Signify Classified - Internal

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: METALUX

Report Number: P1559303

Luminaire Tested: 24CGTX-45-B2750-W2D-5000K

Issue Date: 9/2/2026

Report Generated By 670265710 / DESKTOP-98SHLC4

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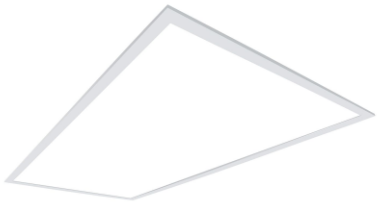
Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1559303
	TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2505-441-1)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	9/2/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	24CGTX-45-B2750-W2D-5000K
Description:	2X4 4500 LUMEN CGTX TROFFER WITH BIO UP LEDS AT 5000K CCT WITH FROSTED SMOOTH l
Light Source:	5000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4532.0 lumens
Efficiency:	N/A
Efficacy:	112.7 lumens/watt
Spacing Criteria (0/90/45):	1.27 / 1.27 / 1.39
Luminous Opening:	Rectangular (W 2' x L: 4' x H: 0')
CIE Type:	Direct
Input Watts (W):	40.2
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

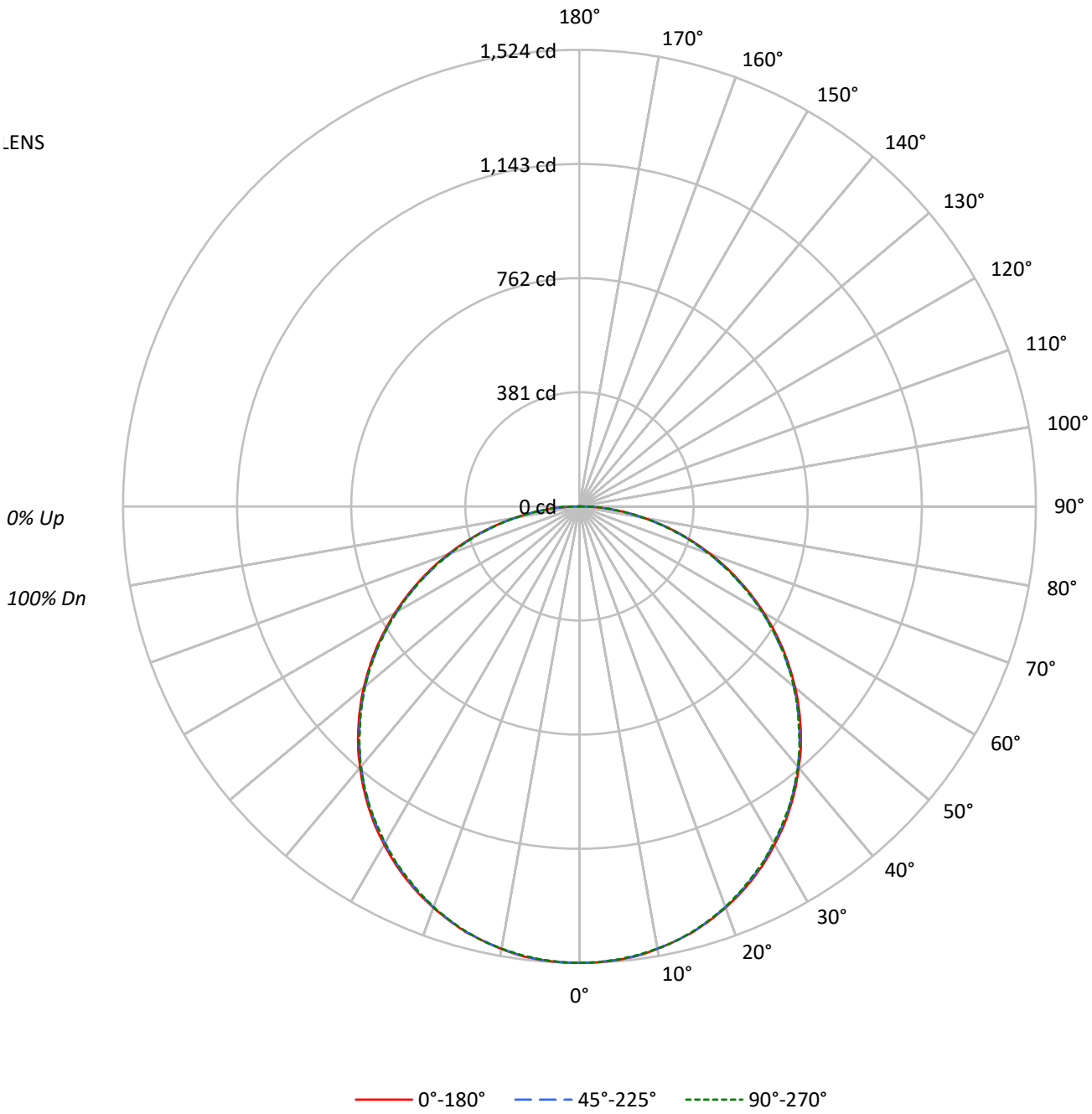


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Scaled Data Report

TEST NUMBER: P1559303
CATALOG NUMBER: 24CGTX-45-B2750-W2D-5000K

Luminous Intensity Polar Plot



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TEST NUMBER: P1559303
CATALOG NUMBER: 24CGTX-45-B2750-W2D-5000K

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	46	40	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2051	2051	2051
5°	2052	2051	2049
10°	2050	2048	2048
15°	2048	2047	2045
20°	2042	2039	2038
25°	2036	2030	2026
30°	2026	2018	2015
35°	2015	2008	2006
40°	2001	1993	1993
45°	1987	1976	1971
50°	1968	1954	1954
55°	1944	1926	1929
60°	1912	1894	1894
65°	1877	1852	1855
70°	1831	1797	1805
75°	1775	1745	1745
80°	1669	1661	1654
85°	1573	1559	1573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1987 cd/sqm

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Scaled Data Report

TEST NUMBER: P1559303
CATALOG NUMBER: 24CGTX-45-B2750-W2D-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.3	3.2
10°-20°	414.1	9.1
20°-30°	629.7	13.9
30°-40°	763.8	16.9
40°-50°	800.3	17.7
50°-60°	734.3	16.2
60°-70°	576.5	12.7
70°-80°	355.3	7.8
80°-90°	113.7	2.5
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°	1188.1	26.2
0°-40°	1951.9	43.1
0°-60°	3486.5	76.9
0°-90°	4532.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4532.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1519	1514	1518	1519	1517	144
15°	1470	1464	1469	1469	1468	415
25°	1371	1363	1367	1366	1364	632
35°	1227	1218	1222	1218	1221	768
45°	1044	1037	1038	1035	1036	806
55°	829	823	821	818	822	740
65°	590	585	582	579	583	583
75°	341	338	336	333	336	359
85°	102	105	101	98	102	113
90°	0	0	0	0	0	

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Scaled Data Report

TEST NUMBER: P1559303
CATALOG NUMBER: 24CGTX-45-B2750-W2D-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*1524.1*	*1524.1*	*1524.1*	*1524.1*	*1524.1*
2.5°	*1523.2*	1516.4	1522.2	1522.2	1522.2
5°	*1519.3*	1513.5	1518.3	1519.3	1517.4
7.5°	*1512.6*	1506.8	1511.6	1511.6	1509.7
10°	*1500.1*	1494.3	1499.1	1500.1	1499.1
12.5°	*1485.7*	1479.9	1485.7	1486.6	1486.6
15°	*1470.3*	1463.5	1469.3	1469.3	1468.3
17.5°	*1449.1*	1442.4	1447.2	1447.2	1447.2
20°	*1426.0*	1419.3	1424.1	1424.1	1423.1
22.5°	*1400.1*	1392.4	1397.2	1396.2	1395.3
25°	*1371.2*	1362.6	1367.4	1366.4	1364.5
27.5°	*1339.5*	1331.8	1334.7	1332.8	1333.7
30°	*1303.9*	1296.2	1299.1	1296.2	1297.2
32.5°	*1267.4*	1258.7	1262.6	1259.7	1259.7
35°	*1227.0*	1218.3	1222.2	1218.3	1221.2
37.5°	*1184.7*	1176.0	1178.9	1177.0	1178.9
40°	*1139.5*	1131.8	1134.7	1130.8	1134.7
42.5°	*1094.3*	1086.6	1087.6	1083.7	1087.6
45°	*1044.3*	1036.6	1038.5	1034.7	1035.6
47.5°	*993.3*	986.6	986.6	982.7	986.6
50°	*940.4*	933.7	933.7	929.9	933.7
52.5°	*884.7*	878.9	878.9	874.1	878.9
55°	*828.9*	823.1	821.2	818.3	822.2
57.5°	*770.2*	764.5	762.5	759.7	763.5
60°	*710.6*	705.8	703.9	700.0	703.9
62.5°	*651.0*	645.2	643.3	640.4	643.3
65°	*589.5*	584.6	581.8	578.9	582.7
67.5°	*527.9*	523.1	519.3	517.3	521.2
70°	*465.4*	460.6	456.8	455.8	458.7
72.5°	*402.9*	401.0	396.2	394.3	397.1
75°	*341.4*	338.5	335.6	332.7	335.6
77.5°	*276.9*	279.8	274.1	273.1	275.0
80°	*215.4*	219.2	214.4	212.5	213.5
82.5°	*157.7*	160.6	154.8	152.9	156.7
85°	*101.9*	104.8	101.0	98.1	101.9
87.5°	*49.0*	52.9	51.0	52.9	56.7
90°	*0.0*	0.0	0.0	0.0	0.0

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TEST NUMBER: P1559303
CATALOG NUMBER: 24CGTX-45-B2750-W2D-5000K

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	14.48	16.14	14.84	16.46	16.77	14.43	16.09	14.79	16.41	16.72
	3H	16.44	17.95	16.81	18.27	18.63	16.37	17.88	16.75	18.21	18.57
	4H	17.22	18.65	17.62	18.99	19.37	17.14	18.57	17.54	18.92	19.29
	6H	17.83	19.16	18.24	19.52	19.91	17.76	19.08	18.17	19.44	19.83
	8H	18.05	19.32	18.47	19.70	20.10	17.97	19.24	18.39	19.63	20.02
	12H	18.21	19.43	18.64	19.81	20.23	18.13	19.35	18.56	19.73	20.16
4H	2H	15.14	16.57	15.54	16.92	17.29	15.11	16.53	15.50	16.88	17.25
	3H	17.33	18.53	17.74	18.93	19.33	17.28	18.48	17.68	18.87	19.27
	4H	18.25	19.34	18.68	19.76	20.19	18.18	19.27	18.61	19.69	20.12
	6H	19.02	19.97	19.47	20.41	20.87	18.94	19.89	19.39	20.33	20.78
	8H	19.29	20.19	19.75	20.63	21.09	19.21	20.10	19.67	20.54	21.01
	12H	19.51	20.32	19.99	20.79	21.26	19.42	20.23	19.90	20.70	21.17
8H	4H	18.61	19.51	19.07	19.95	20.42	18.55	19.45	19.01	19.89	20.35
	6H	19.52	20.27	20.01	20.76	21.23	19.44	20.19	19.94	20.68	21.15
	8H	19.89	20.56	20.40	21.07	21.55	19.80	20.47	20.31	20.98	21.46
	12H	20.21	20.80	20.71	21.29	21.85	20.11	20.70	20.61	21.19	21.75
12H	4H	18.66	19.47	19.14	19.94	20.41	18.61	19.41	19.08	19.89	20.35
	6H	19.60	20.27	20.11	20.78	21.26	19.53	20.20	20.03	20.70	21.19
	8H	20.04	20.63	20.54	21.12	21.68	19.95	20.54	20.45	21.03	21.59

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2510-581-14-R2

Test Date: 02/04/2026

Luminaire Tested: 24CGTX-45-B2750-W2D-5000K

Data in this report applies to families of products including 24CGTX-45-UNV

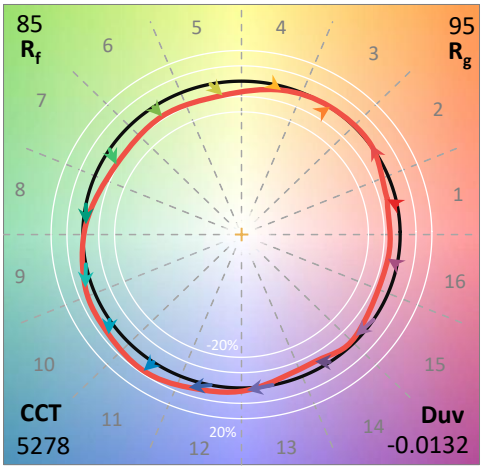
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Version: v7.05

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2510-581-14-R2
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	07/28/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Metalux
Catalog Number:	**24CGTX-45-B2750-W2D-5000K**
Description:	*THIS IS A REVISION OF REPORT SP1-2510-581-14-R2 TO UPDATE THE CATALOG INFORMATION* 2X4 CGTX 4500 lumen with BioUp Boards - 6500K

Spectral Parameters

CCT (K):	5278	CRI (Ra):	84.0		
CIE u':	0.2184	R1:	90.0	R9:	81.1
CIE v':	0.4670	R2:	84.5	R10:	70.3
Duv:	-0.0132	R3:	81.1	R11:	85.7
CIE x:	0.3366	R4:	85.2	R12:	68.5
CIE y:	0.3199	R5:	87.9	R13:	87.9
CIE z:	0.3435	R6:	78.8	R14:	91.1
Peak Wavelength (nm):	474	R7:	80.9	R15:	92.2
Dominant Wavelength (nm):	0	R8:	83.2		
Purity:	0				
Rf:	85				
Rg:	94.8				



Test Conditions

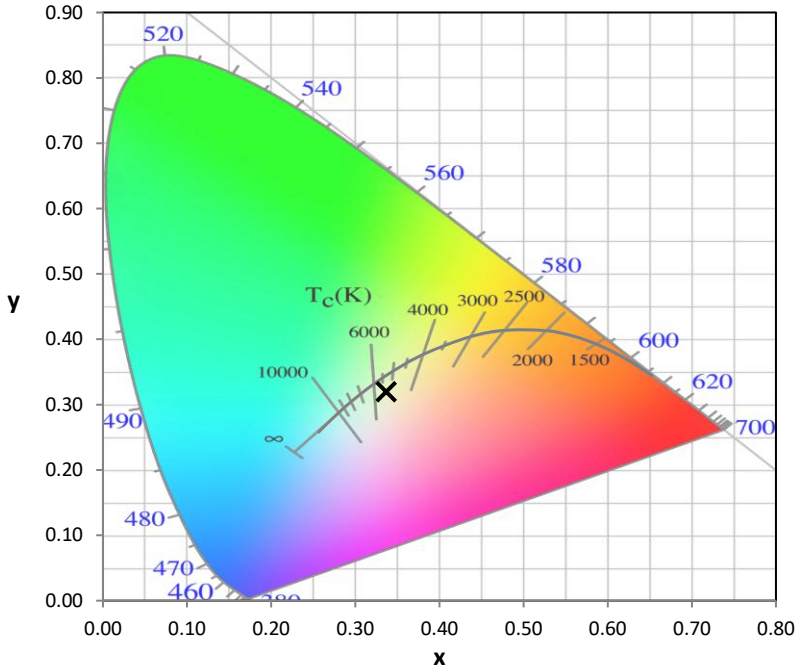
Stabilization Time:	21M
Operation Time:	1H 21M
Sphere Temperature (°C):	25.1

REPORT NUMBER: SP1-2510-581-14-R2

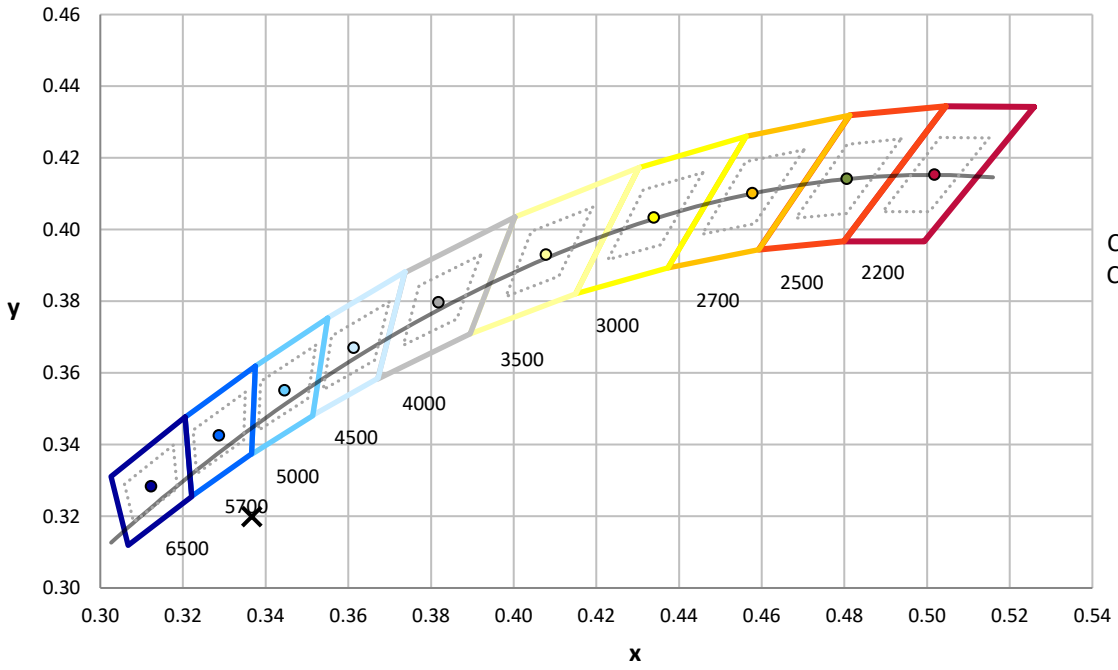
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

REPORT NUMBER: SP1-2510-581-14-R2

CIE 1931 Chromaticity Diagram



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

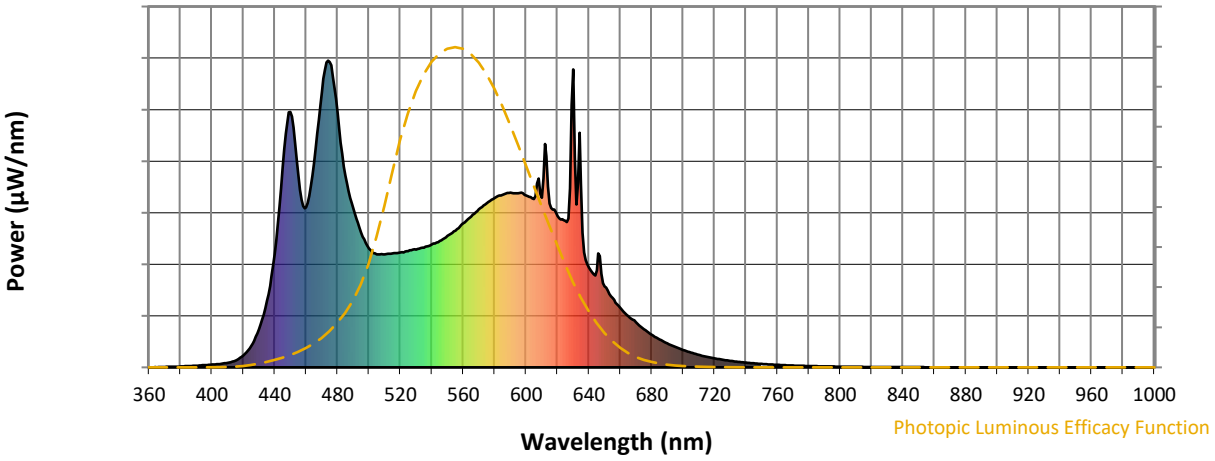


CCT = 5278K
CIE x = 0.3366
CIE y = 0.3199
Duv = -0.0132

Point lies outside the range

REPORT NUMBER: SP1-2510-581-14-R2

Photopic Flux vs. Wavelength

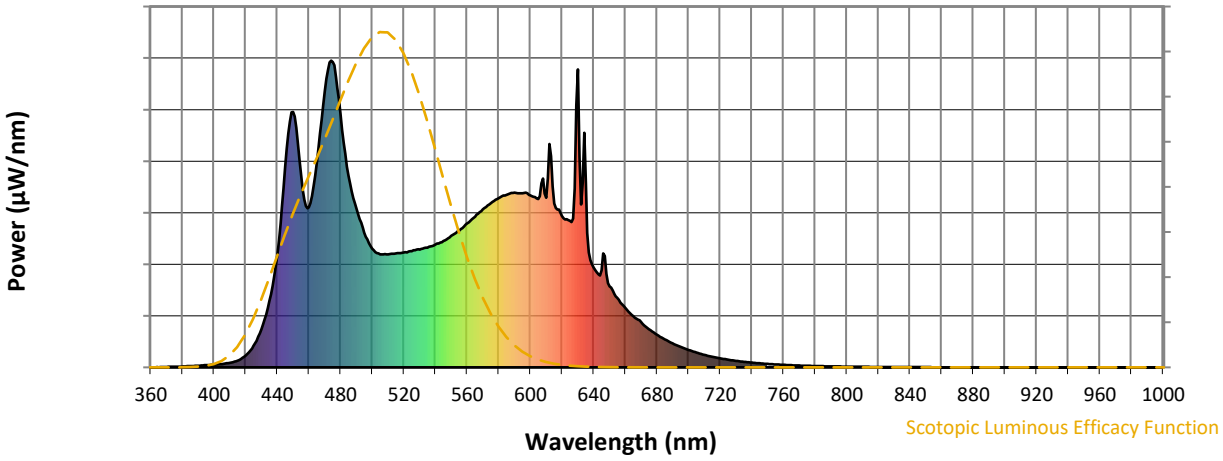


Photopic Lumens: NR

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	518	NR	620	494	NR	750	11	NR	880	0	NR
365	0	NR	495	440	NR	625	478	NR	755	10	NR	885	0	NR
370	1	NR	500	387	NR	630	971	NR	760	8	NR	890	0	NR
375	2	NR	505	368	NR	635	598	NR	765	7	NR	895	0	NR
380	3	NR	510	368	NR	640	326	NR	770	6	NR	900	0	NR
385	4	NR	515	371	NR	645	316	NR	775	5	NR	905	0	NR
390	5	NR	520	374	NR	650	264	NR	780	4	NR	910	0	NR
395	7	NR	525	379	NR	655	226	NR	785	4	NR	915	0	NR
400	9	NR	530	384	NR	660	194	NR	790	3	NR	920	0	NR
405	11	NR	535	390	NR	665	167	NR	795	3	NR	925	0	NR
410	15	NR	540	401	NR	670	148	NR	800	2	NR	930	0	NR
415	22	NR	545	412	NR	675	124	NR	805	2	NR	935	0	NR
420	39	NR	550	429	NR	680	107	NR	810	2	NR	940	0	NR
425	70	NR	555	445	NR	685	91	NR	815	2	NR	945	0	NR
430	124	NR	560	469	NR	690	78	NR	820	1	NR	950	0	NR
435	217	NR	565	491	NR	695	67	NR	825	1	NR	955	0	NR
440	368	NR	570	515	NR	700	57	NR	830	1	NR	960	0	NR
445	652	NR	575	535	NR	705	48	NR	835	1	NR	965	0	NR
450	832	NR	580	552	NR	710	41	NR	840	1	NR	970	0	NR
455	627	NR	585	563	NR	715	34	NR	845	1	NR	975	0	NR
460	522	NR	590	569	NR	720	29	NR	850	1	NR	980	0	NR
465	665	NR	595	567	NR	725	25	NR	855	1	NR	985	0	NR
470	901	NR	600	560	NR	730	21	NR	860	0	NR	990	0	NR
475	996	NR	605	549	NR	735	18	NR	865	0	NR	995	0	NR
480	828	NR	610	553	NR	740	15	NR	870	0	NR	1000	0	NR
485	625	NR	615	534	NR	745	13	NR	875	0	NR			

REPORT NUMBER: SP1-2510-581-14-R2

Scotopic Flux vs. Wavelength

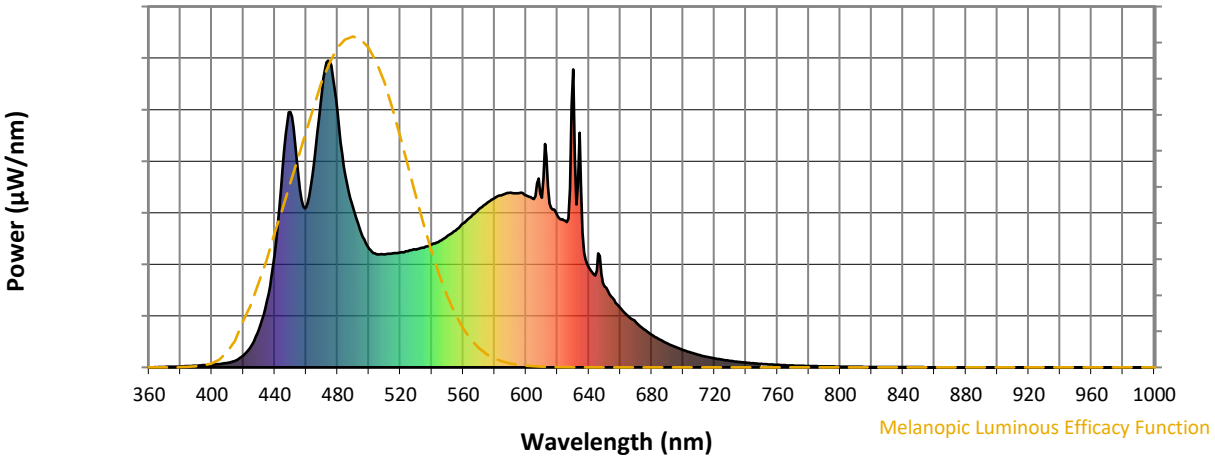


Scotopic Lumens: NR **S/P: 2.36**

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	518	NR	620	494	NR	750	11	NR	880	0	NR
365	0	NR	495	440	NR	625	478	NR	755	10	NR	885	0	NR
370	1	NR	500	387	NR	630	971	NR	760	8	NR	890	0	NR
375	2	NR	505	368	NR	635	598	NR	765	7	NR	895	0	NR
380	3	NR	510	368	NR	640	326	NR	770	6	NR	900	0	NR
385	4	NR	515	371	NR	645	316	NR	775	5	NR	905	0	NR
390	5	NR	520	374	NR	650	264	NR	780	4	NR	910	0	NR
395	7	NR	525	379	NR	655	226	NR	785	4	NR	915	0	NR
400	9	NR	530	384	NR	660	194	NR	790	3	NR	920	0	NR
405	11	NR	535	390	NR	665	167	NR	795	3	NR	925	0	NR
410	15	NR	540	401	NR	670	148	NR	800	2	NR	930	0	NR
415	22	NR	545	412	NR	675	124	NR	805	2	NR	935	0	NR
420	39	NR	550	429	NR	680	107	NR	810	2	NR	940	0	NR
425	70	NR	555	445	NR	685	91	NR	815	2	NR	945	0	NR
430	124	NR	560	469	NR	690	78	NR	820	1	NR	950	0	NR
435	217	NR	565	491	NR	695	67	NR	825	1	NR	955	0	NR
440	368	NR	570	515	NR	700	57	NR	830	1	NR	960	0	NR
445	652	NR	575	535	NR	705	48	NR	835	1	NR	965	0	NR
450	832	NR	580	552	NR	710	41	NR	840	1	NR	970	0	NR
455	627	NR	585	563	NR	715	34	NR	845	1	NR	975	0	NR
460	522	NR	590	569	NR	720	29	NR	850	1	NR	980	0	NR
465	665	NR	595	567	NR	725	25	NR	855	1	NR	985	0	NR
470	901	NR	600	560	NR	730	21	NR	860	0	NR	990	0	NR
475	996	NR	605	549	NR	735	18	NR	865	0	NR	995	0	NR
480	828	NR	610	553	NR	740	15	NR	870	0	NR	1000	0	NR
485	625	NR	615	534	NR	745	13	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 5.57**

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	518	NR	620	494	NR	750	11	NR	880	0	NR
365	0	NR	495	440	NR	625	478	NR	755	10	NR	885	0	NR
370	1	NR	500	387	NR	630	971	NR	760	8	NR	890	0	NR
375	2	NR	505	368	NR	635	598	NR	765	7	NR	895	0	NR
380	3	NR	510	368	NR	640	326	NR	770	6	NR	900	0	NR
385	4	NR	515	371	NR	645	316	NR	775	5	NR	905	0	NR
390	5	NR	520	374	NR	650	264	NR	780	4	NR	910	0	NR
395	7	NR	525	379	NR	655	226	NR	785	4	NR	915	0	NR
400	9	NR	530	384	NR	660	194	NR	790	3	NR	920	0	NR
405	11	NR	535	390	NR	665	167	NR	795	3	NR	925	0	NR
410	15	NR	540	401	NR	670	148	NR	800	2	NR	930	0	NR
415	22	NR	545	412	NR	675	124	NR	805	2	NR	935	0	NR
420	39	NR	550	429	NR	680	107	NR	810	2	NR	940	0	NR
425	70	NR	555	445	NR	685	91	NR	815	2	NR	945	0	NR
430	124	NR	560	469	NR	690	78	NR	820	1	NR	950	0	NR
435	217	NR	565	491	NR	695	67	NR	825	1	NR	955	0	NR
440	368	NR	570	515	NR	700	57	NR	830	1	NR	960	0	NR
445	652	NR	575	535	NR	705	48	NR	835	1	NR	965	0	NR
450	832	NR	580	552	NR	710	41	NR	840	1	NR	970	0	NR
455	627	NR	585	563	NR	715	34	NR	845	1	NR	975	0	NR
460	522	NR	590	569	NR	720	29	NR	850	1	NR	980	0	NR
465	665	NR	595	567	NR	725	25	NR	855	1	NR	985	0	NR
470	901	NR	600	560	NR	730	21	NR	860	0	NR	990	0	NR
475	996	NR	605	549	NR	735	18	NR	865	0	NR	995	0	NR
480	828	NR	610	553	NR	740	15	NR	870	0	NR	1000	0	NR
485	625	NR	615	534	NR	745	13	NR	875	0	NR			

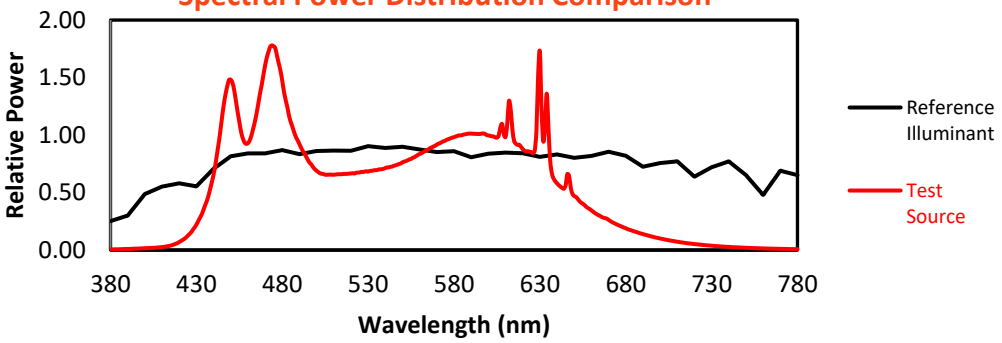
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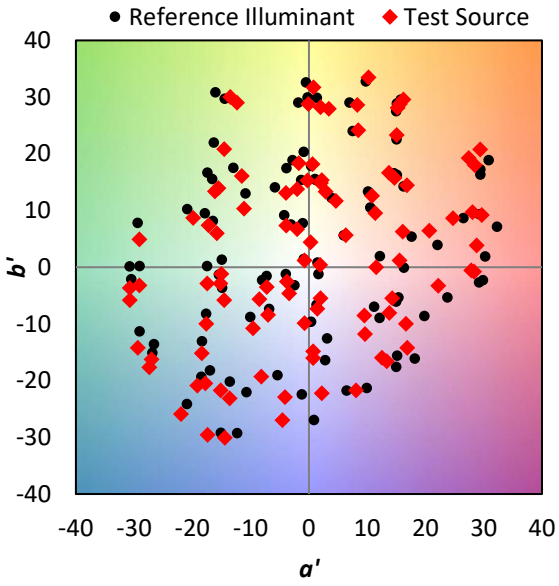
Summary

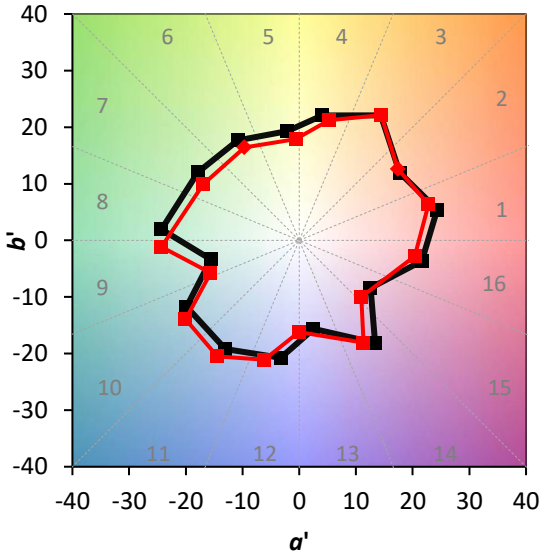
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R_g = 94.8
CIE R_a = 84.0
R_9 = 81.1

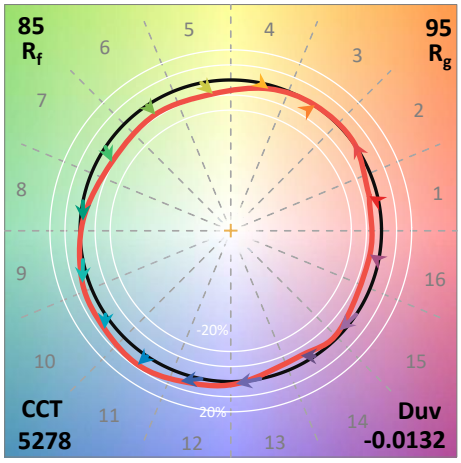
Spectral Power Distribution Comparison

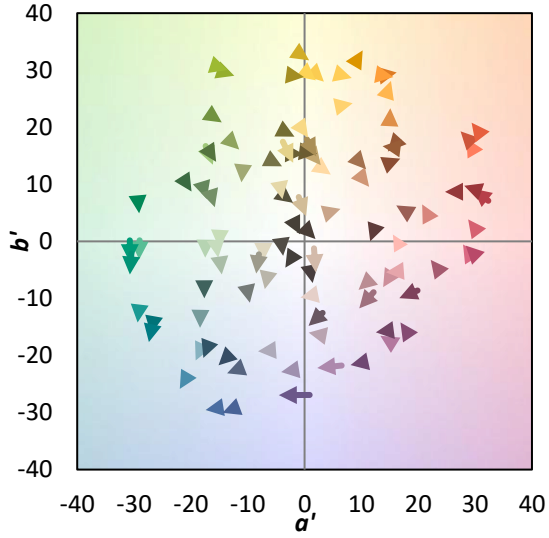


Color Vector Graphics







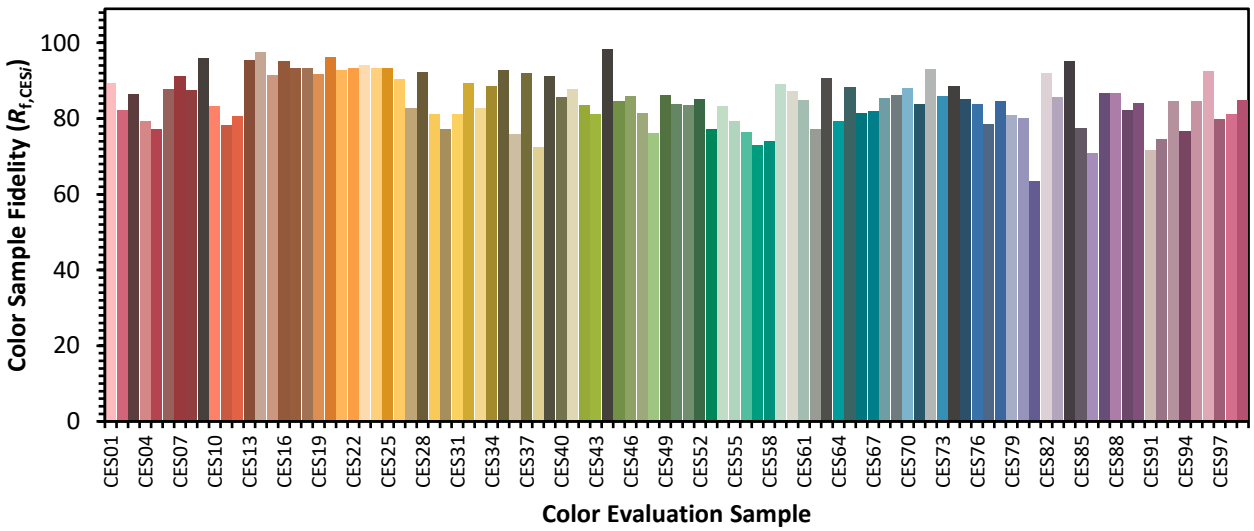


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Individual Sample Fidelity Index ($R_{f,i}$)

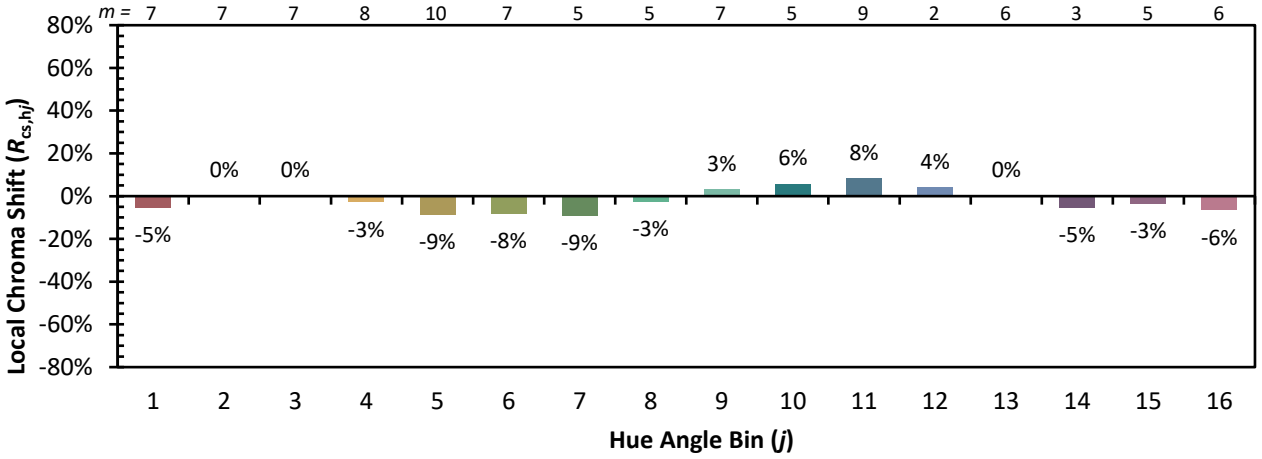
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CES02 = 61	CES27 = 83	CES52 = 85	CES77 = 79
CES03 = 31	CES28 = 92	CES53 = 77	CES78 = 84
CES04 = 69	CES29 = 81	CES54 = 83	CES79 = 81
CES05 = 48	CES30 = 77	CES55 = 79	CES80 = 80
CES06 = 50	CES31 = 81	CES56 = 76	CES81 = 63
CES07 = 41	CES32 = 89	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 83	CES58 = 74	CES83 = 86
CES09 = 29	CES34 = 89	CES59 = 89	CES84 = 95
CES10 = 74	CES35 = 93	CES60 = 87	CES85 = 77
CES11 = 57	CES36 = 76	CES61 = 85	CES86 = 71
CES12 = 63	CES37 = 92	CES62 = 77	CES87 = 87
CES13 = 43	CES38 = 72	CES63 = 91	CES88 = 87
CES14 = 74	CES39 = 91	CES64 = 79	CES89 = 82
CES15 = 71	CES40 = 86	CES65 = 88	CES90 = 84
CES16 = 47	CES41 = 88	CES66 = 81	CES91 = 72
CES17 = 49	CES42 = 83	CES67 = 82	CES92 = 74
CES18 = 56	CES43 = 81	CES68 = 86	CES93 = 85
CES19 = 71	CES44 = 98	CES69 = 86	CES94 = 77
CES20 = 65	CES45 = 85	CES70 = 88	CES95 = 85
CES21 = 85	CES46 = 86	CES71 = 84	CES96 = 92
CES22 = 77	CES47 = 82	CES72 = 93	CES97 = 80
CES23 = 91	CES48 = 76	CES73 = 86	CES98 = 81
CES24 = 90	CES49 = 86	CES74 = 89	CES99 = 85
CES25 = 70	CES50 = 84	CES75 = 85	

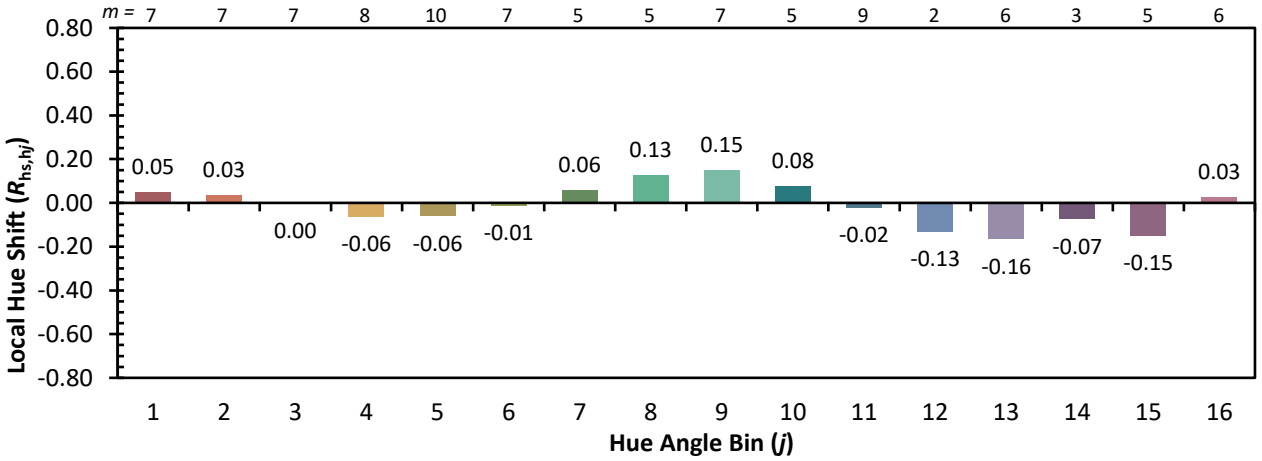


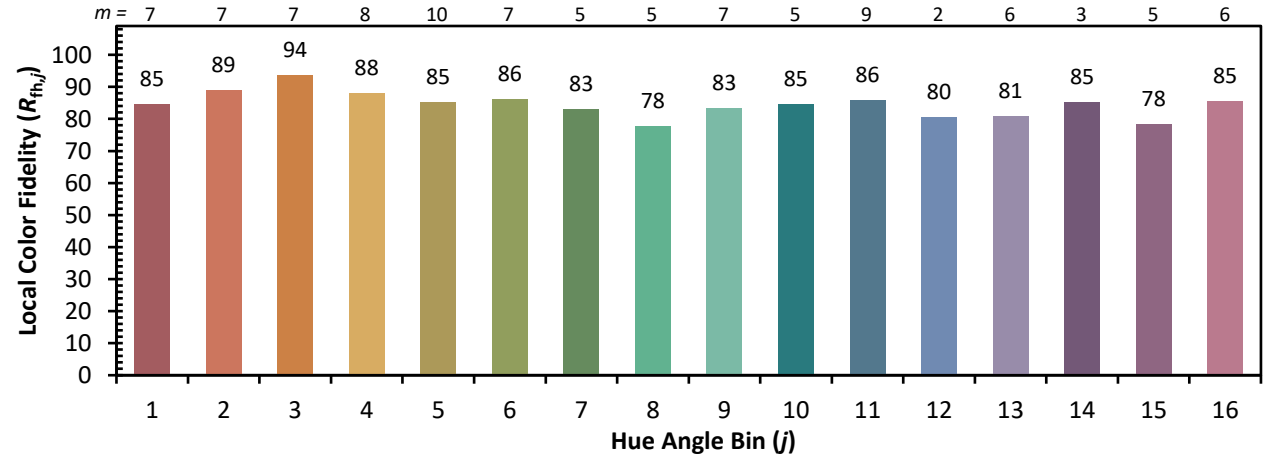
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Color Rendition by Hue-Angle Bin



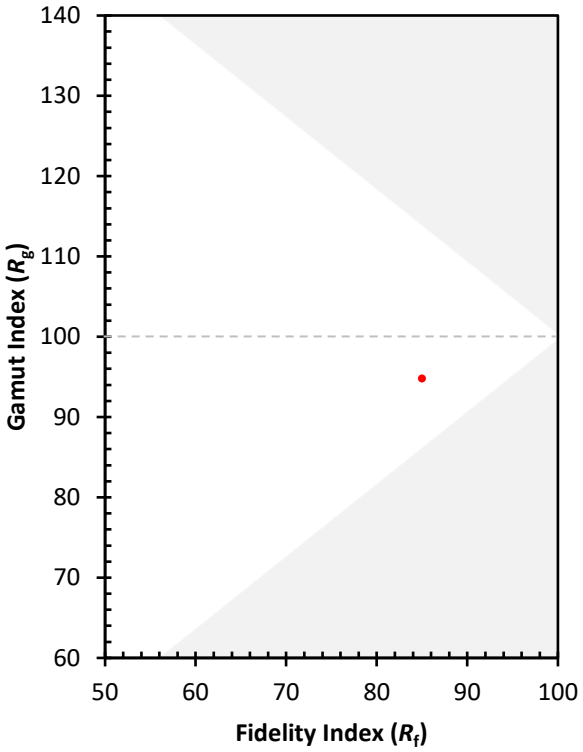


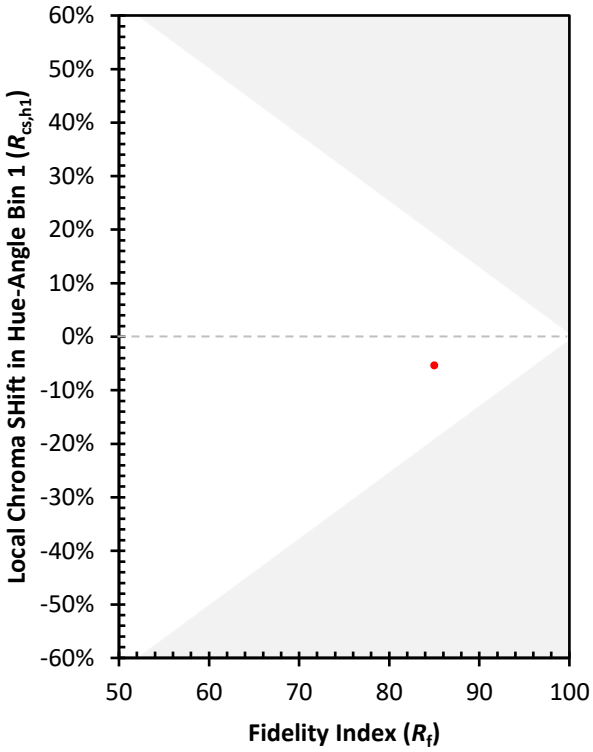


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Measure Comparisons





(END OF REPORT)