

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: P1433105

Luminaire Tested: EHBR1-12-UNV-N-L930

Issue Date: 3/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1433105
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-L930
Description: Elevate Round Highbay at, 12000 lumens, 3000K 90CRI LEDs with N lens
Light Source: -
Ballast/Driver: -

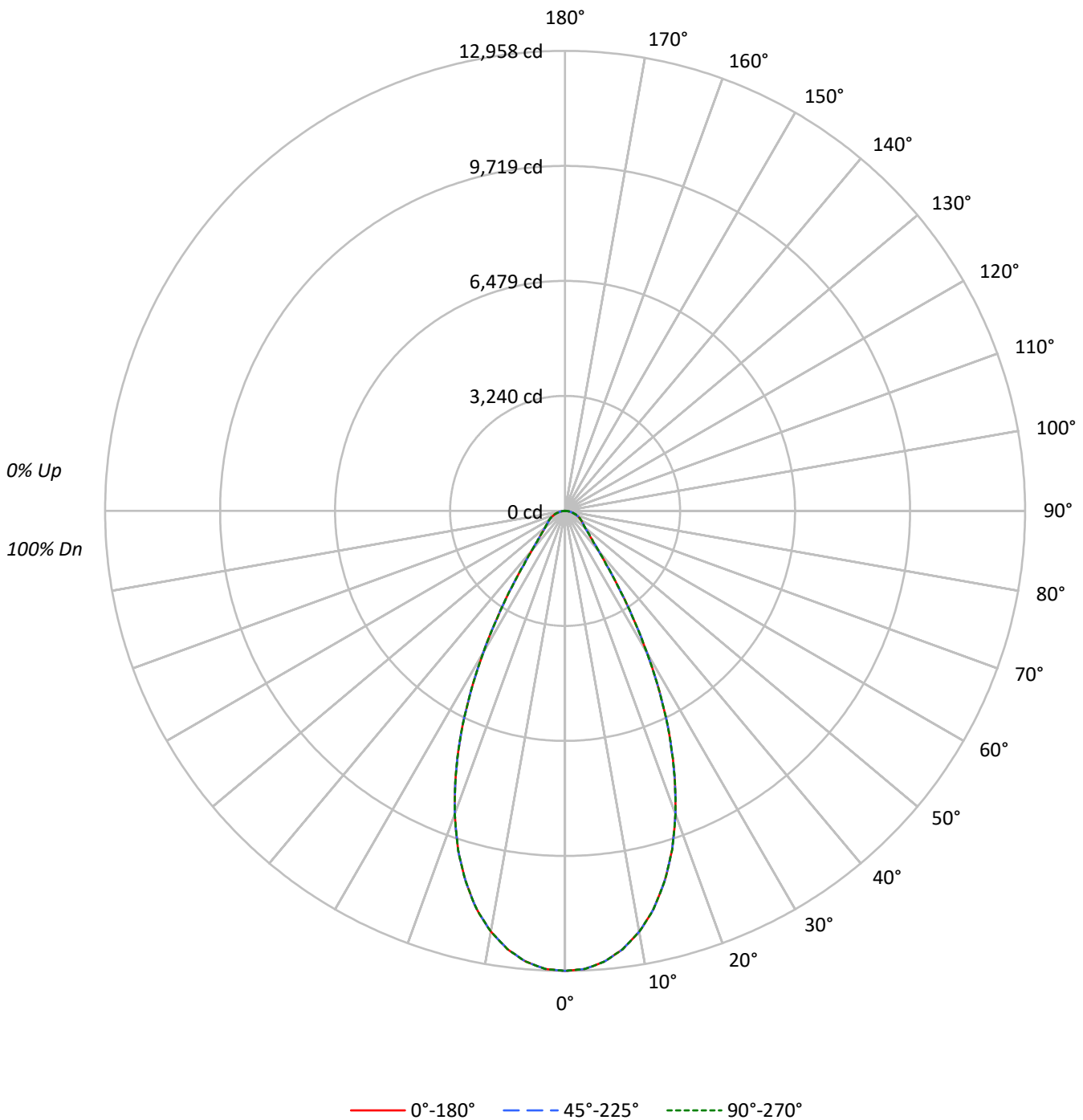
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11104.5 lumens
Efficiency: N/A
Efficacy: 171.6 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 (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: P1433105
CATALOG NUMBER: EHBR1-12-UNV-N-L930

Luminous Intensity Polar Plot





TEST NUMBER: P1433105
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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	100	100	100	100
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91	91	91	91
2	106	100	96	92	104	98	94	91	95	92	89	92	89	87	89	87	85	83	83	83	83
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76	76	76	76
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72	70	70	70	70
5	89	80	74	69	87	79	73	68	77	72	68	75	71	67	74	70	67	65	65	65	65
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61	61	61	61
7	80	70	64	59	79	70	63	59	68	63	59	67	62	58	66	61	58	57	57	57	57
8	76	66	60	55	75	66	59	55	64	59	55	63	58	55	62	58	55	53	53	53	53
9	73	62	56	52	72	62	56	52	61	56	52	60	55	52	59	55	51	50	50	50	50
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48	47	47	47	47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	60854	60854	60854
5°	60062	60062	60062
10°	57381	57381	57381
15°	52561	52561	52561
20°	45402	45402	45402
25°	35981	35981	35981
30°	24890	24890	24890
35°	14915	14915	14915
40°	8912	8912	8912
45°	6469	6469	6469
50°	5389	5389	5389
55°	4976	4976	4976
60°	4861	4861	4861
65°	4763	4763	4763
70°	4601	4601	4601
75°	4413	4413	4413
80°	4078	4078	4078
85°	3362	3362	3362

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6469 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1193.7	10.7
10°-20°	2996.3	27.0
20°-30°	3133.0	28.2
30°-40°	1697.5	15.3
40°-50°	781.0	7.0
50°-60°	550.3	5.0
60°-70°	423.5	3.8
70°-80°	256.8	2.3
80°-90°	72.3	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°	7323.0	65.9
0°-40°	9020.6	81.2
0°-60°	10351.9	93.2
0°-90°	11104.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11104.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12958	12958	12958	12958	12958	
5°	12741	12741	12741	12741	12741	1194
15°	10811	10811	10811	10811	10811	2996
25°	6944	6944	6944	6944	6944	3133
35°	2602	2602	2602	2602	2602	1698
45°	974	974	974	974	974	781
55°	608	608	608	608	608	550
65°	429	429	429	429	429	424
75°	243	243	243	243	243	257
85°	62	62	62	62	62	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	12958.5	12958.5	12958.5	12958.5	12958.5
2.5°	12912.6	12912.6	12912.6	12912.6	12912.6
5°	12741.2	12741.2	12741.2	12741.2	12741.2
7.5°	12448.5	12448.5	12448.5	12448.5	12448.5
10°	12033.3	12033.3	12033.3	12033.3	12033.3
12.5°	11496.7	11496.7	11496.7	11496.7	11496.7
15°	10811.1	10811.1	10811.1	10811.1	10811.1
17.5°	10015.8	10015.8	10015.8	10015.8	10015.8
20°	9085.0	9085.0	9085.0	9085.0	9085.0
22.5°	8048.7	8048.7	8048.7	8048.7	8048.7
25°	6944.1	6944.1	6944.1	6944.1	6944.1
27.5°	5773.1	5773.1	5773.1	5773.1	5773.1
30°	4590.0	4590.0	4590.0	4590.0	4590.0
32.5°	3522.7	3522.7	3522.7	3522.7	3522.7
35°	2601.7	2601.7	2601.7	2601.7	2601.7
37.5°	1910.2	1910.2	1910.2	1910.2	1910.2
40°	1453.7	1453.7	1453.7	1453.7	1453.7
42.5°	1165.7	1165.7	1165.7	1165.7	1165.7
45°	974.1	974.1	974.1	974.1	974.1
47.5°	836.2	836.2	836.2	836.2	836.2
50°	737.6	737.6	737.6	737.6	737.6
52.5°	665.6	665.6	665.6	665.6	665.6
55°	607.8	607.8	607.8	607.8	607.8
57.5°	561.0	561.0	561.0	561.0	561.0
60°	517.6	517.6	517.6	517.6	517.6
62.5°	474.3	474.3	474.3	474.3	474.3
65°	428.6	428.6	428.6	428.6	428.6
67.5°	382.1	382.1	382.1	382.1	382.1
70°	335.1	335.1	335.1	335.1	335.1
72.5°	289.4	289.4	289.4	289.4	289.4
75°	243.2	243.2	243.2	243.2	243.2
77.5°	198.0	198.0	198.0	198.0	198.0
80°	150.8	150.8	150.8	150.8	150.8
82.5°	105.5	105.5	105.5	105.5	105.5
85°	62.4	62.4	62.4	62.4	62.4
87.5°	22.4	22.4	22.4	22.4	22.4
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	14.19	15.35	14.55	15.66	15.98	14.19	15.35	14.55	15.66	15.98
	3H	16.06	17.10	16.45	17.43	17.80	16.06	17.10	16.45	17.43	17.80
	4H	16.79	17.75	17.20	18.11	18.49	16.79	17.75	17.20	18.11	18.49
	6H	17.34	18.22	17.75	18.59	18.99	17.34	18.22	17.75	18.59	18.99
	8H	17.51	18.34	17.94	18.73	19.14	17.51	18.34	17.94	18.73	19.14
	12H	17.60	18.40	18.04	18.78	19.21	17.60	18.40	18.04	18.78	19.21
4H	2H	14.78	15.74	15.19	16.09	16.48	14.78	15.74	15.19	16.09	16.48
	3H	16.87	17.66	17.28	18.06	18.47	16.87	17.66	17.28	18.06	18.47
	4H	17.72	18.43	18.15	18.85	19.30	17.72	18.43	18.15	18.85	19.30
	6H	18.39	19.00	18.86	19.45	19.92	18.39	19.00	18.86	19.45	19.92
	8H	18.60	19.17	19.07	19.62	20.09	18.60	19.17	19.07	19.62	20.09
	12H	18.74	19.24	19.22	19.72	20.20	18.74	19.24	19.22	19.72	20.20
8H	4H	18.00	18.57	18.47	19.02	19.49	18.00	18.57	18.47	19.02	19.49
	6H	18.81	19.27	19.31	19.77	20.25	18.81	19.27	19.31	19.77	20.25
	8H	19.10	19.51	19.63	20.03	20.52	19.10	19.51	19.63	20.03	20.52
	12H	19.32	19.67	19.83	20.17	20.74	19.32	19.67	19.83	20.17	20.74
12H	4H	18.02	18.52	18.50	19.00	19.48	18.02	18.52	18.50	19.00	19.48
	6H	18.86	19.27	19.38	19.78	20.28	18.86	19.27	19.38	19.78	20.28
	8H	19.20	19.56	19.72	20.06	20.63	19.20	19.56	19.72	20.06	20.63

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

Report Prepared for

Cooper Lighting Solutions

Metalux

Report Number: SP1-2506-472-5

Test Date: 08/01/2025

Luminaire Tested: EHBR-60-L930-N

Data in this report applies to families of products including EHBR-60-L930-N

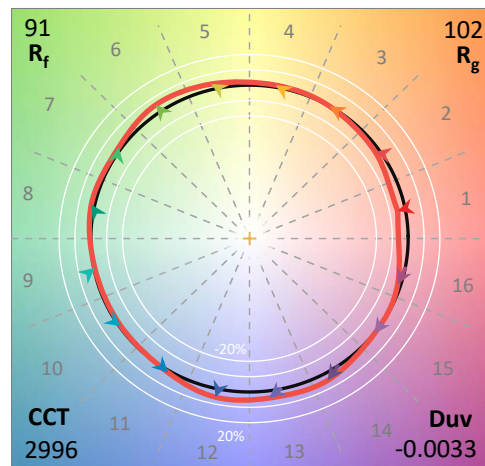
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2506-472-5
 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-L930-N**
 Description: Elevate Round Highbay at, 60000 lumens, 3000K 90CRI LEDs with N lens

Spectral Parameters

CCT (K): 2996
 CIE u': 0.2519
 CIE v': 0.5169
 Duv: -0.0033
 CIE x: 0.4325
 CIE y: 0.3945
 CIE z: 0.1730
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 584
 Purity: 48.21818
 Rf: 91.3
 Rg: 102

CRI (Ra):	94.4		
R1:	96.8	R9:	61.4
R2:	98.1	R10:	94.4
R3:	97.8	R11:	95.7
R4:	95.6	R12:	88.5
R5:	96.9	R13:	97.3
R6:	95.7	R14:	97.8
R7:	90.9	R15:	92.3
R8:	83.0		



Test Conditions

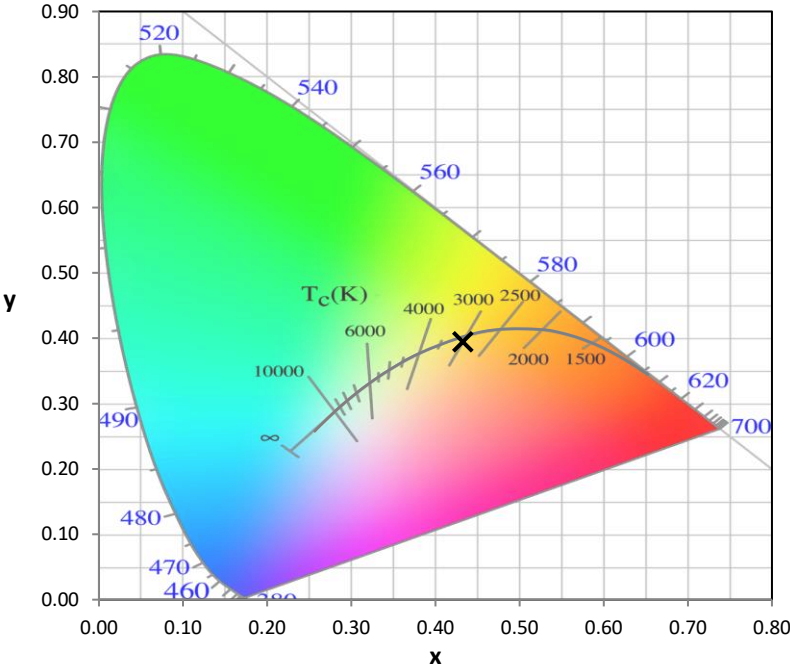
Stabilization Time: 40M
 Operation Time: 1H 40M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2506-472-5

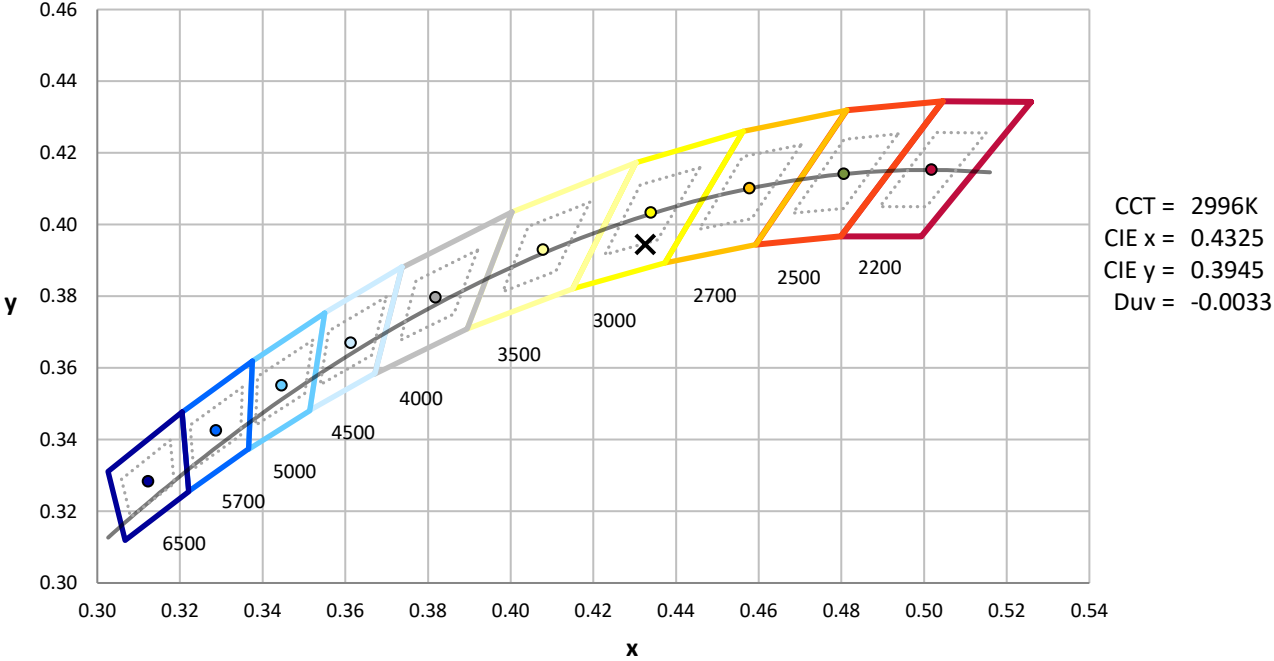
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	1/21/2025	1/21/2026
AC Power Source	CHROMA 61603 IN0063	10/22/2024	10/22/2025
DC Power Source	AGILENT E3634A IN0208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



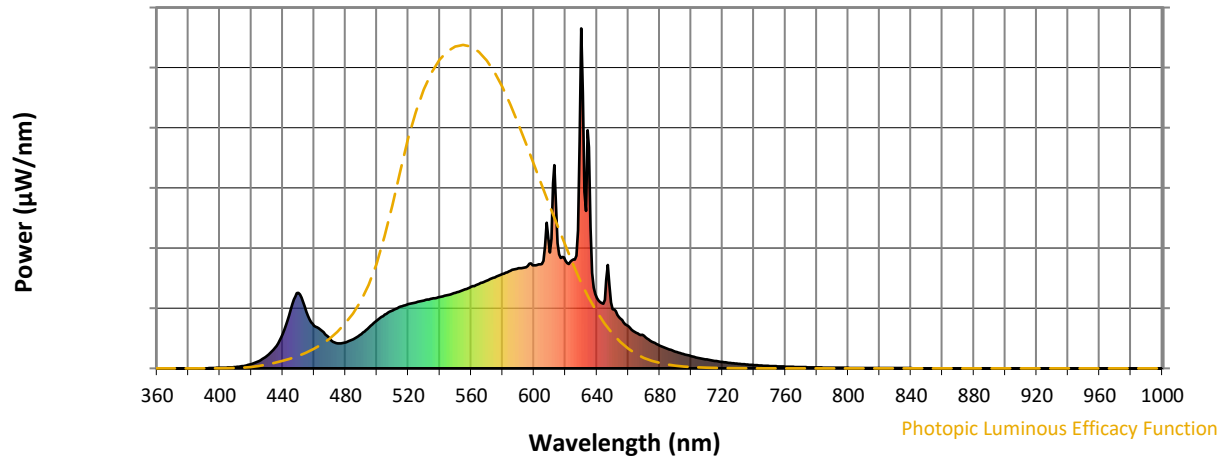
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 7-step quadrangle

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Photopic Flux vs. Wavelength

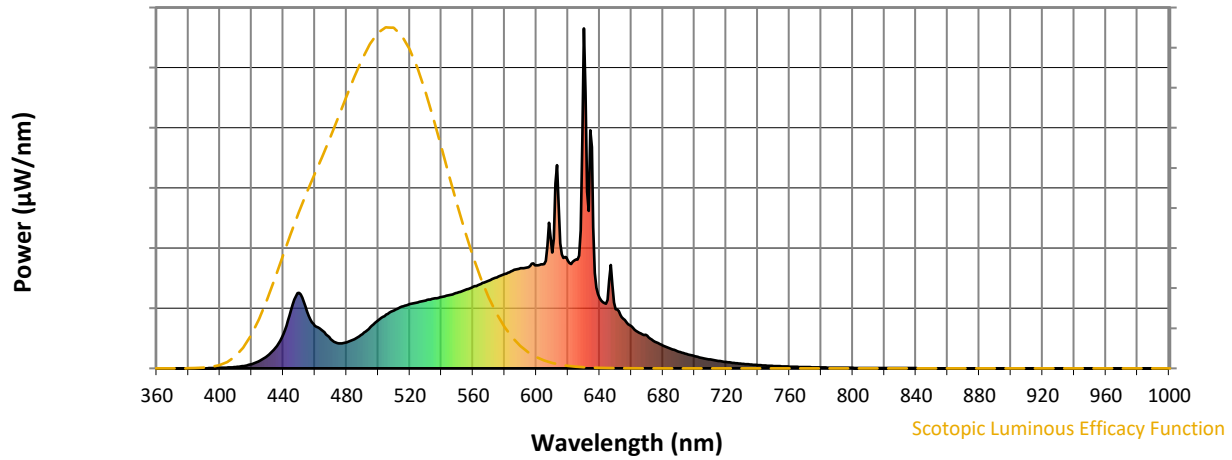


Photopic Lumens: NR

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



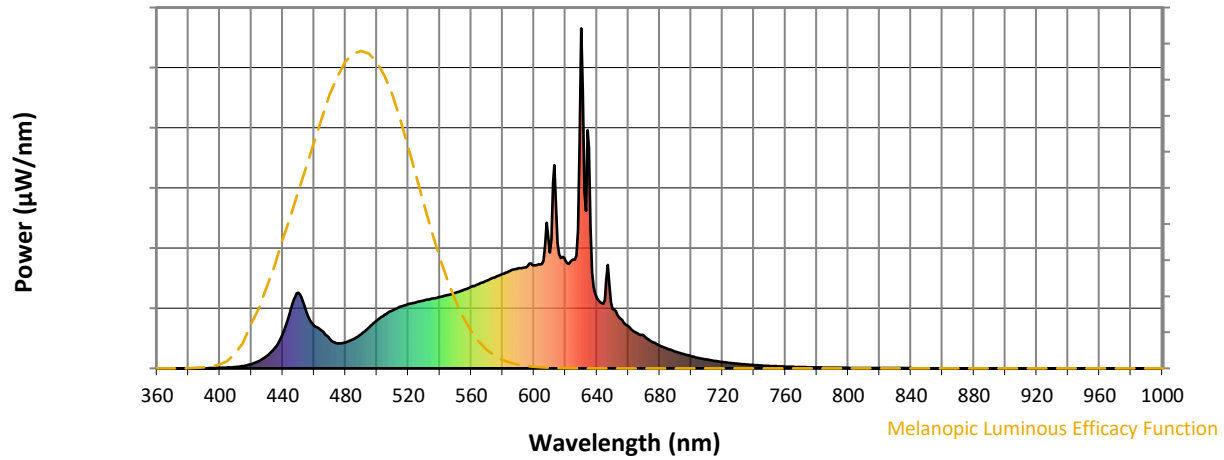
Scotopic Lumens: NR

S/P: 1.44

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	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2506-472-5

Melanopic Flux vs. Wavelength



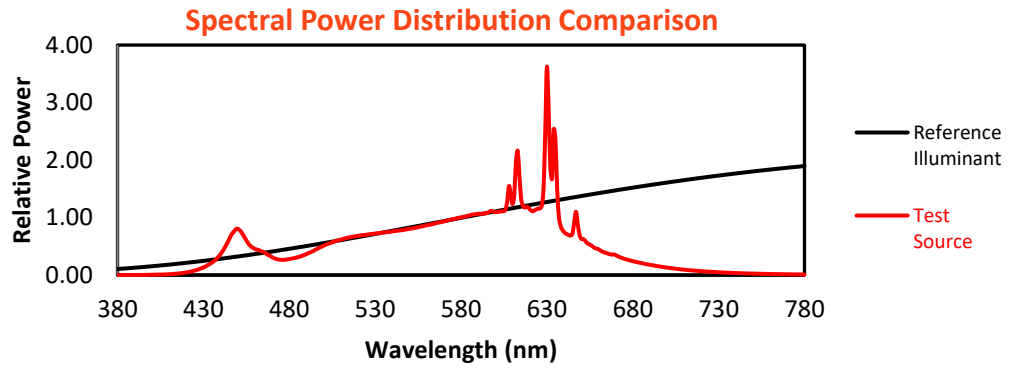
Melanopic Lumens: NR

M/P: 2.85

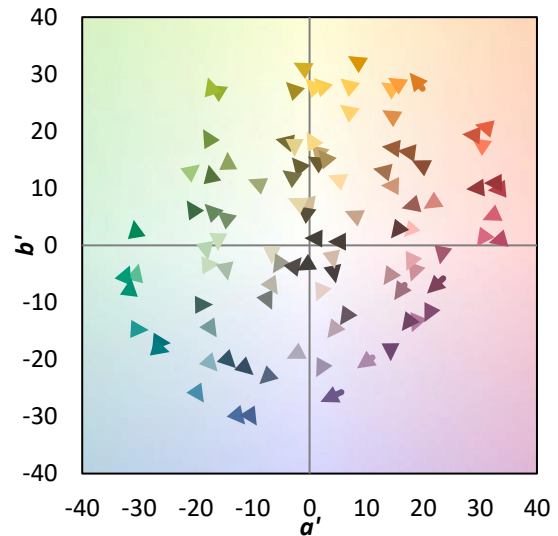
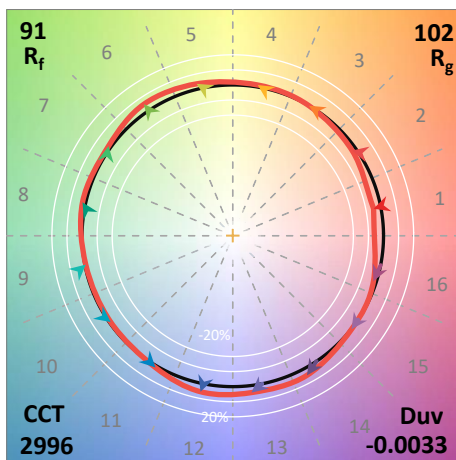
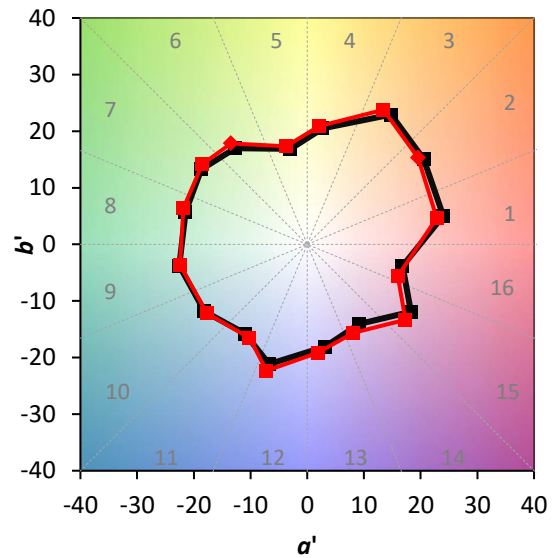
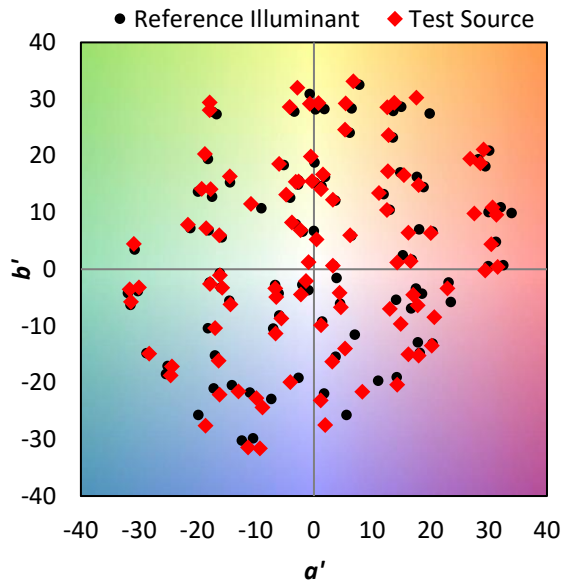
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	101	NR	620	317	NR	750	7	NR	880	0	NR
365	0	NR	495	121	NR	625	320	NR	755	6	NR	885	0	NR
370	0	NR	500	141	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	158	NR	635	651	NR	765	4	NR	895	0	NR
380	0	NR	510	171	NR	640	207	NR	770	4	NR	900	0	NR
385	0	NR	515	182	NR	645	201	NR	775	3	NR	905	0	NR
390	0	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	146	NR	785	2	NR	915	0	NR
400	1	NR	530	199	NR	660	124	NR	790	2	NR	920	0	NR
405	3	NR	535	205	NR	665	105	NR	795	2	NR	925	0	NR
410	4	NR	540	210	NR	670	96	NR	800	1	NR	930	0	NR
415	7	NR	545	216	NR	675	79	NR	805	1	NR	935	0	NR
420	13	NR	550	222	NR	680	67	NR	810	1	NR	940	0	NR
425	22	NR	555	230	NR	685	58	NR	815	1	NR	945	0	NR
430	37	NR	560	240	NR	690	49	NR	820	1	NR	950	0	NR
435	60	NR	565	248	NR	695	42	NR	825	1	NR	955	0	NR
440	101	NR	570	258	NR	700	36	NR	830	1	NR	960	0	NR
445	172	NR	575	268	NR	705	30	NR	835	1	NR	965	0	NR
450	223	NR	580	278	NR	710	26	NR	840	1	NR	970	0	NR
455	167	NR	585	287	NR	715	22	NR	845	0	NR	975	0	NR
460	126	NR	590	295	NR	720	19	NR	850	0	NR	980	0	NR
465	111	NR	595	298	NR	725	16	NR	855	0	NR	985	0	NR
470	86	NR	600	303	NR	730	14	NR	860	0	NR	990	0	NR
475	74	NR	605	307	NR	735	12	NR	865	0	NR	995	0	NR
480	77	NR	610	341	NR	740	10	NR	870	0	NR	1000	0	NR
485	86	NR	615	368	NR	745	8	NR	875	0	NR			

Summary

$R_f = 91.3$
 $R_g = 102$
 $CIE R_a = 94.4$
 $R_9 = 61.4$

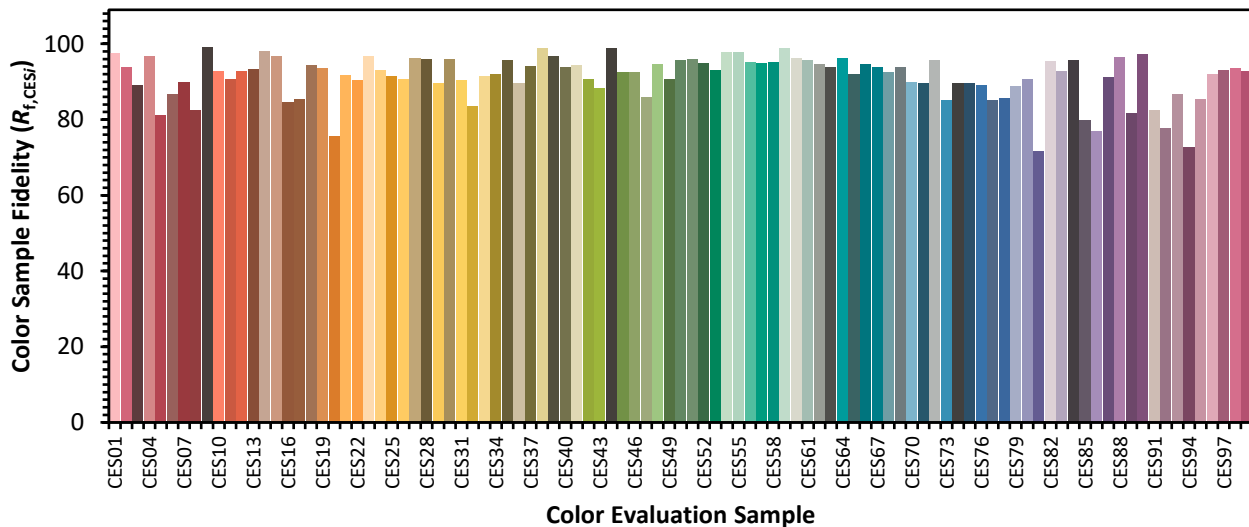


Color Vector Graphics

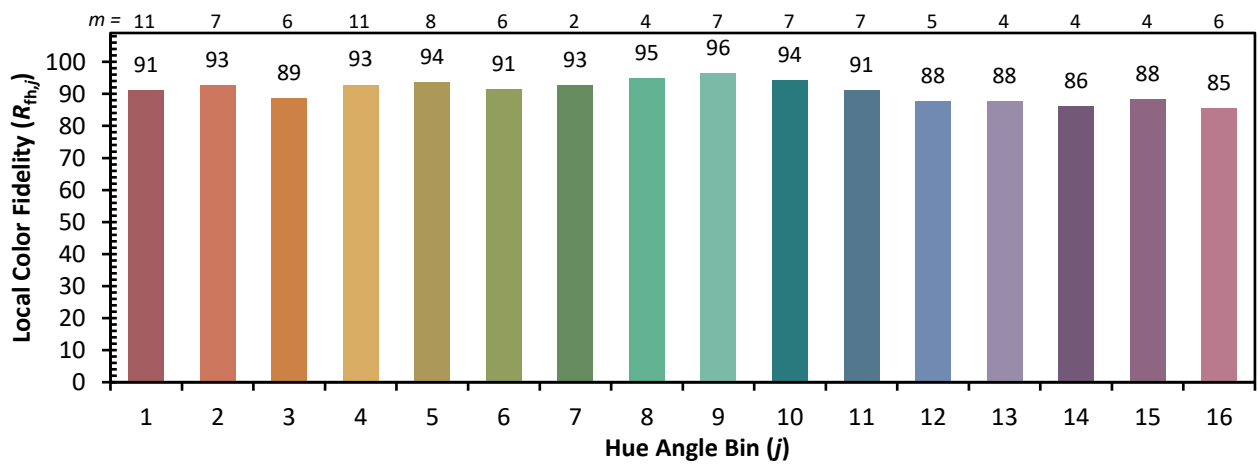
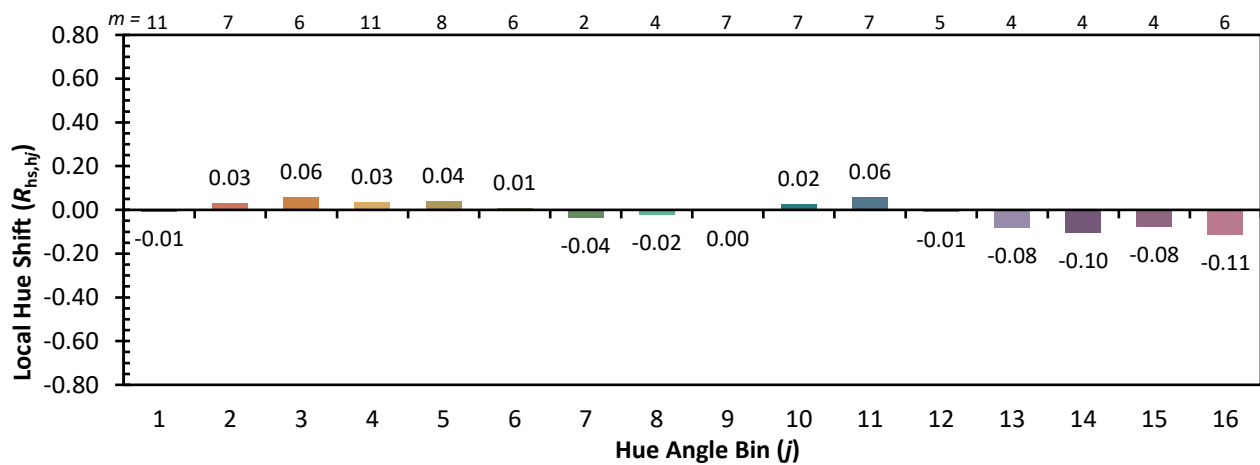
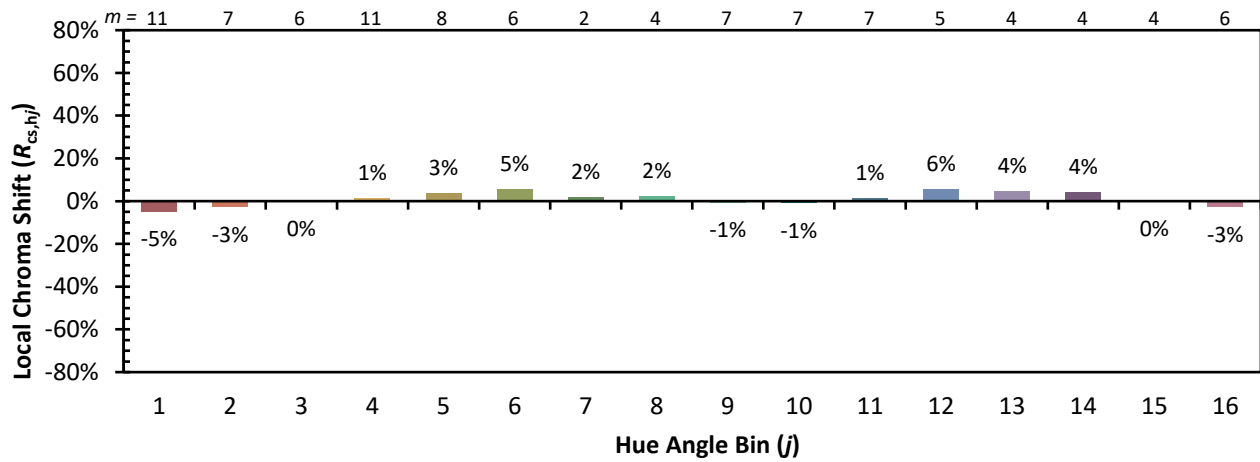


Individual Sample Fidelity Index ($R_{f,i}$)

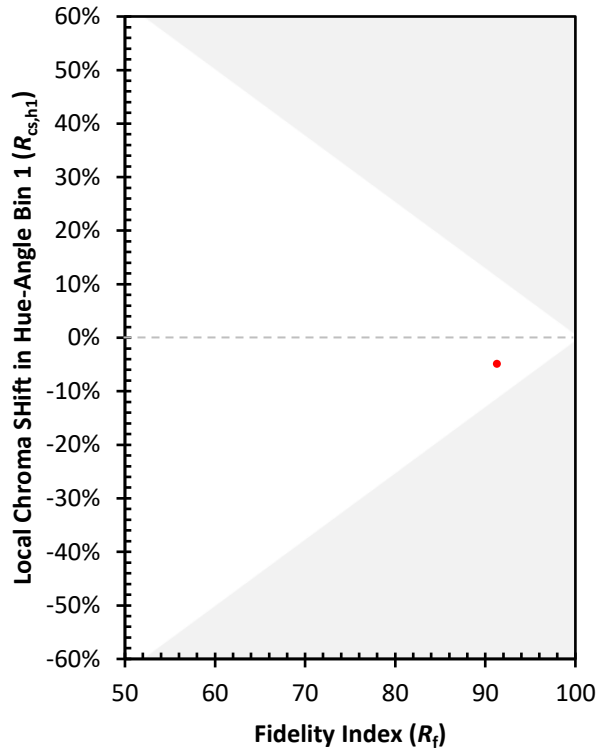
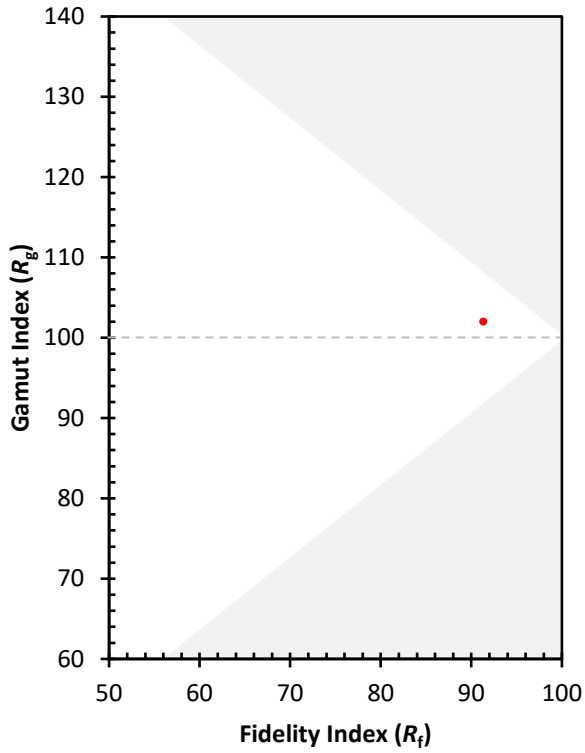
CES01 = 86	CES26 = 91	CES51 = 96	CES76 = 89
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 85
CES03 = 32	CES28 = 96	CES53 = 93	CES78 = 86
CES04 = 70	CES29 = 90	CES54 = 98	CES79 = 89
CES05 = 51	CES30 = 96	CES55 = 98	CES80 = 91
CES06 = 51	CES31 = 90	CES56 = 95	CES81 = 72
CES07 = 44	CES32 = 84	CES57 = 95	CES82 = 95
CES08 = 42	CES33 = 91	CES58 = 95	CES83 = 93
CES09 = 29	CES34 = 92	CES59 = 99	CES84 = 96
CES10 = 76	CES35 = 96	CES60 = 96	CES85 = 80
CES11 = 59	CES36 = 90	CES61 = 96	CES86 = 77
CES12 = 65	CES37 = 94	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 99	CES63 = 94	CES88 = 96
CES14 = 74	CES39 = 97	CES64 = 96	CES89 = 82
CES15 = 72	CES40 = 94	CES65 = 92	CES90 = 97
CES16 = 48	CES41 = 94	CES66 = 95	CES91 = 82
CES17 = 50	CES42 = 91	CES67 = 94	CES92 = 78
CES18 = 57	CES43 = 88	CES68 = 93	CES93 = 87
CES19 = 72	CES44 = 99	CES69 = 94	CES94 = 73
CES20 = 67	CES45 = 93	CES70 = 90	CES95 = 85
CES21 = 86	CES46 = 93	CES71 = 90	CES96 = 92
CES22 = 79	CES47 = 86	CES72 = 96	CES97 = 93
CES23 = 92	CES48 = 95	CES73 = 85	CES98 = 94
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 93
CES25 = 72	CES50 = 96	CES75 = 90	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)