

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: P1216393

Luminaire Tested: 24-ID2-40-DBR-L830-U

Issue Date: 12/5/2025

Test Information

Test Method: LM-79-2019
Report Number: P1216393
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-ID2-40-DBR-L830-U
Description: 2X4 IN DEPTH TROFFER WITH 2INCH DOUBLE BARREL REGRESSED
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

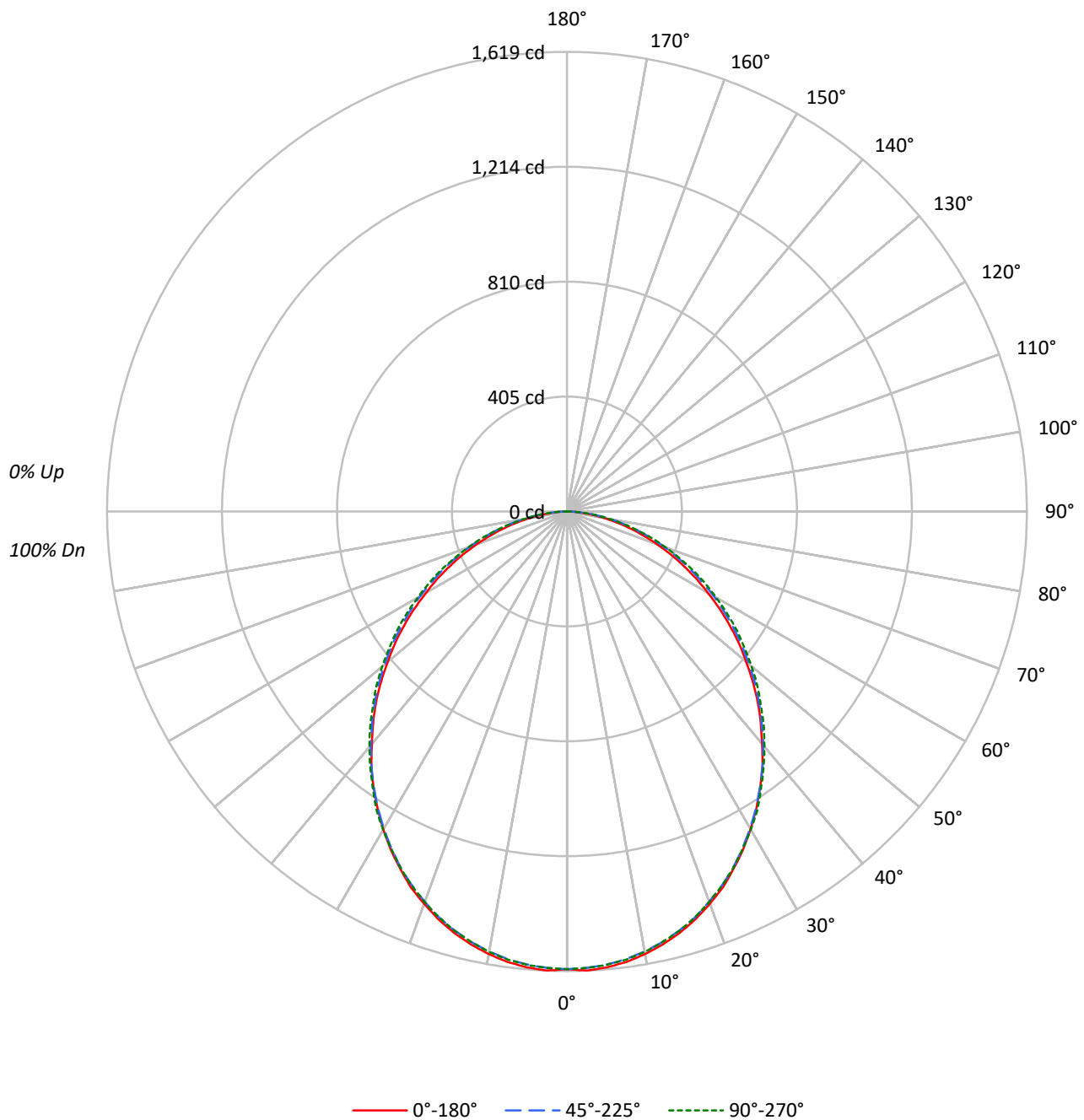
Lumens per Lamp: N/A
Luminaire Lumens: 4146.7 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.3
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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: P1216393
CATALOG NUMBER: 24-ID2-40-DBR-L830-U

Luminous Intensity Polar Plot



TEST NUMBER: P1216393

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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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		71
3	91	80	72	66	88	79	71	65	76	70	64		73	68	63		60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		31
9	57	44	36	31	56	44	36	30	42	35	30		41	35	30		28
10	54	41	33	28	53	40	33	28	39	32	28		38	32	27		26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2169	2169	2169
5°	2177	2165	2165
10°	2163	2151	2153
15°	2140	2129	2130
20°	2106	2095	2096
25°	2062	2055	2057
30°	2008	2002	2011
35°	1949	1946	1956
40°	1876	1887	1900
45°	1808	1821	1836
50°	1723	1750	1776
55°	1640	1679	1712
60°	1539	1605	1632
65°	1440	1515	1559
70°	1325	1431	1456
75°	1195	1332	1344
80°	1015	1188	1201
85°	777	980	1007

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 1836 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.2	3.7
10°-20°	431.0	10.4
20°-30°	637.4	15.4
30°-40°	742.0	17.9
40°-50°	738.2	17.8
50°-60°	638.8	15.4
60°-70°	469.8	11.3
70°-80°	265.3	6.4
80°-90°	72.0	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°	1220.6	29.4
0°-40°	1962.6	47.3
0°-60°	3339.6	80.5
0°-90°	4146.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4146.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1612	1606	1603	1600	1603	153
15°	1536	1532	1528	1526	1529	433
25°	1389	1385	1384	1382	1385	639
35°	1186	1184	1185	1190	1191	741
45°	950	950	957	965	965	732
55°	699	702	716	725	730	625
65°	452	462	476	485	490	449
75°	230	242	256	258	258	244
85°	50	60	64	65	65	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1612.4	1612.4	1612.4	1612.4	1612.4
2.5°	1618.7	1612.4	1609.0	1607.3	1609.6
5°	1611.9	1606.1	1602.7	1600.4	1603.3
7.5°	1600.4	1594.1	1590.7	1588.4	1592.4
10°	1583.3	1577.0	1574.1	1572.4	1575.8
12.5°	1562.1	1557.0	1553.5	1551.2	1553.5
15°	1536.4	1531.8	1528.4	1525.5	1528.9
17.5°	1506.0	1500.3	1499.2	1495.8	1498.6
20°	1470.6	1466.0	1463.1	1461.4	1463.7
22.5°	1434.0	1427.7	1426.0	1424.3	1426.5
25°	1388.8	1384.8	1384.2	1382.5	1385.4
27.5°	1343.0	1340.7	1337.9	1339.0	1339.6
30°	1292.7	1289.8	1288.7	1291.0	1294.4
32.5°	1240.6	1238.4	1238.9	1241.2	1247.5
35°	1186.3	1184.0	1184.6	1189.7	1190.9
37.5°	1130.8	1126.8	1130.8	1134.3	1137.1
40°	1067.9	1068.5	1074.2	1078.8	1081.6
42.5°	1009.6	1009.6	1015.3	1022.1	1025.6
45°	950.1	950.1	956.9	964.9	964.9
47.5°	887.2	886.0	898.6	907.2	910.0
50°	823.1	825.4	836.2	844.8	848.3
52.5°	763.0	764.2	776.2	785.3	787.1
55°	699.0	702.4	715.6	725.3	729.9
57.5°	636.1	641.8	654.9	666.9	668.1
60°	572.0	581.1	596.6	602.9	606.3
62.5°	513.6	522.8	535.4	545.7	548.0
65°	452.4	461.6	475.9	485.0	489.6
67.5°	395.2	406.1	420.4	427.3	427.3
70°	336.9	348.9	363.8	369.5	370.1
72.5°	282.0	295.7	308.9	313.5	314.6
75°	229.9	242.5	256.3	258.0	258.5
77.5°	179.0	192.2	202.5	205.9	204.2
80°	131.0	144.1	153.3	155.6	155.0
82.5°	89.2	100.1	108.7	108.7	108.7
85°	50.3	59.5	63.5	64.6	65.2
87.5°	16.6	23.5	26.9	26.9	26.9
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	13.61	15.22	13.98	15.53	15.85	13.89	15.50	14.26	15.82	16.13
	3H	15.27	16.72	15.64	17.05	17.41	15.63	17.08	16.00	17.41	17.77
	4H	15.86	17.23	16.26	17.58	17.95	16.28	17.64	16.68	17.99	18.37
	6H	16.28	17.54	16.69	17.91	18.30	16.75	18.02	17.16	18.38	18.77
	8H	16.40	17.60	16.82	17.99	18.39	16.90	18.11	17.33	18.50	18.90
	12H	16.46	17.62	16.89	18.00	18.43	17.00	18.16	17.43	18.54	18.97
4H	2H	14.25	15.62	14.65	15.96	16.34	14.47	15.84	14.87	16.19	16.56
	3H	16.13	17.28	16.54	17.67	18.07	16.43	17.58	16.84	17.98	18.38
	4H	16.86	17.89	17.29	18.31	18.74	17.22	18.25	17.65	18.66	19.10
	6H	17.40	18.30	17.85	18.74	19.20	17.82	18.73	18.28	19.17	19.62
	8H	17.56	18.40	18.02	18.85	19.31	18.02	18.87	18.48	19.31	19.78
	12H	17.67	18.42	18.15	18.90	19.37	18.16	18.92	18.65	19.40	19.87
8H	4H	17.19	18.03	17.65	18.48	18.94	17.51	18.35	17.97	18.79	19.26
	6H	17.85	18.55	18.34	19.04	19.52	18.23	18.94	18.73	19.42	19.90
	8H	18.09	18.72	18.60	19.22	19.71	18.51	19.14	19.02	19.64	20.13
	12H	18.26	18.81	18.76	19.30	19.87	18.72	19.28	19.23	19.77	20.33
12H	4H	17.22	17.98	17.70	18.46	18.93	17.53	18.29	18.01	18.77	19.24
	6H	17.91	18.55	18.42	19.05	19.54	18.28	18.91	18.79	19.42	19.91
	8H	18.21	18.77	18.72	19.26	19.82	18.61	19.17	19.12	19.66	20.22

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

Report Prepared for

Cooper Lighting Solutions

Corelite

Report Number: SP1-2506-458-3

Test Date: 07/24/2025

Luminaire Tested: 22ID2-55-CFR1-L830-U

Data in this report applies to families of products including 22ID2-55-CFR1-L830-U

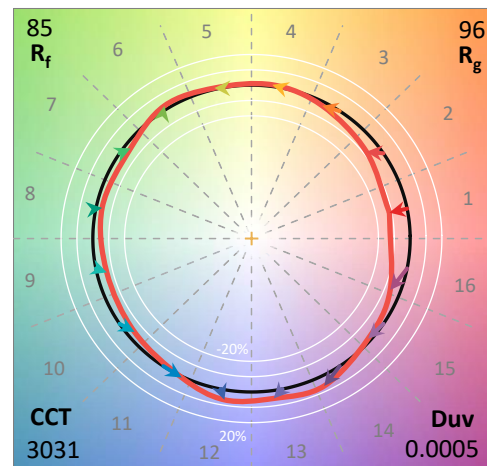
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-458-3
 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-L830-U**
 Description: 2X2 CGTX WITH INDEPTH FRAME AND CFR1 LENS - 5500 LUMEN 3000K 80CRI

Spectral Parameters

CCT (K): 3031
 CIE u' : 0.2493
 CIE v' : 0.5215
 Duv: 0.0005
 CIE x: 0.4355
 CIE y: 0.4049
 CIE z: 0.1596
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 582
 Purity: 52.24762
 R_f: 84.8
 R_g: 95.8

CRI (Ra): 82.5
 R1: 80.7
 R2: 90.5
 R3: 96.7
 R4: 80.7
 R5: 80.9
 R6: 88.5
 R7: 83.0
 R8: 58.8
 R9: 5.8
 R10: 78.6
 R11: 80.2
 R12: 69.8
 R13: 83.0
 R14: 98.8
 R15: 73.0



Test Conditions

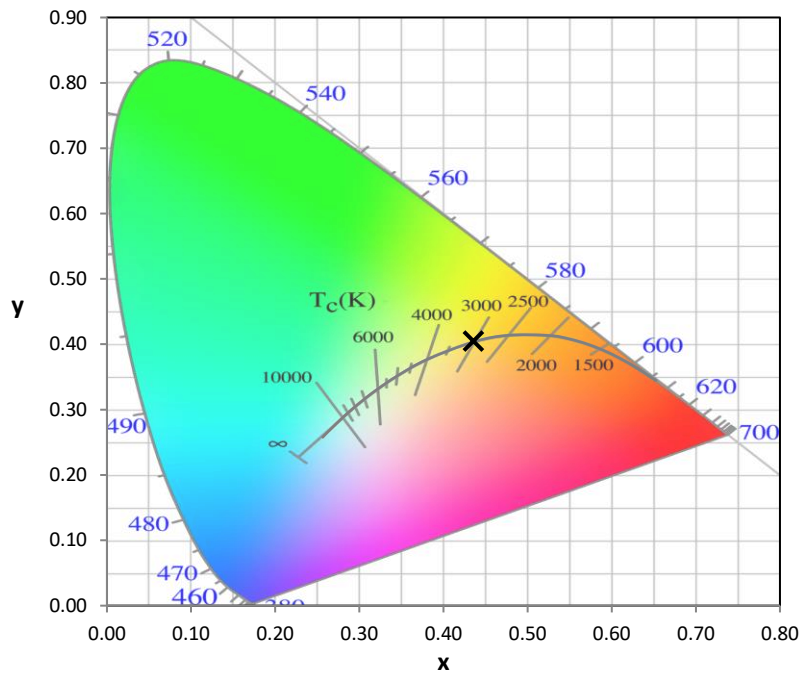
Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 24.0

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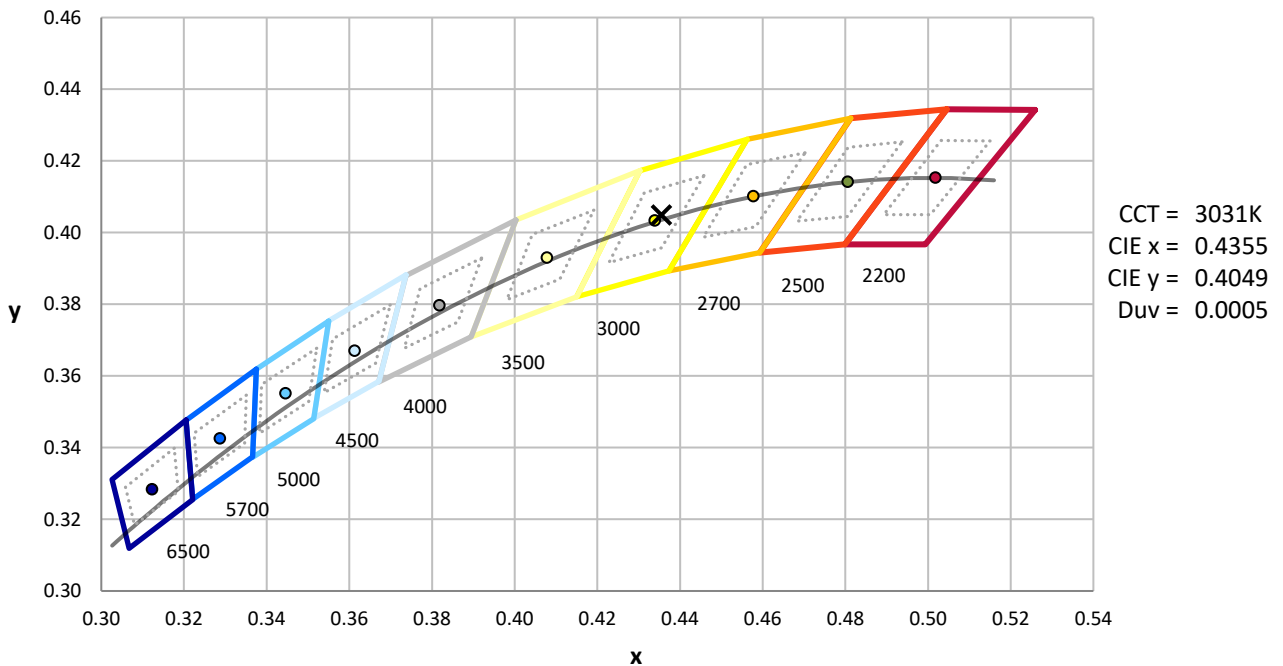
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



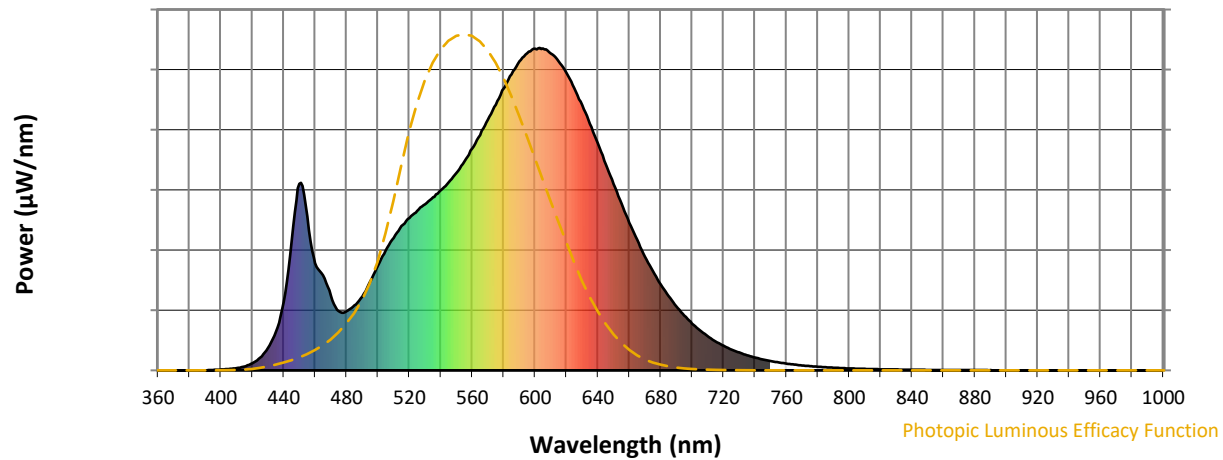
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

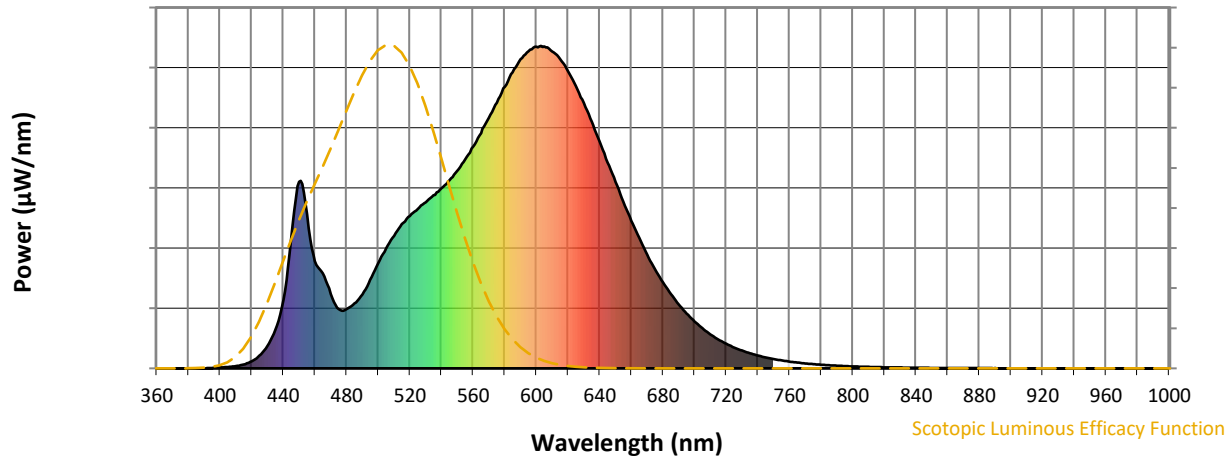


Photopic Lumens: NR

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	229	NR	620	922	NR	750	29	NR	880	1	NR
365	0	NR	495	275	NR	625	875	NR	755	25	NR	885	1	NR
370	0	NR	500	326	NR	630	822	NR	760	21	NR	890	1	NR
375	0	NR	505	372	NR	635	764	NR	765	18	NR	895	0	NR
380	0	NR	510	411	NR	640	704	NR	770	15	NR	900	0	NR
385	0	NR	515	447	NR	645	638	NR	775	13	NR	905	0	NR
390	0	NR	520	473	NR	650	577	NR	780	11	NR	910	0	NR
395	1	NR	525	495	NR	655	517	NR	785	10	NR	915	0	NR
400	3	NR	530	515	NR	660	457	NR	790	8	NR	920	0	NR
405	4	NR	535	537	NR	665	404	NR	795	7	NR	925	0	NR
410	7	NR	540	559	NR	670	353	NR	800	6	NR	930	0	NR
415	12	NR	545	584	NR	675	307	NR	805	5	NR	935	0	NR
420	22	NR	550	612	NR	680	267	NR	810	5	NR	940	0	NR
425	40	NR	555	648	NR	685	230	NR	815	4	NR	945	0	NR
430	69	NR	560	688	NR	690	199	NR	820	3	NR	950	0	NR
435	120	NR	565	730	NR	695	170	NR	825	3	NR	955	0	NR
440	212	NR	570	777	NR	700	145	NR	830	3	NR	960	0	NR
445	400	NR	575	824	NR	705	124	NR	835	2	NR	965	0	NR
450	578	NR	580	873	NR	710	106	NR	840	2	NR	970	0	NR
455	478	NR	585	918	NR	715	90	NR	845	2	NR	975	0	NR
460	332	NR	590	958	NR	720	76	NR	850	1	NR	980	0	NR
465	295	NR	595	983	NR	725	65	NR	855	1	NR	985	0	NR
470	231	NR	600	997	NR	730	55	NR	860	1	NR	990	0	NR
475	183	NR	605	998	NR	735	47	NR	865	1	NR	995	0	NR
480	184	NR	610	982	NR	740	40	NR	870	1	NR	1000	0	NR
485	201	NR	615	958	NR	745	34	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



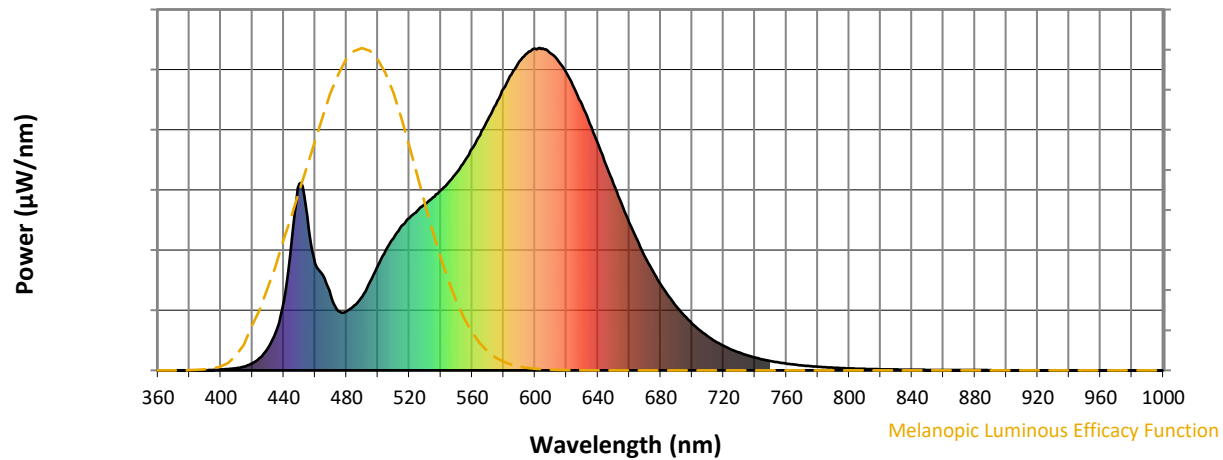
Scotopic Lumens: NR

S/P: 1.35

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	229	NR	620	922	NR	750	29	NR	880	1	NR
365	0	NR	495	275	NR	625	875	NR	755	25	NR	885	1	NR
370	0	NR	500	326	NR	630	822	NR	760	21	NR	890	1	NR
375	0	NR	505	372	NR	635	764	NR	765	18	NR	895	0	NR
380	0	NR	510	411	NR	640	704	NR	770	15	NR	900	0	NR
385	0	NR	515	447	NR	645	638	NR	775	13	NR	905	0	NR
390	0	NR	520	473	NR	650	577	NR	780	11	NR	910	0	NR
395	1	NR	525	495	NR	655	517	NR	785	10	NR	915	0	NR
400	3	NR	530	515	NR	660	457	NR	790	8	NR	920	0	NR
405	4	NR	535	537	NR	665	404	NR	795	7	NR	925	0	NR
410	7	NR	540	559	NR	670	353	NR	800	6	NR	930	0	NR
415	12	NR	545	584	NR	675	307	NR	805	5	NR	935	0	NR
420	22	NR	550	612	NR	680	267	NR	810	5	NR	940	0	NR
425	40	NR	555	648	NR	685	230	NR	815	4	NR	945	0	NR
430	69	NR	560	688	NR	690	199	NR	820	3	NR	950	0	NR
435	120	NR	565	730	NR	695	170	NR	825	3	NR	955	0	NR
440	212	NR	570	777	NR	700	145	NR	830	3	NR	960	0	NR
445	400	NR	575	824	NR	705	124	NR	835	2	NR	965	0	NR
450	578	NR	580	873	NR	710	106	NR	840	2	NR	970	0	NR
455	478	NR	585	918	NR	715	90	NR	845	2	NR	975	0	NR
460	332	NR	590	958	NR	720	76	NR	850	1	NR	980	0	NR
465	295	NR	595	983	NR	725	65	NR	855	1	NR	985	0	NR
470	231	NR	600	997	NR	730	55	NR	860	1	NR	990	0	NR
475	183	NR	605	998	NR	735	47	NR	865	1	NR	995	0	NR
480	184	NR	610	982	NR	740	40	NR	870	1	NR	1000	0	NR
485	201	NR	615	958	NR	745	34	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.59

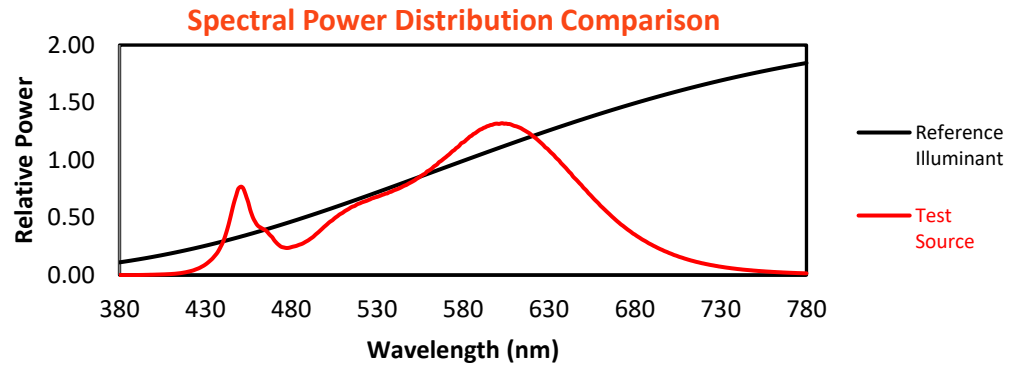
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	229	NR	620	922	NR	750	29	NR	880	1	NR
365	0	NR	495	275	NR	625	875	NR	755	25	NR	885	1	NR
370	0	NR	500	326	NR	630	822	NR	760	21	NR	890	1	NR
375	0	NR	505	372	NR	635	764	NR	765	18	NR	895	0	NR
380	0	NR	510	411	NR	640	704	NR	770	15	NR	900	0	NR
385	0	NR	515	447	NR	645	638	NR	775	13	NR	905	0	NR
390	0	NR	520	473	NR	650	577	NR	780	11	NR	910	0	NR
395	1	NR	525	495	NR	655	517	NR	785	10	NR	915	0	NR
400	3	NR	530	515	NR	660	457	NR	790	8	NR	920	0	NR
405	4	NR	535	537	NR	665	404	NR	795	7	NR	925	0	NR
410	7	NR	540	559	NR	670	353	NR	800	6	NR	930	0	NR
415	12	NR	545	584	NR	675	307	NR	805	5	NR	935	0	NR
420	22	NR	550	612	NR	680	267	NR	810	5	NR	940	0	NR
425	40	NR	555	648	NR	685	230	NR	815	4	NR	945	0	NR
430	69	NR	560	688	NR	690	199	NR	820	3	NR	950	0	NR
435	120	NR	565	730	NR	695	170	NR	825	3	NR	955	0	NR
440	212	NR	570	777	NR	700	145	NR	830	3	NR	960	0	NR
445	400	NR	575	824	NR	705	124	NR	835	2	NR	965	0	NR
450	578	NR	580	873	NR	710	106	NR	840	2	NR	970	0	NR
455	478	NR	585	918	NR	715	90	NR	845	2	NR	975	0	NR
460	332	NR	590	958	NR	720	76	NR	850	1	NR	980	0	NR
465	295	NR	595	983	NR	725	65	NR	855	1	NR	985	0	NR
470	231	NR	600	997	NR	730	55	NR	860	1	NR	990	0	NR
475	183	NR	605	998	NR	735	47	NR	865	1	NR	995	0	NR
480	184	NR	610	982	NR	740	40	NR	870	1	NR	1000	0	NR
485	201	NR	615	958	NR	745	34	NR	875	1	NR			

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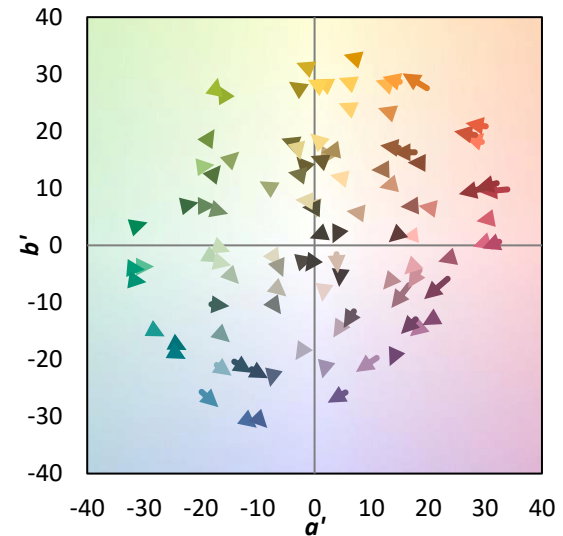
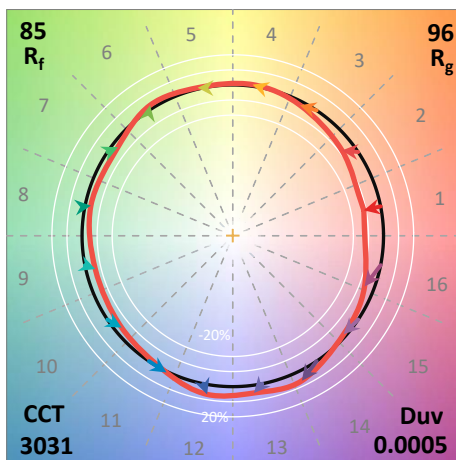
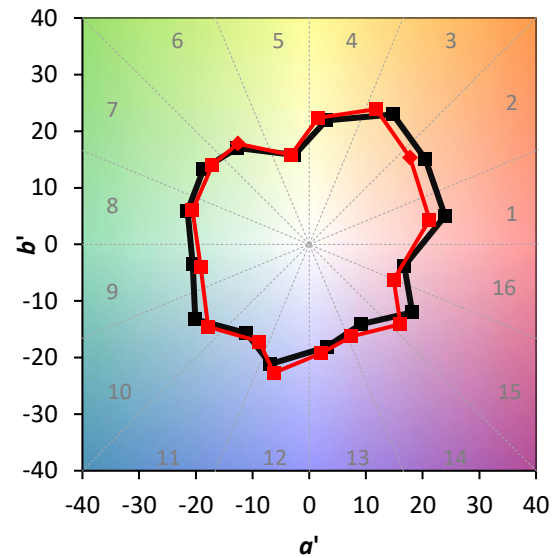
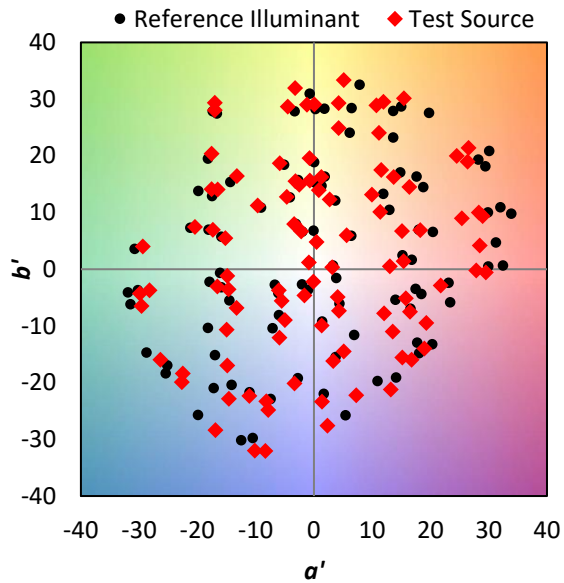
TM-30-18

Summary

$R_f = 84.8$
 $R_g = 95.8$
 $CIE R_a = 82.5$
 $R_9 = 5.8$

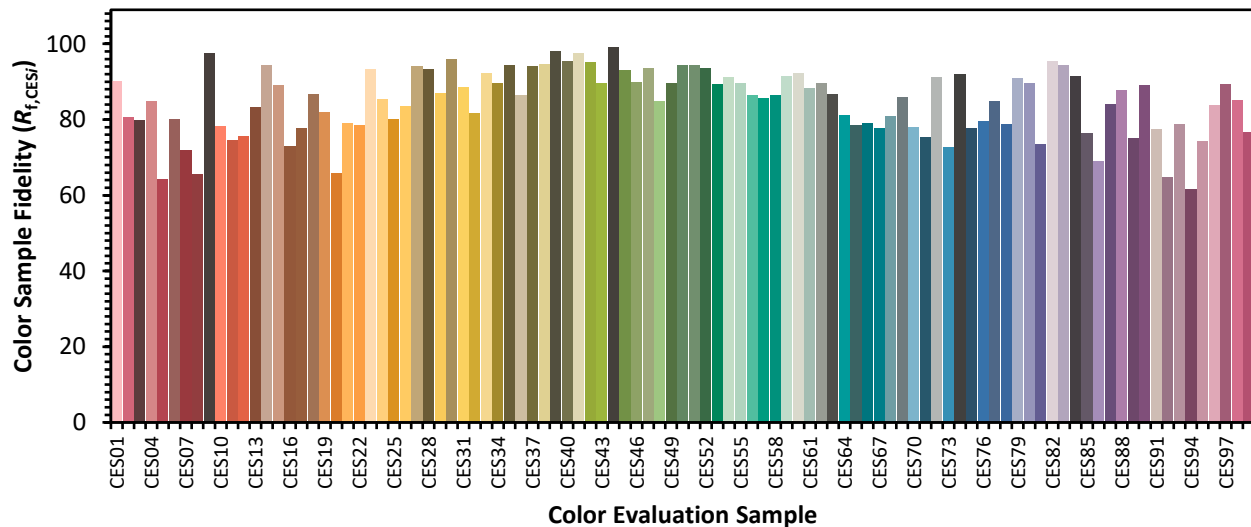


Color Vector Graphics

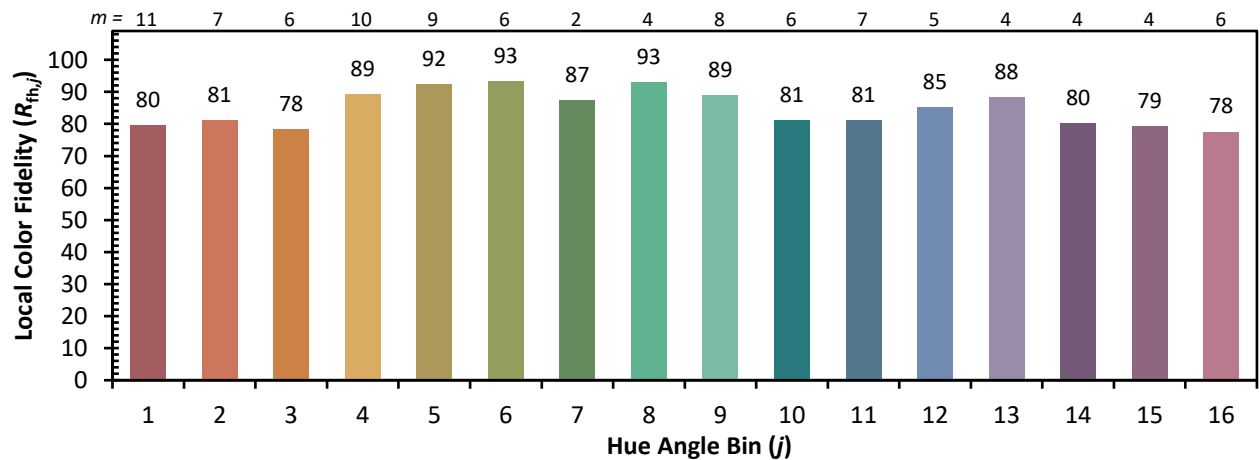
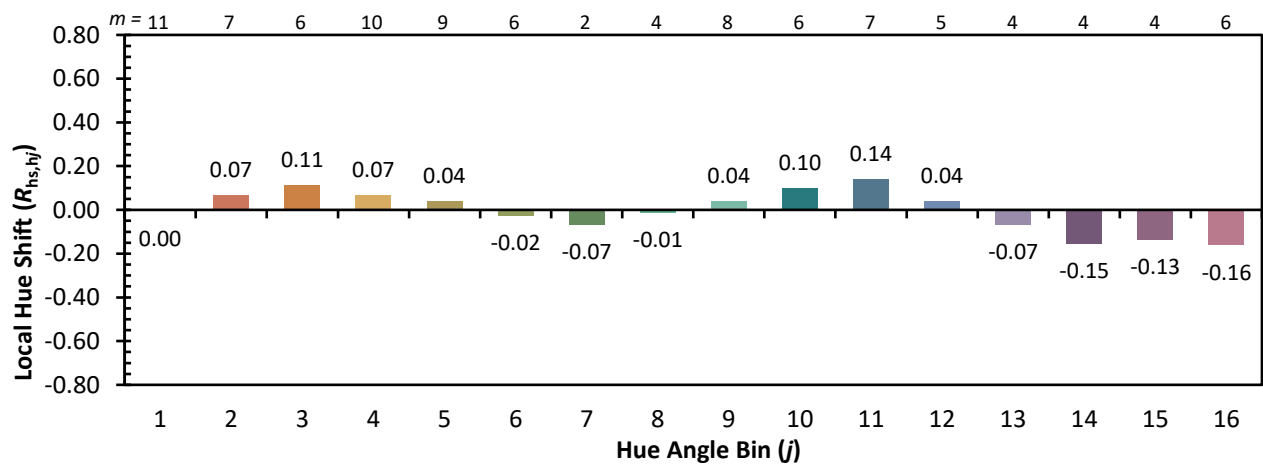
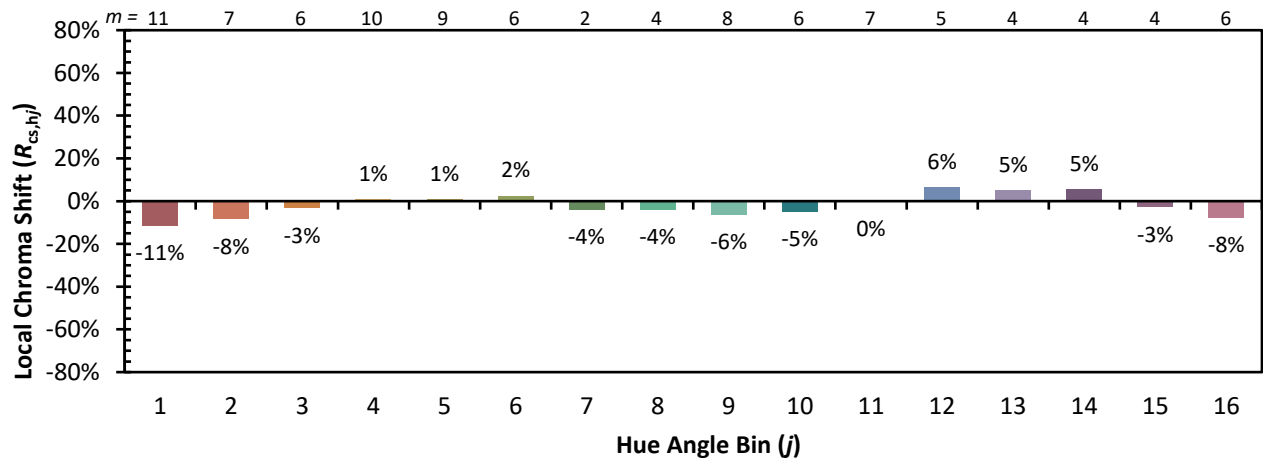


Individual Sample Fidelity Index ($R_{f,i}$)

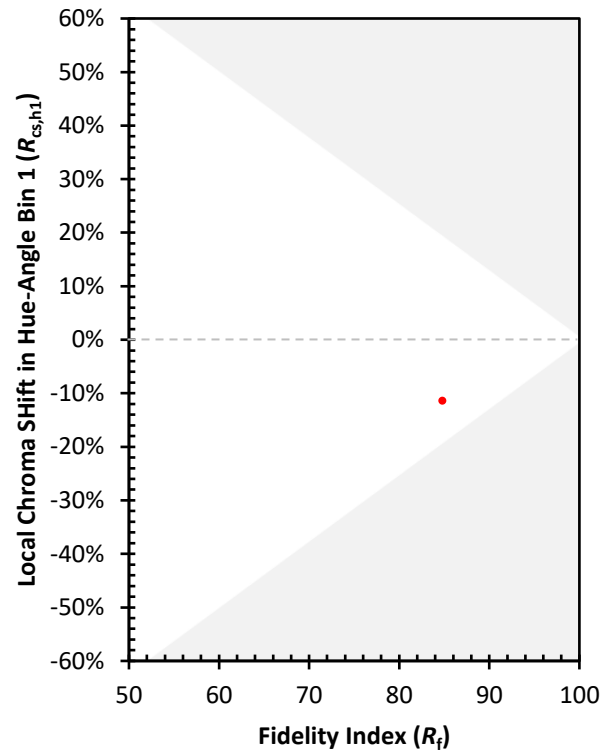
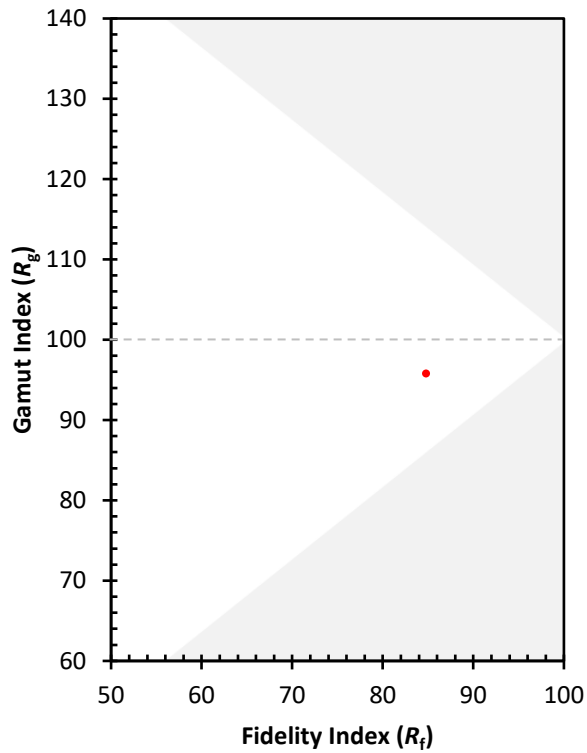
CES01 = 86	CES26 = 84	CES51 = 94	CES76 = 80
CES02 = 63	CES27 = 94	CES52 = 94	CES77 = 85
CES03 = 31	CES28 = 93	CES53 = 89	CES78 = 79
CES04 = 70	CES29 = 87	CES54 = 91	CES79 = 91
CES05 = 50	CES30 = 96	CES55 = 90	CES80 = 90
CES06 = 51	CES31 = 89	CES56 = 87	CES81 = 74
CES07 = 42	CES32 = 82	CES57 = 86	CES82 = 95
CES08 = 41	CES33 = 92	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 90	CES59 = 91	CES84 = 92
CES10 = 76	CES35 = 94	CES60 = 92	CES85 = 77
CES11 = 59	CES36 = 86	CES61 = 88	CES86 = 69
CES12 = 65	CES37 = 94	CES62 = 90	CES87 = 84
CES13 = 43	CES38 = 95	CES63 = 87	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 81	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 79	CES90 = 89
CES16 = 47	CES41 = 97	CES66 = 79	CES91 = 77
CES17 = 50	CES42 = 95	CES67 = 78	CES92 = 65
CES18 = 56	CES43 = 90	CES68 = 81	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 86	CES94 = 62
CES20 = 67	CES45 = 93	CES70 = 78	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 75	CES96 = 84
CES22 = 79	CES47 = 94	CES72 = 91	CES97 = 89
CES23 = 92	CES48 = 85	CES73 = 73	CES98 = 85
CES24 = 91	CES49 = 90	CES74 = 92	CES99 = 77
CES25 = 72	CES50 = 94	CES75 = 78	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)