	838	NR	720	144	NR	850	2	NR	980	0	NR
465	517	NR	595	851	NR	725	124	NR	855	2	NR	985	0	NR
470	406	NR	600	861	NR	730	107	NR	860	2	NR	990	0	NR
475	327	NR	605	873	NR	735	91	NR	865	2	NR	995	0	NR
480	330	NR	610	875	NR	740	78	NR	870	1	NR	1000	0	NR
485	356	NR	615	877	NR	745	67	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.61

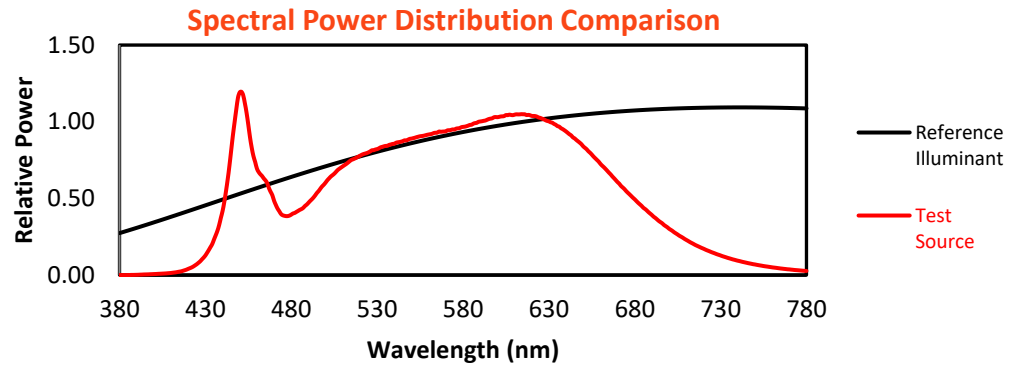
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	394	NR	620	868	NR	750	58	NR	880	1	NR
365	0	NR	495	449	NR	625	858	NR	755	49	NR	885	1	NR
370	0	NR	500	505	NR	630	839	NR	760	42	NR	890	1	NR
375	0	NR	505	553	NR	635	813	NR	765	36	NR	895	1	NR
380	0	NR	510	593	NR	640	783	NR	770	31	NR	900	1	NR
385	0	NR	515	628	NR	645	746	NR	775	26	NR	905	1	NR
390	1	NR	520	651	NR	650	702	NR	780	22	NR	910	0	NR
395	4	NR	525	670	NR	655	657	NR	785	19	NR	915	0	NR
400	5	NR	530	687	NR	660	607	NR	790	16	NR	920	0	NR
405	8	NR	535	705	NR	665	559	NR	795	14	NR	925	0	NR
410	12	NR	540	717	NR	670	507	NR	800	12	NR	930	0	NR
415	19	NR	545	731	NR	675	458	NR	805	10	NR	935	0	NR
420	34	NR	550	745	NR	680	413	NR	810	9	NR	940	0	NR
425	60	NR	555	757	NR	685	367	NR	815	7	NR	945	0	NR
430	107	NR	560	767	NR	690	328	NR	820	6	NR	950	0	NR
435	194	NR	565	777	NR	695	289	NR	825	5	NR	955	0	NR
440	349	NR	570	785	NR	700	253	NR	830	5	NR	960	0	NR
445	678	NR	575	794	NR	705	221	NR	835	4	NR	965	0	NR
450	997	NR	580	809	NR	710	192	NR	840	3	NR	970	0	NR
455	819	NR	585	820	NR	715	165	NR	845	3	NR	975	0	NR
460	581	NR	590	838	NR	720	144	NR	850	2	NR	980	0	NR
465	517	NR	595	851	NR	725	124	NR	855	2	NR	985	0	NR
470	406	NR	600	861	NR	730	107	NR	860	2	NR	990	0	NR
475	327	NR	605	873	NR	735	91	NR	865	2	NR	995	0	NR
480	330	NR	610	875	NR	740	78	NR	870	1	NR	1000	0	NR
485	356	NR	615	877	NR	745	67	NR	875	1	NR			

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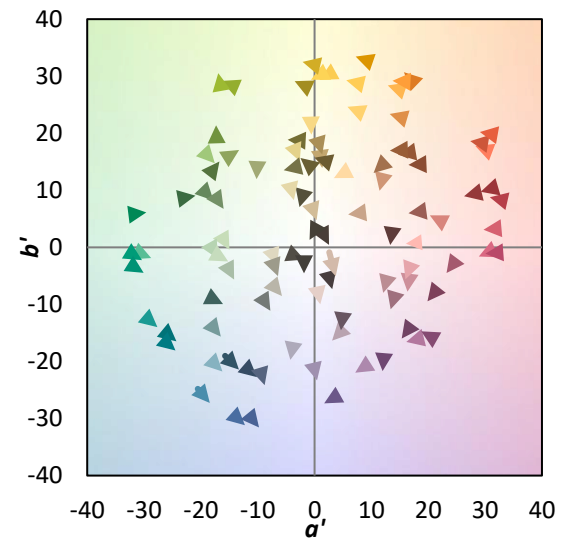
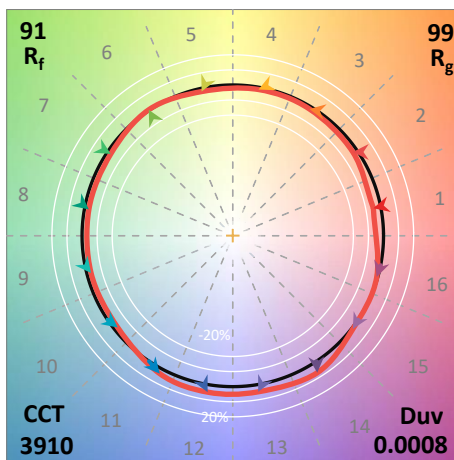
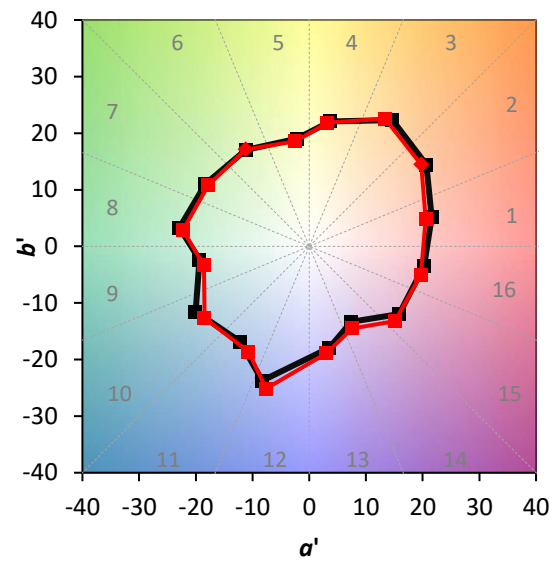
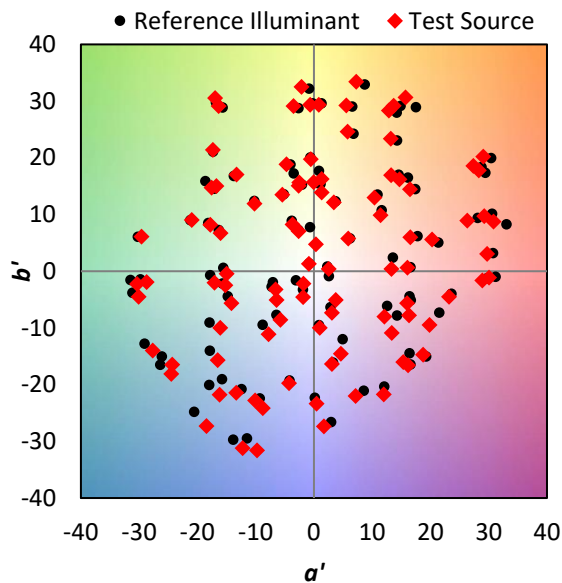
TM-30-18

Summary

$R_f = 90.8$
 $R_g = 98.8$
 $CIE R_a = 92.4$
 $R_9 = 62.0$

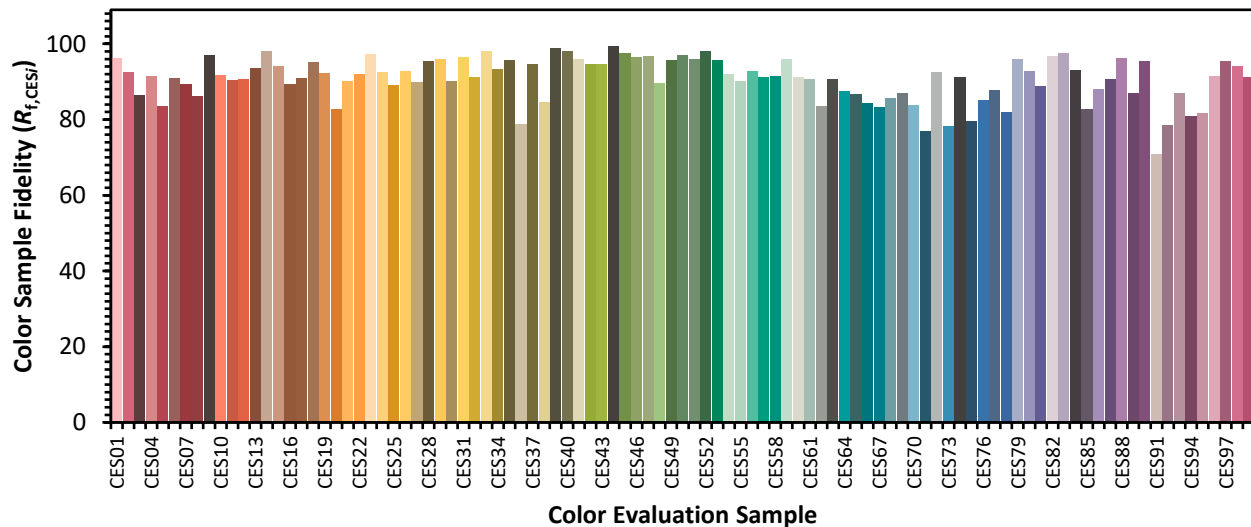


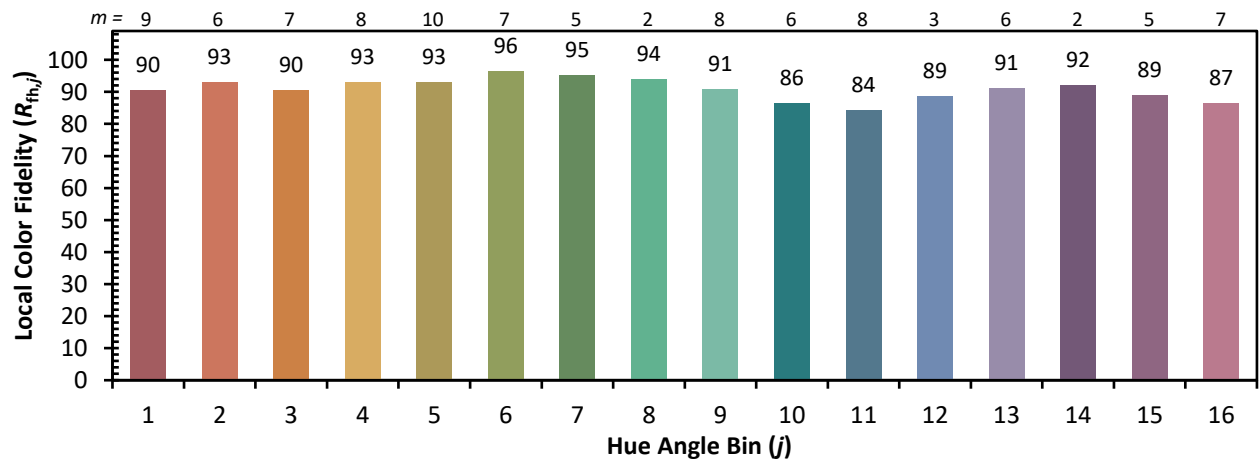
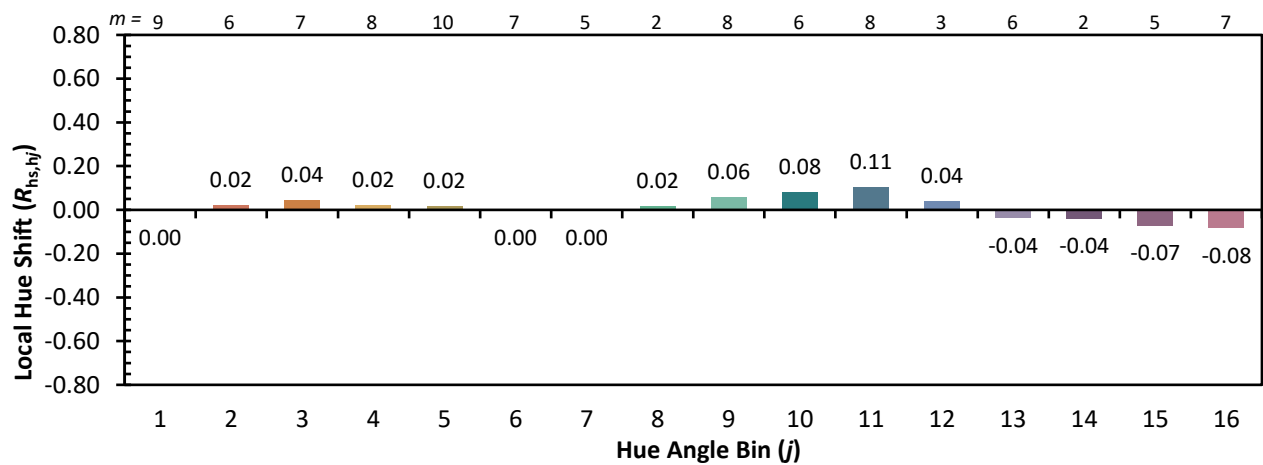
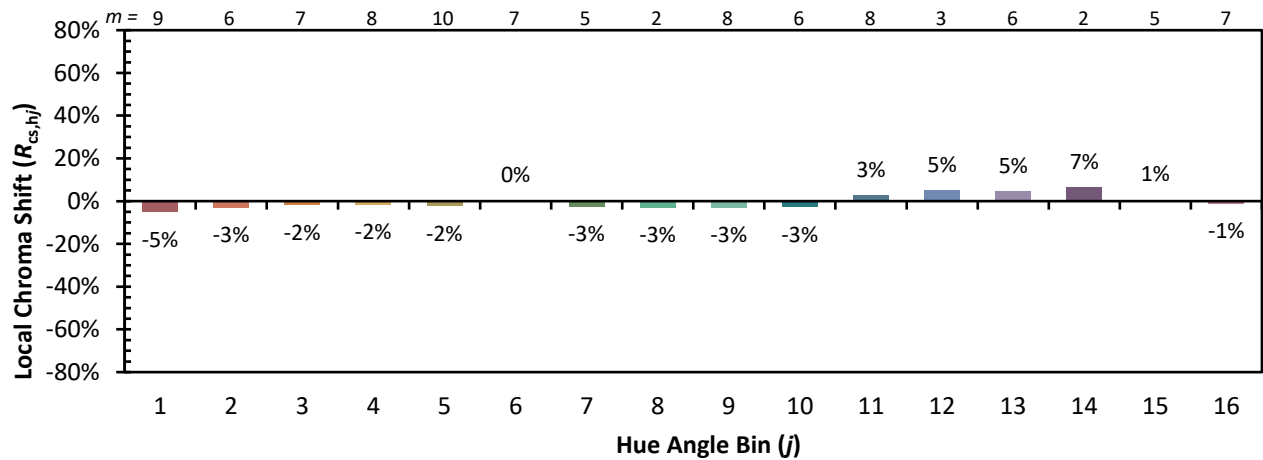
Color Vector Graphics



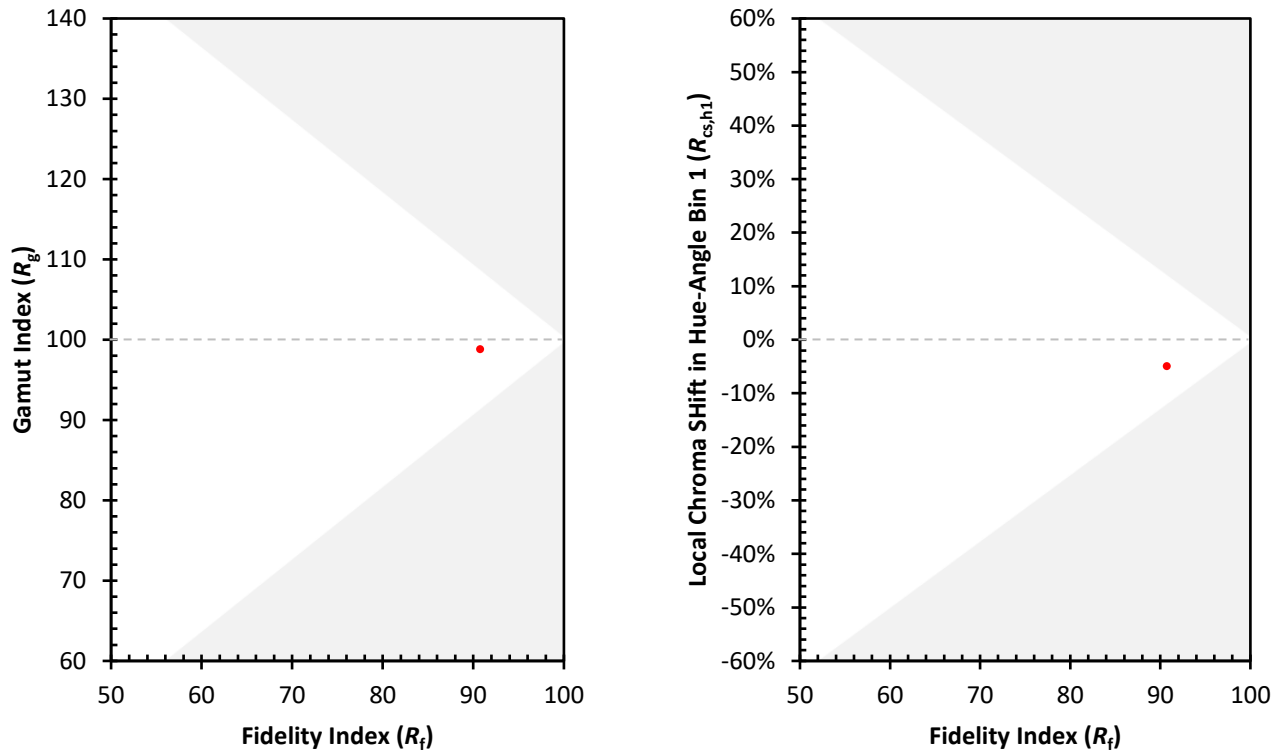
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 93	CES51 = 96	CES76 = 85
CES02 = 62	CES27 = 90	CES52 = 98	CES77 = 88
CES03 = 31	CES28 = 96	CES53 = 96	CES78 = 82
CES04 = 69	CES29 = 96	CES54 = 92	CES79 = 96
CES05 = 49	CES30 = 90	CES55 = 90	CES80 = 93
CES06 = 50	CES31 = 97	CES56 = 93	CES81 = 89
CES07 = 42	CES32 = 91	CES57 = 91	CES82 = 97
CES08 = 41	CES33 = 98	CES58 = 92	CES83 = 98
CES09 = 29	CES34 = 93	CES59 = 96	CES84 = 93
CES10 = 74	CES35 = 96	CES60 = 91	CES85 = 83
CES11 = 57	CES36 = 79	CES61 = 91	CES86 = 88
CES12 = 63	CES37 = 95	CES62 = 84	CES87 = 91
CES13 = 43	CES38 = 85	CES63 = 91	CES88 = 96
CES14 = 74	CES39 = 99	CES64 = 87	CES89 = 87
CES15 = 71	CES40 = 98	CES65 = 87	CES90 = 96
CES16 = 47	CES41 = 96	CES66 = 84	CES91 = 71
CES17 = 49	CES42 = 95	CES67 = 83	CES92 = 79
CES18 = 56	CES43 = 95	CES68 = 86	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 87	CES94 = 81
CES20 = 66	CES45 = 98	CES70 = 84	CES95 = 82
CES21 = 85	CES46 = 97	CES71 = 77	CES96 = 91
CES22 = 78	CES47 = 97	CES72 = 93	CES97 = 96
CES23 = 91	CES48 = 90	CES73 = 78	CES98 = 94
CES24 = 90	CES49 = 96	CES74 = 91	CES99 = 91
CES25 = 71	CES50 = 97	CES75 = 80	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)