

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: P830597

Luminaire Tested: **OHBL-60HE-A-UNV-L740-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830597
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-60HE-A-UNV-L740-CD
Description: 60000 LUMEN OHBL HE LED LUMINAIRE WITH 70CRI, 4000K LEDS AND AISLE LENS
Light Source: -
Ballast/Driver: -

Summary

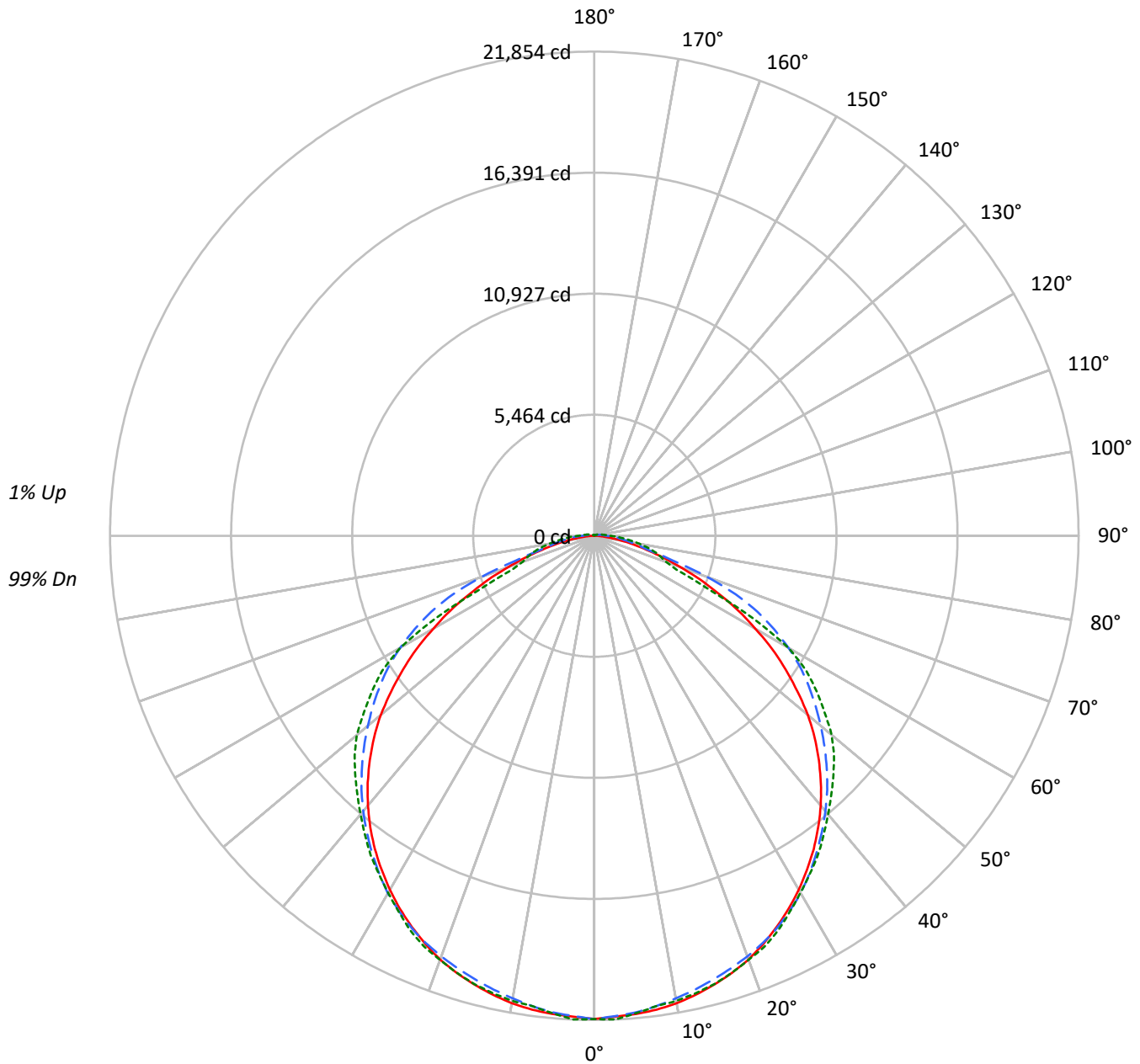
Lumens per Lamp: N/A
Luminaire Lumens: 61645.0 lumens
Efficiency: N/A
Efficacy: 182.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1.8' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 338
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: P830597

CATALOG NUMBER: OHBL-60HE-A-UNV-L740-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830597

CATALOG NUMBER: OHBL-60HE-A-UNV-L740-CD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
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°	34492	34492	34492
5°	34266	33991	34062
10°	34141	33476	33684
15°	33924	33091	33459
20°	33708	32849	33162
25°	33301	32604	32869
30°	32858	32219	32247
35°	32330	31608	31904
40°	31642	30977	31437
45°	30689	30247	31230
50°	29398	29416	30983
55°	27346	28598	29827
60°	24659	27401	27575
65°	21154	25180	17476
70°	17039	19657	12670
75°	12774	11668	12859
80°	8892	9702	12277
85°	5060	8890	11508



TEST NUMBER: P830597

CATALOG NUMBER: OHBL-60HE-A-UNV-L740-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2056.5	3.3
10°-20°	5897.0	9.6
20°-30°	9006.6	14.6
30°-40°	10928.1	17.7
40°-50°	11453.7	18.6
50°-60°	10378.8	16.8
60°-70°	6958.6	11.3
70°-80°	3124.7	5.1
80°-90°	1133.9	1.8
90°-100°	341.3	0.6
100°-110°	161.0	0.3
110°-120°	80.7	0.1
120°-130°	44.5	0.1
130°-140°	30.6	0.0
140°-150°	20.6	0.0
150°-160°	15.3	0.0
160°-170°	9.8	0.0
170°-180°	3.1	0.0
0°-30°	16960.1	27.5
0°-40°	27888.3	45.2
0°-60°	49720.8	80.7
0°-90°	60938.0	98.9
90°-120°	583.1	0.9
90°-150°	678.8	1.1
90°-180°	707.0	1.1
0°-180°	61645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	21810	21810	21810	21810	21810	
5°	21668	21744	21592	21659	21630	###
15°	20965	20883	20735	20918	20943	5919
25°	19476	19391	19527	19707	19650	8978
35°	17263	17304	17480	17666	17597	10790
45°	14327	14560	14831	15210	15257	11036
55°	10542	11050	11804	12277	12248	9410
65°	6187	7155	8124	6856	5598	6165
75°	2435	3532	2598	2658	2832	2661
85°	419	804	1031	1246	1306	512
90°	3	268	533	669	700	25
95°	3	167	366	445	457	4
105°	13	72	180	218	227	15
115°	25	38	92	117	123	23
125°	22	25	57	66	69	22
135°	28	32	35	50	54	23
145°	28	32	32	35	38	19
155°	32	35	35	35	32	15
165°	35	35	35	35	35	10
175°	35	35	32	28	28	3
180°	32	32	32	32	32	



TEST NUMBER: P830597

CATALOG NUMBER: OHBL-60HE-A-UNV-L740-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	21810.1	21810.1	21810.1	21810.1	21810.1
2.5°	21721.8	21813.2	21699.7	21822.7	21854.2
5°	21668.1	21743.8	21592.5	21658.7	21630.3
7.5°	21570.4	21595.6	21415.9	21469.5	21412.7
10°	21425.3	21412.7	21201.4	21305.5	21318.1
12.5°	21210.9	21173.0	20983.8	21141.5	21144.7
15°	20964.9	20882.9	20734.7	20917.6	20942.8
17.5°	20681.1	20573.9	20476.1	20712.6	20674.8
20°	20350.0	20223.8	20204.9	20463.5	20368.9
22.5°	19940.0	19842.2	19886.4	20132.4	20072.4
25°	19476.4	19391.3	19526.9	19706.6	19649.9
27.5°	18987.6	18937.2	19091.7	19230.4	19120.1
30°	18451.5	18423.1	18628.1	18741.6	18602.9
32.5°	17868.1	17877.6	18073.1	18227.6	18098.3
35°	17262.6	17303.6	17480.2	17666.3	17596.9
37.5°	16597.2	16688.7	16865.3	17076.6	17004.0
40°	15894.0	16026.4	16221.9	16477.4	16411.2
42.5°	15134.0	15301.1	15553.4	15837.2	15830.9
45°	14326.6	14560.0	14831.2	15209.6	15256.9
47.5°	13487.8	13749.5	14093.3	14597.9	14670.4
50°	12576.4	12904.4	13333.3	13938.8	13982.9
52.5°	11561.0	12008.8	12576.4	13156.7	13103.1
55°	10542.4	11050.1	11803.8	12276.8	12248.4
57.5°	9526.9	10097.7	11012.2	11349.7	11346.5
60°	8391.6	9113.8	10113.5	10368.9	10116.6
62.5°	7341.5	8117.3	9154.8	8968.7	8104.7
65°	6187.3	7155.4	8123.6	6855.8	5597.6
67.5°	5162.4	6171.5	6900.0	4695.7	4020.8
70°	4131.2	5244.4	5380.0	3484.7	3437.4
72.5°	3216.6	4402.4	3711.7	2983.3	3134.6
75°	2434.6	3532.0	2598.5	2658.5	2831.9
77.5°	1775.5	2712.1	2021.4	2330.5	2472.4
80°	1220.4	1920.5	1649.3	1958.4	2056.1
82.5°	766.3	1267.7	1321.3	1576.8	1677.7
85°	419.4	804.2	1031.2	1245.7	1305.6
87.5°	173.4	485.6	788.4	961.8	1012.3
90°	3.2	268.1	533.0	668.6	700.1
92.5°	3.2	205.0	435.2	539.3	561.3
95°	3.2	167.1	365.8	444.7	457.3
97.5°	6.3	132.4	305.9	369.0	381.6
100°	9.5	110.4	255.4	309.0	318.5
102.5°	12.6	88.3	214.4	258.6	268.1
105°	12.6	72.5	179.8	217.6	227.1



TEST NUMBER: P830597

CATALOG NUMBER: OHBL-60HE-A-UNV-L740-CD

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	22.1	44.1	107.2	135.6	141.9
115°	25.2	37.8	91.5	116.7	123.0
117.5°	25.2	31.5	78.8	97.8	104.1
120°	25.2	28.4	69.4	85.1	88.3
122.5°	25.2	25.2	59.9	75.7	78.8
125°	22.1	25.2	56.8	66.2	69.4
127.5°	25.2	25.2	50.5	59.9	63.1
130°	25.2	28.4	44.1	56.8	56.8
132.5°	28.4	31.5	41.0	53.6	53.6
135°	28.4	31.5	34.7	50.5	53.6
137.5°	31.5	31.5	31.5	47.3	50.5
140°	31.5	31.5	28.4	41.0	44.1
142.5°	28.4	31.5	28.4	37.8	41.0
145°	28.4	31.5	31.5	34.7	37.8
147.5°	31.5	31.5	31.5	31.5	34.7
150°	31.5	31.5	31.5	31.5	31.5
152.5°	31.5	31.5	31.5	31.5	31.5
155°	31.5	34.7	34.7	34.7	31.5
157.5°	31.5	34.7	34.7	34.7	34.7
160°	31.5	34.7	34.7	34.7	34.7
162.5°	34.7	34.7	34.7	34.7	34.7
165°	34.7	34.7	34.7	34.7	34.7
167.5°	34.7	37.8	34.7	34.7	34.7
170°	34.7	34.7	34.7	31.5	31.5
172.5°	34.7	34.7	34.7	31.5	31.5
175°	34.7	34.7	31.5	28.4	28.4
177.5°	37.8	34.7	31.5	28.4	25.2
180°	31.5	31.5	31.5	31.5	31.5



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	15.8	59.9	154.5	186.1	192.4
110°	18.9	50.5	129.3	157.7	164.0



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

Report Prepared for

Cooper Lighting Solutions

METALUX

Report Number: SP1-2307-100-3

Test Date: 08/03/2023

Luminaire Tested: OHB-15SE-N-UNV-L740-CD

Data in this report applies to families of products including OHB-15SE-N-UNV-L740-CD.

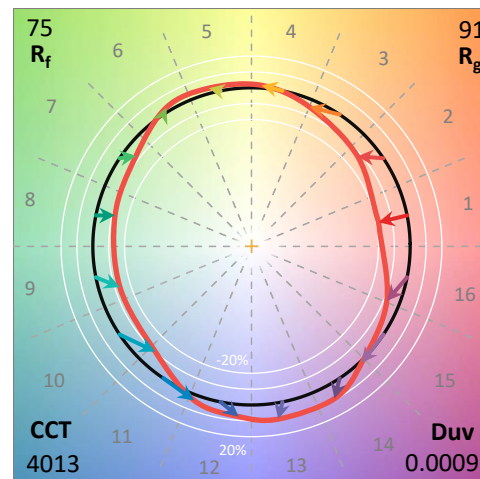
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2307-100-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/04/2023
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: **OHB-15SE-N-UNV-L740-CD**
 Description: 15000 LUMEN OHB SE LED LUMINAIRE WITH 70CRI, 4000K LEDS AND NARROW LENS

LENS

Spectral Parameters

CCT (K):	4013	CRI (Ra):	71.9		
CIE u':	0.2243	R1:	67.7	R9:	-37.4
CIE v':	0.5023	R2:	81.2	R10:	55.0
Duv:	0.0009	R3:	90.6	R11:	61.2
CIE x:	0.3803	R4:	67.3	R12:	42.7
CIE y:	0.3785	R5:	67.5	R13:	70.6
CIE z:	0.2412	R6:	72.5	R14:	94.8
Peak Wavelength (nm):	454	R7:	80.1		
Dominant Wavelength (nm):	578	R8:	48.1		
Purity:	27.9				
Rf:	74.7				
Rg:	90.6				



Test Conditions

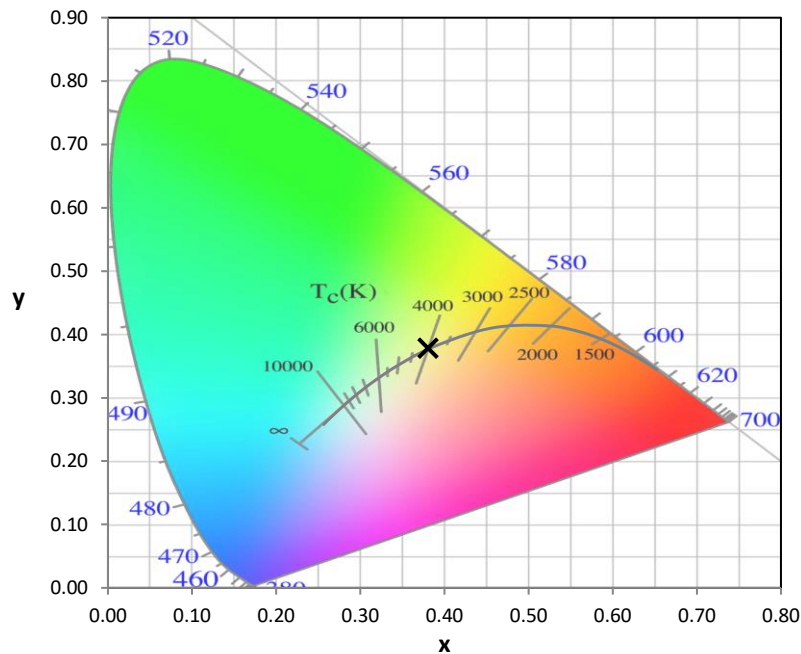
Stabilization Time: 24M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.7/58%
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2307-100-3

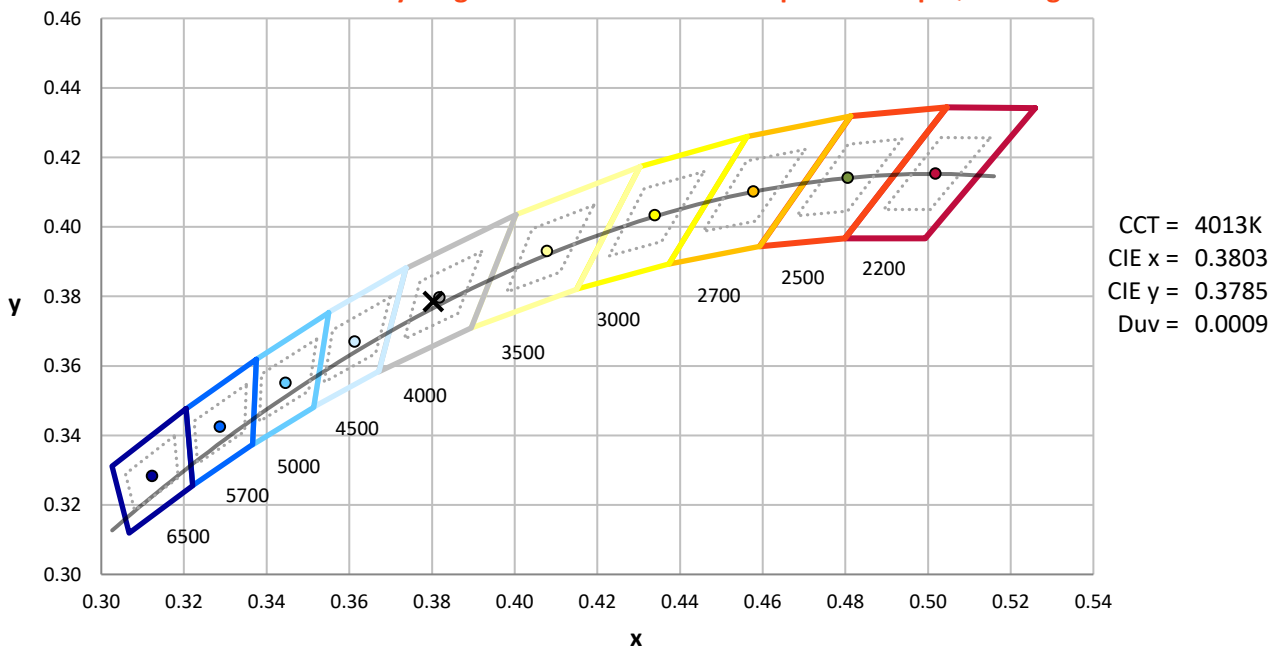
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/9/2023	8/9/2023
Power Meter	XITRON 2801 IN0071	11/29/2022	11/29/2023
AC Power Source	CHROMA 61603 IN0063	11/28/2022	11/28/2023
DC Power Source	AGILENT E3634A IN0208	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: SP1-2307-100-3

CIE 1931 Chromaticity Diagram



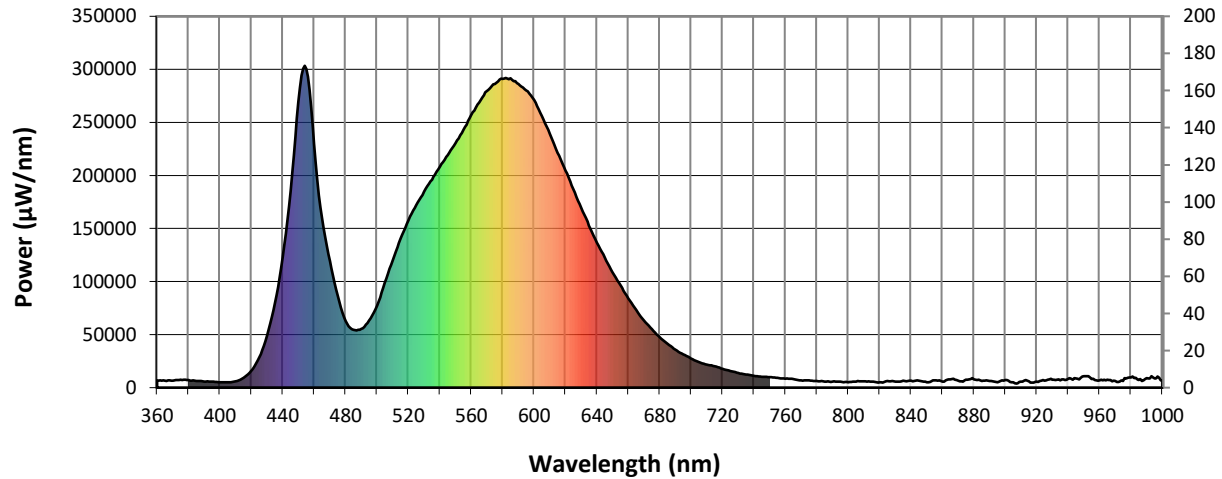
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2307-100-3

Photopic Flux vs. Wavelength

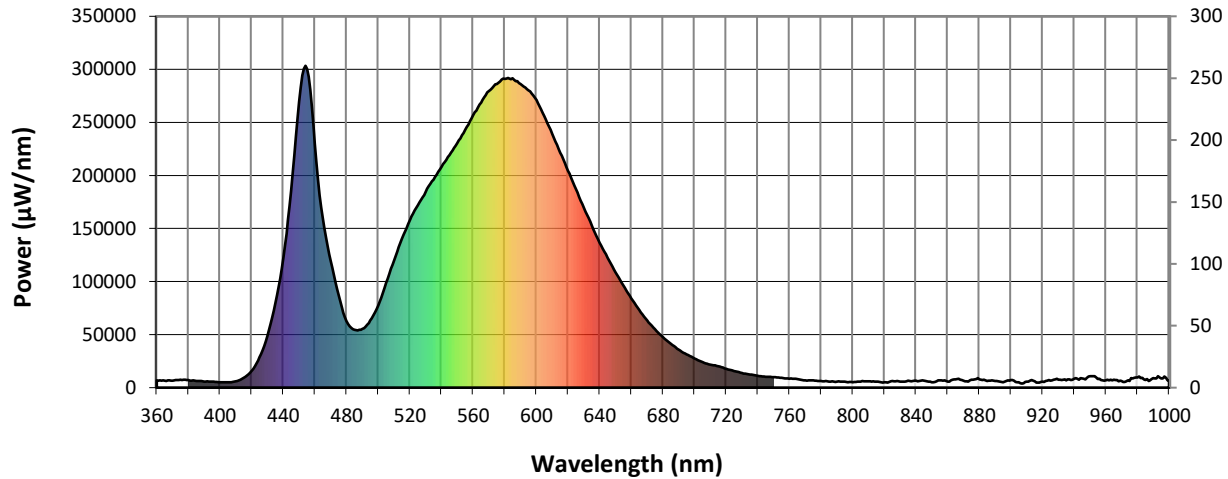


#####

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	6930	NR	490	55345	NR	620	204359	NR	750	9973	NR	880	7740	NR
365	6548	NR	495	63140	NR	625	187136	NR	755	9262	NR	885	6139	NR
370	6520	NR	500	77260	NR	630	169554	NR	760	8423	NR	890	6392	NR
375	7463	NR	505	98785	NR	635	152565	NR	765	8205	NR	895	5061	NR
380	7033	NR	510	119863	NR	640	136700	NR	770	6817	NR	900	7326	NR
385	6403	NR	515	140055	NR	645	122449	NR	775	6792	NR	905	5039	NR
390	5734	NR	520	157790	NR	650	108580	NR	780	6216	NR	910	5717	NR
395	5717	NR	525	171938	NR	655	96370	NR	785	5732	NR	915	5977	NR
400	4977	NR	530	184920	NR	660	84194	NR	790	5647	NR	920	5766	NR
405	5006	NR	535	196020	NR	665	73166	NR	795	5584	NR	925	6611	NR
410	5959	NR	540	208194	NR	670	63358	NR	800	5174	NR	930	7338	NR
415	9179	NR	545	219324	NR	675	55149	NR	805	5757	NR	935	6930	NR
420	15787	NR	550	230377	NR	680	47533	NR	810	6012	NR	940	8242	NR
425	28518	NR	555	242973	NR	685	41350	NR	815	5577	NR	945	8766	NR
430	48907	NR	560	256802	NR	690	35841	NR	820	5086	NR	950	10931	NR
435	79961	NR	565	268752	NR	695	31197	NR	825	6404	NR	955	8190	NR
440	122565	NR	570	279406	NR	700	27528	NR	830	5767	NR	960	6809	NR
445	185397	NR	575	286045	NR	705	24001	NR	835	6610	NR	965	7570	NR
450	269609	NR	580	291082	NR	710	21755	NR	840	6428	NR	970	6365	NR
455	300483	NR	585	291620	NR	715	20058	NR	845	6469	NR	975	6203	NR
460	229777	NR	590	286117	NR	720	17690	NR	850	5020	NR	980	9515	NR
465	159722	NR	595	280083	NR	725	15738	NR	855	6786	NR	985	7323	NR
470	119038	NR	600	270967	NR	730	13744	NR	860	5776	NR	990	9023	NR
475	86663	NR	605	255964	NR	735	12435	NR	865	7909	NR	995	8813	NR
480	62772	NR	610	239107	NR	740	11118	NR	870	6451	NR	1000	6436	NR
485	54561	NR	615	221194	NR	745	10318	NR	875	7611	NR			

REPORT NUMBER: SP1-2307-100-3

Scotopic Flux vs. Wavelength



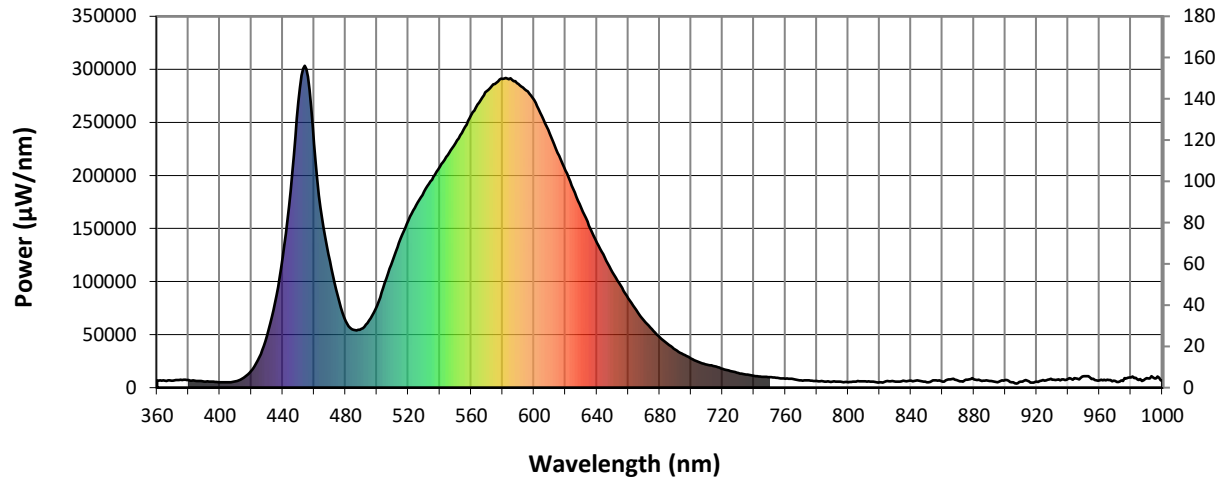
Scotopic Lumens: 24452.5

S/P: 1.56

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	6930	NR	490	55345	NR	620	204359	NR	750	9973	NR	880	7740	NR
365	6548	NR	495	63140	NR	625	187136	NR	755	9262	NR	885	6139	NR
370	6520	NR	500	77260	NR	630	169554	NR	760	8423	NR	890	6392	NR
375	7463	NR	505	98785	NR	635	152565	NR	765	8205	NR	895	5061	NR
380	7033	NR	510	119863	NR	640	136700	NR	770	6817	NR	900	7326	NR
385	6403	NR	515	140055	NR	645	122449	NR	775	6792	NR	905	5039	NR
390	5734	NR	520	157790	NR	650	108580	NR	780	6216	NR	910	5717	NR
395	5717	NR	525	171938	NR	655	96370	NR	785	5732	NR	915	5977	NR
400	4977	NR	530	184920	NR	660	84194	NR	790	5647	NR	920	5766	NR
405	5006	NR	535	196020	NR	665	73166	NR	795	5584	NR	925	6611	NR
410	5959	NR	540	208194	NR	670	63358	NR	800	5174	NR	930	7338	NR
415	9179	NR	545	219324	NR	675	55149	NR	805	5757	NR	935	6930	NR
420	15787	NR	550	230377	NR	680	47533	NR	810	6012	NR	940	8242	NR
425	28518	NR	555	242973	NR	685	41350	NR	815	5577	NR	945	8766	NR
430	48907	NR	560	256802	NR	690	35841	NR	820	5086	NR	950	10931	NR
435	79961	NR	565	268752	NR	695	31197	NR	825	6404	NR	955	8190	NR
440	122565	NR	570	279406	NR	700	27528	NR	830	5767	NR	960	6809	NR
445	185397	NR	575	286045	NR	705	24001	NR	835	6610	NR	965	7570	NR
450	269609	NR	580	291082	NR	710	21755	NR	840	6428	NR	970	6365	NR
455	300483	NR	585	291620	NR	715	20058	NR	845	6469	NR	975	6203	NR
460	229777	NR	590	286117	NR	720	17690	NR	850	5020	NR	980	9515	NR
465	159722	NR	595	280083	NR	725	15738	NR	855	6786	NR	985	7323	NR
470	119038	NR	600	270967	NR	730	13744	NR	860	5776	NR	990	9023	NR
475	86663	NR	605	255964	NR	735	12435	NR	865	7909	NR	995	8813	NR
480	62772	NR	610	239107	NR	740	11118	NR	870	6451	NR	1000	6436	NR
485	54561	NR	615	221194	NR	745	10318	NR	875	7611	NR			

REPORT NUMBER: SP1-2307-100-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: 9678.5

M/P: 0.62

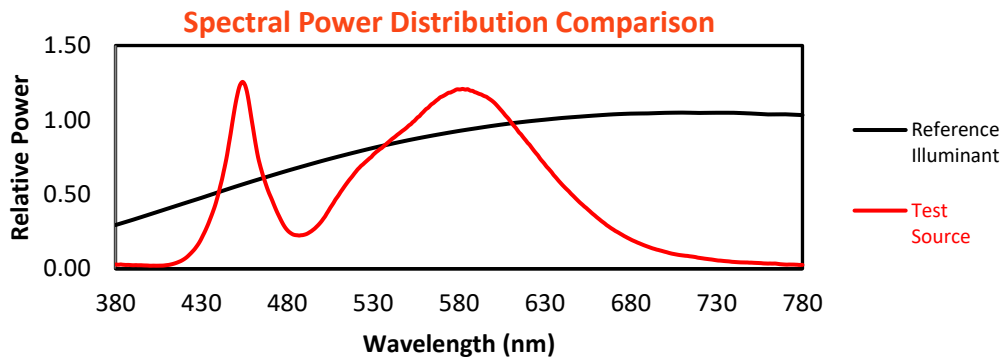
λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)	λ (nm)	Power (μW/nm)	Lumens (φ/nm)
360	6930	NR	490	55345	NR	620	204359	NR	750	9973	NR	880	7740	NR
365	6548	NR	495	63140	NR	625	187136	NR	755	9262	NR	885	6139	NR
370	6520	NR	500	77260	NR	630	169554	NR	760	8423	NR	890	6392	NR
375	7463	NR	505	98785	NR	635	152565	NR	765	8205	NR	895	5061	NR
380	7033	NR	510	119863	NR	640	136700	NR	770	6817	NR	900	7326	NR
385	6403	NR	515	140055	NR	645	122449	NR	775	6792	NR	905	5039	NR
390	5734	NR	520	157790	NR	650	108580	NR	780	6216	NR	910	5717	NR
395	5717	NR	525	171938	NR	655	96370	NR	785	5732	NR	915	5977	NR
400	4977	NR	530	184920	NR	660	84194	NR	790	5647	NR	920	5766	NR
405	5006	NR	535	196020	NR	665	73166	NR	795	5584	NR	925	6611	NR
410	5959	NR	540	208194	NR	670	63358	NR	800	5174	NR	930	7338	NR
415	9179	NR	545	219324	NR	675	55149	NR	805	5757	NR	935	6930	NR
420	15787	NR	550	230377	NR	680	47533	NR	810	6012	NR	940	8242	NR
425	28518	NR	555	242973	NR	685	41350	NR	815	5577	NR	945	8766	NR
430	48907	NR	560	256802	NR	690	35841	NR	820	5086	NR	950	10931	NR
435	79961	NR	565	268752	NR	695	31197	NR	825	6404	NR	955	8190	NR
440	122565	NR	570	279406	NR	700	27528	NR	830	5767	NR	960	6809	NR
445	185397	NR	575	286045	NR	705	24001	NR	835	6610	NR	965	7570	NR
450	269609	NR	580	291082	NR	710	21755	NR	840	6428	NR	970	6365	NR
455	300483	NR	585	291620	NR	715	20058	NR	845	6469	NR	975	6203	NR
460	229777	NR	590	286117	NR	720	17690	NR	850	5020	NR	980	9515	NR
465	159722	NR	595	280083	NR	725	15738	NR	855	6786	NR	985	7323	NR
470	119038	NR	600	270967	NR	730	13744	NR	860	5776	NR	990	9023	NR
475	86663	NR	605	255964	NR	735	12435	NR	865	7909	NR	995	8813	NR
480	62772	NR	610	239107	NR	740	11118	NR	870	6451	NR	1000	6436	NR
485	54561	NR	615	221194	NR	745	10318	NR	875	7611	NR			

REPORT NUMBER: SP1-2307-100-3

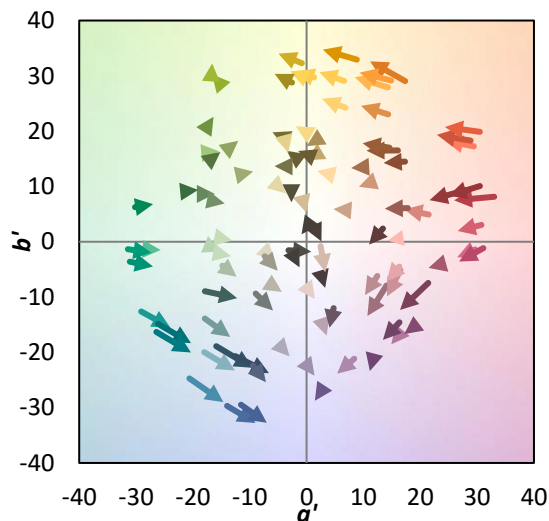
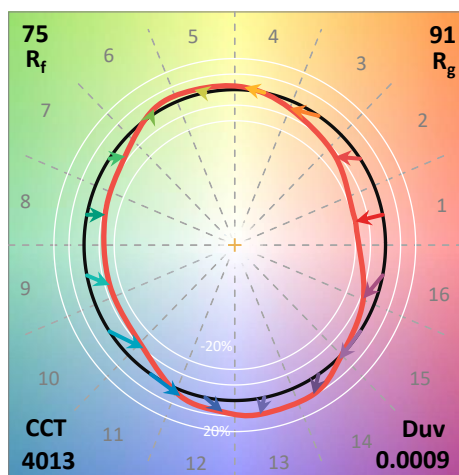
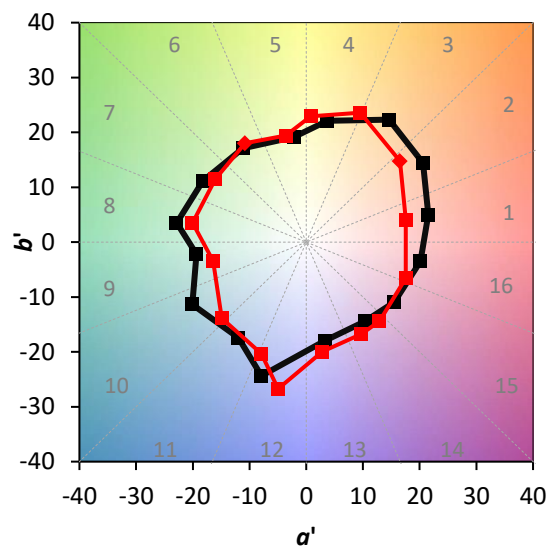
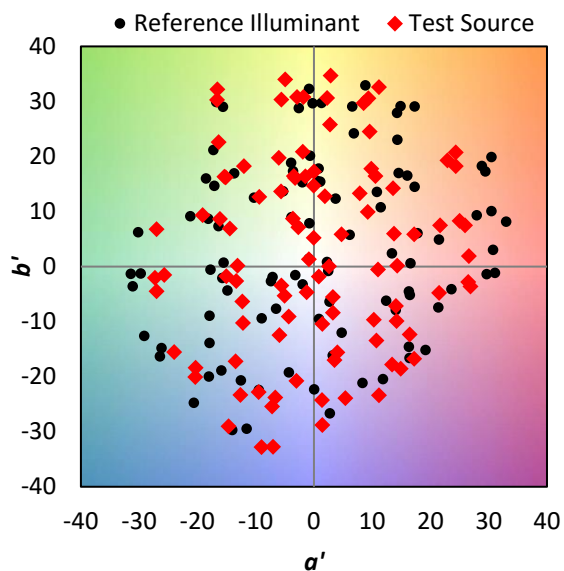
TM-30-18

Summary

$R_f = 74.7$
 $R_g = 90.6$
 CIE $R_a = 71.9$
 $R_g = -37.4$



Color Vector Graphics

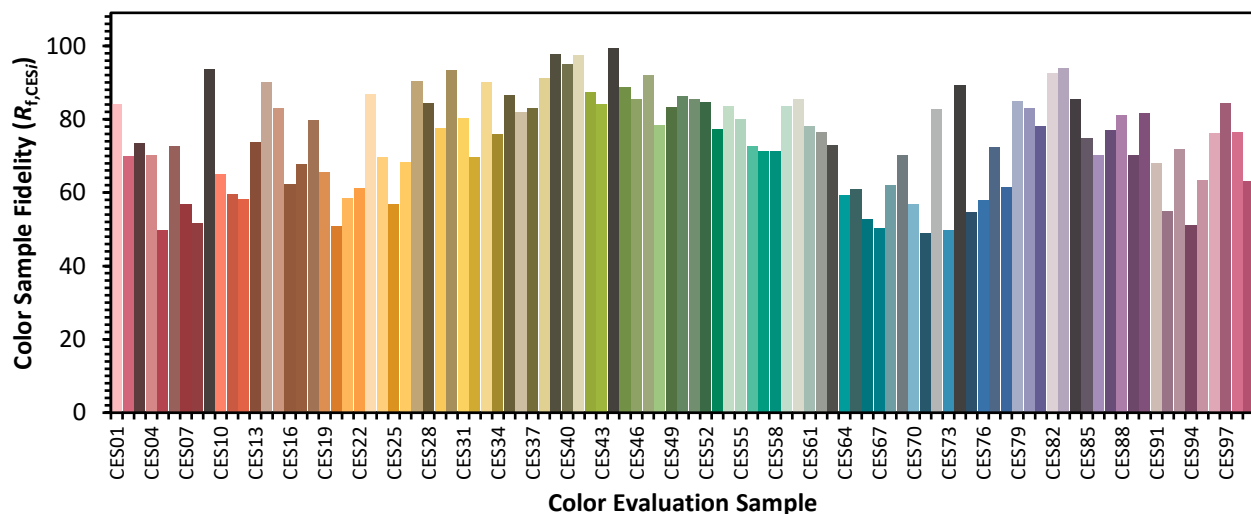


REPORT NUMBER: SP1-2307-100-3

TM-30-18

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

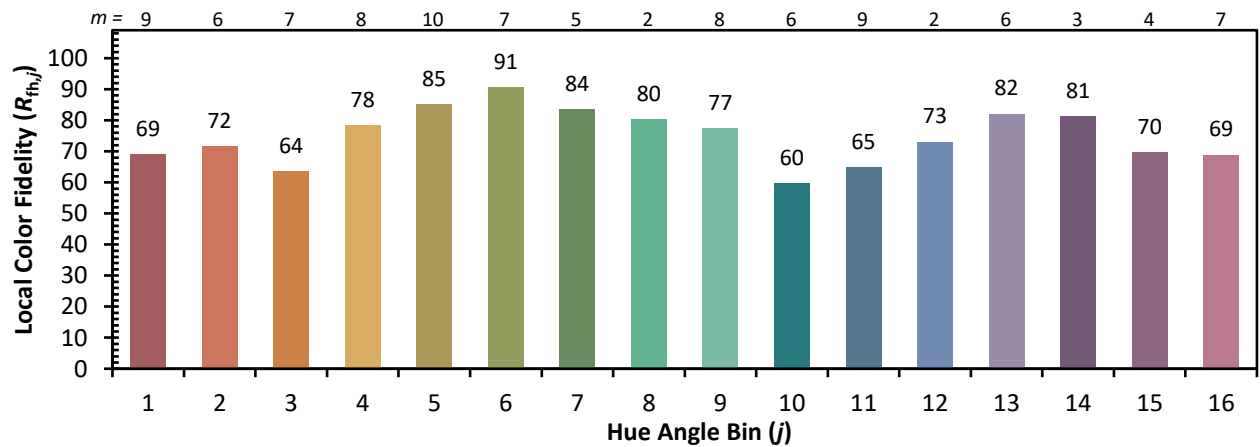
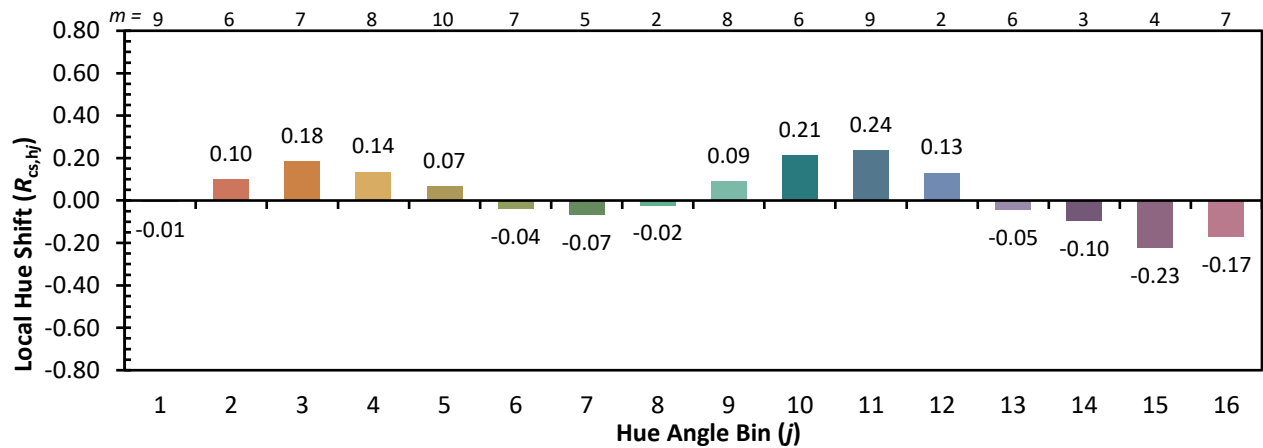
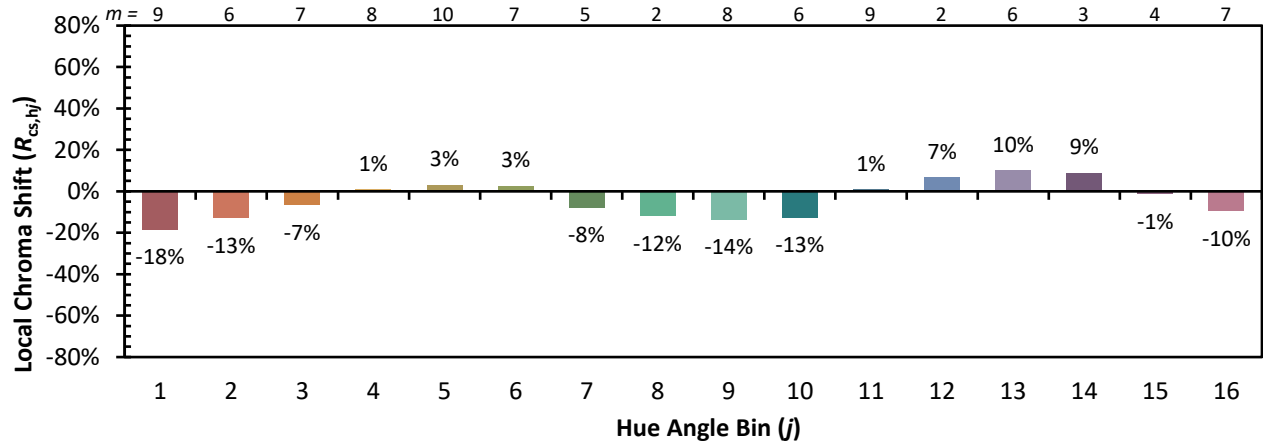
CES01 = 85	CES26 = 68	CES51 = 85	CES76 = 58
CES02 = 61	CES27 = 90	CES52 = 85	CES77 = 72
CES03 = 30	CES28 = 84	CES53 = 77	CES78 = 61
CES04 = 70	CES29 = 77	CES54 = 83	CES79 = 85
CES05 = 47	CES30 = 93	CES55 = 80	CES80 = 83
CES06 = 50	CES31 = 80	CES56 = 73	CES81 = 78
CES07 = 39	CES32 = 70	CES57 = 71	CES82 = 93
CES08 = 39	CES33 = 90	CES58 = 71	CES83 = 94
CES09 = 29	CES34 = 76	CES59 = 84	CES84 = 85
CES10 = 74	CES35 = 87	CES60 = 85	CES85 = 75
CES11 = 57	CES36 = 82	CES61 = 78	CES86 = 70
CES12 = 63	CES37 = 83	CES62 = 76	CES87 = 77
CES13 = 42	CES38 = 91	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 98	CES64 = 59	CES89 = 70
CES15 = 71	CES40 = 95	CES65 = 61	CES90 = 82
CES16 = 46	CES41 = 97	CES66 = 53	CES91 = 68
CES17 = 49	CES42 = 87	CES67 = 50	CES92 = 55
CES18 = 56	CES43 = 84	CES68 = 62	CES93 = 72
CES19 = 72	CES44 = 99	CES69 = 70	CES94 = 51
CES20 = 64	CES45 = 89	CES70 = 57	CES95 = 63
CES21 = 86	CES46 = 86	CES71 = 49	CES96 = 76
CES22 = 78	CES47 = 92	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 78	CES73 = 50	CES98 = 76
CES24 = 91	CES49 = 83	CES74 = 89	CES99 = 63
CES25 = 72	CES50 = 86	CES75 = 55	



REPORT NUMBER: SP1-2307-100-3

TM-30-18

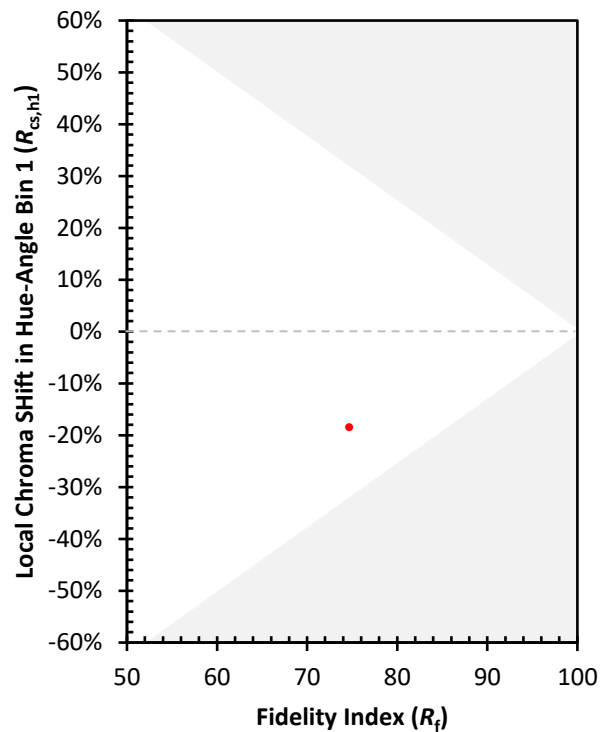
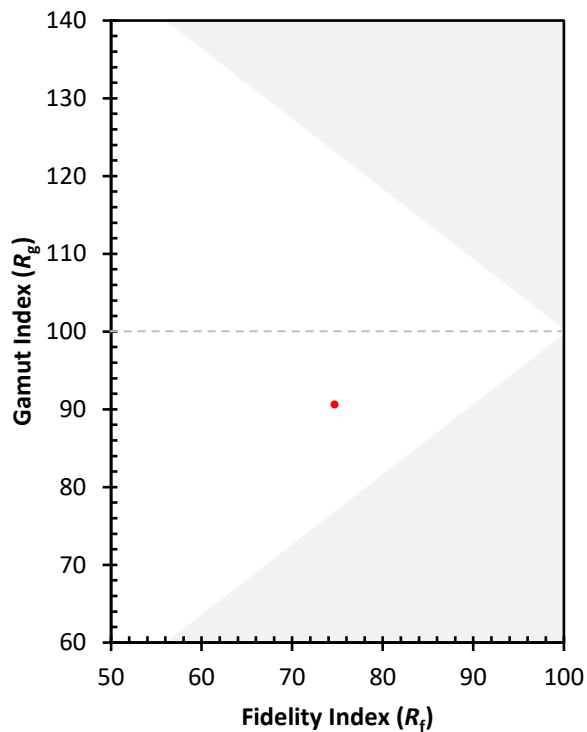
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2307-100-3

TM-30-18

Measure Comparisons



(END OF REPORT)