

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: P1431659

Luminaire Tested: EHBR1-12-UNV-N-L950

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1431659
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2601-654-3)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: EHBR1-12-UNV-N-L950
Description: Elevate Round Highbay at, 12000 lumens, 5000K 90CRI LEDs with N lens
Light Source: -
Ballast/Driver: -

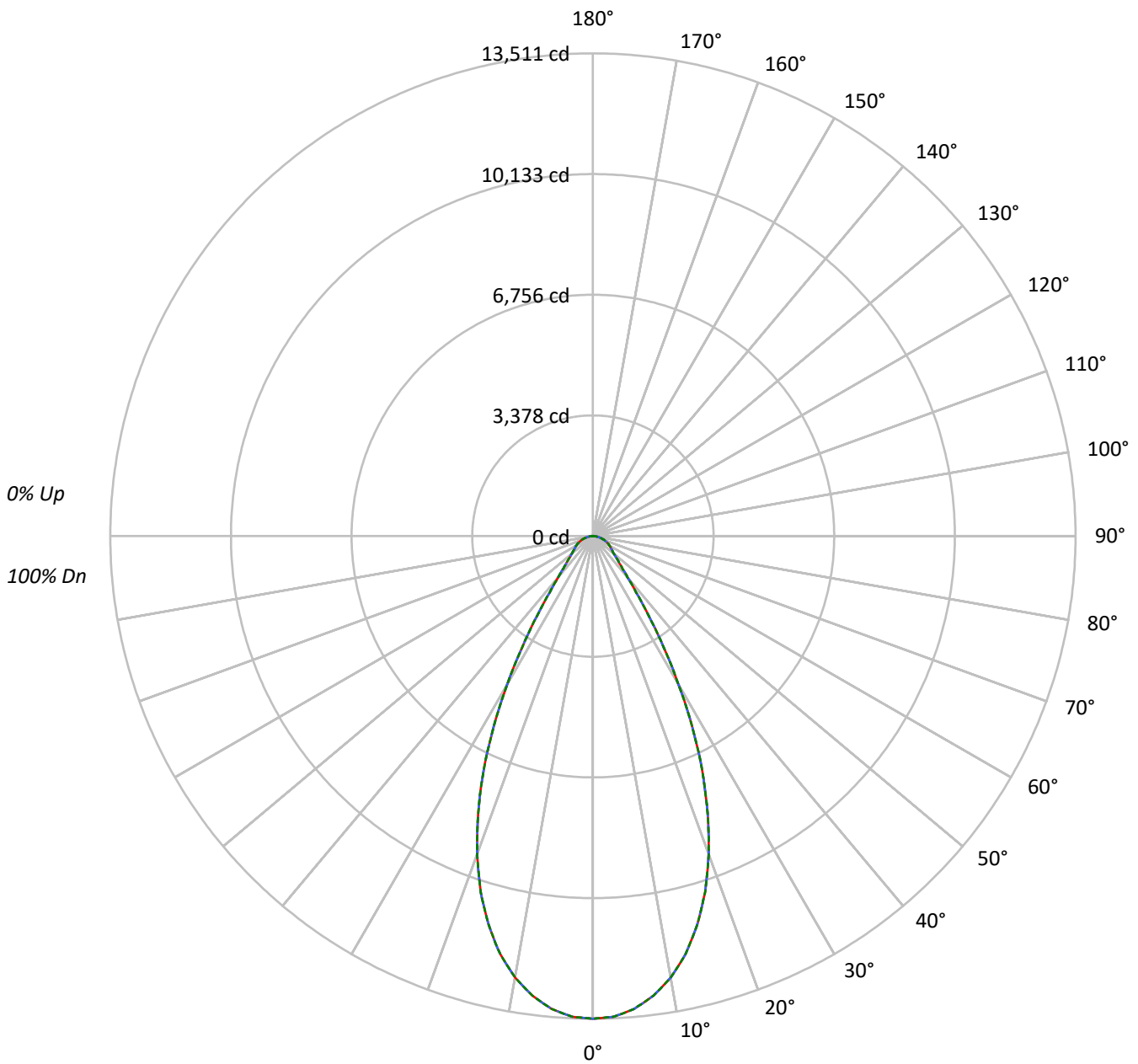
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11577.6 lumens
Efficiency: N/A
Efficacy: 178.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.8
Luminous Opening: Circular (Dia: 1.71' x H: 0')
CIE Type: Direct

Input Watts (W): 64.7
Input Voltage (V): NR
Input Current (A_{in}): 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: P1431659
CATALOG NUMBER: EHBR1-12-UNV-N-L950

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - · 90°-270°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	96	94	93	91
2	106	100	96	92	104	98	94	91	95	92	89	92	89	87	89	87	85	89	87	85	83
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	84	80	78	76
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72	78	75	72	70
5	89	80	74	69	87	79	73	68	77	72	68	75	71	67	74	70	67	74	70	67	65
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	70	65	62	61
7	80	70	64	59	79	70	63	59	68	63	59	67	62	58	66	61	58	66	61	58	57
8	76	66	60	55	75	66	59	55	64	59	55	63	58	55	62	58	55	62	58	55	53
9	73	62	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	59	55	51	50
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48	56	52	48	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63448	63448	63448
5°	62622	62622	62622
10°	59827	59827	59827
15°	54801	54801	54801
20°	47337	47337	47337
25°	37515	37515	37515
30°	25950	25950	25950
35°	15550	15550	15550
40°	9292	9292	9292
45°	6745	6745	6745
50°	5618	5618	5618
55°	5188	5188	5188
60°	5068	5068	5068
65°	4966	4966	4966
70°	4796	4796	4796
75°	4601	4601	4601
80°	4251	4251	4251
85°	3502	3502	3502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6745 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1244.6	10.7
10°-20°	3124.0	27.0
20°-30°	3266.5	28.2
30°-40°	1769.9	15.3
40°-50°	814.2	7.0
50°-60°	573.8	5.0
60°-70°	441.6	3.8
70°-80°	267.7	2.3
80°-90°	75.4	0.7
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°	7635.1	65.9
0°-40°	9404.9	81.2
0°-60°	10793.0	93.2
0°-90°	11577.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11577.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13511	13511	13511	13511	13511	
5°	13284	13284	13284	13284	13284	1245
15°	11272	11272	11272	11272	11272	3124
25°	7240	7240	7240	7240	7240	3267
35°	2712	2712	2712	2712	2712	1770
45°	1016	1016	1016	1016	1016	814
55°	634	634	634	634	634	574
65°	447	447	447	447	447	442
75°	254	254	254	254	254	268
85°	65	65	65	65	65	75
90°	0	0	0	0	0	



TEST NUMBER: P1431659
 CATALOG NUMBER: EHBR1-12-UNV-N-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13510.7	13510.7	13510.7	13510.7	13510.7
2.5°	13462.9	13462.9	13462.9	13462.9	13462.9
5°	13284.1	13284.1	13284.1	13284.1	13284.1
7.5°	12979.0	12979.0	12979.0	12979.0	12979.0
10°	12546.1	12546.1	12546.1	12546.1	12546.1
12.5°	11986.6	11986.6	11986.6	11986.6	11986.6
15°	11271.8	11271.8	11271.8	11271.8	11271.8
17.5°	10442.6	10442.6	10442.6	10442.6	10442.6
20°	9472.1	9472.1	9472.1	9472.1	9472.1
22.5°	8391.7	8391.7	8391.7	8391.7	8391.7
25°	7240.0	7240.0	7240.0	7240.0	7240.0
27.5°	6019.1	6019.1	6019.1	6019.1	6019.1
30°	4785.6	4785.6	4785.6	4785.6	4785.6
32.5°	3672.8	3672.8	3672.8	3672.8	3672.8
35°	2712.5	2712.5	2712.5	2712.5	2712.5
37.5°	1991.6	1991.6	1991.6	1991.6	1991.6
40°	1515.7	1515.7	1515.7	1515.7	1515.7
42.5°	1215.4	1215.4	1215.4	1215.4	1215.4
45°	1015.6	1015.6	1015.6	1015.6	1015.6
47.5°	871.8	871.8	871.8	871.8	871.8
50°	769.0	769.0	769.0	769.0	769.0
52.5°	694.0	694.0	694.0	694.0	694.0
55°	633.7	633.7	633.7	633.7	633.7
57.5°	584.9	584.9	584.9	584.9	584.9
60°	539.6	539.6	539.6	539.6	539.6
62.5°	494.5	494.5	494.5	494.5	494.5
65°	446.9	446.9	446.9	446.9	446.9
67.5°	398.4	398.4	398.4	398.4	398.4
70°	349.3	349.3	349.3	349.3	349.3
72.5°	301.7	301.7	301.7	301.7	301.7
75°	253.6	253.6	253.6	253.6	253.6
77.5°	206.4	206.4	206.4	206.4	206.4
80°	157.2	157.2	157.2	157.2	157.2
82.5°	110.0	110.0	110.0	110.0	110.0
85°	65.0	65.0	65.0	65.0	65.0
87.5°	23.3	23.3	23.3	23.3	23.3
90°	0.4	0.4	0.4	0.4	0.4



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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	14.33	15.49	14.70	15.81	16.12	14.33	15.49	14.70	15.81	16.12
	3H	16.21	17.24	16.59	17.57	17.94	16.21	17.24	16.59	17.57	17.94
	4H	16.94	17.90	17.34	18.25	18.64	16.94	17.90	17.34	18.25	18.64
	6H	17.48	18.36	17.90	18.74	19.13	17.48	18.36	17.90	18.74	19.13
	8H	17.65	18.48	18.08	18.88	19.28	17.65	18.48	18.08	18.88	19.28
	12H	17.75	18.54	18.18	18.93	19.36	17.75	18.54	18.18	18.93	19.36
4H	2H	14.93	15.89	15.33	16.24	16.63	14.93	15.89	15.33	16.24	16.63
	3H	17.01	17.80	17.42	18.21	18.61	17.01	17.80	17.42	18.21	18.61
	4H	17.86	18.57	18.30	18.99	19.44	17.86	18.57	18.30	18.99	19.44
	6H	18.53	19.15	19.00	19.60	20.07	18.53	19.15	19.00	19.60	20.07
	8H	18.75	19.32	19.22	19.77	20.24	18.75	19.32	19.22	19.77	20.24
	12H	18.88	19.38	19.37	19.87	20.34	18.88	19.38	19.37	19.87	20.34
8H	4H	18.15	18.72	18.62	19.17	19.64	18.15	18.72	18.62	19.17	19.64
	6H	18.95	19.41	19.46	19.91	20.40	18.95	19.41	19.46	19.91	20.40
	8H	19.25	19.66	19.77	20.17	20.67	19.25	19.66	19.77	20.17	20.67
	12H	19.46	19.82	19.98	20.31	20.89	19.46	19.82	19.98	20.31	20.89
12H	4H	18.16	18.66	18.65	19.15	19.62	18.16	18.66	18.65	19.15	19.62
	6H	19.00	19.41	19.53	19.93	20.42	19.00	19.41	19.53	19.93	20.42
	8H	19.35	19.71	19.87	20.20	20.78	19.35	19.71	19.87	20.20	20.78

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-8

Test Date: 08/04/2025

Luminaire Tested: EHBR-60-L950-N

Data in this report applies to families of products including EHBR-60-L950-N

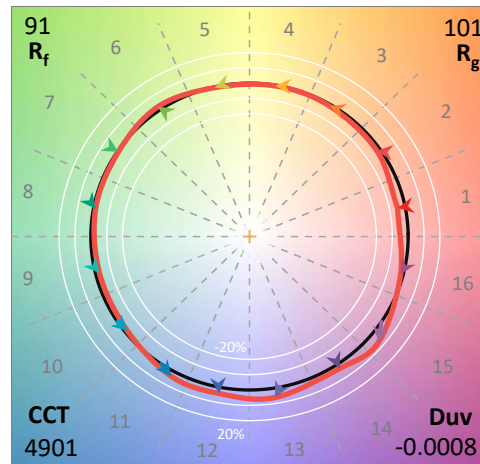
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-8
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/05/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Metalux
 Catalog Number: **EHBR-60-L950-N**
 Description: Elevate Round Highbay at, 60000 lumens, 5000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 4901
 CIE u': 0.2131
 CIE v': 0.4853
 Duv: -0.0008
 CIE x: 0.3477
 CIE y: 0.3520
 CIE z: 0.3003
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 574
 Purity: 9.953987
 Rf: 90.7
 Rg: 100.5

CRI (Ra):	94.3		
R1:	95.8	R9:	72.3
R2:	96.5	R10:	89.1
R3:	94.4	R11:	94.9
R4:	95.3	R12:	68.4
R5:	94.1	R13:	96.4
R6:	92.5	R14:	96.4
R7:	95.5	R15:	93.9
R8:	90.1		



Test Conditions

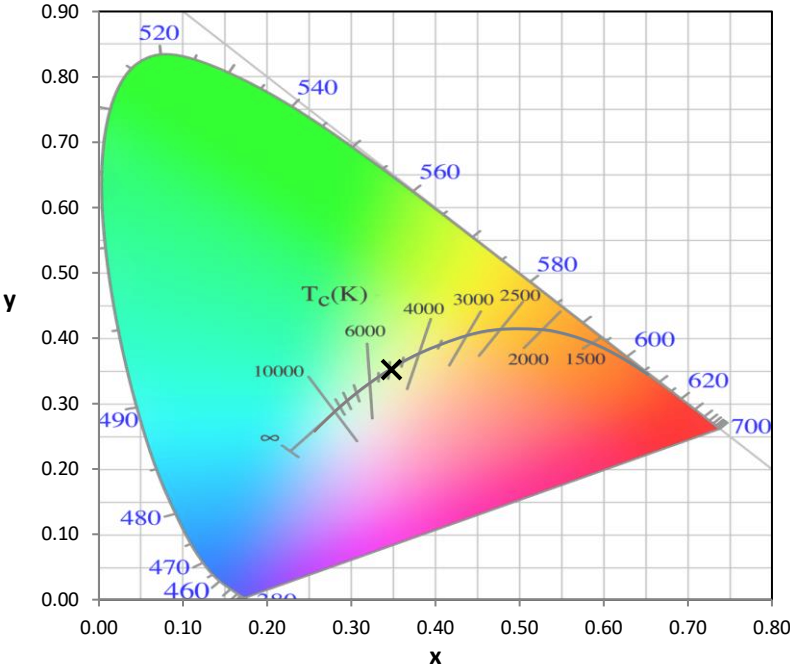
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-8

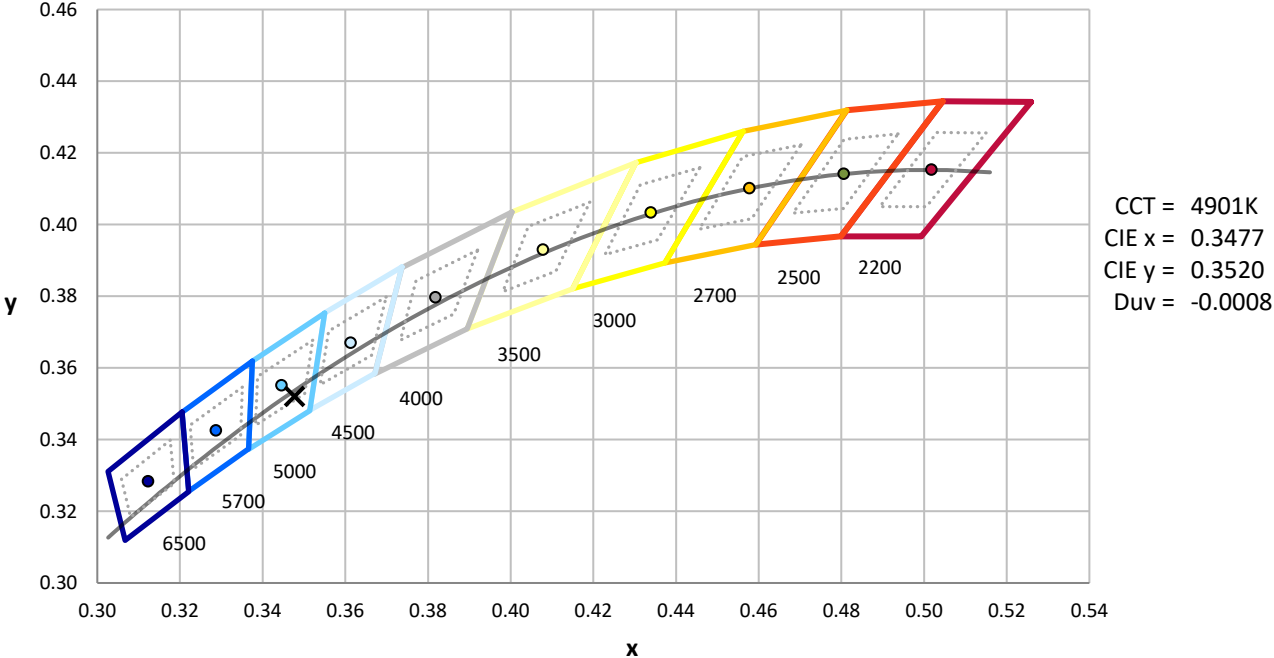
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



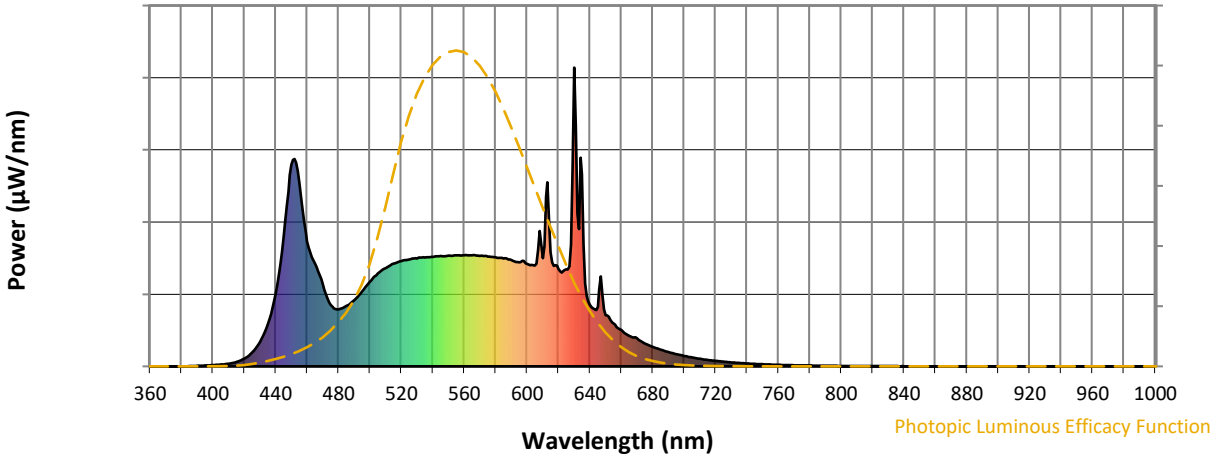
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

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Photopic Flux vs. Wavelength

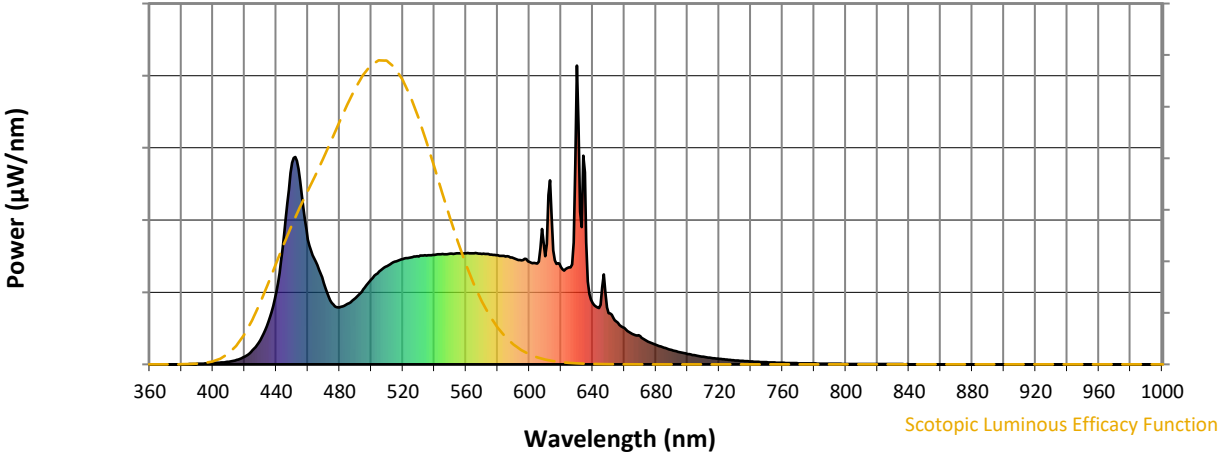


Photopic Lumens: NR

λ (nm)	Power W [^] /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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

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Scotopic Flux vs. Wavelength

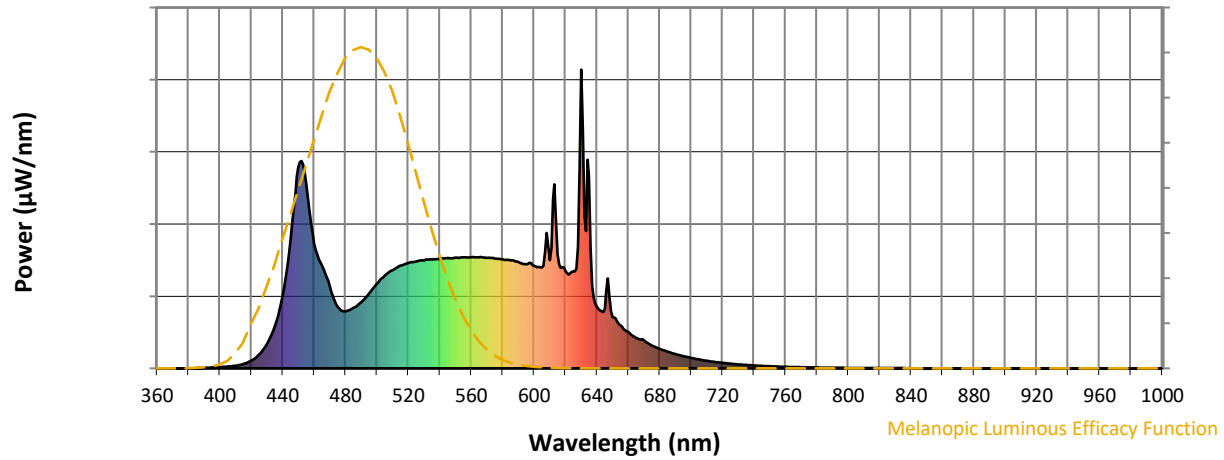


Scotopic Lumens: NR S/P: 2.04

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	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



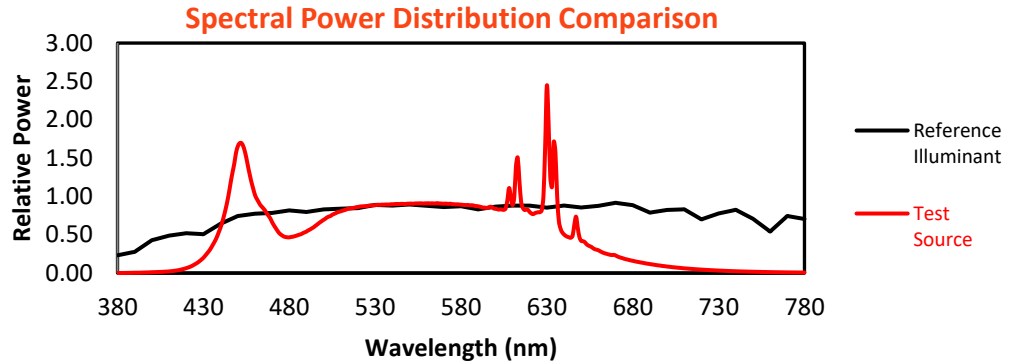
Melanopic Lumens: NR

M/P: 4.41

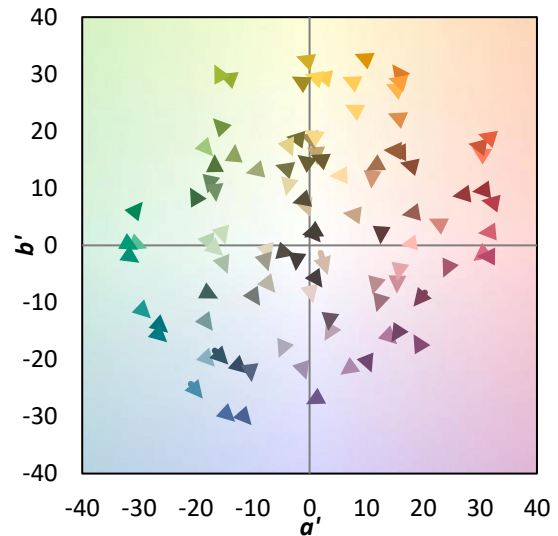
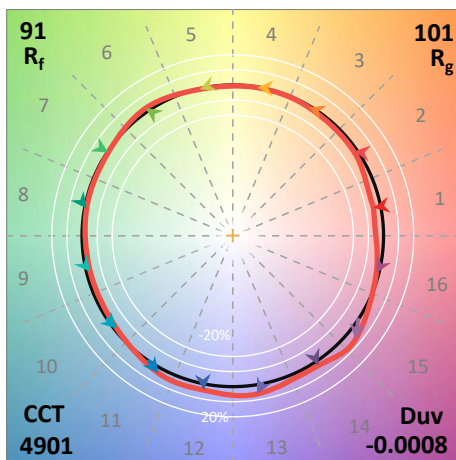
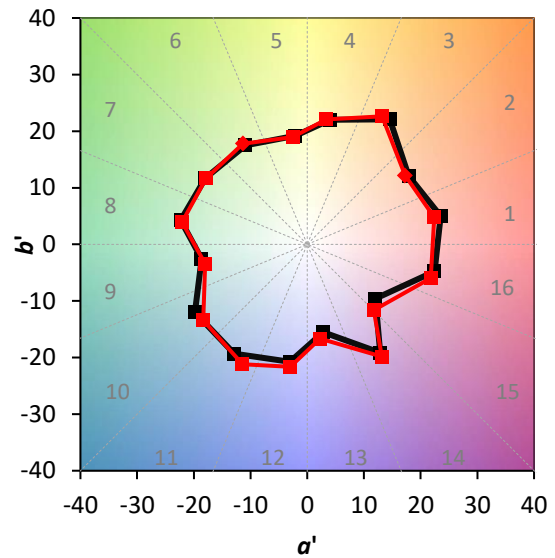
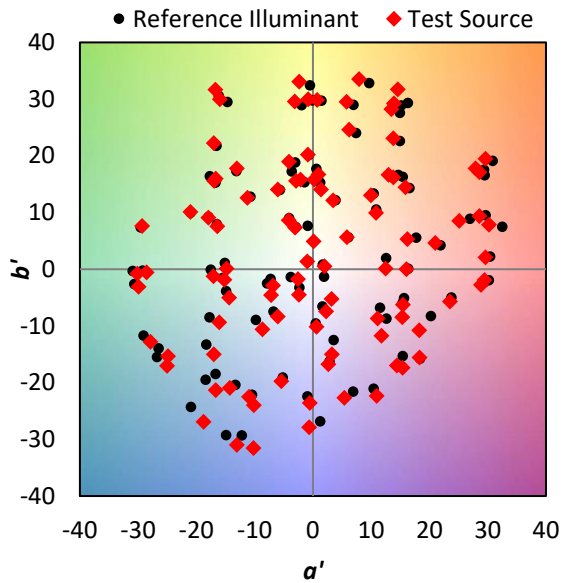
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	221	NR	620	326	NR	750	7	NR	880	0	NR
365	0	NR	495	250	NR	625	325	NR	755	6	NR	885	0	NR
370	0	NR	500	284	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	311	NR	635	643	NR	765	4	NR	895	0	NR
380	0	NR	510	329	NR	640	206	NR	770	4	NR	900	0	NR
385	1	NR	515	344	NR	645	199	NR	775	3	NR	905	0	NR
390	2	NR	520	353	NR	650	172	NR	780	3	NR	910	0	NR
395	3	NR	525	357	NR	655	143	NR	785	2	NR	915	0	NR
400	5	NR	530	362	NR	660	122	NR	790	2	NR	920	0	NR
405	6	NR	535	365	NR	665	102	NR	795	2	NR	925	0	NR
410	9	NR	540	367	NR	670	94	NR	800	2	NR	930	0	NR
415	15	NR	545	369	NR	675	76	NR	805	1	NR	935	0	NR
420	26	NR	550	370	NR	680	65	NR	810	1	NR	940	0	NR
425	47	NR	555	372	NR	685	56	NR	815	1	NR	945	0	NR
430	81	NR	560	372	NR	690	48	NR	820	1	NR	950	0	NR
435	143	NR	565	371	NR	695	41	NR	825	1	NR	955	0	NR
440	243	NR	570	370	NR	700	35	NR	830	1	NR	960	0	NR
445	434	NR	575	367	NR	705	30	NR	835	1	NR	965	0	NR
450	675	NR	580	365	NR	710	25	NR	840	1	NR	970	0	NR
455	615	NR	585	361	NR	715	22	NR	845	0	NR	975	0	NR
460	418	NR	590	356	NR	720	19	NR	850	0	NR	980	0	NR
465	344	NR	595	348	NR	725	16	NR	855	0	NR	985	0	NR
470	272	NR	600	343	NR	730	13	NR	860	0	NR	990	0	NR
475	206	NR	605	337	NR	735	11	NR	865	0	NR	995	0	NR
480	190	NR	610	362	NR	740	10	NR	870	0	NR	1000	0	NR
485	202	NR	615	381	NR	745	8	NR	875	0	NR			

Summary

$R_f = 90.7$
 $R_g = 100.5$
 CIE $R_a = 94.3$
 $R_9 = 72.3$

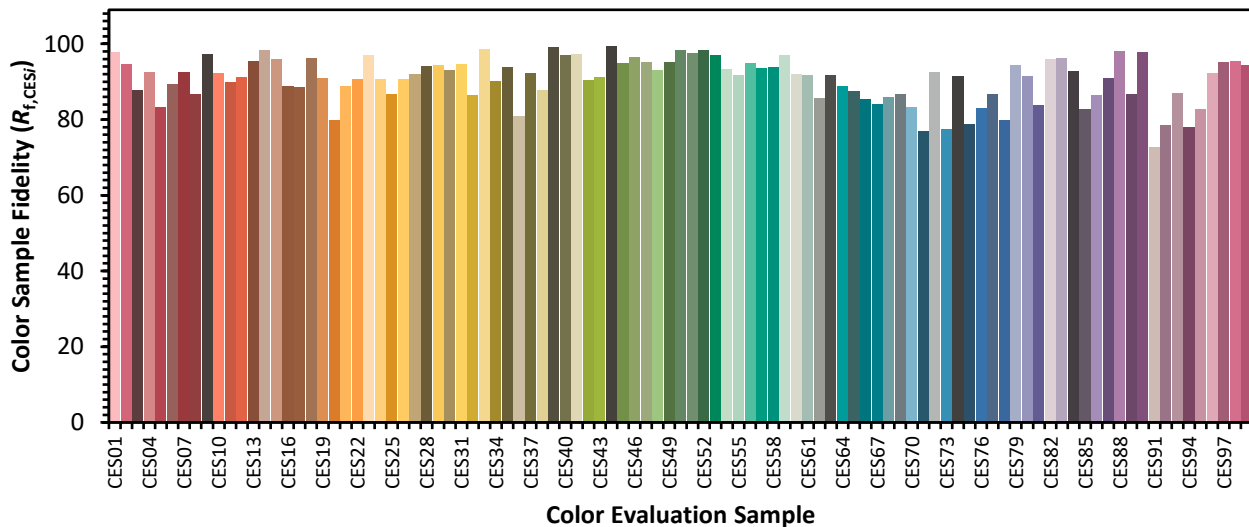


Color Vector Graphics

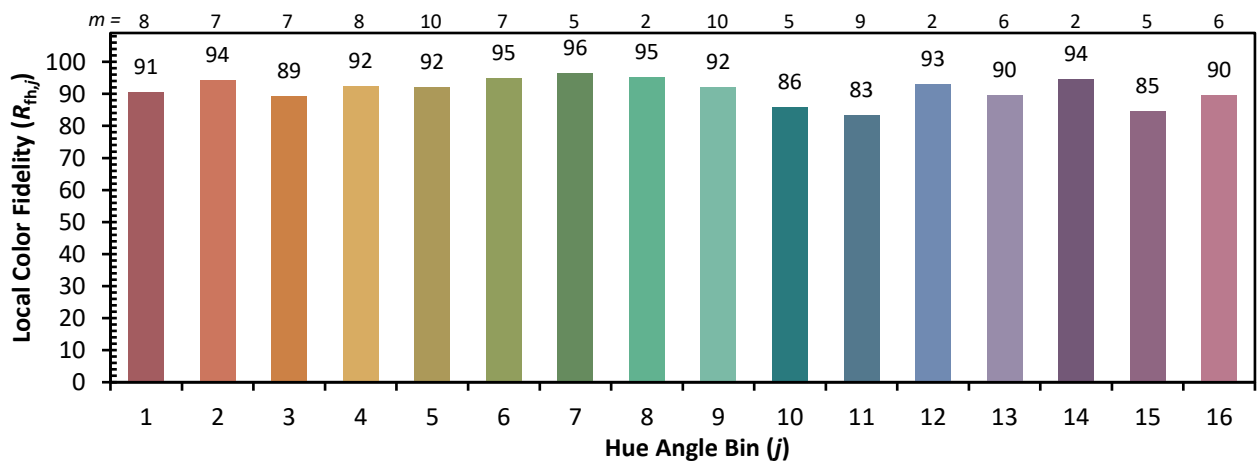
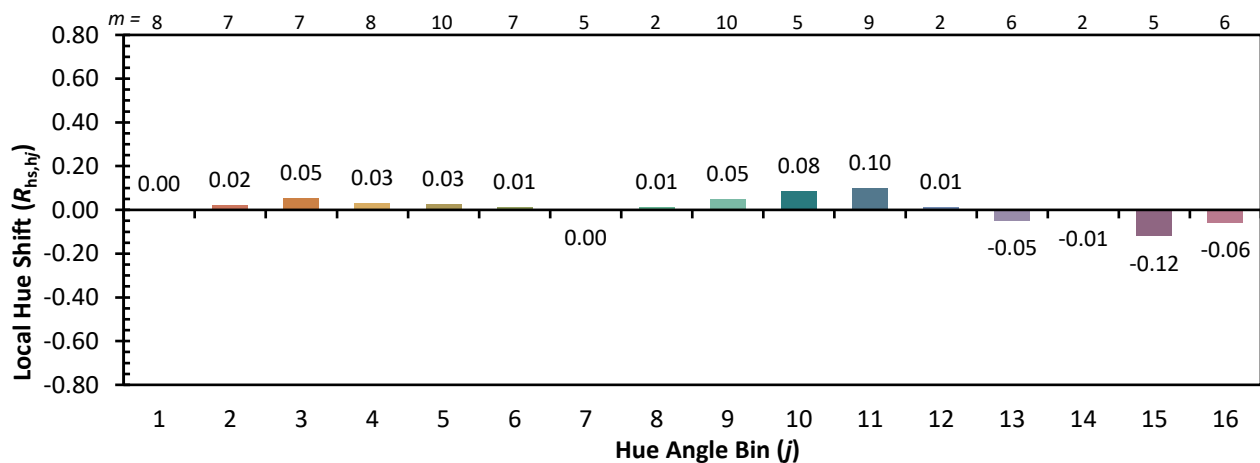
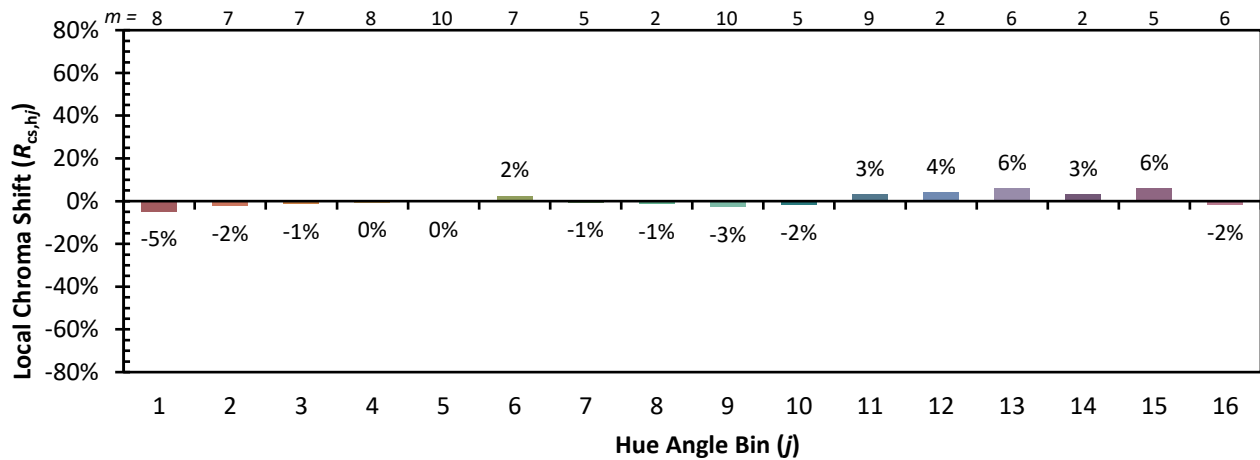


Individual Sample Fidelity Index ($R_{f,i}$)

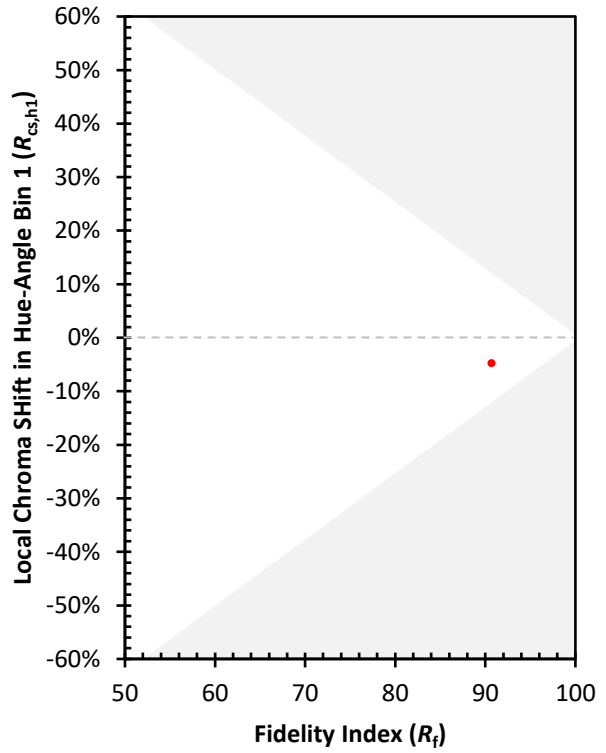
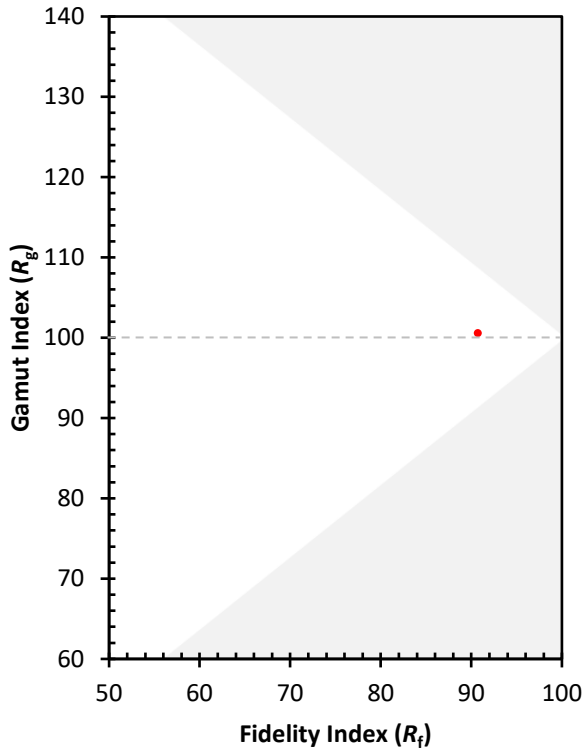
CES01 = 85	CES26 = 91	CES51 = 98	CES76 = 83
CES02 = 61	CES27 = 92	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 97	CES78 = 80
CES04 = 69	CES29 = 94	CES54 = 93	CES79 = 94
CES05 = 48	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 50	CES31 = 95	CES56 = 95	CES81 = 84
CES07 = 41	CES32 = 86	CES57 = 94	CES82 = 96
CES08 = 40	CES33 = 99	CES58 = 94	CES83 = 96
CES09 = 29	CES34 = 90	CES59 = 97	CES84 = 93
CES10 = 73	CES35 = 94	CES60 = 92	CES85 = 83
CES11 = 56	CES36 = 81	CES61 = 92	CES86 = 86
CES12 = 62	CES37 = 92	CES62 = 86	CES87 = 91
CES13 = 43	CES38 = 88	CES63 = 92	CES88 = 98
CES14 = 74	CES39 = 99	CES64 = 89	CES89 = 87
CES15 = 71	CES40 = 97	CES65 = 88	CES90 = 98
CES16 = 47	CES41 = 97	CES66 = 85	CES91 = 73
CES17 = 48	CES42 = 90	CES67 = 84	CES92 = 79
CES18 = 56	CES43 = 91	CES68 = 86	CES93 = 87
CES19 = 70	CES44 = 99	CES69 = 87	CES94 = 78
CES20 = 65	CES45 = 95	CES70 = 83	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 77	CES96 = 92
CES22 = 77	CES47 = 95	CES72 = 92	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 77	CES98 = 95
CES24 = 90	CES49 = 95	CES74 = 92	CES99 = 94
CES25 = 70	CES50 = 98	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)