

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: iO LED

Report Number: P861226

Luminaire Tested: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

Issue Date: 8/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P861226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-259-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 8/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)
Description: iO CovSelect LED LINEAR LUMINAIRE, 1 FOOT, HIGH OUTPUT
ADJUSTED TO 4000K
Light Source: 4000 CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 378.7 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 1' x H: 0.02')
CIE Type: Direct

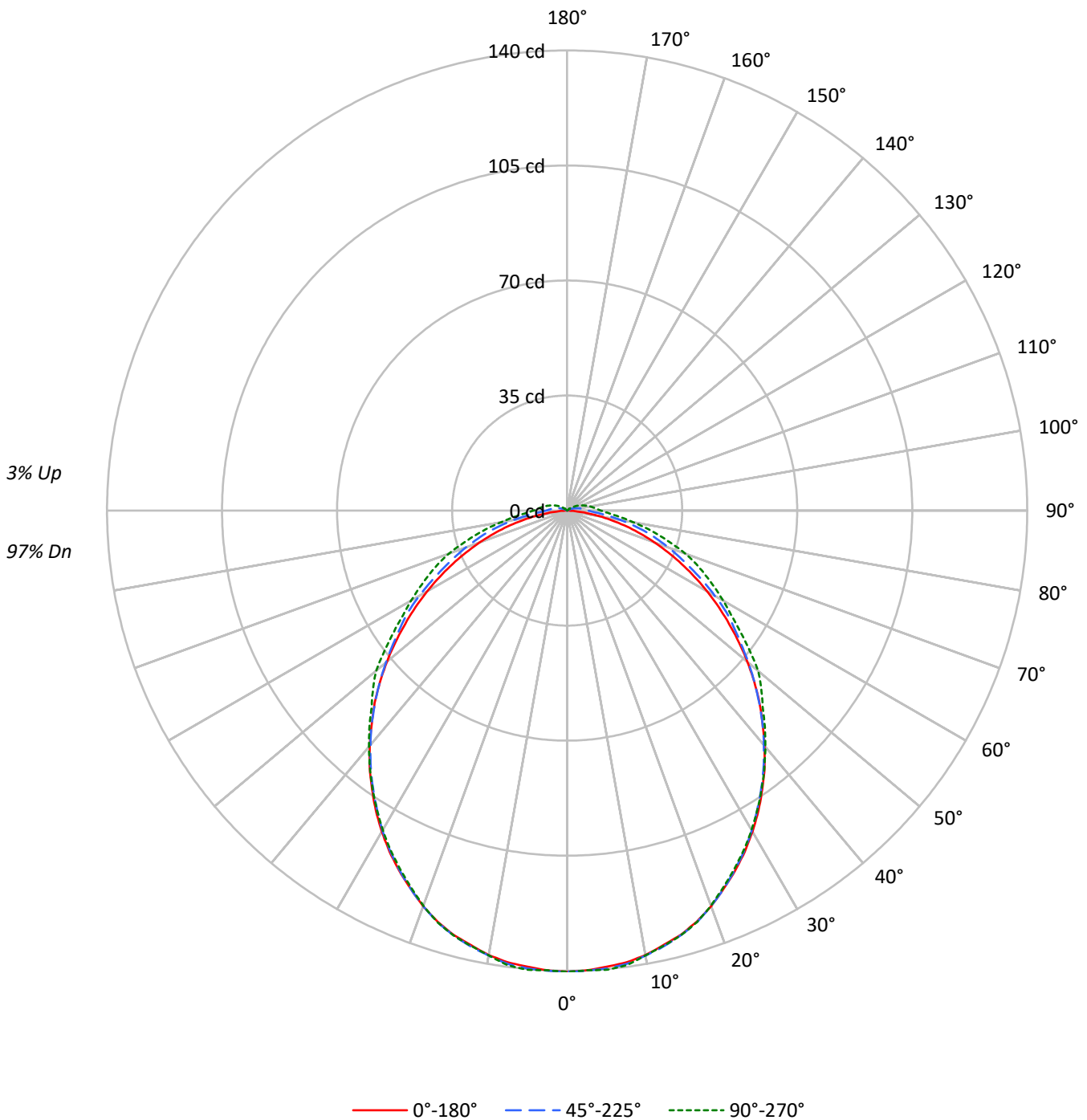
Input Watts (W): 3.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.9418
Total Harmonic Distortion (THDi): 0.075
Frequency (hertz): 60
Stabilization Time: 0.333 HR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P861226

CATALOG NUMBER: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

Luminous Intensity Polar Plot





TEST NUMBER: P861226

CATALOG NUMBER: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

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	50	30	10	0		
RCR																										
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97								
1	108	103	99	95	105	101	97	93	96	93	90	91	89	86	87	85	83	81								
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	73	70	68								
3	90	79	71	65	87	77	70	64	74	68	62	71	65	61	68	63	60	57								
4	82	70	62	55	80	69	61	54	66	59	53	63	57	52	61	56	51	49								
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	55	49	45	43								
6	70	57	48	42	68	56	47	41	54	46	41	52	45	40	50	44	40	37								
7	65	52	43	37	63	51	42	37	49	41	36	47	41	36	46	40	35	33								
8	61	47	39	33	59	46	38	33	45	38	32	43	37	32	42	36	32	30								
9	57	43	35	30	55	43	35	30	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°	18122	18122	18122
5°	18029	17828	17789
10°	17942	17445	17261
15°	17766	17019	16769
20°	17476	16461	16114
25°	17065	15792	15355
30°	16624	15095	14624
35°	16086	14321	13849
40°	15478	13525	13074
45°	14816	12663	12290
50°	14039	11780	11751
55°	13165	10946	10687
60°	12267	10068	9879
65°	11235	9013	9232
70°	10073	8092	8575
75°	8706	7160	7461
80°	6719	5848	6307
85°	3830	4601	5340

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14816 cd/sqm



TEST NUMBER: P861226

CATALOG NUMBER: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.3	3.5
10°-20°	37.6	9.9
20°-30°	55.5	14.7
30°-40°	64.5	17.0
40°-50°	64.1	16.9
50°-60°	55.7	14.7
60°-70°	41.7	11.0
70°-80°	25.6	6.8
80°-90°	10.8	2.8
90°-100°	5.0	1.3
100°-110°	2.9	0.8
110°-120°	1.4	0.4
120°-130°	0.4	0.1
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°	106.4	28.1
0°-40°	170.9	45.1
0°-60°	290.6	76.8
0°-90°	368.8	97.4
90°-120°	9.4	2.5
90°-150°	9.9	2.6
90°-180°	10.0	2.6
0°-180°	378.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	140	140	140	140	140	
5°	139	139	140	140	140	13
15°	134	133	134	134	134	38
25°	121	120	121	120	120	56
35°	104	103	103	103	103	65
45°	83	82	83	84	84	64
55°	60	60	62	64	64	54
65°	38	39	42	45	46	38
75°	19	20	25	28	29	20
85°	3	6	10	13	14	4
90°	0	2	6	9	10	0
95°	0	2	5	8	8	0
105°	0	0	3	5	6	0
115°	0	0	1	3	4	0
125°	0	0	0	1	1	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P861226

CATALOG NUMBER: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	140.3	140.3	140.3	140.3	140.3
2.5°	140.0	139.5	140.1	139.8	140.0
5°	139.3	139.2	139.8	140.0	140.2
7.5°	138.6	138.3	139.1	139.2	139.5
10°	137.3	136.9	137.5	137.4	137.4
12.5°	135.4	135.2	135.8	135.5	135.6
15°	133.6	133.2	133.8	133.7	133.8
17.5°	131.1	130.8	131.3	131.1	131.3
20°	128.1	127.7	128.1	127.9	127.9
22.5°	124.5	124.2	124.5	124.2	124.1
25°	120.9	120.4	120.7	120.4	120.3
27.5°	117.0	116.4	116.7	116.6	116.4
30°	112.8	112.1	112.4	112.4	112.2
32.5°	108.3	107.5	107.7	107.9	107.8
35°	103.5	102.6	103.0	103.3	103.2
37.5°	98.7	97.9	98.2	98.4	98.6
40°	93.4	92.8	93.1	93.7	93.8
42.5°	88.0	87.6	88.0	88.8	89.0
45°	82.8	82.2	82.6	83.8	84.1
47.5°	77.2	76.7	77.3	78.9	80.1
50°	71.6	71.2	72.0	74.8	75.9
52.5°	65.9	65.6	66.7	70.2	70.0
55°	60.2	60.0	61.9	64.3	64.4
57.5°	54.7	54.6	57.4	58.8	59.2
60°	49.2	49.3	51.9	53.7	54.8
62.5°	43.7	44.0	46.7	49.2	50.5
65°	38.4	38.9	41.6	45.0	46.4
67.5°	33.3	34.2	37.0	41.0	42.5
70°	28.2	29.5	32.7	37.0	38.3
72.5°	23.4	24.9	28.6	32.5	33.3
75°	18.8	20.4	24.6	27.8	28.9
77.5°	14.3	16.2	20.4	23.7	24.6
80°	10.1	12.4	16.4	19.6	20.5
82.5°	6.4	8.9	12.9	16.1	16.9
85°	3.2	5.9	9.9	12.9	13.9
87.5°	1.0	3.6	7.5	10.6	11.8
90°	0.0	2.4	6.4	9.2	10.2
92.5°	0.0	1.9	5.6	8.3	9.3
95°	0.0	1.5	5.0	7.5	8.5
97.5°	0.0	1.2	4.4	6.9	7.8
100°	0.0	0.9	3.9	6.3	7.1
102.5°	0.0	0.5	3.3	5.6	6.5
105°	0.0	0.3	2.8	5.0	5.8
107.5°	0.0	0.2	2.3	4.4	5.2
110°	0.0	0.1	1.8	3.8	4.6



TEST NUMBER: P861226

CATALOG NUMBER: CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-(Low-4000K)

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	1.4	3.2	4.0
115°	0.0	0.0	1.1	2.7	3.5
117.5°	0.0	0.0	0.8	2.2	2.9
120°	0.0	0.0	0.5	1.7	2.3
122.5°	0.0	0.0	0.3	1.3	1.8
125°	0.0	0.0	0.2	1.0	1.4
127.5°	0.0	0.0	0.1	0.8	1.1
130°	0.0	0.0	0.0	0.4	0.8
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

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

Report Prepared for

Cooper Lighting Solutions

iO LED

Report Number: SP1-2312-259-5

Test Date: 02/01/2024

Luminaire Tested: CS-SL-8SCT-120-ID-UNV-W-SA-STD-1F (LOW-4000K)

Data in this report applies to families of CS-SL-8SCT products

Test Information

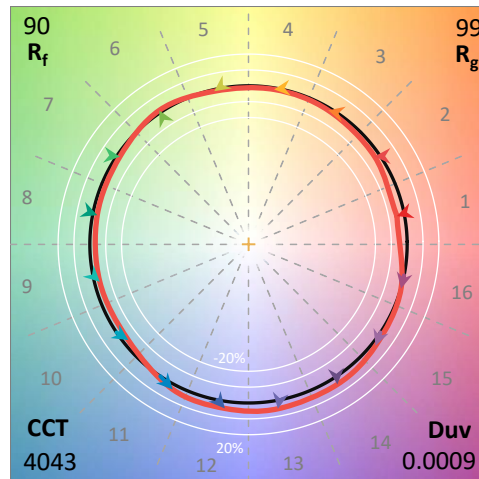
Test Method: LM-79-2019
 Report Number: SP1-2312-259-5
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/08/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: iO LED
 Catalog Number: **CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F (LOW-4000K)**
 Description: IO LED COVSELECT ARCHITECTURAL COVE

Spectral Parameters

CCT (K): 4043
 CIE u': 0.2238
 CIE v': 0.5019
 Duv: 0.0009
 CIE x: 0.3791
 CIE y: 0.3779
 CIE z: 0.2429
 Peak Wavelength (nm): 450
 Dominant Wavelength (nm): 578
 Purity: 27.3

CRI (Ra):	91.9		
R1:	92.0	R9:	63.5
R2:	93.8	R10:	84.4
R3:	94.1	R11:	92.1
R4:	92.4	R12:	69.5
R5:	91.0	R13:	92.4
R6:	90.4	R14:	96.4
R7:	94.7		
R8:	86.3		

Rf: 90.4
 Rg: 99.3



Test Conditions

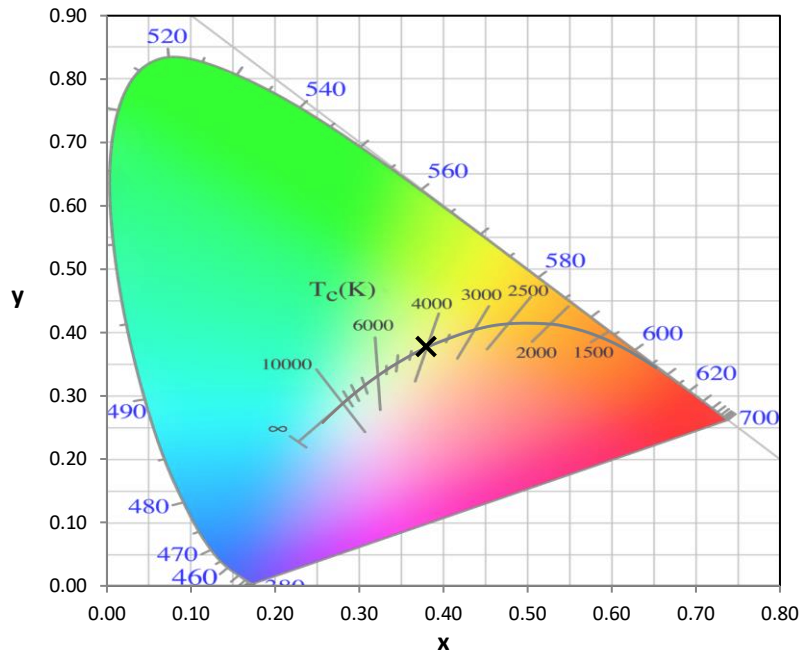
Stabilization Time: 12M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.4/24%
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2312-259-5

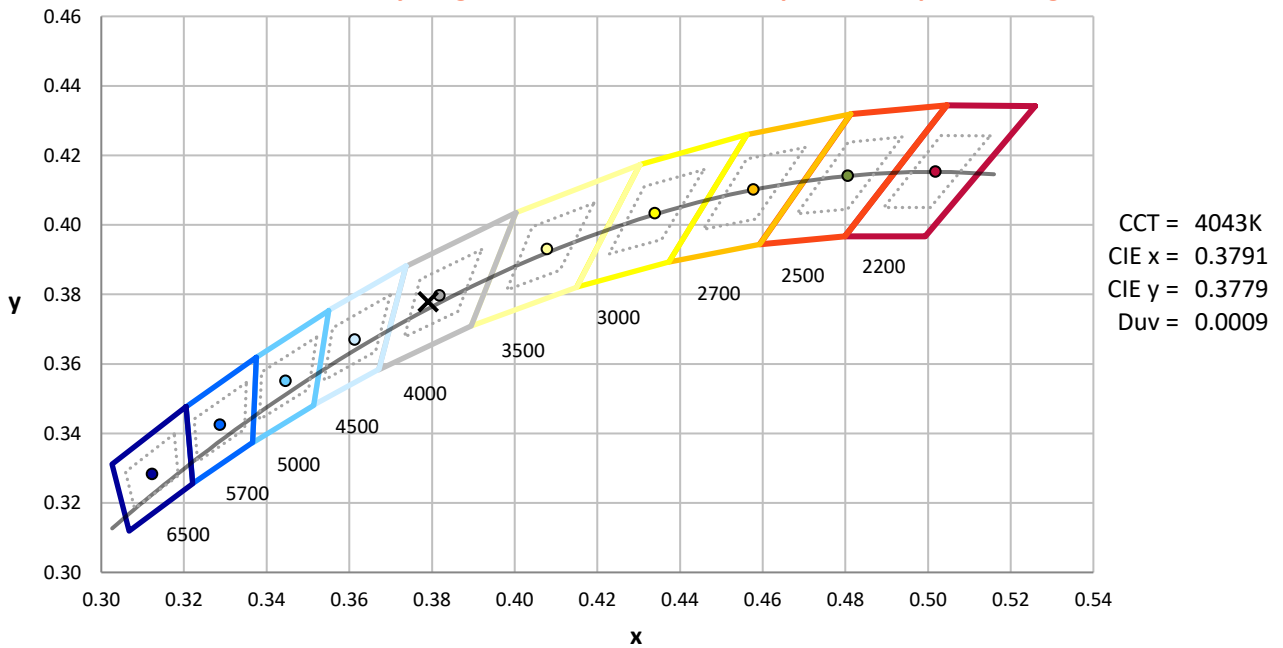
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	8/9/2023	2/9/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	10/24/2023	10/24/2024
Sphere Thermometer	ONSET IN0085	10/24/2023	10/24/2024
Room Thermometer	ONSET IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2312-259-5

CIE 1931 Chromaticity Diagram



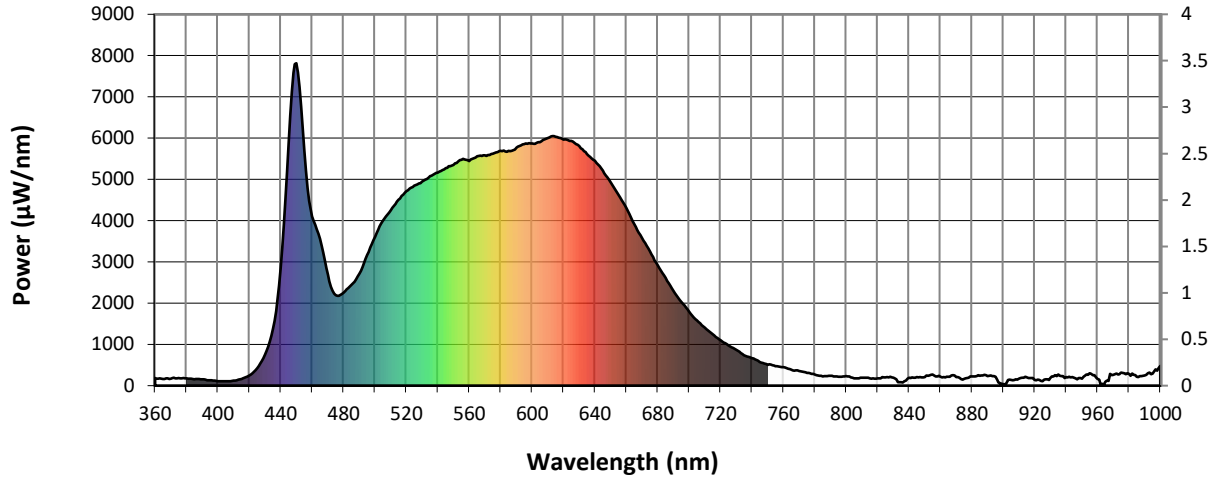
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2312-259-5

Photopic Flux vs. Wavelength

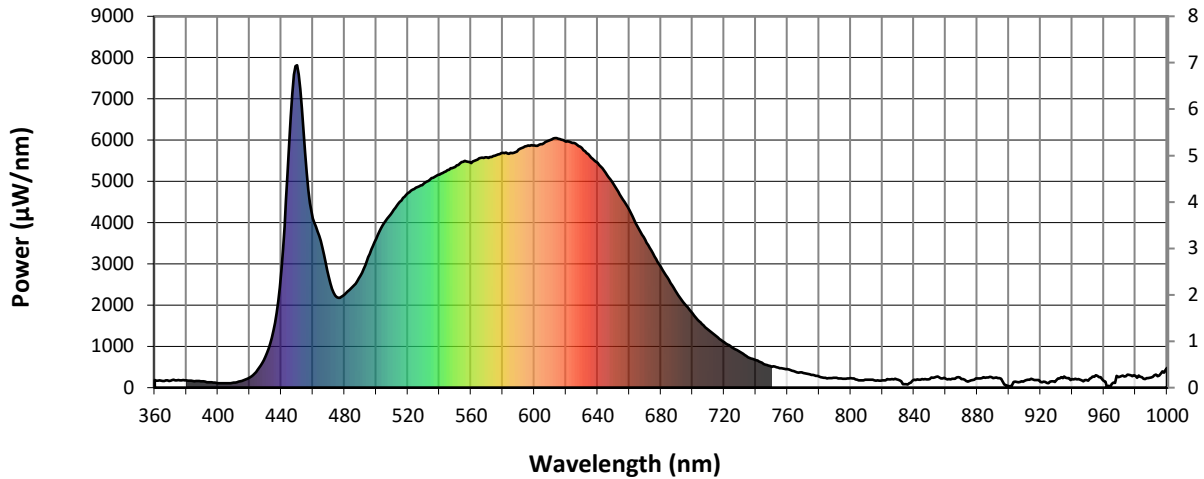


#####

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	186	NR	490	2712	NR	620	5962	NR	750	506	NR	880	220	NR
365	164	NR	495	3160	NR	625	5931	NR	755	475	NR	885	241	NR
370	172	NR	500	3608	NR	630	5805	NR	760	448	NR	890	235	NR
375	183	NR	505	3994	NR	635	5611	NR	765	384	NR	895	217	NR
380	176	NR	510	4248	NR	640	5451	NR	770	353	NR	900	39	NR
385	156	NR	515	4503	NR	645	5207	NR	775	311	NR	905	141	NR
390	153	NR	520	4710	NR	650	4930	NR	780	269	NR	910	171	NR
395	132	NR	525	4842	NR	655	4621	NR	785	225	NR	915	203	NR
400	109	NR	530	4943	NR	660	4314	NR	790	242	NR	920	136	NR
405	104	NR	535	5075	NR	665	3913	NR	795	214	NR	925	111	NR
410	120	NR	540	5166	NR	670	3578	NR	800	230	NR	930	182	NR
415	163	NR	545	5271	NR	675	3254	NR	805	180	NR	935	266	NR
420	248	NR	550	5351	NR	680	2923	NR	810	190	NR	940	206	NR
425	426	NR	555	5473	NR	685	2609	NR	815	179	NR	945	189	NR
430	751	NR	560	5446	NR	690	2301	NR	820	174	NR	950	170	NR
435	1375	NR	565	5562	NR	695	2028	NR	825	202	NR	955	299	NR
440	2849	NR	570	5585	NR	700	1795	NR	830	193	NR	960	164	NR
445	5885	NR	575	5621	NR	705	1580	NR	835	81	NR	965	90	NR
450	7814	NR	580	5694	NR	710	1400	NR	840	190	NR	970	259	NR
455	5689	NR	585	5691	NR	715	1245	NR	845	206	NR	975	320	NR
460	4100	NR	590	5769	NR	720	1098	NR	850	210	NR	980	283	NR
465	3561	NR	595	5854	NR	725	978	NR	855	271	NR	985	216	NR
470	2685	NR	600	5869	NR	730	865	NR	860	216	NR	990	245	NR
475	2192	NR	605	5900	NR	735	739	NR	865	215	NR	995	291	NR
480	2259	NR	610	6000	NR	740	663	NR	870	210	NR	1000	480	NR
485	2441	NR	615	6029	NR	745	569	NR	875	159	NR			

REPORT NUMBER: SP1-2312-259-5

Scotopic Flux vs. Wavelength



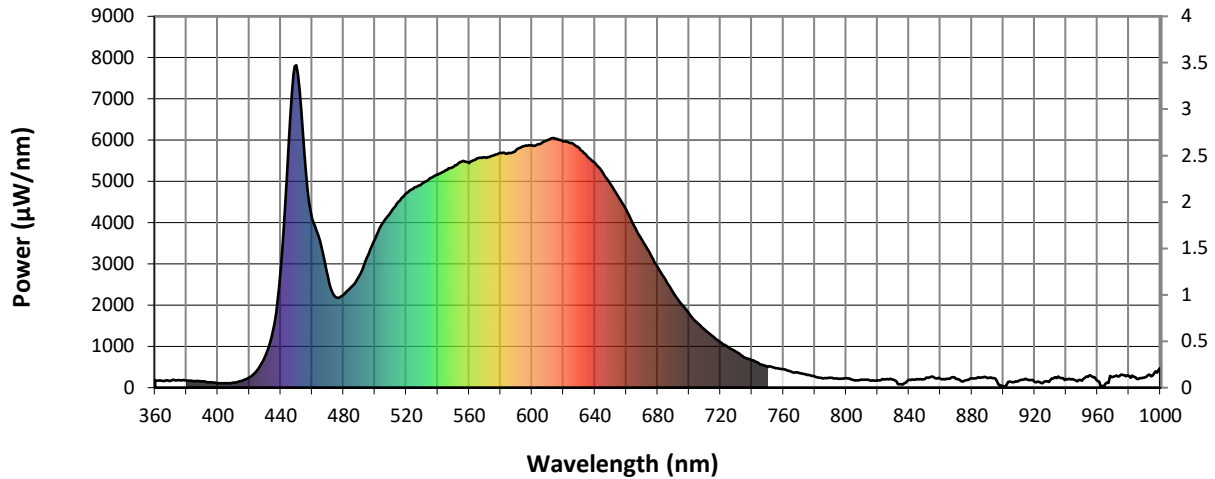
Scotopic Lumens: 672.5

S/P: 1.78

λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)
360	186	NR	490	2712	NR	620	5962	NR	750	506	NR	880	220	NR
365	164	NR	495	3160	NR	625	5931	NR	755	475	NR	885	241	NR
370	172	NR	500	3608	NR	630	5805	NR	760	448	NR	890	235	NR
375	183	NR	505	3994	NR	635	5611	NR	765	384	NR	895	217	NR
380	176	NR	510	4248	NR	640	5451	NR	770	353	NR	900	39	NR
385	156	NR	515	4503	NR	645	5207	NR	775	311	NR	905	141	NR
390	153	NR	520	4710	NR	650	4930	NR	780	269	NR	910	171	NR
395	132	NR	525	4842	NR	655	4621	NR	785	225	NR	915	203	NR
400	109	NR	530	4943	NR	660	4314	NR	790	242	NR	920	136	NR
405	104	NR	535	5075	NR	665	3913	NR	795	214	NR	925	111	NR
410	120	NR	540	5166	NR	670	3578	NR	800	230	NR	930	182	NR
415	163	NR	545	5271	NR	675	3254	NR	805	180	NR	935	266	NR
420	248	NR	550	5351	NR	680	2923	NR	810	190	NR	940	206	NR
425	426	NR	555	5473	NR	685	2609	NR	815	179	NR	945	189	NR
430	751	NR	560	5446	NR	690	2301	NR	820	174	NR	950	170	NR
435	1375	NR	565	5562	NR	695	2028	NR	825	202	NR	955	299	NR
440	2849	NR	570	5585	NR	700	1795	NR	830	193	NR	960	164	NR
445	5885	NR	575	5621	NR	705	1580	NR	835	81	NR	965	90	NR
450	7814	NR	580	5694	NR	710	1400	NR	840	190	NR	970	259	NR
455	5689	NR	585	5691	NR	715	1245	NR	845	206	NR	975	320	NR
460	4100	NR	590	5769	NR	720	1098	NR	850	210	NR	980	283	NR
465	3561	NR	595	5854	NR	725	978	NR	855	271	NR	985	216	NR
470	2685	NR	600	5869	NR	730	865	NR	860	216	NR	990	245	NR
475	2192	NR	605	5900	NR	735	739	NR	865	215	NR	995	291	NR
480	2259	NR	610	6000	NR	740	663	NR	870	210	NR	1000	480	NR
485	2441	NR	615	6029	NR	745	569	NR	875	159	NR			

REPORT NUMBER: SP1-2312-259-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: 274.2

M/P: 0.72

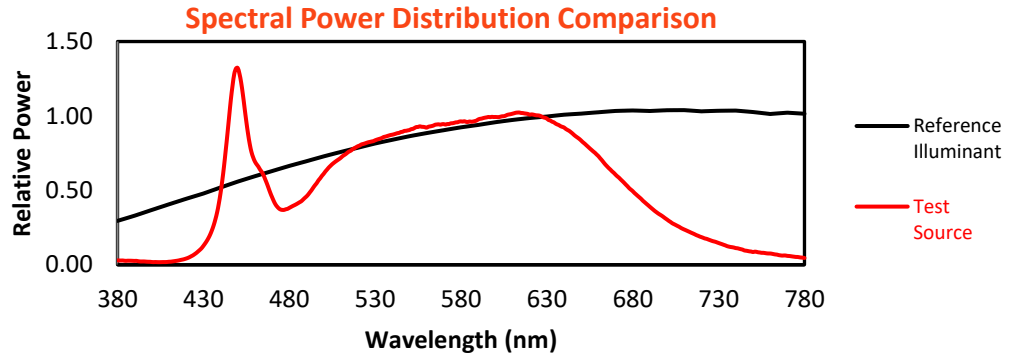
λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	186	NR	490	2712	NR	620	5962	NR	750	506	NR	880	220	NR
365	164	NR	495	3160	NR	625	5931	NR	755	475	NR	885	241	NR
370	172	NR	500	3608	NR	630	5805	NR	760	448	NR	890	235	NR
375	183	NR	505	3994	NR	635	5611	NR	765	384	NR	895	217	NR
380	176	NR	510	4248	NR	640	5451	NR	770	353	NR	900	39	NR
385	156	NR	515	4503	NR	645	5207	NR	775	311	NR	905	141	NR
390	153	NR	520	4710	NR	650	4930	NR	780	269	NR	910	171	NR
395	132	NR	525	4842	NR	655	4621	NR	785	225	NR	915	203	NR
400	109	NR	530	4943	NR	660	4314	NR	790	242	NR	920	136	NR
405	104	NR	535	5075	NR	665	3913	NR	795	214	NR	925	111	NR
410	120	NR	540	5166	NR	670	3578	NR	800	230	NR	930	182	NR
415	163	NR	545	5271	NR	675	3254	NR	805	180	NR	935	266	NR
420	248	NR	550	5351	NR	680	2923	NR	810	190	NR	940	206	NR
425	426	NR	555	5473	NR	685	2609	NR	815	179	NR	945	189	NR
430	751	NR	560	5446	NR	690	2301	NR	820	174	NR	950	170	NR
435	1375	NR	565	5562	NR	695	2028	NR	825	202	NR	955	299	NR
440	2849	NR	570	5585	NR	700	1795	NR	830	193	NR	960	164	NR
445	5885	NR	575	5621	NR	705	1580	NR	835	81	NR	965	90	NR
450	7814	NR	580	5694	NR	710	1400	NR	840	190	NR	970	259	NR
455	5689	NR	585	5691	NR	715	1245	NR	845	206	NR	975	320	NR
460	4100	NR	590	5769	NR	720	1098	NR	850	210	NR	980	283	NR
465	3561	NR	595	5854	NR	725	978	NR	855	271	NR	985	216	NR
470	2685	NR	600	5869	NR	730	865	NR	860	216	NR	990	245	NR
475	2192	NR	605	5900	NR	735	739	NR	865	215	NR	995	291	NR
480	2259	NR	610	6000	NR	740	663	NR	870	210	NR	1000	480	NR
485	2441	NR	615	6029	NR	745	569	NR	875	159	NR			

REPORT NUMBER: SP1-2312-259-5

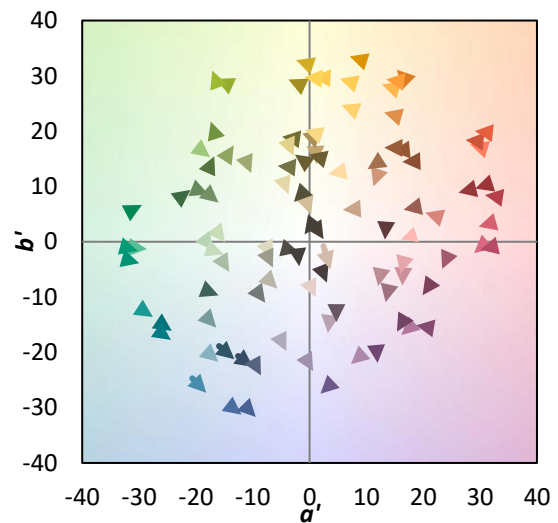
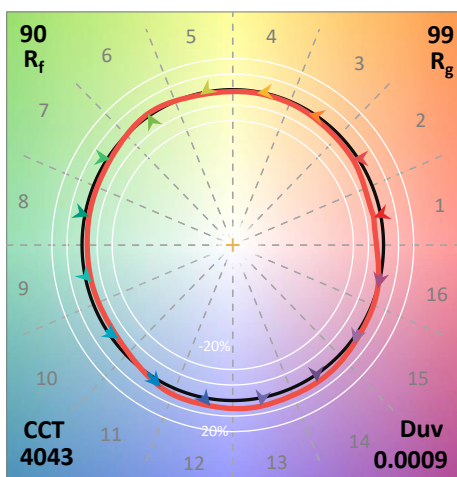
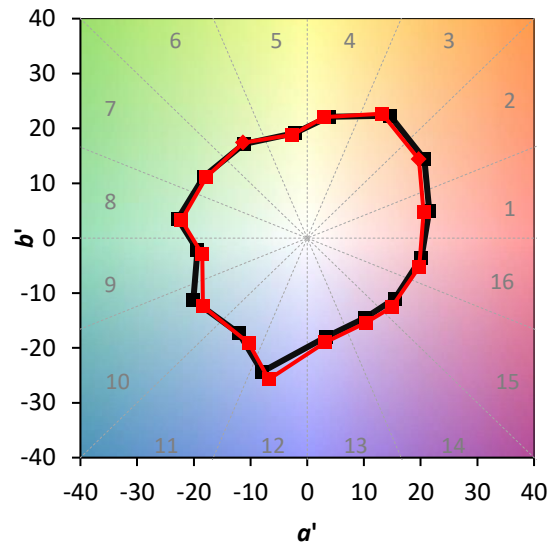
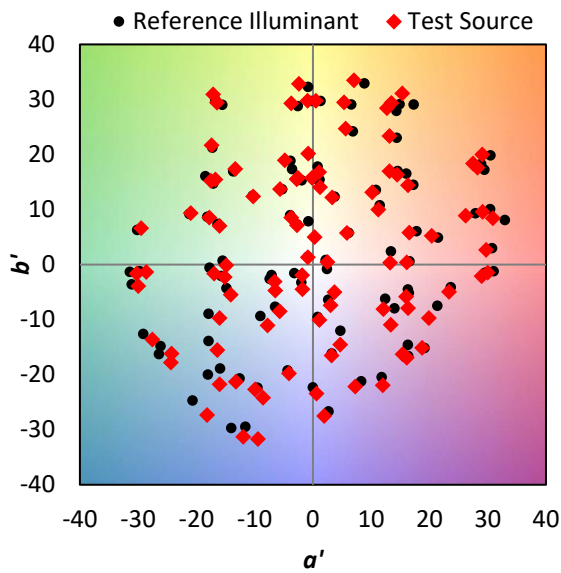
TM-30-18

Summary

$R_f = 90.4$
 $R_g = 99.3$
 CIE $R_a = 91.9$
 $R_9 = 63.5$



Color Vector Graphics

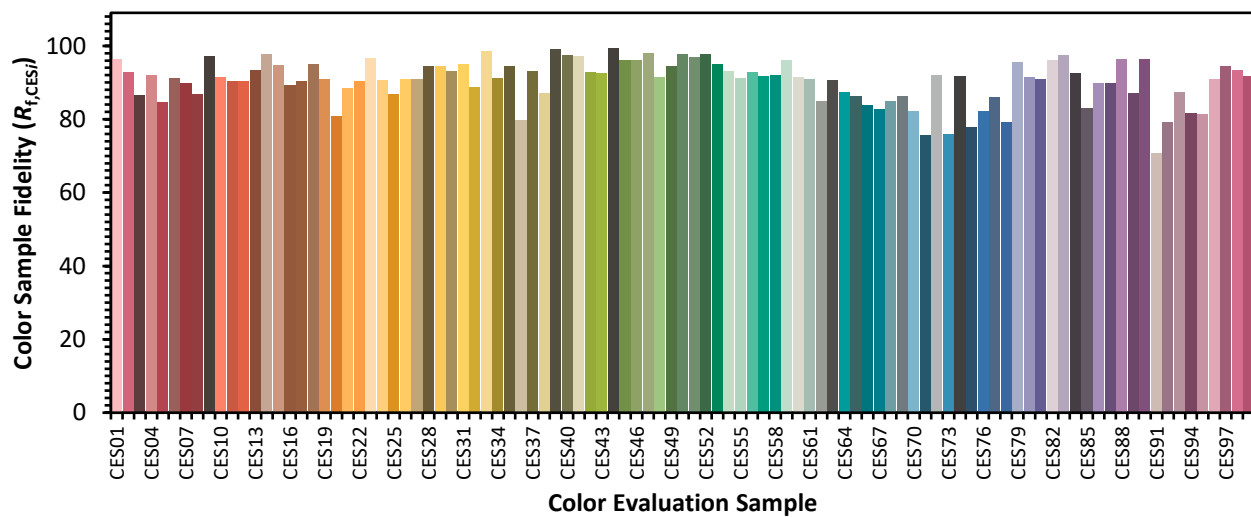


REPORT NUMBER: SP1-2312-259-5

TM-30-18

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

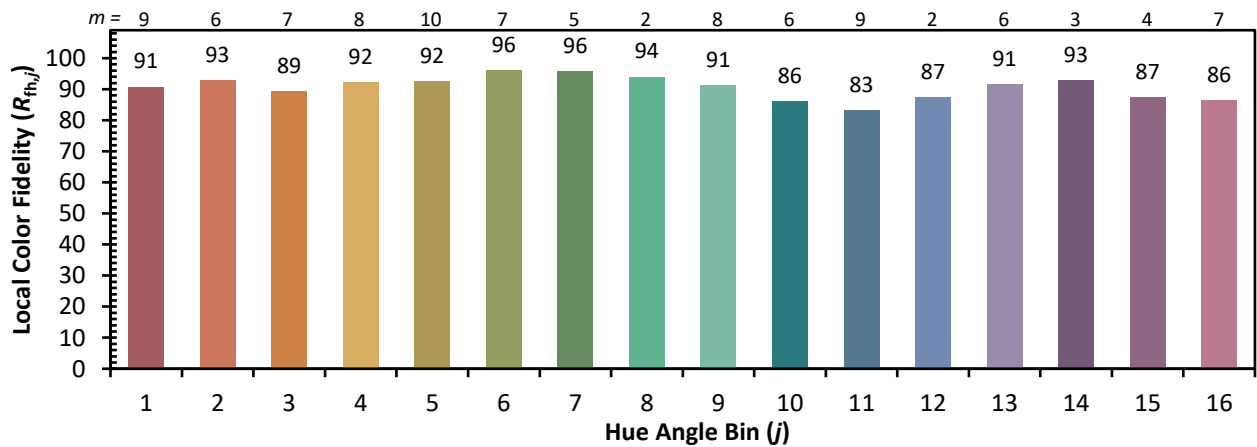
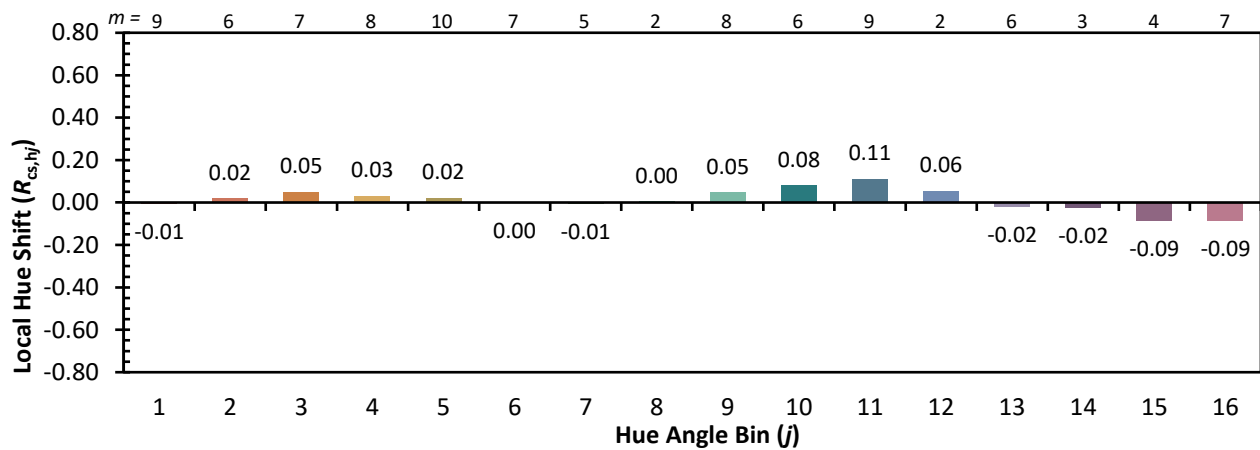
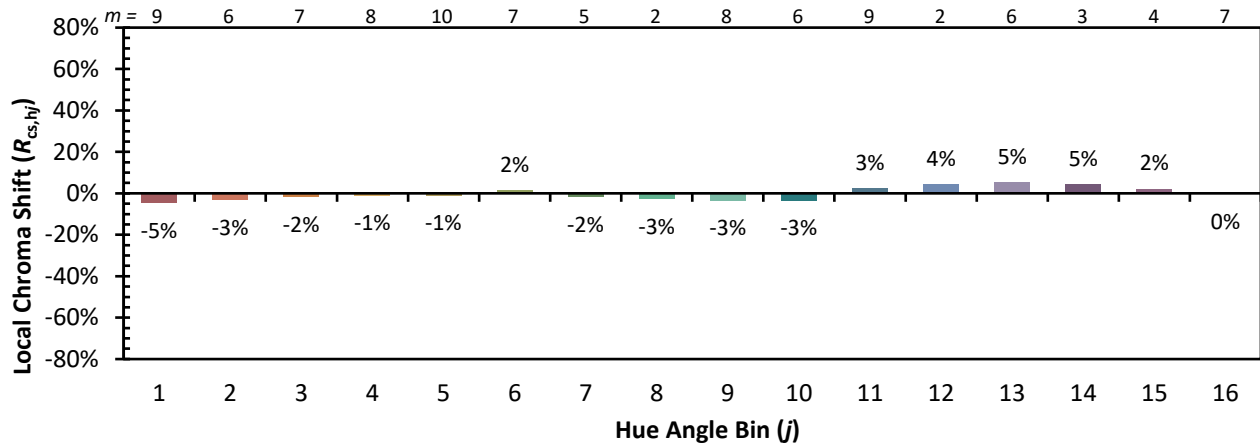
CES01 = 85	CES26 = 91	CES51 = 97	CES76 = 82
CES02 = 61	CES27 = 91	CES52 = 98	CES77 = 86
CES03 = 31	CES28 = 94	CES53 = 95	CES78 = 79
CES04 = 69	CES29 = 94	CES54 = 93	CES79 = 95
CES05 = 49	CES30 = 93	CES55 = 91	CES80 = 92
CES06 = 50	CES31 = 95	CES56 = 93	CES81 = 91
CES07 = 42	CES32 = 89	CES57 = 92	CES82 = 96
CES08 = 41	CES33 = 99	CES58 = 92	CES83 = 98
CES09 = 29	CES34 = 91	CES59 = 96	CES84 = 93
CES10 = 74	CES35 = 94	CES60 = 91	CES85 = 83
CES11 = 57	CES36 = 80	CES61 = 91	CES86 = 90
CES12 = 63	CES37 = 93	CES62 = 85	CES87 = 90
CES13 = 43	CES38 = 87	CES63 = 91	CES88 = 96
CES14 = 74	CES39 = 99	CES64 = 87	CES89 = 87
CES15 = 71	CES40 = 97	CES65 = 86	CES90 = 96
CES16 = 47	CES41 = 97	CES66 = 84	CES91 = 71
CES17 = 49	CES42 = 93	CES67 = 83	CES92 = 79
CES18 = 56	CES43 = 93	CES68 = 85	CES93 = 87
CES19 = 71	CES44 = 99	CES69 = 86	CES94 = 82
CES20 = 66	CES45 = 96	CES70 = 82	CES95 = 81
CES21 = 85	CES46 = 96	CES71 = 76	CES96 = 91
CES22 = 78	CES47 = 98	CES72 = 92	CES97 = 94
CES23 = 91	CES48 = 92	CES73 = 76	CES98 = 93
CES24 = 90	CES49 = 95	CES74 = 92	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 78	



REPORT NUMBER: SP1-2312-259-5

TM-30-18

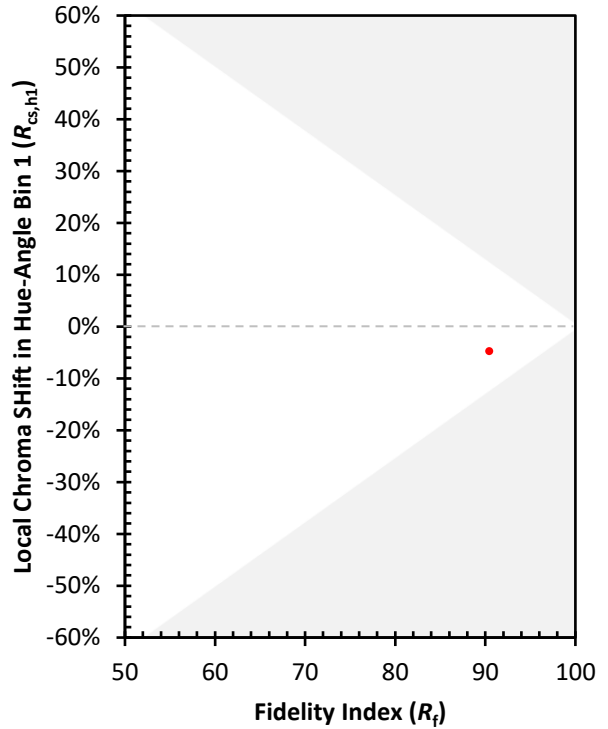
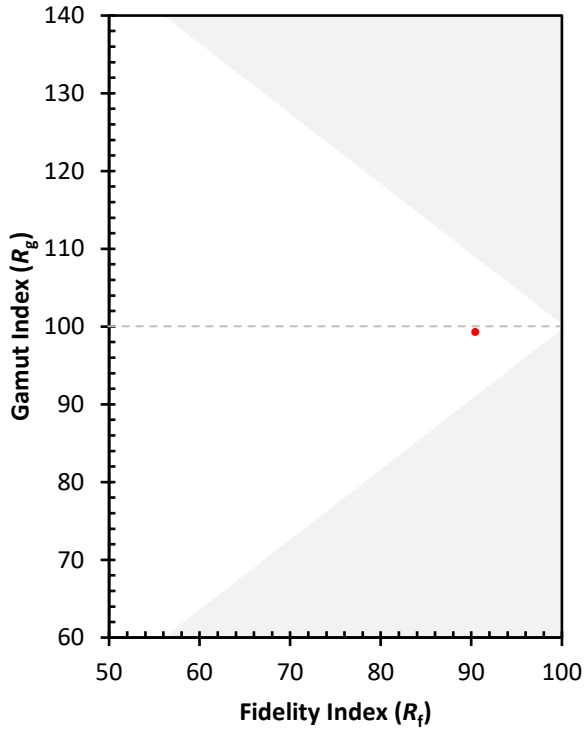
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2312-259-5

TM-30-18

Measure Comparisons



(END OF REPORT)