

Signify Classified - Internal
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: HALO

Report Number: P798560

Luminaire Tested: **LTSS4069FS1EWHR-940**

Issue Date: 04/03/2024



Test Information

Test Method: LM-79-08
Report Number: P798560
Test Lab: ETA Testing Technology(A2)
Issue Date: 04/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: LTSS4069FS1EWHR-940
Description: 4 inch 90 CRI COLOR TUNING RECESSED DOWNLIGHT with DRIVER ON BOARD AND SMOOTH SPRAY TRIM
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

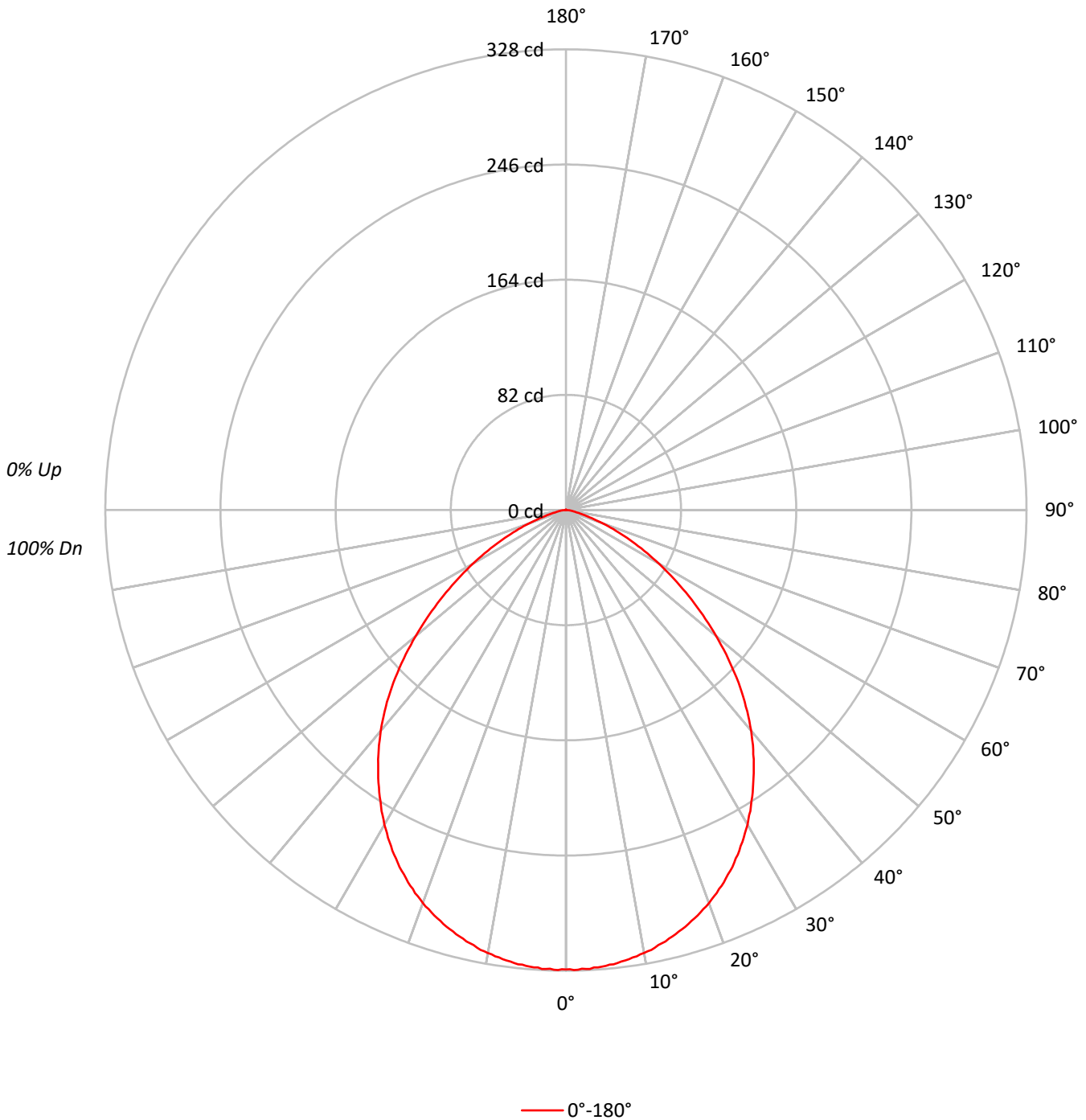
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 689.5 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.26
Luminous Opening: Circular (Dia: 0.3' x H: 0')
CIE Type: Direct

Input Watts (W): 7.5
Input Voltage (V): 120
Input Current (A_{in}): 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

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Luminous Intensity Polar Plot





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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			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	66			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51			
6	75	63	55	49	73	62	54	49	60	53	48	59	52	48	57	52	47	46			
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43	41			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37			
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33			
10	57	45	38	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	49810
5°	49802
10°	49512
15°	48982
20°	48275
25°	47130
30°	45489
35°	43314
40°	40771
45°	37429
50°	33095
55°	28328
60°	23329
65°	18052
70°	12600
75°	7413
80°	4999
85°	3494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	4.5
10°-20°	87.6	12.7
20°-30°	128.8	18.7
30°-40°	145.4	21.1
40°-50°	133.4	19.3
50°-60°	95.6	13.9
60°-70°	50.2	7.3
70°-80°	14.8	2.2
80°-90°	2.4	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	247.3	35.9
0°-40°	392.7	57.0
0°-60°	621.7	90.2
0°-90°	689.1	99.9
90°-120°	0.1	0.0
90°-150°	0.3	0.0
90°-180°	0.0	0.0
0°-180°	689.5	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	327	
5°	326	31
15°	311	88
25°	280	129
35°	233	145
45°	174	133
55°	107	96
65°	50	50
75°	13	15
85°	2	2
90°	0	0
95°	0	0
105°	0	0
115°	0	0
125°	0	0
135°	0	0
145°	0	0
155°	0	0
165°	0	0
175°	0	0
180°	0	0



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CANDELA DISTRIBUTION (FULL):

0°	
0°	327.1
0.5°	326.9
1°	327.6
1.5°	327.5
2°	326.8
2.5°	327.1
3°	327.2
3.5°	326.3
4°	326.4
4.5°	326.2
5°	325.8
5.5°	325.2
6°	325.2
6.5°	324.6
7°	323.8
7.5°	323.5
8°	323.0
8.5°	322.1
9°	321.7
9.5°	320.8
10°	320.2
10.5°	319.5
11°	319.0
11.5°	317.9
12°	316.6
12.5°	316.0
13°	315.2
13.5°	313.8
14°	313.0
14.5°	312.0
15°	310.7
15.5°	309.6
16°	308.6
16.5°	307.4
17°	305.9
17.5°	304.8
18°	303.6
18.5°	302.1
19°	300.4
19.5°	299.4
20°	297.9
20.5°	296.0
21°	294.5
21.5°	293.2
22°	291.0



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CANDELA DISTRIBUTION (continued):

	0°
22.5°	289.6
23°	288.0
23.5°	285.9
24°	283.9
24.5°	282.2
25°	280.5
25.5°	278.2
26°	276.0
26.5°	274.3
27°	272.2
27.5°	269.6
28°	267.7
28.5°	265.5
29°	262.9
29.5°	260.8
30°	258.7
30.5°	255.9
31°	253.4
31.5°	251.3
32°	248.6
32.5°	245.9
33°	243.5
33.5°	241.0
34°	238.2
34.5°	235.6
35°	233.0
35.5°	230.2
36°	227.4
36.5°	224.9
37°	222.3
37.5°	219.2
38°	216.6
38.5°	213.9
39°	210.7
39.5°	208.0
40°	205.1
40.5°	202.1
41°	199.0
41.5°	196.1
42°	193.0
42.5°	189.7
43°	186.8
43.5°	183.3
44°	180.1
44.5°	176.9



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CANDELA DISTRIBUTION (continued):

	0°
45°	173.8
45.5°	170.2
46°	166.9
46.5°	163.5
47°	160.2
47.5°	156.5
48°	153.5
48.5°	149.9
49°	146.4
49.5°	143.2
50°	139.7
50.5°	136.2
51°	133.0
51.5°	129.6
52°	126.1
52.5°	123.0
53°	119.6
53.5°	116.2
54°	113.1
54.5°	110.0
55°	106.7
55.5°	103.5
56°	100.4
56.5°	97.2
57°	94.2
57.5°	91.3
58°	88.1
58.5°	85.2
59°	82.3
59.5°	79.4
60°	76.6
60.5°	73.8
61°	70.9
61.5°	68.2
62°	65.6
62.5°	62.8
63°	60.2
63.5°	57.6
64°	55.1
64.5°	52.5
65°	50.1
65.5°	47.7
66°	45.3
66.5°	43.0
67°	40.7



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CANDELA DISTRIBUTION (continued):

	0°
67.5°	38.5
68°	36.3
68.5°	34.3
69°	32.3
69.5°	30.3
70°	28.3
70.5°	26.3
71°	24.5
71.5°	22.7
72°	21.0
72.5°	19.5
73°	17.9
73.5°	16.4
74°	15.0
74.5°	13.8
75°	12.6
75.5°	11.5
76°	10.5
76.5°	9.6
77°	8.8
77.5°	8.1
78°	7.5
78.5°	7.0
79°	6.5
79.5°	6.1
80°	5.7
80.5°	5.3
81°	4.9
81.5°	4.5
82°	4.1
82.5°	3.8
83°	3.4
83.5°	3.1
84°	2.7
84.5°	2.4
85°	2.0
85.5°	1.7
86°	1.4
86.5°	1.1
87°	0.8
87.5°	0.5
88°	0.3
88.5°	0.1
89°	0.0
89.5°	0.0



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CANDELA DISTRIBUTION (continued):

	0°
90°	0.0
90.5°	0.0
91°	0.0
91.5°	0.0
92°	0.0
92.5°	0.0
93°	0.0
93.5°	0.0
94°	0.0
94.5°	0.0
95°	0.0
95.5°	0.0
96°	0.0
96.5°	0.0
97°	0.0
97.5°	0.0
98°	0.0
98.5°	0.0
99°	0.0
99.5°	0.0
100°	0.0
100.5°	0.0
101°	0.0
101.5°	0.0
102°	0.0
102.5°	0.0
103°	0.0
103.5°	0.0
104°	0.0
104.5°	0.0
105°	0.0
105.5°	0.0
106°	0.0
106.5°	0.0
107°	0.0
107.5°	0.0
108°	0.0
108.5°	0.0
109°	0.0
109.5°	0.0
110°	0.0
110.5°	0.0
111°	0.0
111.5°	0.0
112°	0.0



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	0.0
113°	0.0
113.5°	0.0
114°	0.0
114.5°	0.0
115°	0.0
115.5°	0.0
116°	0.0
116.5°	0.0
117°	0.0
117.5°	0.0
118°	0.0
118.5°	0.1
119°	0.1
119.5°	0.1
120°	0.1
120.5°	0.1
121°	0.1
121.5°	0.1
122°	0.1
122.5°	0.1
123°	0.1
123.5°	0.1
124°	0.1
124.5°	0.1
125°	0.1
125.5°	0.1
126°	0.1
126.5°	0.1
127°	0.1
127.5°	0.1
128°	0.1
128.5°	0.1
129°	0.1
129.5°	0.1
130°	0.1
130.5°	0.1
131°	0.1
131.5°	0.1
132°	0.1
132.5°	0.1
133°	0.1
133.5°	0.1
134°	0.1
134.5°	0.1



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CANDELA DISTRIBUTION (continued):

	0°
135°	0.1
135.5°	0.1
136°	0.1
136.5°	0.1
137°	0.1
137.5°	0.1
138°	0.1
138.5°	0.1
139°	0.1
139.5°	0.1
140°	0.1
140.5°	0.1
141°	0.1
141.5°	0.1
142°	0.1
142.5°	0.1
143°	0.1
143.5°	0.1
144°	0.1
144.5°	0.1
145°	0.1
145.5°	0.1
146°	0.1
146.5°	0.1
147°	0.1
147.5°	0.1
148°	0.1
148.5°	0.1
149°	0.1
149.5°	0.1
150°	0.1
150.5°	0.1
151°	0.1
151.5°	0.1
152°	0.1
152.5°	0.1
153°	0.1
153.5°	0.1
154°	0.1
154.5°	0.1
155°	0.2
155.5°	0.2
156°	0.2
156.5°	0.2
157°	0.2



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CANDELA DISTRIBUTION (continued):

	0°
157.5°	0.2
158°	0.2
158.5°	0.2
159°	0.2
159.5°	0.2
160°	0.2
160.5°	0.2
161°	0.2
161.5°	0.2
162°	0.2
162.5°	0.2
163°	0.2
163.5°	0.2
164°	0.2
164.5°	0.2
165°	0.2
165.5°	0.2
166°	0.2
166.5°	0.2
167°	0.2
167.5°	0.2
168°	0.2
168.5°	0.2
169°	0.2
169.5°	0.2
170°	0.2
170.5°	0.2
171°	0.2
171.5°	0.2
172°	0.2
172.5°	0.2
173°	0.2
173.5°	0.2
174°	0.2
174.5°	0.2
175°	0.2
175.5°	0.2
176°	0.2
176.5°	0.2
177°	0.2
177.5°	0.2
178°	0.2
178.5°	0.2
179°	0.2
179.5°	0.2

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Scaled Data Report



TEST NUMBER: P798560
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CANDELA DISTRIBUTION (continued):

180° | $\frac{0^\circ}{0.2}$

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

Report Prepared for

Cooper Lighting Solutions

HALO

Report Number: SP1-2401-294-4

Test Date: 03/08/2024

Luminaire Tested: LT4069FS1EWHR-4000K

Data in this report applies to families of products LT4069FS1EWHR-4000K.

This test was performed under the Supervised Manufacturer's Testing Program.
The results of this test have not been influenced by sources from within Eaton or from external interests.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2401-294-4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 03/08/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: HALO
 Catalog Number: **LT4069FS1EWHR-4000K**
 Description: 4 INCH HALO LT 5CCT DOB .

Spectral Parameters

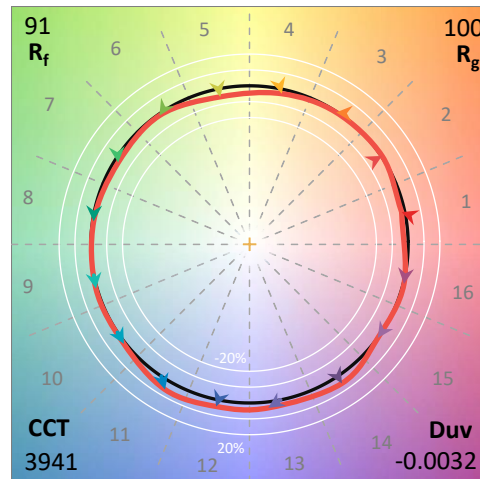
CCT (K): 3941
 CIE u': 0.2279
 CIE v': 0.4986
 Duv: -0.0032
 CIE x: 0.3806
 CIE y: 0.3701
 CIE z: 0.2493
 Peak Wavelength (nm): 632
 Dominant Wavelength (nm): 581
 Purity: 25.5

CRI (Ra):	96.8		
R1:	96.7	R9:	94.6
R2:	98.2	R10:	98.9
R3:	96.7	R11:	97.6
R4:	99.0	R12:	75.6
R5:	97.0	R13:	97.2
R6:	94.3	R14:	96.7
R7:	96.0		
R8:	96.5		

Rf: 91
 Rg: 99.8

Test Conditions

Stabilization Time: 10M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.8/43%
 Sphere Temperature (°C): 25.0



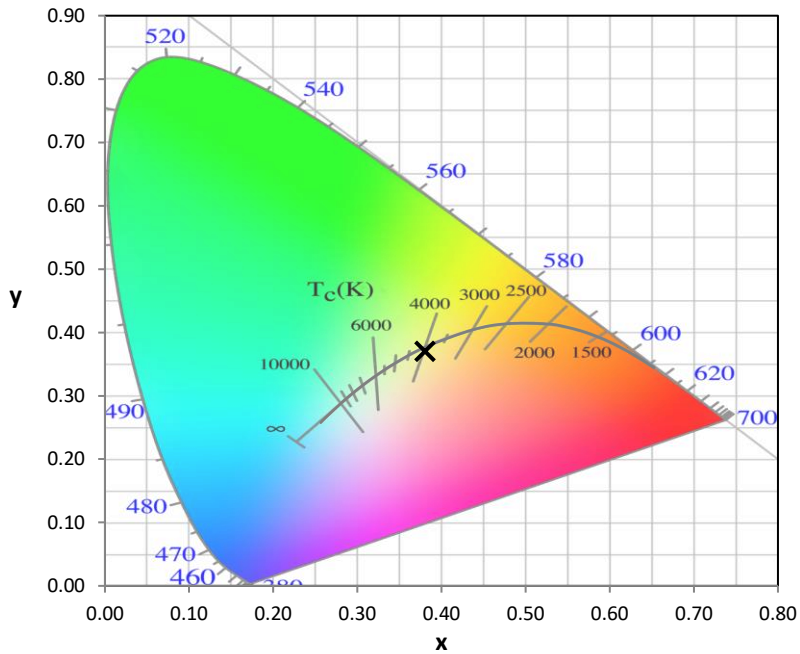
REPORT NUMBER: SP1-2401-294-4

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/12/2024	8/12/2024
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

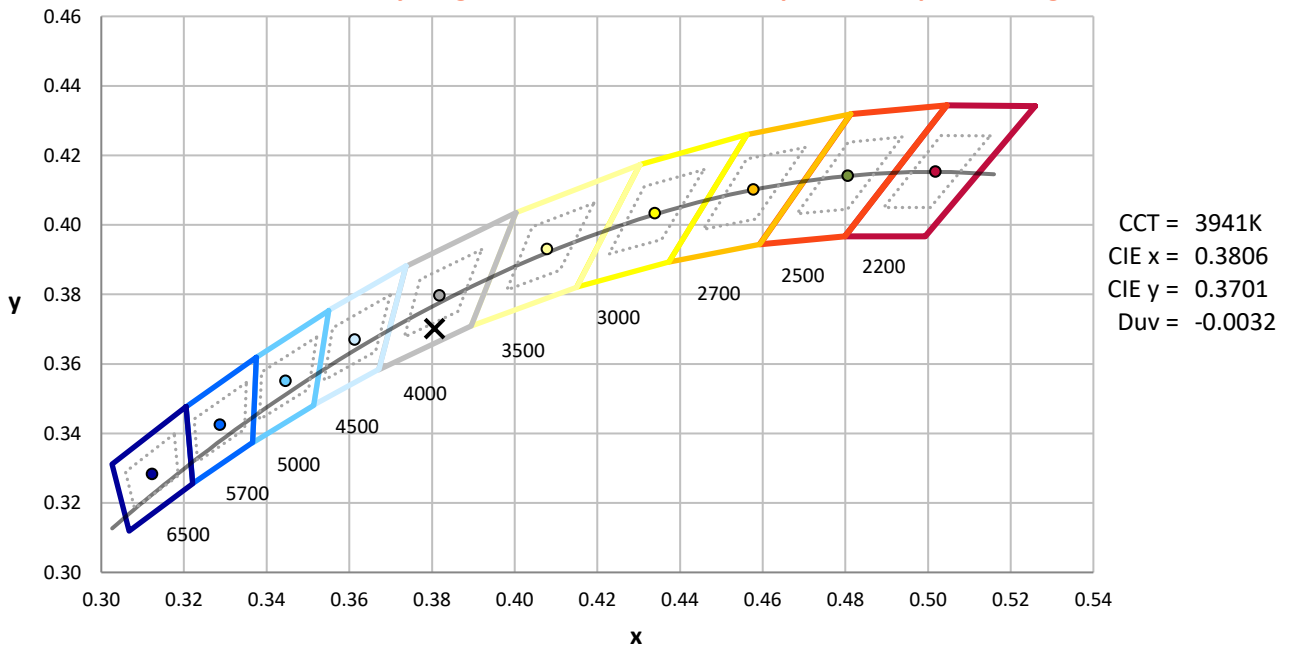
Sample Number	Condition	Description
2401-294-LM1	Good	LT4069FS1EWHR

REPORT NUMBER: SP1-2401-294-4

CIE 1931 Chromaticity Diagram



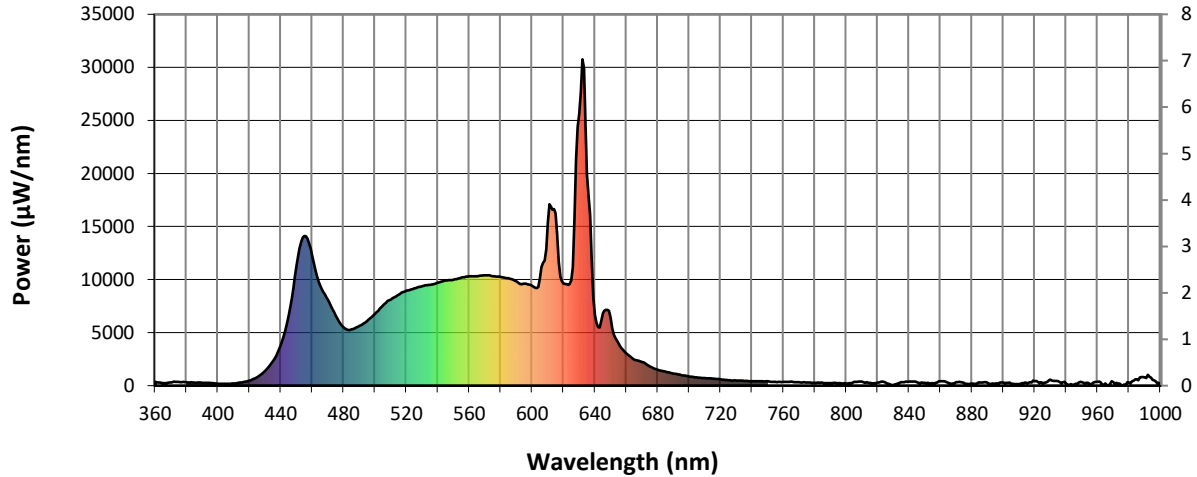
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

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Photopic Flux vs. Wavelength

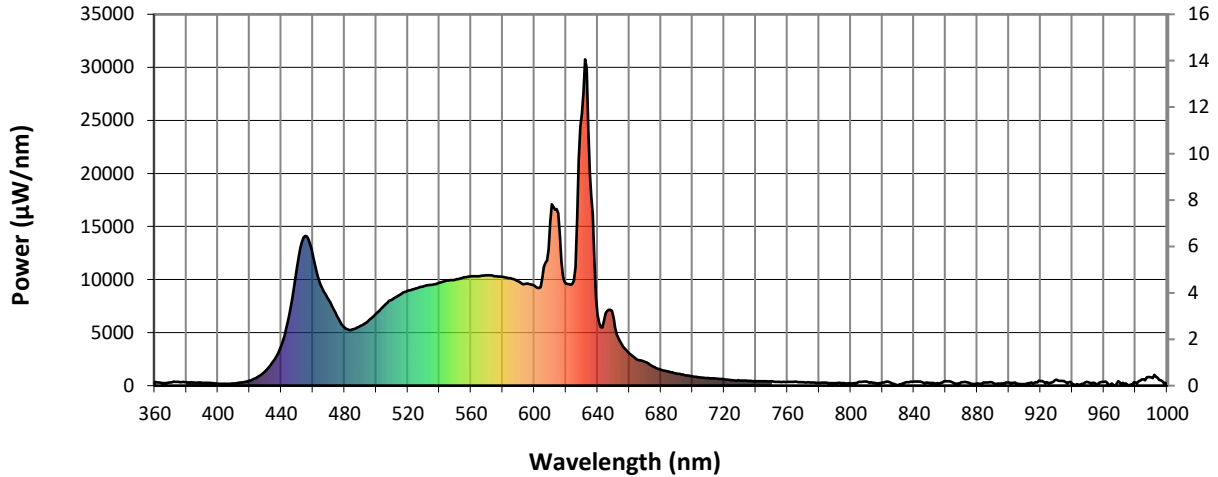


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λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)
360	341	NR	490	5630	NR	620	9627	NR	750	407	NR	880	197	NR
365	239	NR	495	6088	NR	625	9931	NR	755	345	NR	885	304	NR
370	302	NR	500	6780	NR	630	25622	NR	760	342	NR	890	279	NR
375	358	NR	505	7521	NR	635	19937	NR	765	387	NR	895	209	NR
380	318	NR	510	8113	NR	640	6662	NR	770	316	NR	900	287	NR
385	286	NR	515	8556	NR	645	6798	NR	775	306	NR	905	160	NR
390	273	NR	520	8951	NR	650	6416	NR	780	278	NR	910	135	NR
395	254	NR	525	9160	NR	655	3962	NR	785	274	NR	915	245	NR
400	188	NR	530	9373	NR	660	3040	NR	790	233	NR	920	423	NR
405	185	NR	535	9504	NR	665	2446	NR	795	232	NR	925	237	NR
410	202	NR	540	9712	NR	670	2238	NR	800	217	NR	930	561	NR
415	300	NR	545	9904	NR	675	1803	NR	805	343	NR	935	423	NR
420	462	NR	550	9977	NR	680	1494	NR	810	374	NR	940	171	NR
425	809	NR	555	10175	NR	685	1310	NR	815	254	NR	945	90	NR
430	1378	NR	560	10303	NR	690	1145	NR	820	286	NR	950	311	NR
435	2306	NR	565	10307	NR	695	999	NR	825	281	NR	955	163	NR
440	3796	NR	570	10396	NR	700	873	NR	830	56	NR	960	371	NR
445	6587	NR	575	10316	NR	705	765	NR	835	339	NR	965	212	NR
450	11211	NR	580	10244	NR	710	708	NR	840	378	NR	970	315	NR
455	14119	NR	585	10126	NR	715	661	NR	845	326	NR	975	82	NR
460	12314	NR	590	9818	NR	720	597	NR	850	255	NR	980	304	NR
465	9454	NR	595	9604	NR	725	517	NR	855	229	NR	985	611	NR
470	8079	NR	600	9400	NR	730	489	NR	860	410	NR	990	766	NR
475	6590	NR	605	10102	NR	735	447	NR	865	254	NR	995	548	NR
480	5474	NR	610	15405	NR	740	420	NR	870	322	NR	1000	59	NR
485	5292	NR	615	16256	NR	745	419	NR	875	252	NR			

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Scotopic Flux vs. Wavelength



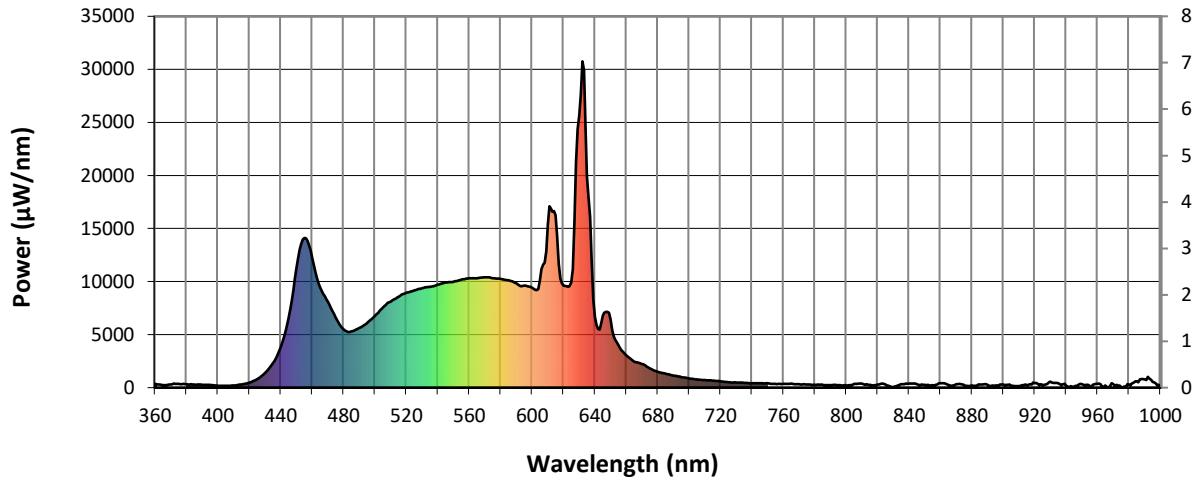
Scotopic Lumens: 1335

S/P: 1.84

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	341	NR	490	5630	NR	620	9627	NR	750	407	NR	880	197	NR
365	239	NR	495	6088	NR	625	9931	NR	755	345	NR	885	304	NR
370	302	NR	500	6780	NR	630	25622	NR	760	342	NR	890	279	NR
375	358	NR	505	7521	NR	635	19937	NR	765	387	NR	895	209	NR
380	318	NR	510	8113	NR	640	6662	NR	770	316	NR	900	287	NR
385	286	NR	515	8556	NR	645	6798	NR	775	306	NR	905	160	NR
390	273	NR	520	8951	NR	650	6416	NR	780	278	NR	910	135	NR
395	254	NR	525	9160	NR	655	3962	NR	785	274	NR	915	245	NR
400	188	NR	530	9373	NR	660	3040	NR	790	233	NR	920	423	NR
405	185	NR	535	9504	NR	665	2446	NR	795	232	NR	925	237	NR
410	202	NR	540	9712	NR	670	2238	NR	800	217	NR	930	561	NR
415	300	NR	545	9904	NR	675	1803	NR	805	343	NR	935	423	NR
420	462	NR	550	9977	NR	680	1494	NR	810	374	NR	940	171	NR
425	809	NR	555	10175	NR	685	1310	NR	815	254	NR	945	90	NR
430	1378	NR	560	10303	NR	690	1145	NR	820	286	NR	950	311	NR
435	2306	NR	565	10307	NR	695	999	NR	825	281	NR	955	163	NR
440	3796	NR	570	10396	NR	700	873	NR	830	56	NR	960	371	NR
445	6587	NR	575	10316	NR	705	765	NR	835	339	NR	965	212	NR
450	11211	NR	580	10244	NR	710	708	NR	840	378	NR	970	315	NR
455	14119	NR	585	10126	NR	715	661	NR	845	326	NR	975	82	NR
460	12314	NR	590	9818	NR	720	597	NR	850	255	NR	980	304	NR
465	9454	NR	595	9604	NR	725	517	NR	855	229	NR	985	611	NR
470	8079	NR	600	9400	NR	730	489	NR	860	410	NR	990	766	NR
475	6590	NR	605	10102	NR	735	447	NR	865	254	NR	995	548	NR
480	5474	NR	610	15405	NR	740	420	NR	870	322	NR	1000	59	NR
485	5292	NR	615	16256	NR	745	419	NR	875	252	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: 559.2 M/P: 0.77

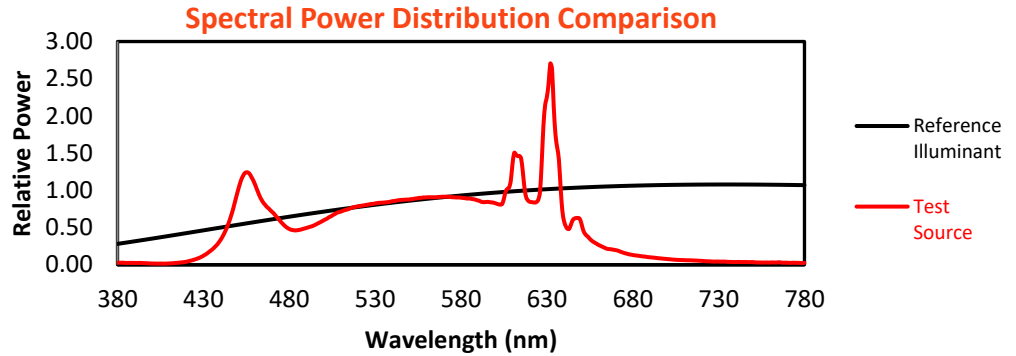
λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	341	NR	490	5630	NR	620	9627	NR	750	407	NR	880	197	NR
365	239	NR	495	6088	NR	625	9931	NR	755	345	NR	885	304	NR
370	302	NR	500	6780	NR	630	25622	NR	760	342	NR	890	279	NR
375	358	NR	505	7521	NR	635	19937	NR	765	387	NR	895	209	NR
380	318	NR	510	8113	NR	640	6662	NR	770	316	NR	900	287	NR
385	286	NR	515	8556	NR	645	6798	NR	775	306	NR	905	160	NR
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405	185	NR	535	9504	NR	665	2446	NR	795	232	NR	925	237	NR
410	202	NR	540	9712	NR	670	2238	NR	800	217	NR	930	561	NR
415	300	NR	545	9904	NR	675	1803	NR	805	343	NR	935	423	NR
420	462	NR	550	9977	NR	680	1494	NR	810	374	NR	940	171	NR
425	809	NR	555	10175	NR	685	1310	NR	815	254	NR	945	90	NR
430	1378	NR	560	10303	NR	690	1145	NR	820	286	NR	950	311	NR
435	2306	NR	565	10307	NR	695	999	NR	825	281	NR	955	163	NR
440	3796	NR	570	10396	NR	700	873	NR	830	56	NR	960	371	NR
445	6587	NR	575	10316	NR	705	765	NR	835	339	NR	965	212	NR
450	11211	NR	580	10244	NR	710	708	NR	840	378	NR	970	315	NR
455	14119	NR	585	10126	NR	715	661	NR	845	326	NR	975	82	NR
460	12314	NR	590	9818	NR	720	597	NR	850	255	NR	980	304	NR
465	9454	NR	595	9604	NR	725	517	NR	855	229	NR	985	611	NR
470	8079	NR	600	9400	NR	730	489	NR	860	410	NR	990	766	NR
475	6590	NR	605	10102	NR	735	447	NR	865	254	NR	995	548	NR
480	5474	NR	610	15405	NR	740	420	NR	870	322	NR	1000	59	NR
485	5292	NR	615	16256	NR	745	419	NR	875	252	NR			

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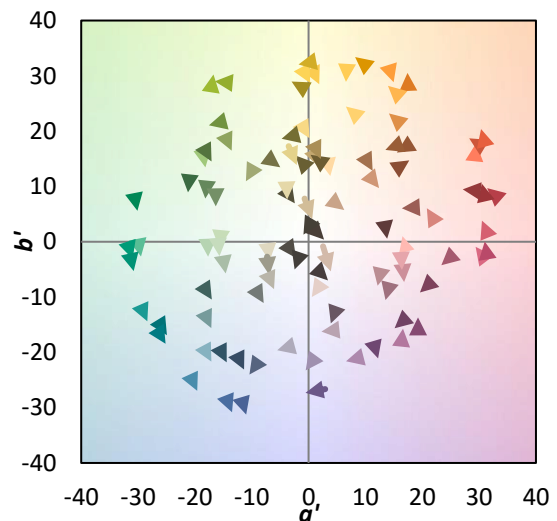
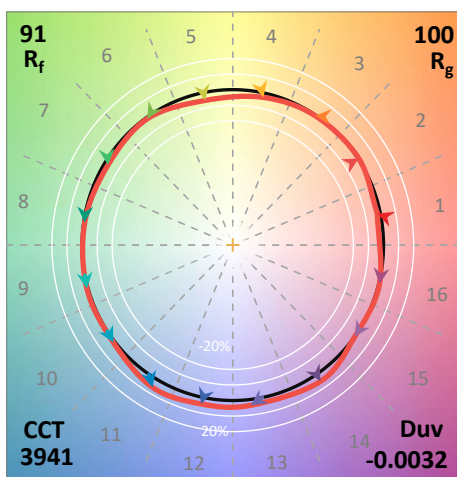
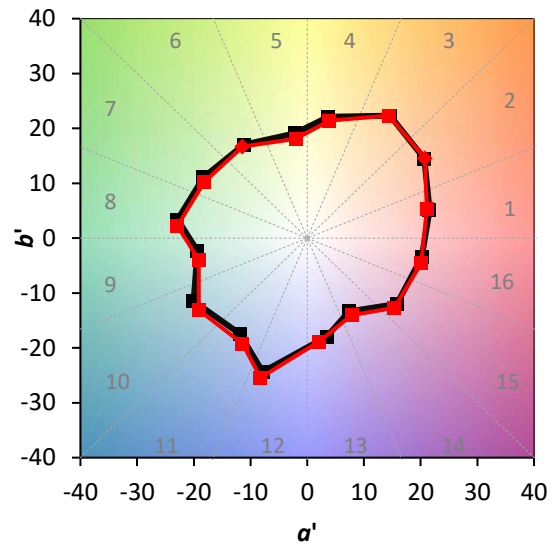
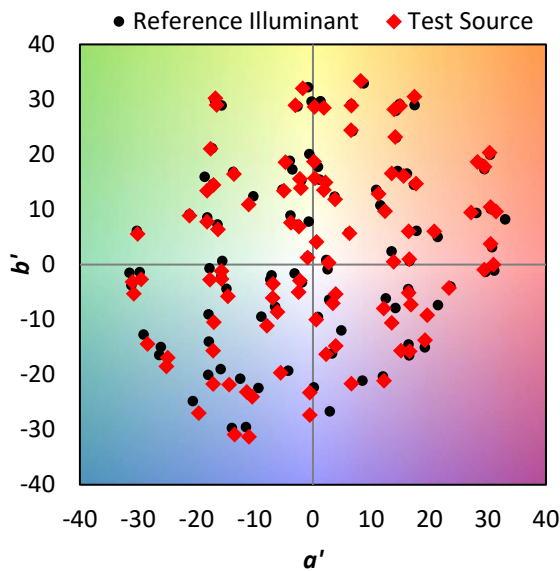
TM-30-18

Summary

$R_f = 91$
 $R_g = 99.8$
 CIE $R_a = 96.8$
 $R_9 = 94.6$



Color Vector Graphics

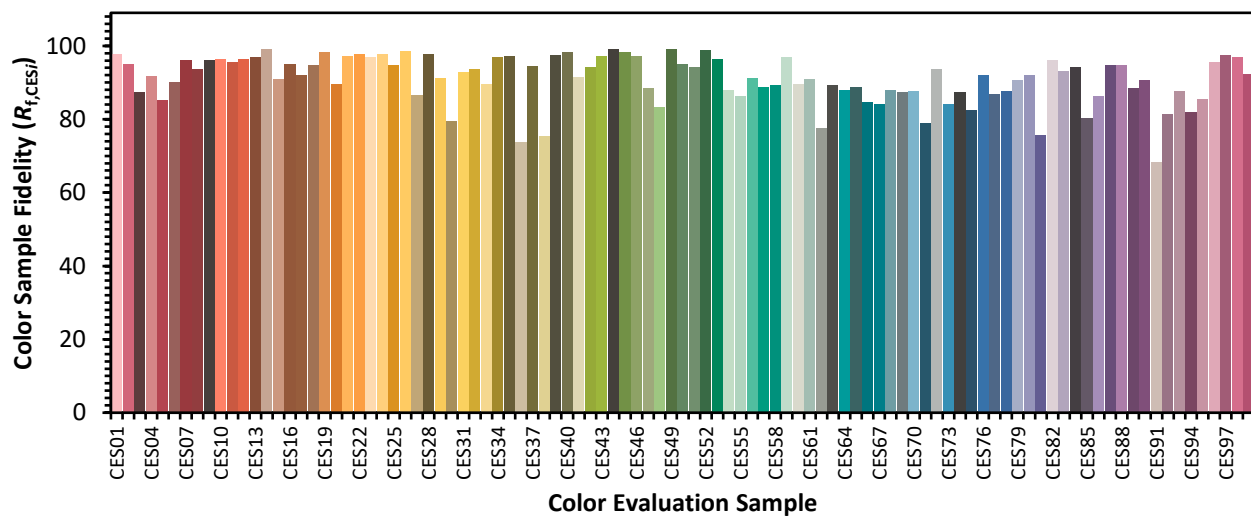


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Individual Sample Fidelity Index ($R_{f,i}$)

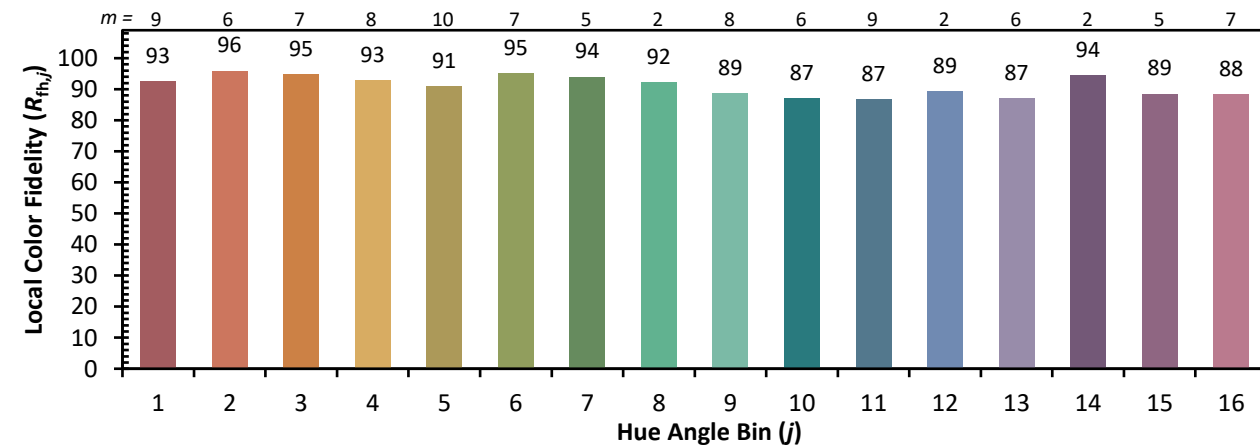
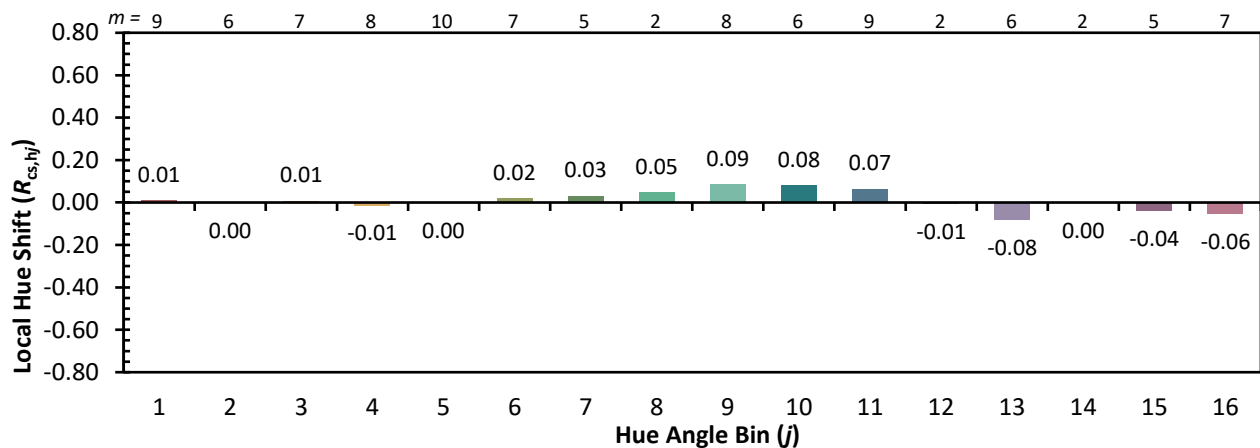
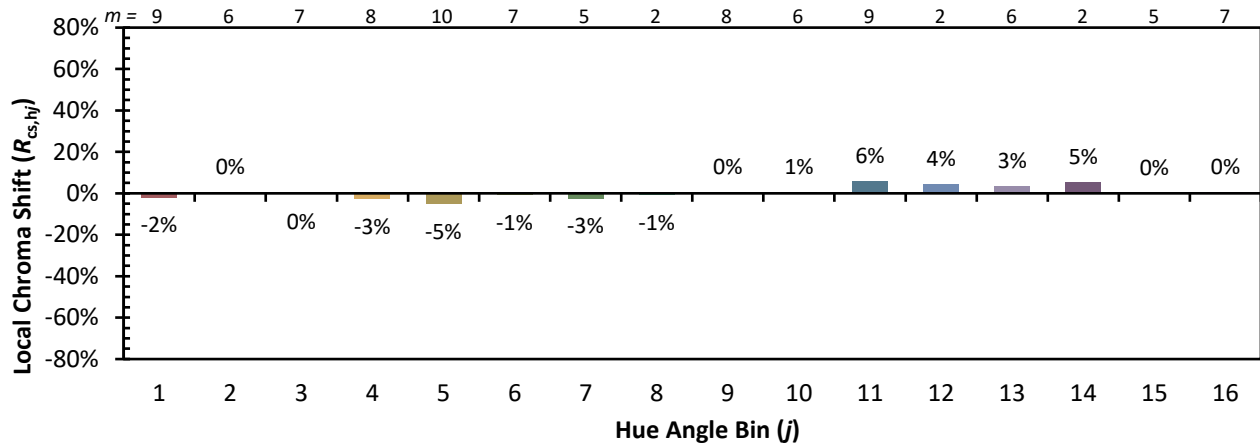
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CES03 = 31	CES28 = 98	CES53 = 96	CES78 = 88
CES04 = 69	CES29 = 91	CES54 = 88	CES79 = 91
CES05 = 49	CES30 = 79	CES55 = 86	CES80 = 92
CES06 = 50	CES31 = 93	CES56 = 91	CES81 = 76
CES07 = 43	CES32 = 94	CES57 = 89	CES82 = 96
CES08 = 41	CES33 = 90	CES58 = 89	CES83 = 93
CES09 = 29	CES34 = 97	CES59 = 97	CES84 = 94
CES10 = 74	CES35 = 97	CES60 = 90	CES85 = 80
CES11 = 57	CES36 = 74	CES61 = 91	CES86 = 86
CES12 = 63	CES37 = 95	CES62 = 78	CES87 = 95
CES13 = 43	CES38 = 75	CES63 = 89	CES88 = 95
CES14 = 74	CES39 = 98	CES64 = 88	CES89 = 88
CES15 = 71	CES40 = 98	CES65 = 89	CES90 = 91
CES16 = 47	CES41 = 92	CES66 = 85	CES91 = 68
CES17 = 49	CES42 = 94	CES67 = 84	CES92 = 81
CES18 = 56	CES43 = 97	CES68 = 88	CES93 = 88
CES19 = 71	CES44 = 99	CES69 = 87	CES94 = 82
CES20 = 66	CES45 = 98	CES70 = 88	CES95 = 85
CES21 = 85	CES46 = 97	CES71 = 79	CES96 = 96
CES22 = 78	CES47 = 88	CES72 = 94	CES97 = 98
CES23 = 91	CES48 = 83	CES73 = 84	CES98 = 97
CES24 = 90	CES49 = 99	CES74 = 87	CES99 = 92
CES25 = 71	CES50 = 95	CES75 = 82	



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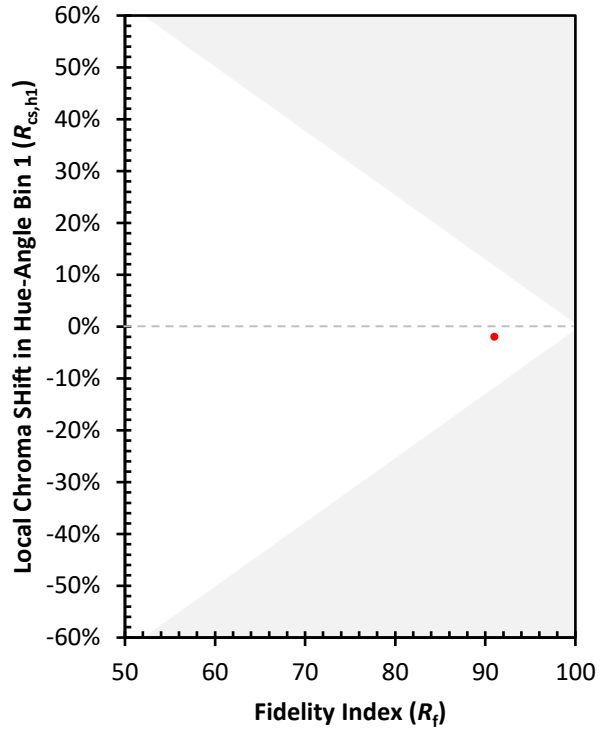
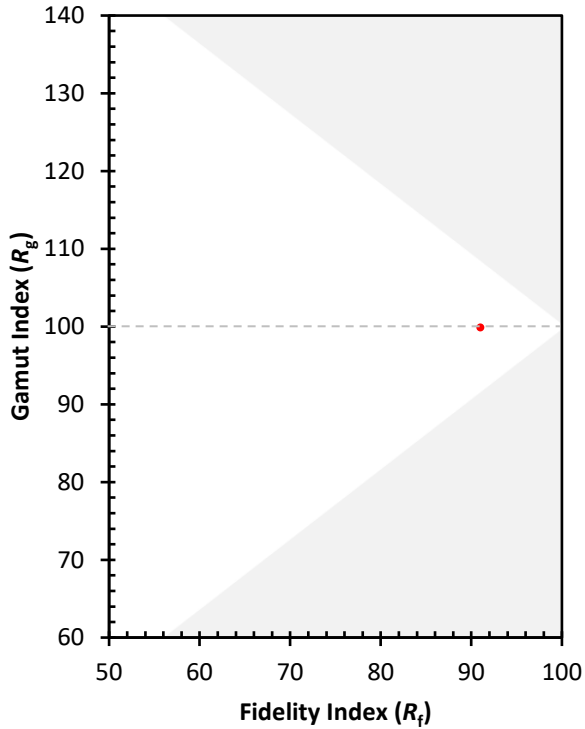
Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)