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: IRiS

Report Number: P1257323

Luminaire Tested: P3A13R209040DE010 E3DLD1LI

Issue Date: 1/30/2026

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1257323
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2601-647-6)
Test Lab:	INNOVATION CENTER
Issue Date:	1/30/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	IRiS
Catalog Number:	P3A13R209040DE010 E3DLD1LI
Description:	3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3DLD1LI TRIM
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	822.9 lumens
Efficiency:	N/A
Efficacy:	56.4 lumens/watt
Spacing Criteria (0/90/45):	0.76 / 0.76 / 0.83
Luminous Opening:	Circular (Dia: 0.25' x H: 0')
CIE Type:	Direct

Input Watts (W):	14.6
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

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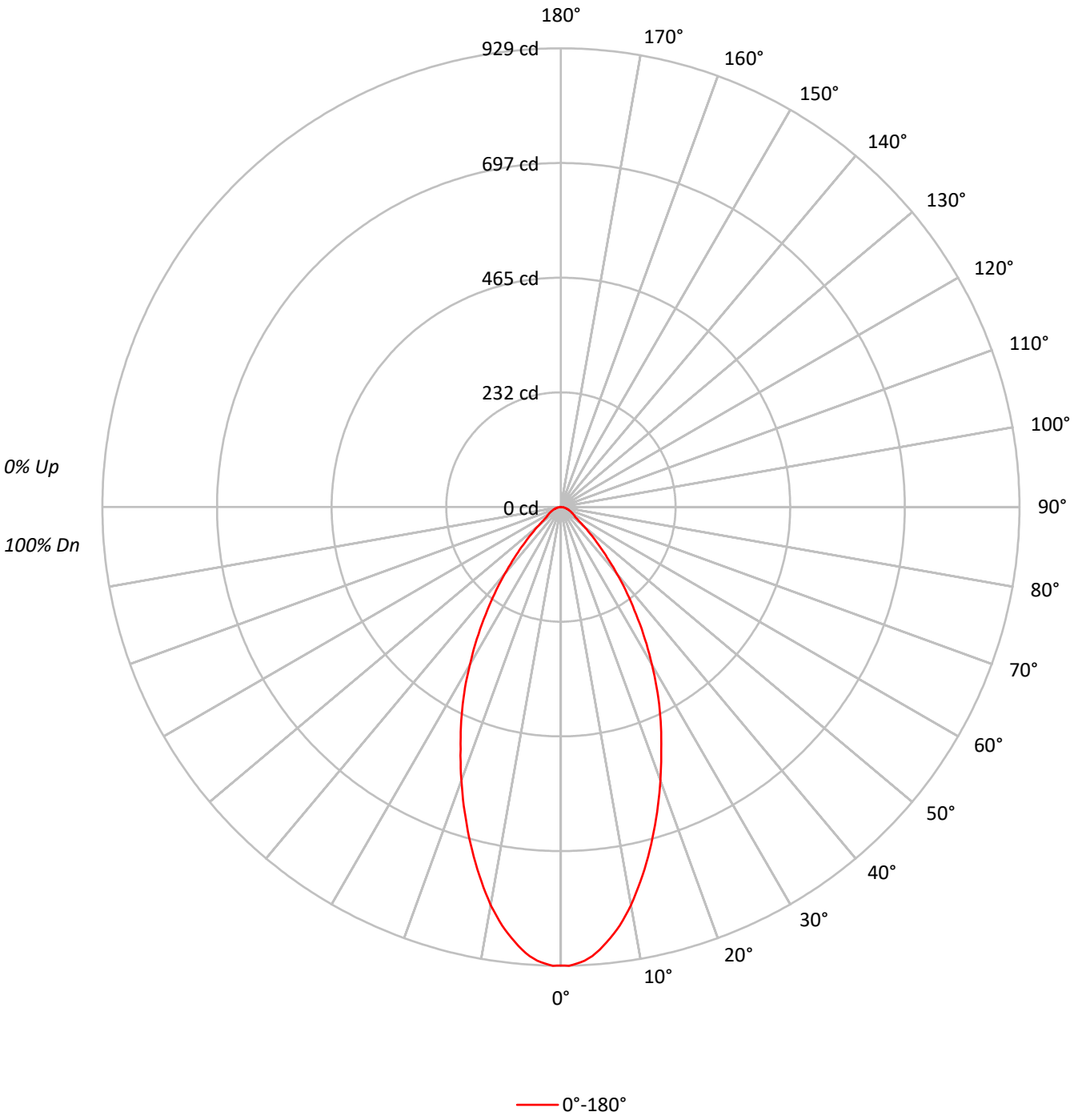
Scaled Data Report

TEST NUMBER: P1257323
CATALOG NUMBER: P3A13R209040DE010 E3DLD1LI

Luminous Intensity Polar Plot



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Scaled Data Report

TEST NUMBER: P1257323
CATALOG NUMBER: P3A13R209040DE010 E3DLD1LI

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	113	109	106	104	110	107	105	102	103	101	99	99	98	96	96	95	93	91
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	90	87	85	83
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76
4	94	86	79	75	92	85	79	74	82	77	73	80	76	72	78	75	72	70
5	89	80	73	68	87	79	73	68	77	71	67	75	70	67	73	69	66	65
6	84	74	68	63	82	73	67	63	72	66	62	70	65	62	69	65	61	60
7	80	69	63	58	78	69	62	58	67	62	58	66	61	57	65	60	57	55
8	75	65	59	54	74	64	58	54	63	58	54	62	57	53	61	57	53	52
9	72	61	55	50	70	61	55	50	60	54	50	59	54	50	58	53	50	48
10	68	58	51	47	67	57	51	47	56	51	47	56	51	47	55	50	47	45

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	203580
5°	198128
10°	182272
15°	160432
20°	137585
25°	115603
30°	93432
35°	71072
40°	50580
45°	33399
50°	20673
55°	13572
60°	12367
65°	11415
70°	10707
75°	9743
80°	9218
85°	7799

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 33399 cd/sqm

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Scaled Data Report

TEST NUMBER: P1257323
CATALOG NUMBER: P3A13R209040DE010 E3DLD1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	10.1
10°-20°	196.7	23.9
20°-30°	218.4	26.5
30°-40°	166.6	20.2
40°-50°	85.3	10.4
50°-60°	35.0	4.3
60°-70°	21.8	2.7
70°-80°	12.3	1.5
80°-90°	3.5	0.4
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°	498.4	60.6
0°-40°	665.0	80.8
0°-60°	785.3	95.4
0°-90°	822.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	822.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	928	
5°	900	83
15°	707	197
25°	478	218
35°	266	167
45°	108	85
55°	36	35
65°	22	22
75°	12	12
85°	3	4
90°	0	

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Scaled Data Report

TEST NUMBER: P1257323
CATALOG NUMBER: P3A13R209040DE010 E3DLD1LI

CANDELA DISTRIBUTION (FULL):

	0°
0°	928.4
1°	929.4
2°	925.2
3°	920.0
4°	911.6
5°	900.1
6°	886.5
7°	871.9
8°	856.2
9°	837.4
10°	818.6
12.5°	764.2
15°	706.7
17.5°	648.2
20°	589.6
22.5°	531.1
25°	477.8
27.5°	424.4
30°	369.0
32.5°	316.8
35°	265.5
37.5°	220.6
40°	176.7
42.5°	139.0
45°	107.7
47.5°	81.5
50°	60.6
52.5°	45.0
55°	35.5
57.5°	32.4
60°	28.2
62.5°	25.1
65°	22.0
67.5°	18.8
70°	16.7
72.5°	13.6
75°	11.5
77.5°	9.4
80°	7.3
82.5°	5.2
85°	3.1
87.5°	1.0
90°	0.0

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

Report Prepared for

Cooper Lighting Solutions

IRiS

Report Number: SP1-2504-409-14

Test Date: 05/14/2025

Luminaire Tested: LD3A05R129040D010 E3D1H

Data in this report applies to families of products including LD3A

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

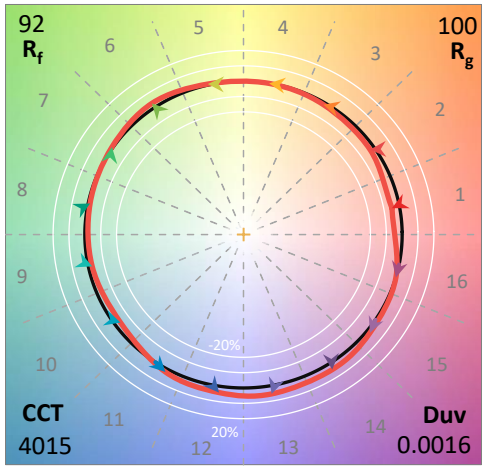
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2504-409-14
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	05/18/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	IRiS
Catalog Number:	**LD3A05R129040D010 E3D1H**
Description:	3in Adjustabled LED luminaire with, R12 optic, 4000K CCT AND, 90CRI LEDS, E3D1H TRIM

Spectral Parameters

CCT (K):	4015	CRI (Ra):	92.3		
CIE u':	0.2239	R1:	93.1	R9:	58.4
CIE v':	0.5033	R2:	93.8	R10:	85.3
Duv:	0.0016	R3:	94.2	R11:	94.4
CIE x:	0.3809	R4:	94.2	R12:	74.9
CIE y:	0.3805	R5:	92.7	R13:	93.3
CIE z:	0.2386	R6:	91.9	R14:	96.5
Peak Wavelength (nm):	450	R7:	94.0	R15:	89.0
Dominant Wavelength (nm):	578	R8:	84.8		
Purity:	28.51686				

Rf:	91.5
Rg:	100.3



Test Conditions

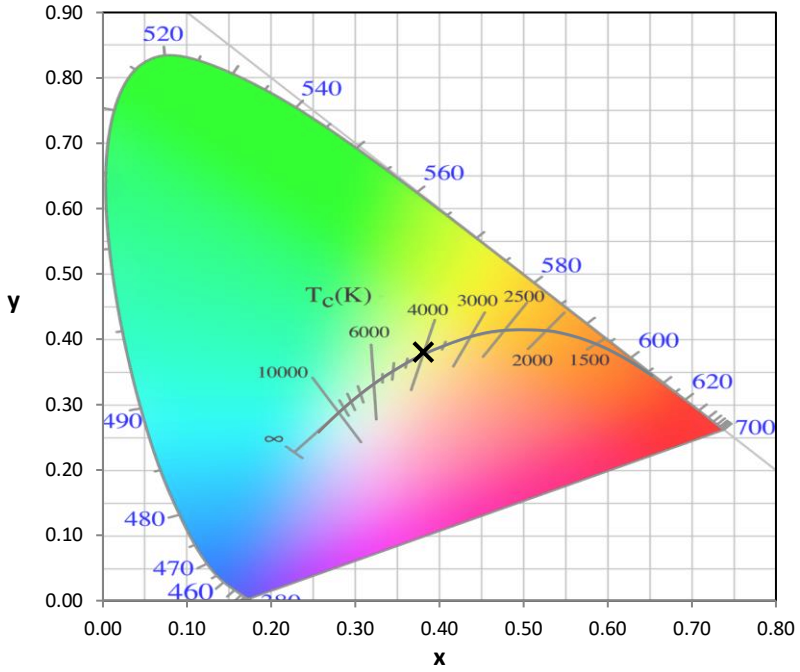
Stabilization Time:	26M
Operation Time:	1H 26M
Sphere Temperature (°C):	24.9

REPORT NUMBER: SP1-2504-409-14

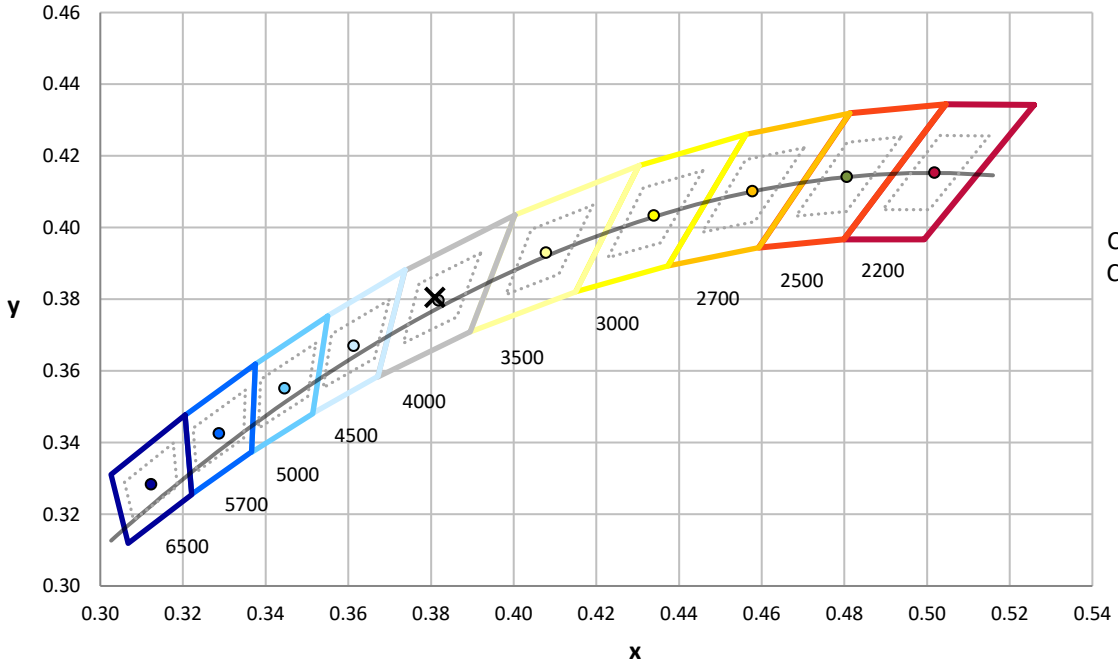
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2504-409-14

CIE 1931 Chromaticity Diagram



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



CCT = 4015K
CIE x = 0.3809
CIE y = 0.3805
Duv = 0.0016

Point lies inside the ANSI 4000K 4-step quadrangle

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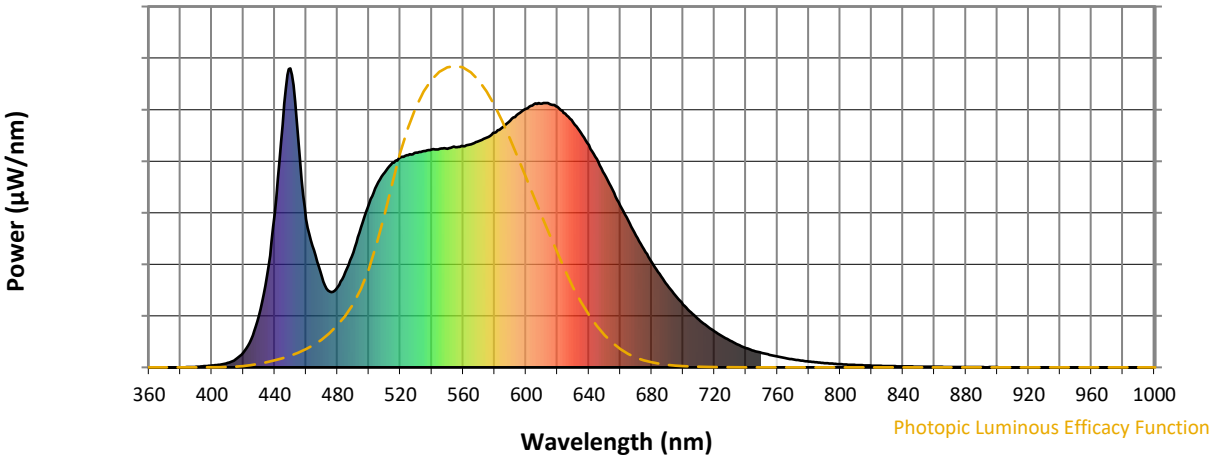
Photopic Flux vs. Wavelength

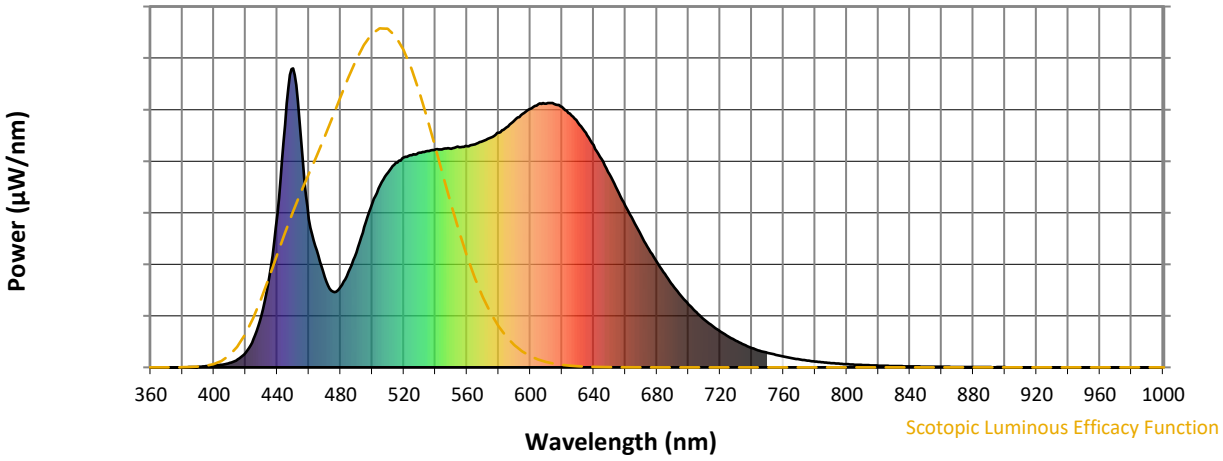


Photopic Lumens: NR

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	385	NR	620	871	NR	750	49	NR	880	1	NR
365	0	NR	495	468	NR	625	849	NR	755	42	NR	885	1	NR
370	0	NR	500	547	NR	630	819	NR	760	36	NR	890	1	NR
375	0	NR	505	609	NR	635	784	NR	765	31	NR	895	1	NR
380	0	NR	510	652	NR	640	744	NR	770	27	NR	900	1	NR
385	1	NR	515	684	NR	645	697	NR	775	23	NR	905	0	NR
390	2	NR	520	702	NR	650	645	NR	780	20	NR	910	0	NR
395	4	NR	525	710	NR	655	594	NR	785	17	NR	915	0	NR
400	6	NR	530	718	NR	660	541	NR	790	14	NR	920	0	NR
405	9	NR	535	723	NR	665	491	NR	795	12	NR	925	0	NR
410	15	NR	540	729	NR	670	441	NR	800	11	NR	930	0	NR
415	26	NR	545	731	NR	675	395	NR	805	9	NR	935	0	NR
420	49	NR	550	731	NR	680	352	NR	810	8	NR	940	0	NR
425	95	NR	555	736	NR	685	312	NR	815	7	NR	945	0	NR
430	173	NR	560	740	NR	690	275	NR	820	6	NR	950	0	NR
435	305	NR	565	746	NR	695	241	NR	825	5	NR	955	0	NR
440	511	NR	570	757	NR	700	210	NR	830	4	NR	960	0	NR
445	811	NR	575	768	NR	705	184	NR	835	4	NR	965	0	NR
450	1000	NR	580	785	NR	710	159	NR	840	3	NR	970	0	NR
455	760	NR	585	803	NR	715	139	NR	845	3	NR	975	0	NR
460	496	NR	590	826	NR	720	120	NR	850	3	NR	980	0	NR
465	392	NR	595	848	NR	725	104	NR	855	2	NR	985	0	NR
470	302	NR	600	865	NR	730	89	NR	860	2	NR	990	0	NR
475	253	NR	605	879	NR	735	76	NR	865	2	NR	995	0	NR
480	269	NR	610	882	NR	740	65	NR	870	1	NR	1000	0	NR
485	319	NR	615	881	NR	745	55	NR	875	1	NR			

REPORT NUMBER: SP1-2504-409-14

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.77**

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	385	NR	620	871	NR	750	49	NR	880	1	NR
365	0	NR	495	468	NR	625	849	NR	755	42	NR	885	1	NR
370	0	NR	500	547	NR	630	819	NR	760	36	NR	890	1	NR
375	0	NR	505	609	NR	635	784	NR	765	31	NR	895	1	NR
380	0	NR	510	652	NR	640	744	NR	770	27	NR	900	1	NR
385	1	NR	515	684	NR	645	697	NR	775	23	NR	905	0	NR
390	2	NR	520	702	NR	650	645	NR	780	20	NR	910	0	NR
395	4	NR	525	710	NR	655	594	NR	785	17	NR	915	0	NR
400	6	NR	530	718	NR	660	541	NR	790	14	NR	920	0	NR
405	9	NR	535	723	NR	665	491	NR	795	12	NR	925	0	NR
410	15	NR	540	729	NR	670	441	NR	800	11	NR	930	0	NR
415	26	NR	545	731	NR	675	395	NR	805	9	NR	935	0	NR
420	49	NR	550	731	NR	680	352	NR	810	8	NR	940	0	NR
425	95	NR	555	736	NR	685	312	NR	815	7	NR	945	0	NR
430	173	NR	560	740	NR	690	275	NR	820	6	NR	950	0	NR
435	305	NR	565	746	NR	695	241	NR	825	5	NR	955	0	NR
440	511	NR	570	757	NR	700	210	NR	830	4	NR	960	0	NR
445	811	NR	575	768	NR	705	184	NR	835	4	NR	965	0	NR
450	1000	NR	580	785	NR	710	159	NR	840	3	NR	970	0	NR
455	760	NR	585	803	NR	715	139	NR	845	3	NR	975	0	NR
460	496	NR	590	826	NR	720	120	NR	850	3	NR	980	0	NR
465	392	NR	595	848	NR	725	104	NR	855	2	NR	985	0	NR
470	302	NR	600	865	NR	730	89	NR	860	2	NR	990	0	NR
475	253	NR	605	879	NR	735	76	NR	865	2	NR	995	0	NR
480	269	NR	610	882	NR	740	65	NR	870	1	NR	1000	0	NR
485	319	NR	615	881	NR	745	55	NR	875	1	NR			

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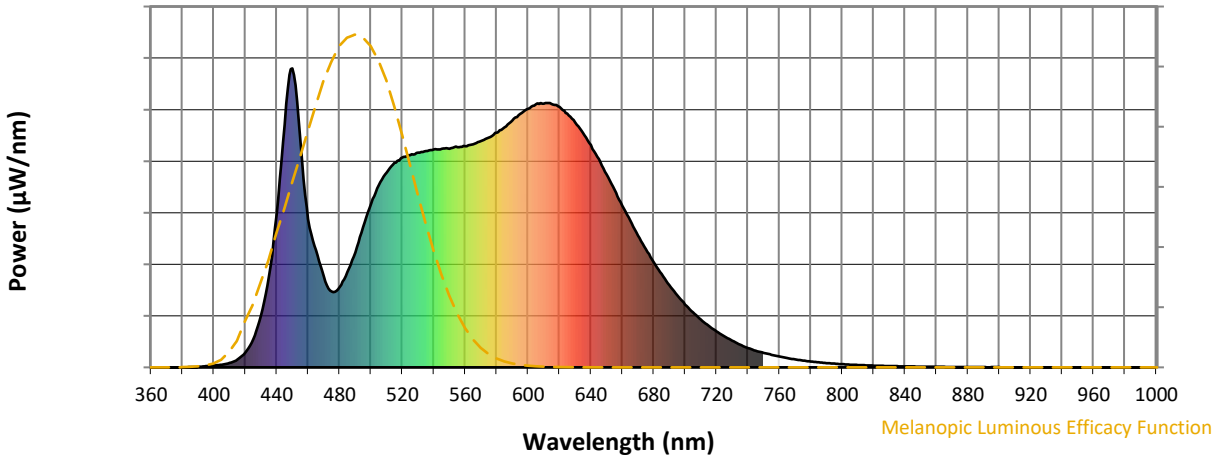
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.62**

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	385	NR	620	871	NR	750	49	NR	880	1	NR
365	0	NR	495	468	NR	625	849	NR	755	42	NR	885	1	NR
370	0	NR	500	547	NR	630	819	NR	760	36	NR	890	1	NR
375	0	NR	505	609	NR	635	784	NR	765	31	NR	895	1	NR
380	0	NR	510	652	NR	640	744	NR	770	27	NR	900	1	NR
385	1	NR	515	684	NR	645	697	NR	775	23	NR	905	0	NR
390	2	NR	520	702	NR	650	645	NR	780	20	NR	910	0	NR
395	4	NR	525	710	NR	655	594	NR	785	17	NR	915	0	NR
400	6	NR	530	718	NR	660	541	NR	790	14	NR	920	0	NR
405	9	NR	535	723	NR	665	491	NR	795	12	NR	925	0	NR
410	15	NR	540	729	NR	670	441	NR	800	11	NR	930	0	NR
415	26	NR	545	731	NR	675	395	NR	805	9	NR	935	0	NR
420	49	NR	550	731	NR	680	352	NR	810	8	NR	940	0	NR
425	95	NR	555	736	NR	685	312	NR	815	7	NR	945	0	NR
430	173	NR	560	740	NR	690	275	NR	820	6	NR	950	0	NR
435	305	NR	565	746	NR	695	241	NR	825	5	NR	955	0	NR
440	511	NR	570	757	NR	700	210	NR	830	4	NR	960	0	NR
445	811	NR	575	768	NR	705	184	NR	835	4	NR	965	0	NR
450	1000	NR	580	785	NR	710	159	NR	840	3	NR	970	0	NR
455	760	NR	585	803	NR	715	139	NR	845	3	NR	975	0	NR
460	496	NR	590	826	NR	720	120	NR	850	3	NR	980	0	NR
465	392	NR	595	848	NR	725	104	NR	855	2	NR	985	0	NR
470	302	NR	600	865	NR	730	89	NR	860	2	NR	990	0	NR
475	253	NR	605	879	NR	735	76	NR	865	2	NR	995	0	NR
480	269	NR	610	882	NR	740	65	NR	870	1	NR	1000	0	NR
485	319	NR	615	881	NR	745	55	NR	875	1	NR			

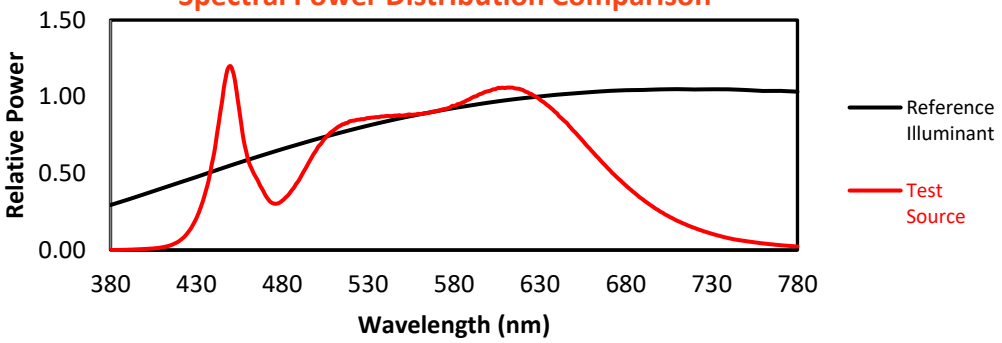
REPORT NUMBER: SP1-2504-409-14

TM-30-18

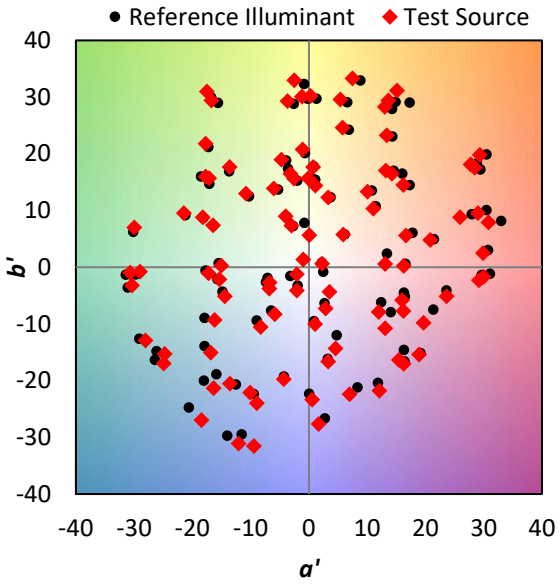
Summary

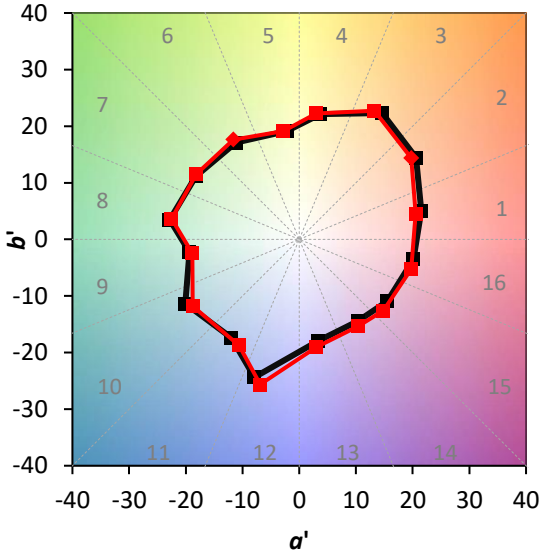
R_f = 91.5
R_g = 100.3
CIE R_a = 92.3
R_9 = 58.4

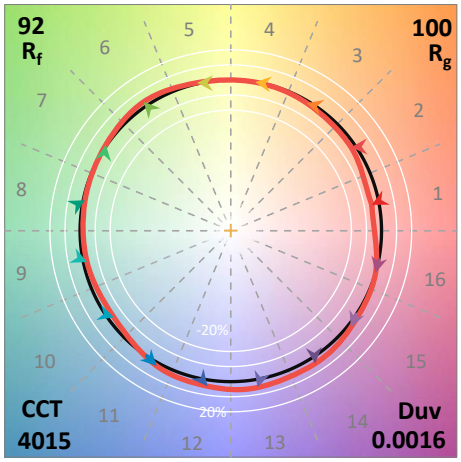
Spectral Power Distribution Comparison

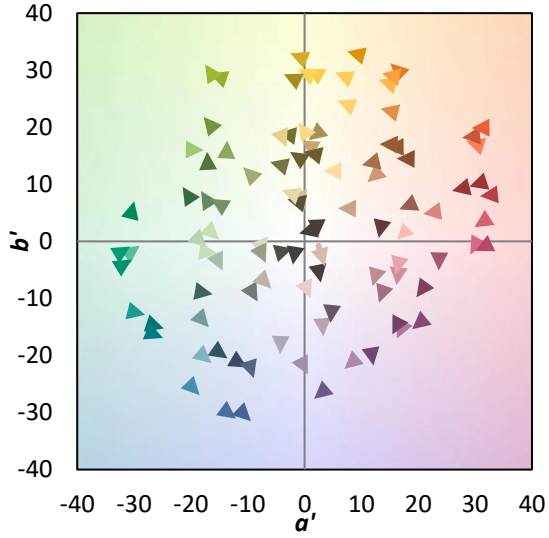


Color Vector Graphics









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TM-30-18

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

CES01 = 85	CES26 = 91	CES51 = 99	CES76 = 84
CES02 = 61	CES27 = 93	CES52 = 97	CES77 = 88
CES03 = 31	CES28 = 95	CES53 = 95	CES78 = 80
CES04 = 69	CES29 = 92	CES54 = 96	CES79 = 96
CES05 = 49	CES30 = 99	CES55 = 95	CES80 = 92
CES06 = 50	CES31 = 93	CES56 = 94	CES81 = 89
CES07 = 42	CES32 = 88	CES57 = 94	CES82 = 96
CES08 = 41	CES33 = 95	CES58 = 94	CES83 = 97
CES09 = 29	CES34 = 92	CES59 = 98	CES84 = 94
CES10 = 74	CES35 = 95	CES60 = 94	CES85 = 84
CES11 = 57	CES36 = 85	CES61 = 94	CES86 = 87
CES12 = 63	CES37 = 94	CES62 = 92	CES87 = 91
CES13 = 43	CES38 = 94	CES63 = 92	CES88 = 96
CES14 = 74	CES39 = 98	CES64 = 93	CES89 = 87
CES15 = 71	CES40 = 94	CES65 = 88	CES90 = 97
CES16 = 47	CES41 = 99	CES66 = 90	CES91 = 75
CES17 = 49	CES42 = 91	CES67 = 89	CES92 = 79
CES18 = 56	CES43 = 91	CES68 = 89	CES93 = 88
CES19 = 71	CES44 = 99	CES69 = 91	CES94 = 80
CES20 = 66	CES45 = 94	CES70 = 86	CES95 = 83
CES21 = 85	CES46 = 95	CES71 = 81	CES96 = 91
CES22 = 78	CES47 = 95	CES72 = 94	CES97 = 93
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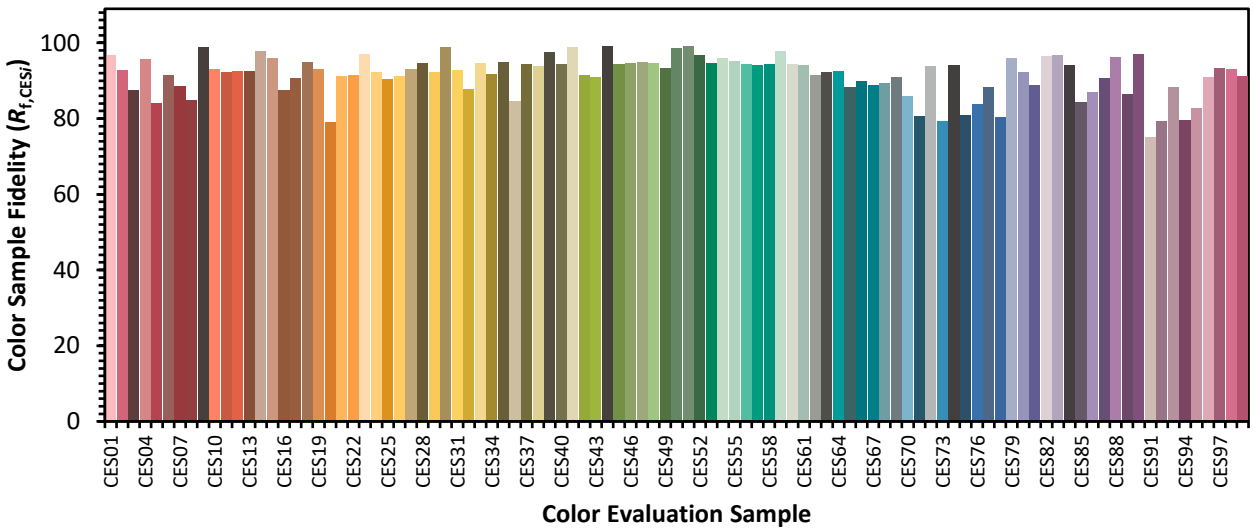

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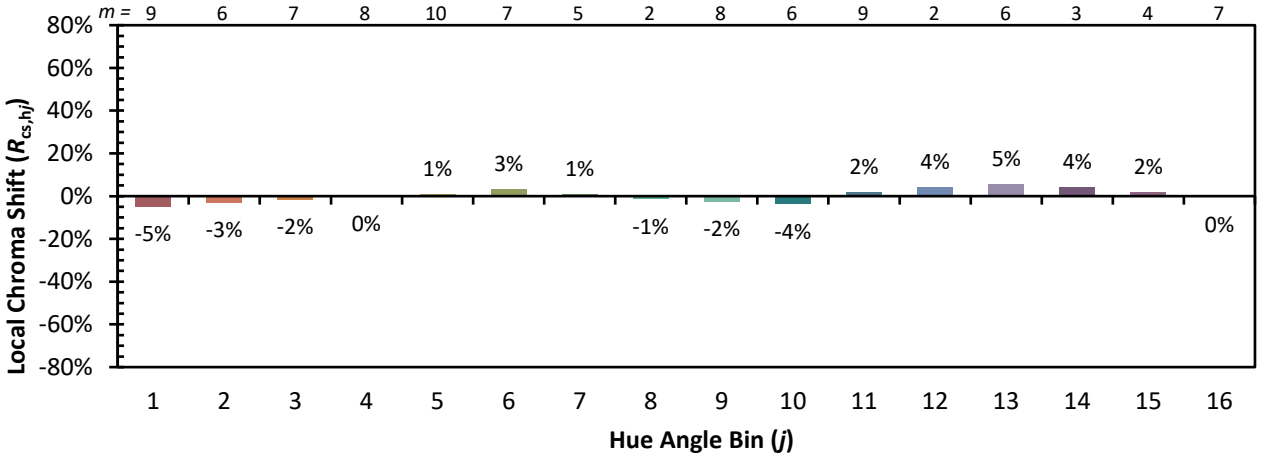
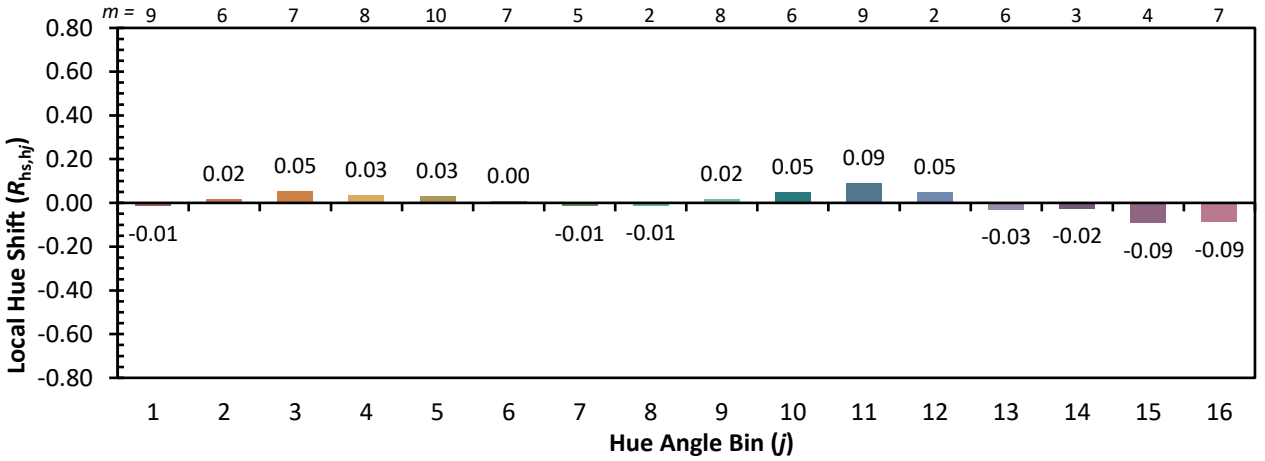
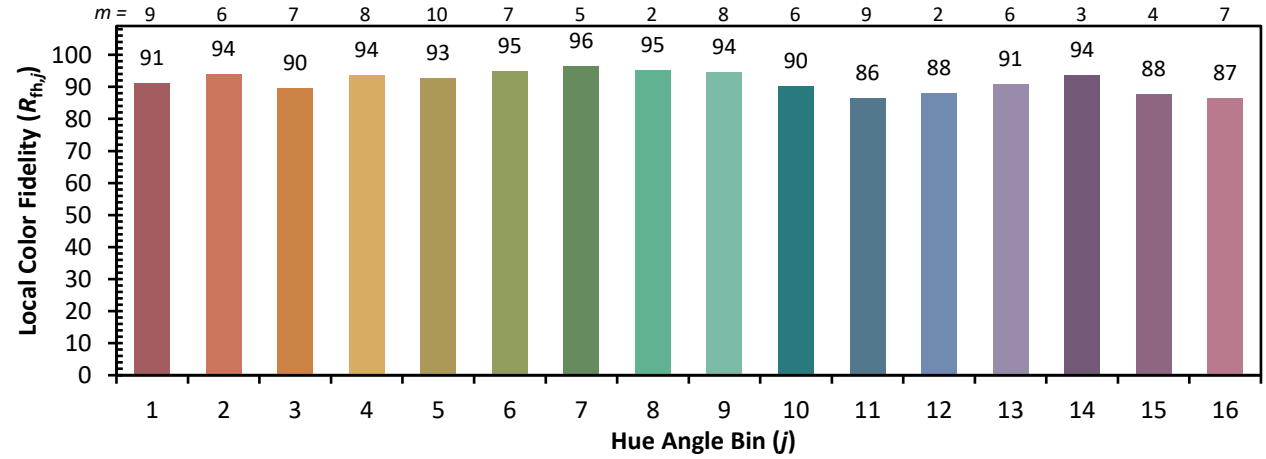
Color Rendition by Hue-Angle Bin







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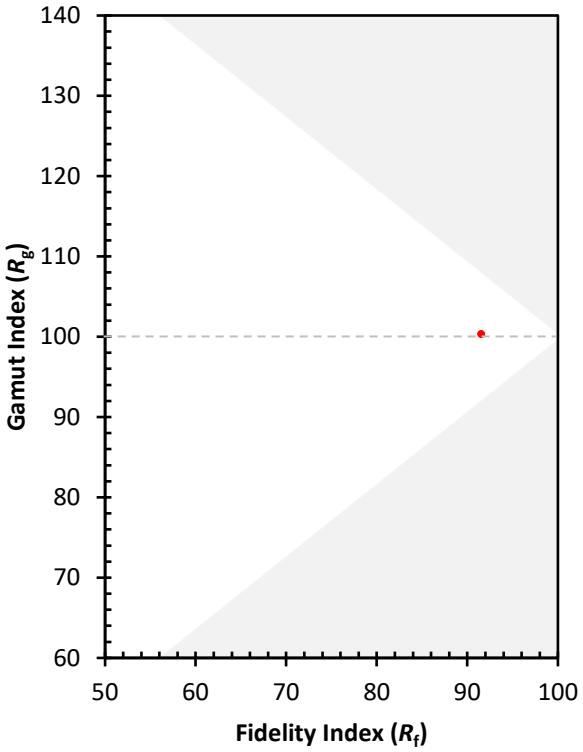
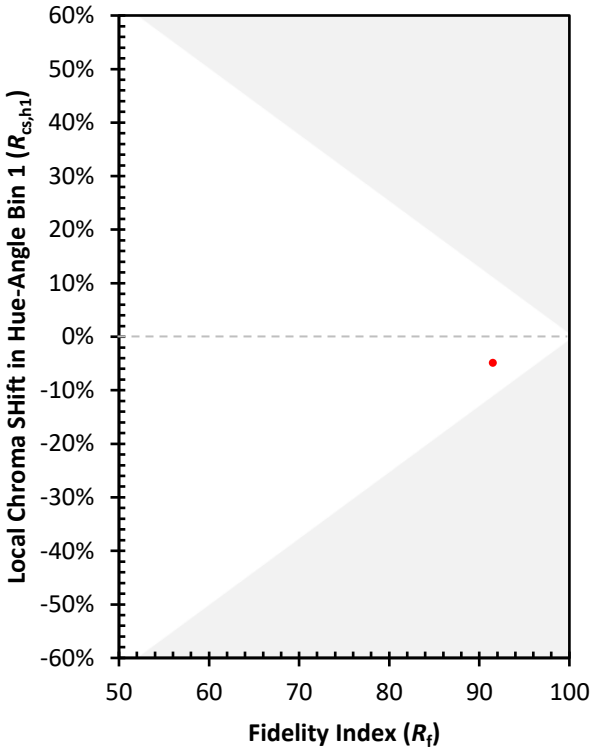
Measure Comparisons





(END OF REPORT)