

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



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P830255

Luminaire Tested: **OHBL-30SE-MCL-UNV-L930-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830255
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2103-200-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-30SE-MCL-UNV-L930-CD
Description: 30000 LUMEN OHBL SE LED LUMINAIRE WITH 90CRI, 3000K LEDS AND MEDIUM CLEAR LENS
Light Source: -
Ballast/Driver: -

Summary

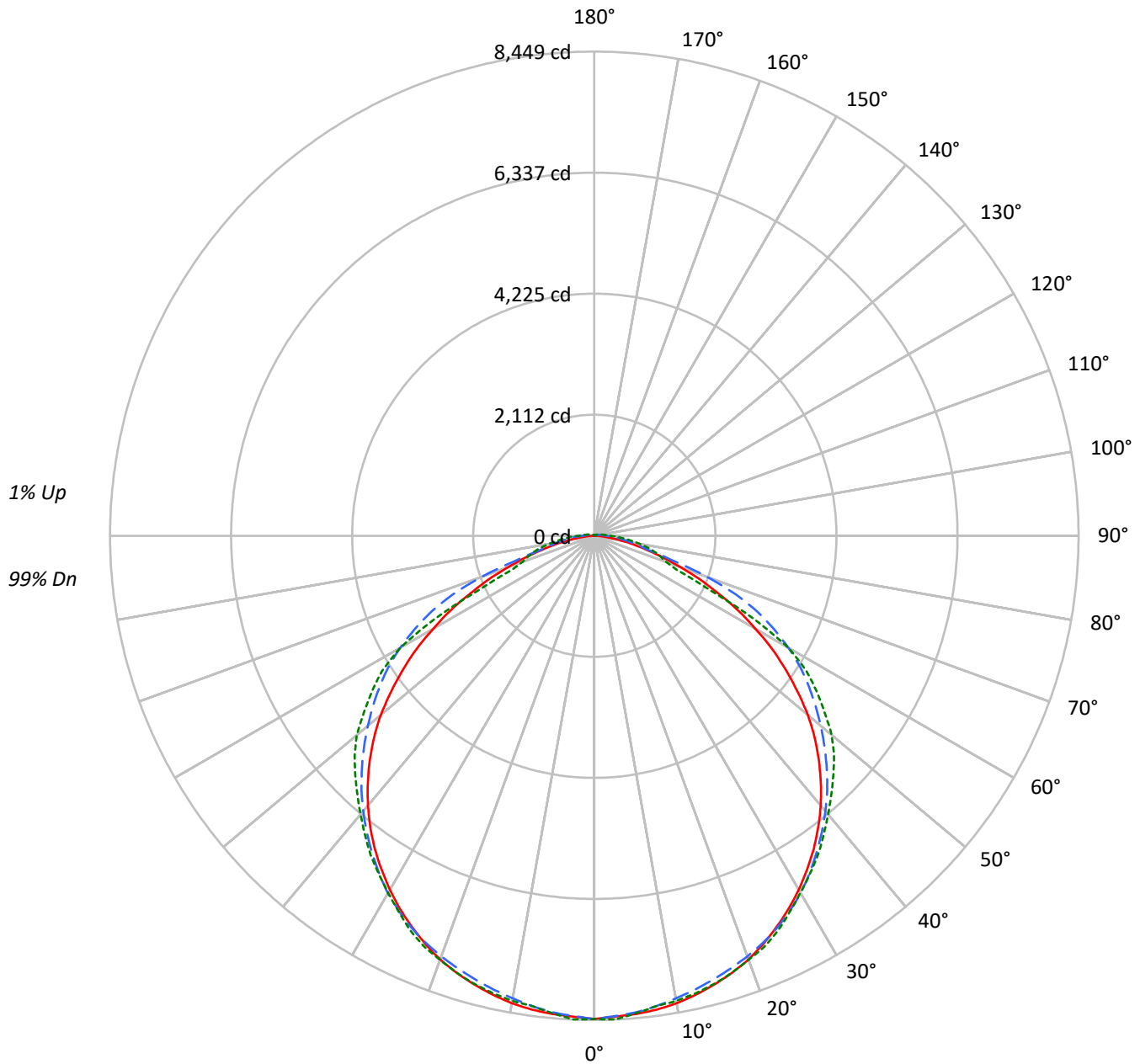
Lumens per Lamp: N/A
Luminaire Lumens: 23832.0 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 174
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: 25 FT

TEST NUMBER: P830255

CATALOG NUMBER: OHBL-30SE-MCL-UNV-L930-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830255

CATALOG NUMBER: OHBL-30SE-MCL-UNV-L930-CD

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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	110	110	110	106	106	106	101	101	101			99
1	109	104	100	96	106	102	98	95	97	94	91	93	91	88	90	87	86			83
2	99	91	84	79	96	89	83	78	85	80	76	82	78	74	79	75	72			70
3	91	80	72	66	88	79	71	65	75	69	64	72	67	63	70	65	61			59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	62	57	53			51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	46	56	50	46			44
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	51	45	40			38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	46	40	36			34
8	61	47	39	33	59	46	38	33	45	38	33	44	37	32	42	36	32			30
9	57	43	35	30	55	43	35	29	41	34	29	40	34	29	39	33	29			27
10	53	40	32	27	52	39	32	27	38	31	27	37	31	26	36	30	26			24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14401	14401	14401
5°	14307	14186	14213
10°	14255	13965	14046
15°	14164	13797	13943
20°	14074	13690	13810
25°	13904	13581	13678
30°	13719	13414	13410
35°	13498	13152	13256
40°	13211	12881	13051
45°	12814	12569	12952
50°	12274	12214	12834
55°	11418	11863	12338
60°	10296	11353	11387
65°	8832	10416	7201
70°	7114	8115	5206
75°	5334	4803	5261
80°	3712	3975	4989
85°	2112	3609	4615



TEST NUMBER: P830255

CATALOG NUMBER: OHBL-30SE-MCL-UNV-L930-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	795.0	3.3
10°-20°	2279.8	9.6
20°-30°	3482.0	14.6
30°-40°	4224.8	17.7
40°-50°	4428.0	18.6
50°-60°	4012.5	16.8
60°-70°	2690.2	11.3
70°-80°	1208.0	5.1
80°-90°	438.4	1.8
90°-100°	131.9	0.6
100°-110°	62.3	0.3
110°-120°	31.2	0.1
120°-130°	17.2	0.1
130°-140°	11.8	0.0
140°-150°	8.0	0.0
150°-160°	5.9	0.0
160°-170°	3.8	0.0
170°-180°	1.2	0.0
0°-30°	6556.8	27.5
0°-40°	10781.6	45.2
0°-60°	19222.1	80.7
0°-90°	23558.7	98.9
90°-120°	225.4	0.9
90°-150°	262.4	1.1
90°-180°	273.0	1.1
0°-180°	23832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8432	8432	8432	8432	8432	
5°	8377	8406	8348	8373	8362	797
15°	8105	8073	8016	8087	8096	2288
25°	7530	7497	7549	7619	7597	3471
35°	6674	6690	6758	6830	6803	4171
45°	5539	5629	5734	5880	5898	4267
55°	4076	4272	4563	4746	4735	3638
65°	2392	2766	3141	2650	2164	2383
75°	941	1366	1005	1028	1095	1029
85°	162	311	399	482	505	198
90°	1	104	206	258	271	10
95°	1	65	141	172	177	2
105°	5	28	70	84	88	6
115°	10	15	35	45	48	9
125°	8	10	22	26	27	9
135°	11	12	13	20	21	9
145°	11	12	12	13	15	7
155°	12	13	13	13	12	6
165°	13	13	13	13	13	4
175°	13	13	12	11	11	1
180°	12	12	12	12	12	



TEST NUMBER: P830255

CATALOG NUMBER: OHBL-30SE-MCL-UNV-L930-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8431.8	8431.8	8431.8	8431.8	8431.8
2.5°	8397.6	8433.0	8389.1	8436.7	8448.9
5°	8376.9	8406.2	8347.7	8373.3	8362.3
7.5°	8339.1	8348.9	8279.4	8300.1	8278.2
10°	8283.0	8278.2	8196.5	8236.7	8241.6
12.5°	8200.1	8185.5	8112.4	8173.3	8174.5
15°	8105.0	8073.3	8016.0	8086.8	8096.5
17.5°	7995.3	7953.9	7916.1	8007.5	7992.9
20°	7867.3	7818.5	7811.2	7911.2	7874.6
22.5°	7708.8	7671.0	7688.1	7783.2	7760.0
25°	7529.6	7496.7	7549.1	7618.6	7596.7
27.5°	7340.6	7321.1	7380.9	7434.5	7391.8
30°	7133.4	7122.4	7201.6	7245.5	7191.9
32.5°	6907.8	6911.5	6987.1	7046.8	6996.8
35°	6673.7	6689.6	6757.9	6829.8	6803.0
37.5°	6416.5	6451.8	6520.1	6601.8	6573.8
40°	6144.6	6195.8	6271.4	6370.2	6344.6
42.5°	5850.8	5915.4	6012.9	6122.7	6120.2
45°	5538.7	5628.9	5733.8	5880.1	5898.3
47.5°	5214.4	5315.6	5448.5	5643.5	5671.6
50°	4862.1	4988.8	5154.7	5388.7	5405.8
52.5°	4469.5	4642.6	4862.1	5086.4	5065.7
55°	4075.7	4272.0	4563.4	4746.2	4735.3
57.5°	3683.1	3903.8	4257.3	4387.8	4386.6
60°	3244.2	3523.4	3909.9	4008.6	3911.1
62.5°	2838.2	3138.1	3539.3	3467.3	3133.3
65°	2392.0	2766.3	3140.6	2650.5	2164.0
67.5°	1995.8	2385.9	2667.5	1815.3	1554.4
70°	1597.1	2027.5	2079.9	1347.2	1328.9
72.5°	1243.6	1702.0	1435.0	1153.3	1211.9
75°	941.2	1365.5	1004.6	1027.8	1094.8
77.5°	686.4	1048.5	781.5	901.0	955.8
80°	471.8	742.5	637.6	757.1	794.9
82.5°	296.3	490.1	510.8	609.6	648.6
85°	162.1	310.9	398.7	481.6	504.7
87.5°	67.1	187.8	304.8	371.8	391.4
90°	1.2	103.6	206.0	258.5	270.7
92.5°	1.2	79.2	168.2	208.5	217.0
95°	1.2	64.6	141.4	171.9	176.8
97.5°	2.4	51.2	118.3	142.6	147.5
100°	3.7	42.7	98.8	119.5	123.1
102.5°	4.9	34.1	82.9	100.0	103.6
105°	4.9	28.0	69.5	84.1	87.8



TEST NUMBER: P830255

CATALOG NUMBER: OHBL-30SE-MCL-UNV-L930-CD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	17.1	41.5	52.4	54.9
115°	9.8	14.6	35.4	45.1	47.5
117.5°	9.8	12.2	30.5	37.8	40.2
120°	9.8	11.0	26.8	32.9	34.1
122.5°	9.8	9.8	23.2	29.3	30.5
125°	8.5	9.8	21.9	25.6	26.8
127.5°	9.8	9.8	19.5	23.2	24.4
130°	9.8	11.0	17.1	21.9	21.9
132.5°	11.0	12.2	15.8	20.7	20.7
135°	11.0	12.2	13.4	19.5	20.7
137.5°	12.2	12.2	12.2	18.3	19.5
140°	12.2	12.2	11.0	15.8	17.1
142.5°	11.0	12.2	11.0	14.6	15.8
145°	11.0	12.2	12.2	13.4	14.6
147.5°	12.2	12.2	12.2	12.2	13.4
150°	12.2	12.2	12.2	12.2	12.2
152.5°	12.2	12.2	12.2	12.2	12.2
155°	12.2	13.4	13.4	13.4	12.2
157.5°	12.2	13.4	13.4	13.4	13.4
160°	12.2	13.4	13.4	13.4	13.4
162.5°	13.4	13.4	13.4	13.4	13.4
165°	13.4	13.4	13.4	13.4	13.4
167.5°	13.4	14.6	13.4	13.4	13.4
170°	13.4	13.4	13.4	12.2	12.2
172.5°	13.4	13.4	13.4	12.2	12.2
175°	13.4	13.4	12.2	11.0	11.0
177.5°	14.6	13.4	12.2	11.0	9.8
180°	12.2	12.2	12.2	12.2	12.2



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	6.1	23.2	59.7	71.9	74.4
110°	7.3	19.5	50.0	61.0	63.4



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

Report Prepared for

Cooper Lighting Solutions

METALUX

Report Number: SP1-2304-001-2

Test Date: 05/31/2023

Luminaire Tested: OHB-15SE-N-UNV-L930

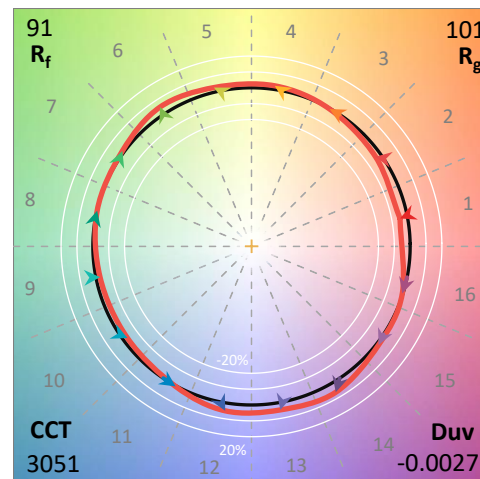
Data in this report applies to families of products including OHB-15SE-N-UNV-L930.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2304-001-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 05/31/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: **OHB-15SE-N-UNV-L930**
 Description: 15SE OHB WITH APT LEDS, NARROW LENS, 90CRI 3000K

Spectral Parameters

CCT (K):	3051	CRI (Ra):	92.2		
CIE u':	0.2497	R1:	92.8	R9:	60.2
CIE v':	0.5166	R2:	95.6	R10:	88.6
Duv:	-0.0027	R3:	96.4	R11:	92.7
CIE x:	0.4295	R4:	92.2	R12:	82.3
CIE y:	0.3950	R5:	92.5	R13:	93.6
CIE z:	0.1755	R6:	94.0	R14:	97.4
Peak Wavelength (nm):	621	R7:	91.7		
Dominant Wavelength (nm):	583	R8:	82.4		
Purity:	47.8				
Rf:	90.7				
Rg:	101.5				



Test Conditions

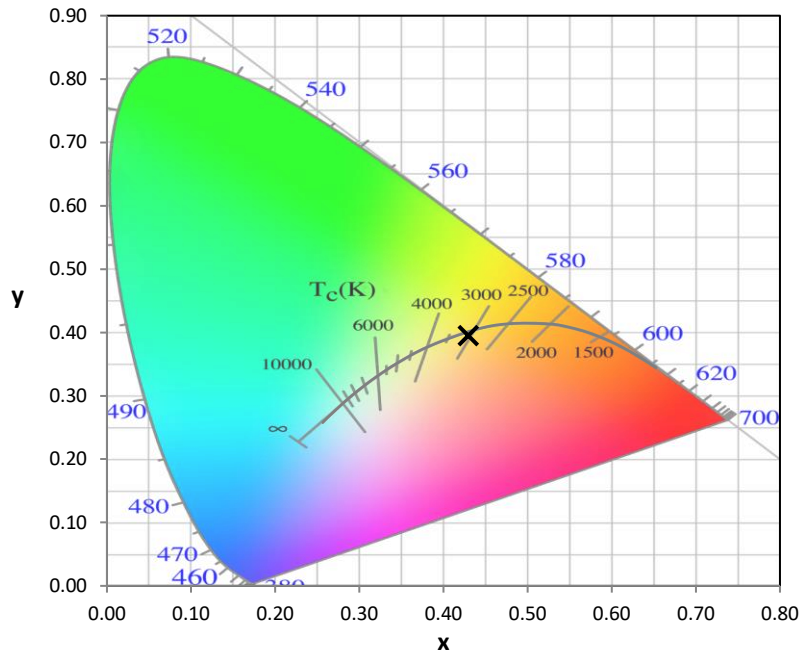
Stabilization Time: 22M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.2/44%
 Sphere Temperature (°C): 25.3

REPORT NUMBER: SP1-2304-001-2

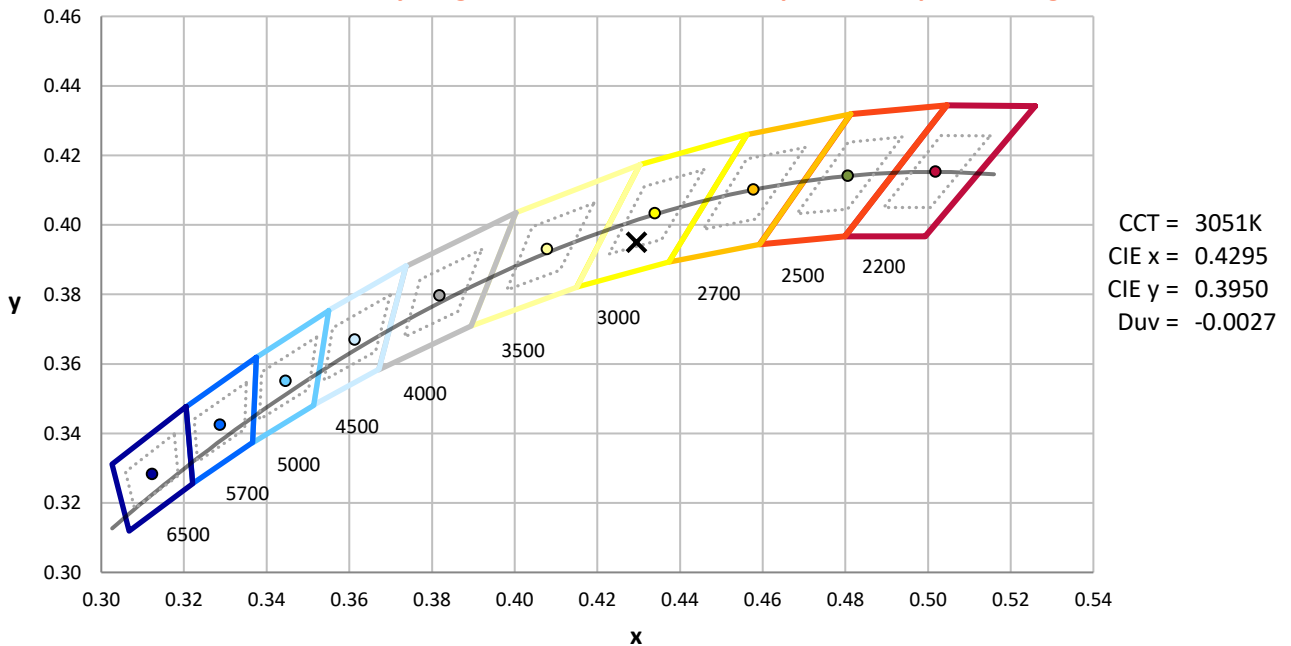
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/9/2023	8/9/2023
Power Meter	XITRON 2801 IN0071	11/29/2022	11/29/2023
AC Power Source	CHROMA 61603 IN0063	11/28/2022	11/28/2023
DC Power Source	AGILENT E3634A IN0208	11/28/2022	11/28/2023
Sphere Thermometer	ONSET IN0085	11/28/2022	11/28/2023
Room Thermometer	ONSET IN0046	11/28/2022	11/28/2023

REPORT NUMBER: SP1-2304-001-2

CIE 1931 Chromaticity Diagram



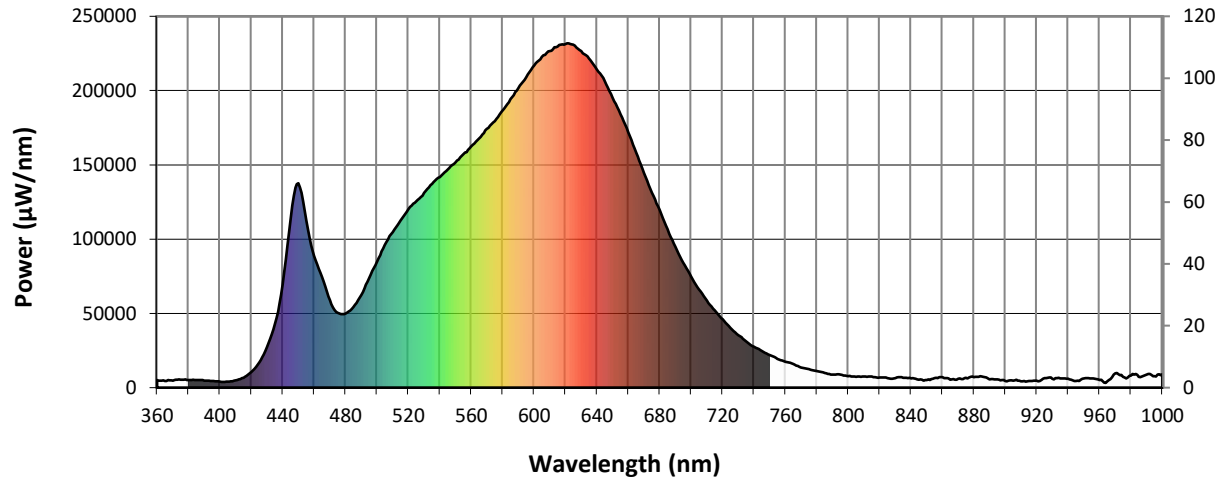
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2304-001-2

Photopic Flux vs. Wavelength

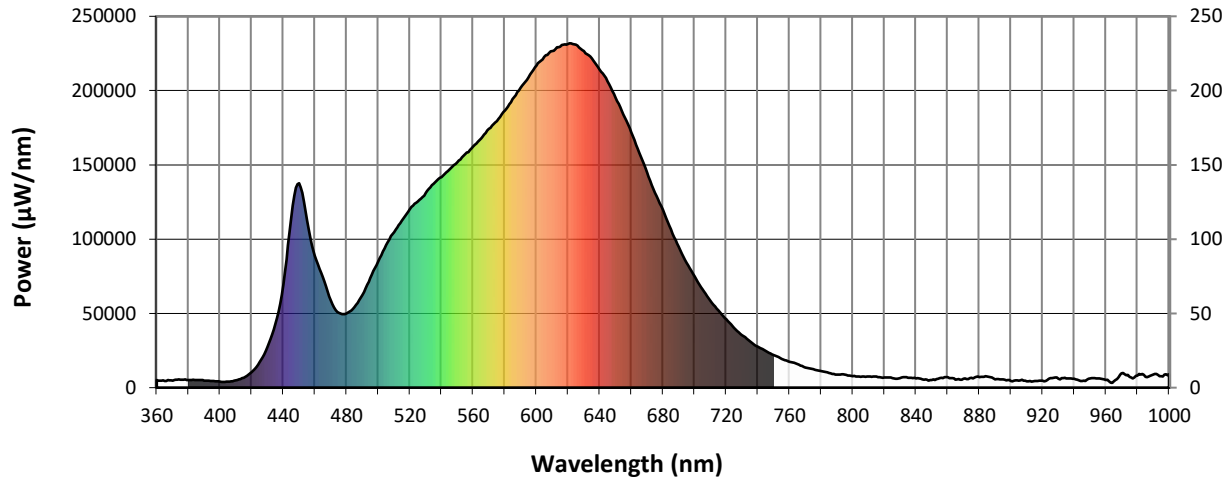


#####

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	5142	NR	490	62439	NR	620	231386	NR	750	21976	NR	880	7157	NR
365	4540	NR	495	73651	NR	625	230941	NR	755	19435	NR	885	7445	NR
370	4803	NR	500	84837	NR	630	226625	NR	760	17457	NR	890	5651	NR
375	5429	NR	505	96138	NR	635	221573	NR	765	15928	NR	895	5663	NR
380	5059	NR	510	104675	NR	640	214183	NR	770	13612	NR	900	4391	NR
385	5164	NR	515	112374	NR	645	206197	NR	775	12383	NR	905	4718	NR
390	4787	NR	520	120074	NR	650	195149	NR	780	11099	NR	910	4205	NR
395	4429	NR	525	125393	NR	655	184048	NR	785	9818	NR	915	4466	NR
400	3966	NR	530	131080	NR	660	171890	NR	790	8853	NR	920	4608	NR
405	4026	NR	535	137166	NR	665	158117	NR	795	8815	NR	925	6506	NR
410	4947	NR	540	141770	NR	670	144601	NR	800	7747	NR	930	6091	NR
415	6735	NR	545	146789	NR	675	131155	NR	805	7317	NR	935	6242	NR
420	10542	NR	550	151664	NR	680	119765	NR	810	7417	NR	940	5908	NR
425	16995	NR	555	157152	NR	685	106544	NR	815	7400	NR	945	4377	NR
430	27239	NR	560	162379	NR	690	94952	NR	820	6832	NR	950	6170	NR
435	43016	NR	565	167867	NR	695	83928	NR	825	6514	NR	955	6143	NR
440	69527	NR	570	174214	NR	700	74959	NR	830	6419	NR	960	5227	NR
445	113795	NR	575	179459	NR	705	66186	NR	835	6702	NR	965	4363	NR
450	137556	NR	580	186493	NR	710	58632	NR	840	6224	NR	970	9654	NR
455	112457	NR	585	194218	NR	715	52023	NR	845	5410	NR	975	7378	NR
460	88709	NR	590	201759	NR	720	46022	NR	850	5183	NR	980	8170	NR
465	74548	NR	595	208902	NR	725	40235	NR	855	6469	NR	985	7350	NR
470	58681	NR	600	217002	NR	730	35330	NR	860	7161	NR	990	8712	NR
475	50369	NR	605	222691	NR	735	31141	NR	865	5351	NR	995	7670	NR
480	50005	NR	610	226497	NR	740	27444	NR	870	5943	NR	1000	8916	NR
485	54326	NR	615	229506	NR	745	24768	NR	875	6650	NR			

REPORT NUMBER: SP1-2304-001-2

Scotopic Flux vs. Wavelength



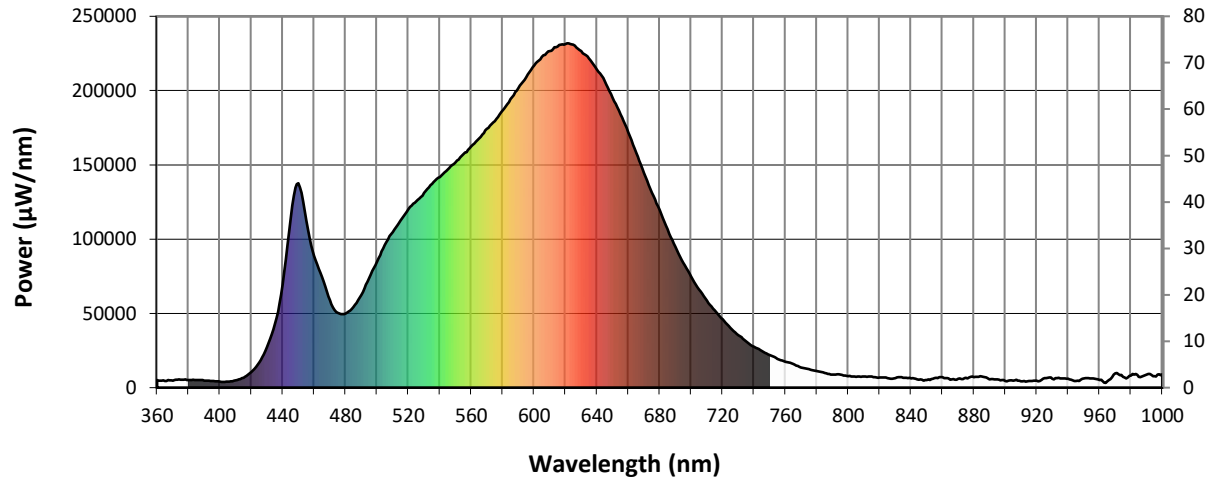
Scotopic Lumens: 16819.9

S/P: 1.43

λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	5142	NR	490	62439	NR	620	231386	NR	750	21976	NR	880	7157	NR
365	4540	NR	495	73651	NR	625	230941	NR	755	19435	NR	885	7445	NR
370	4803	NR	500	84837	NR	630	226625	NR	760	17457	NR	890	5651	NR
375	5429	NR	505	96138	NR	635	221573	NR	765	15928	NR	895	5663	NR
380	5059	NR	510	104675	NR	640	214183	NR	770	13612	NR	900	4391	NR
385	5164	NR	515	112374	NR	645	206197	NR	775	12383	NR	905	4718	NR
390	4787	NR	520	120074	NR	650	195149	NR	780	11099	NR	910	4205	NR
395	4429	NR	525	125393	NR	655	184048	NR	785	9818	NR	915	4466	NR
400	3966	NR	530	131080	NR	660	171890	NR	790	8853	NR	920	4608	NR
405	4026	NR	535	137166	NR	665	158117	NR	795	8815	NR	925	6506	NR
410	4947	NR	540	141770	NR	670	144601	NR	800	7747	NR	930	6091	NR
415	6735	NR	545	146789	NR	675	131155	NR	805	7317	NR	935	6242	NR
420	10542	NR	550	151664	NR	680	119765	NR	810	7417	NR	940	5908	NR
425	16995	NR	555	157152	NR	685	106544	NR	815	7400	NR	945	4377	NR
430	27239	NR	560	162379	NR	690	94952	NR	820	6832	NR	950	6170	NR
435	43016	NR	565	167867	NR	695	83928	NR	825	6514	NR	955	6143	NR
440	69527	NR	570	174214	NR	700	74959	NR	830	6419	NR	960	5227	NR
445	113795	NR	575	179459	NR	705	66186	NR	835	6702	NR	965	4363	NR
450	137556	NR	580	186493	NR	710	58632	NR	840	6224	NR	970	9654	NR
455	112457	NR	585	194218	NR	715	52023	NR	845	5410	NR	975	7378	NR
460	88709	NR	590	201759	NR	720	46022	NR	850	5183	NR	980	8170	NR
465	74548	NR	595	208902	NR	725	40235	NR	855	6469	NR	985	7350	NR
470	58681	NR	600	217002	NR	730	35330	NR	860	7161	NR	990	8712	NR
475	50369	NR	605	222691	NR	735	31141	NR	865	5351	NR	995	7670	NR
480	50005	NR	610	226497	NR	740	27444	NR	870	5943	NR	1000	8916	NR
485	54326	NR	615	229506	NR	745	24768	NR	875	6650	NR			

REPORT NUMBER: SP1-2304-001-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: 6505.3 M/P: 0.55

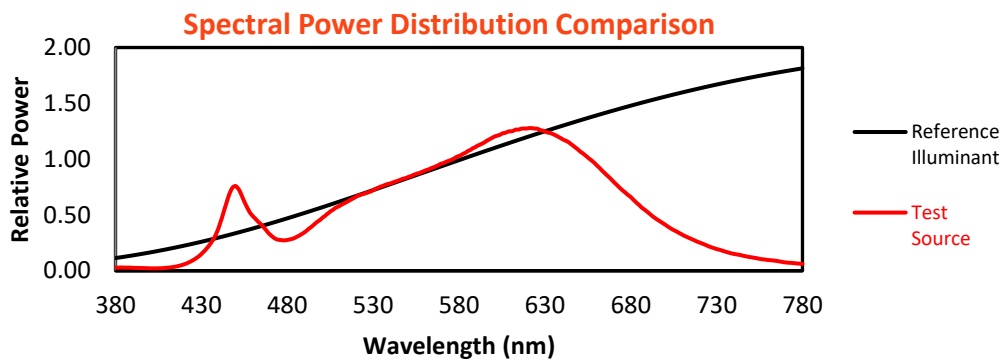
λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	5142	NR	490	62439	NR	620	231386	NR	750	21976	NR	880	7157	NR
365	4540	NR	495	73651	NR	625	230941	NR	755	19435	NR	885	7445	NR
370	4803	NR	500	84837	NR	630	226625	NR	760	17457	NR	890	5651	NR
375	5429	NR	505	96138	NR	635	221573	NR	765	15928	NR	895	5663	NR
380	5059	NR	510	104675	NR	640	214183	NR	770	13612	NR	900	4391	NR
385	5164	NR	515	112374	NR	645	206197	NR	775	12383	NR	905	4718	NR
390	4787	NR	520	120074	NR	650	195149	NR	780	11099	NR	910	4205	NR
395	4429	NR	525	125393	NR	655	184048	NR	785	9818	NR	915	4466	NR
400	3966	NR	530	131080	NR	660	171890	NR	790	8853	NR	920	4608	NR
405	4026	NR	535	137166	NR	665	158117	NR	795	8815	NR	925	6506	NR
410	4947	NR	540	141770	NR	670	144601	NR	800	7747	NR	930	6091	NR
415	6735	NR	545	146789	NR	675	131155	NR	805	7317	NR	935	6242	NR
420	10542	NR	550	151664	NR	680	119765	NR	810	7417	NR	940	5908	NR
425	16995	NR	555	157152	NR	685	106544	NR	815	7400	NR	945	4377	NR
430	27239	NR	560	162379	NR	690	94952	NR	820	6832	NR	950	6170	NR
435	43016	NR	565	167867	NR	695	83928	NR	825	6514	NR	955	6143	NR
440	69527	NR	570	174214	NR	700	74959	NR	830	6419	NR	960	5227	NR
445	113795	NR	575	179459	NR	705	66186	NR	835	6702	NR	965	4363	NR
450	137556	NR	580	186493	NR	710	58632	NR	840	6224	NR	970	9654	NR
455	112457	NR	585	194218	NR	715	52023	NR	845	5410	NR	975	7378	NR
460	88709	NR	590	201759	NR	720	46022	NR	850	5183	NR	980	8170	NR
465	74548	NR	595	208902	NR	725	40235	NR	855	6469	NR	985	7350	NR
470	58681	NR	600	217002	NR	730	35330	NR	860	7161	NR	990	8712	NR
475	50369	NR	605	222691	NR	735	31141	NR	865	5351	NR	995	7670	NR
480	50005	NR	610	226497	NR	740	27444	NR	870	5943	NR	1000	8916	NR
485	54326	NR	615	229506	NR	745	24768	NR	875	6650	NR			

REPORT NUMBER: SP1-2304-001-2

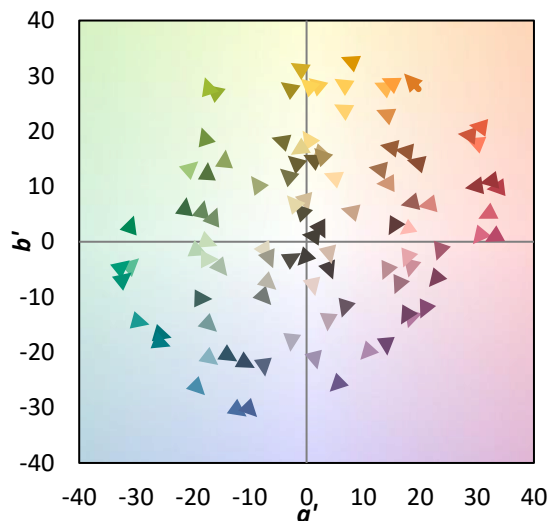
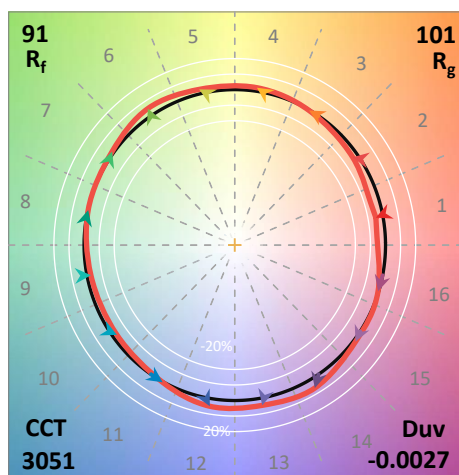
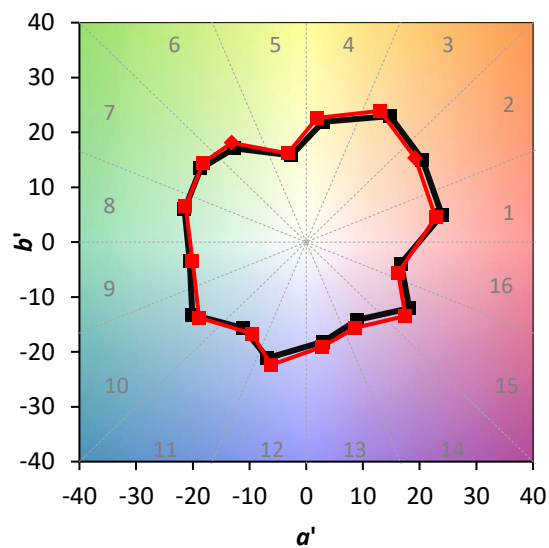
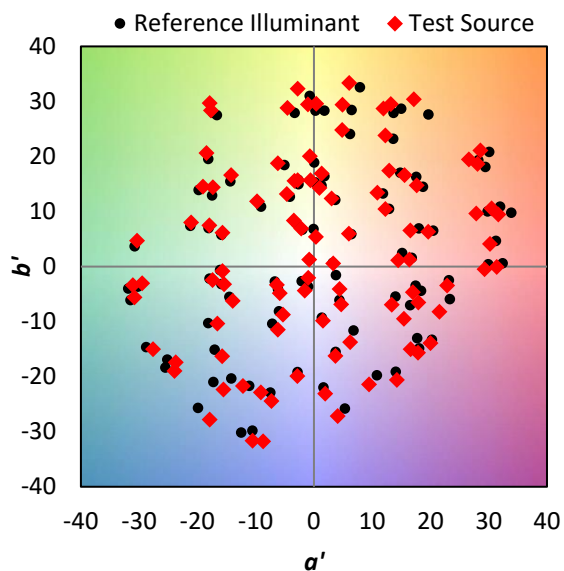
TM-30-18

Summary

$R_f = 90.7$
 $R_g = 101.5$
 CIE $R_a = 92.2$
 $R_9 = 60.2$



Color Vector Graphics

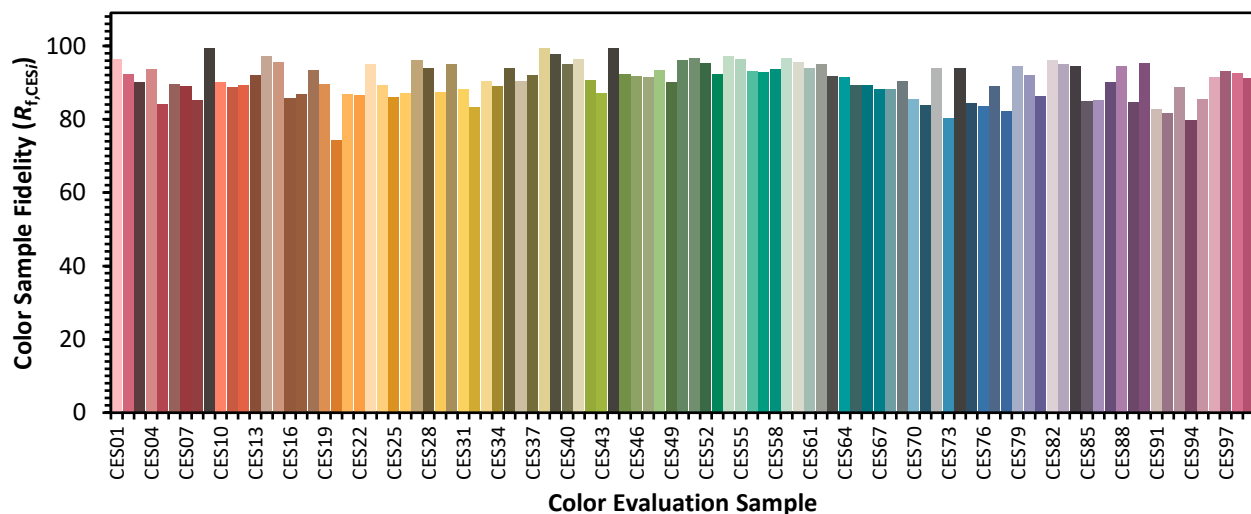


REPORT NUMBER: SP1-2304-001-2

TM-30-18

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

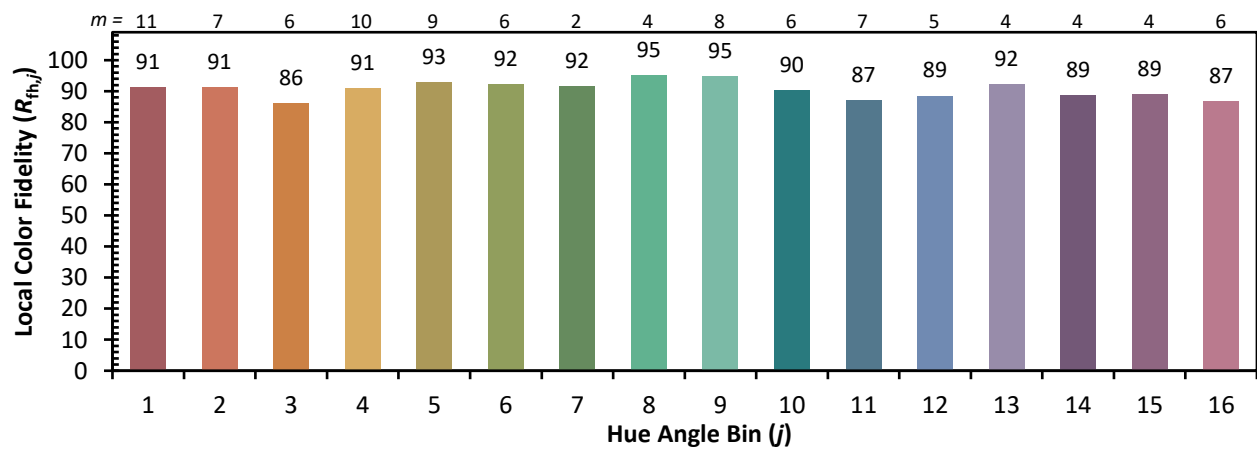
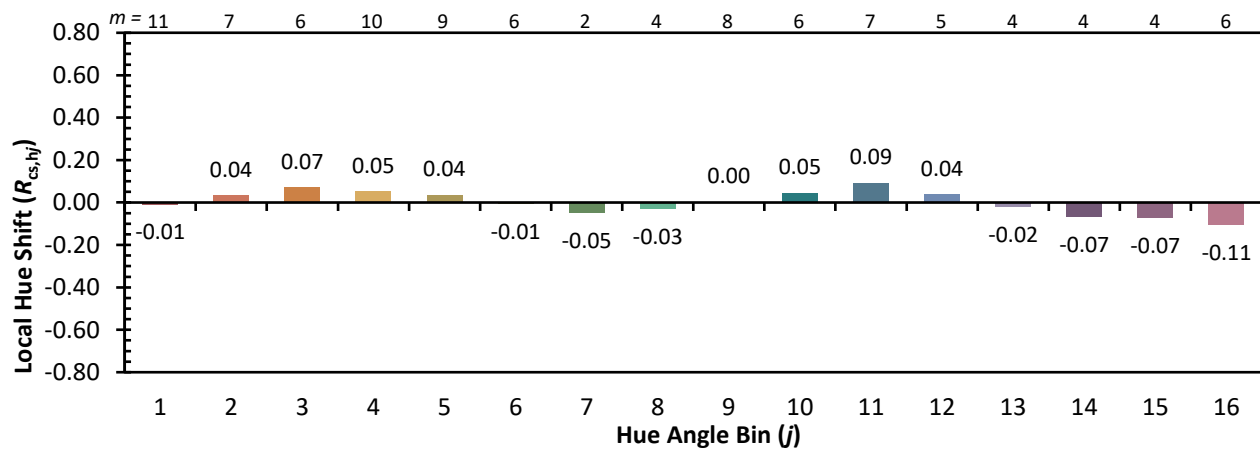
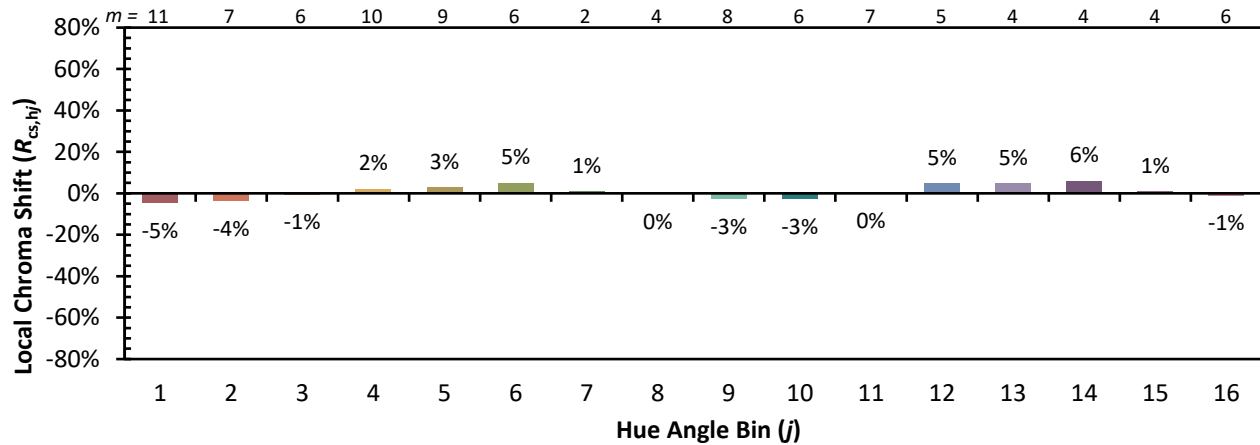
CES01 = 86	CES26 = 87	CES51 = 97	CES76 = 83
CES02 = 63	CES27 = 96	CES52 = 95	CES77 = 89
CES03 = 32	CES28 = 94	CES53 = 92	CES78 = 82
CES04 = 70	CES29 = 87	CES54 = 97	CES79 = 94
CES05 = 51	CES30 = 95	CES55 = 96	CES80 = 92
CES06 = 51	CES31 = 88	CES56 = 93	CES81 = 86
CES07 = 43	CES32 = 83	CES57 = 93	CES82 = 96
CES08 = 42	CES33 = 90	CES58 = 94	CES83 = 95
CES09 = 29	CES34 = 89	CES59 = 97	CES84 = 95
CES10 = 76	CES35 = 94	CES60 = 96	CES85 = 85
CES11 = 59	CES36 = 90	CES61 = 94	CES86 = 85
CES12 = 65	CES37 = 92	CES62 = 95	CES87 = 90
CES13 = 44	CES38 = 99	CES63 = 92	CES88 = 95
CES14 = 74	CES39 = 98	CES64 = 91	CES89 = 85
CES15 = 72	CES40 = 95	CES65 = 89	CES90 = 95
CES16 = 48	CES41 = 96	CES66 = 89	CES91 = 83
CES17 = 50	CES42 = 91	CES67 = 88	CES92 = 82
CES18 = 57	CES43 = 87	CES68 = 88	CES93 = 89
CES19 = 72	CES44 = 99	CES69 = 90	CES94 = 80
CES20 = 67	CES45 = 92	CES70 = 85	CES95 = 85
CES21 = 86	CES46 = 92	CES71 = 84	CES96 = 91
CES22 = 79	CES47 = 91	CES72 = 94	CES97 = 93
CES23 = 92	CES48 = 93	CES73 = 80	CES98 = 93
CES24 = 91	CES49 = 90	CES74 = 94	CES99 = 91
CES25 = 72	CES50 = 96	CES75 = 84	



REPORT NUMBER: SP1-2304-001-2

TM-30-18

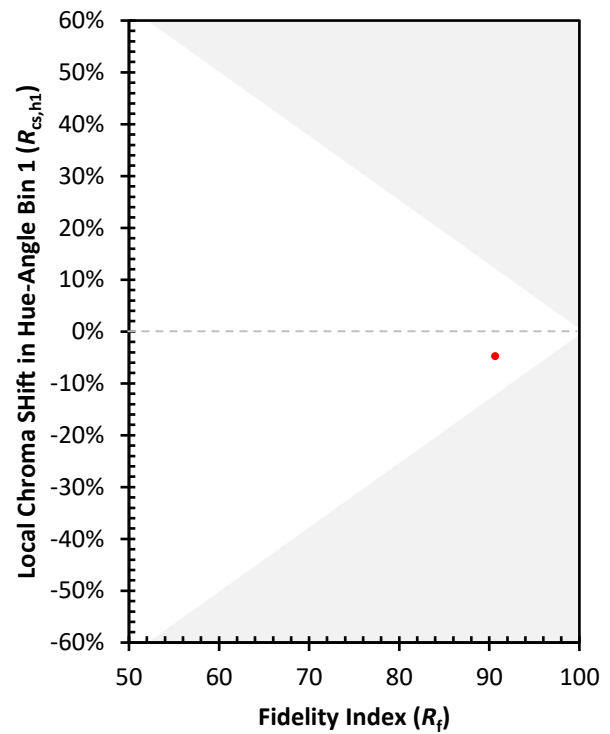
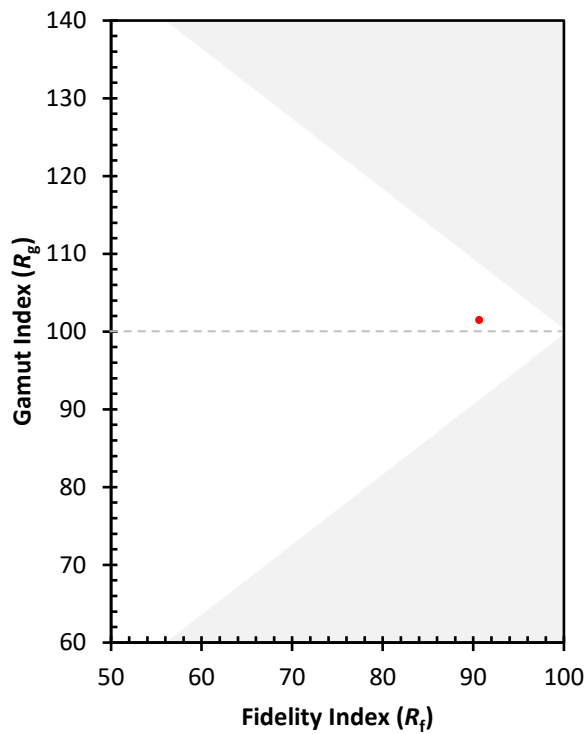
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2304-001-2

TM-30-18

Measure Comparisons



(END OF REPORT)