

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: P958543

Luminaire Tested: **HLBPH406FS6-965**

Issue Date: 12/11/2024



Test Information

Test Method: LM-79-08
Report Number: P958543
Test Lab: LEADING TESTING LABORATORIES
Issue Date: 12/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HLBPH406FS6-965
Description: HALO HLBPH SLIM EDGE 4 inch 90 CRI COLOR SELECTABLE FIXTURE
Light Source: 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

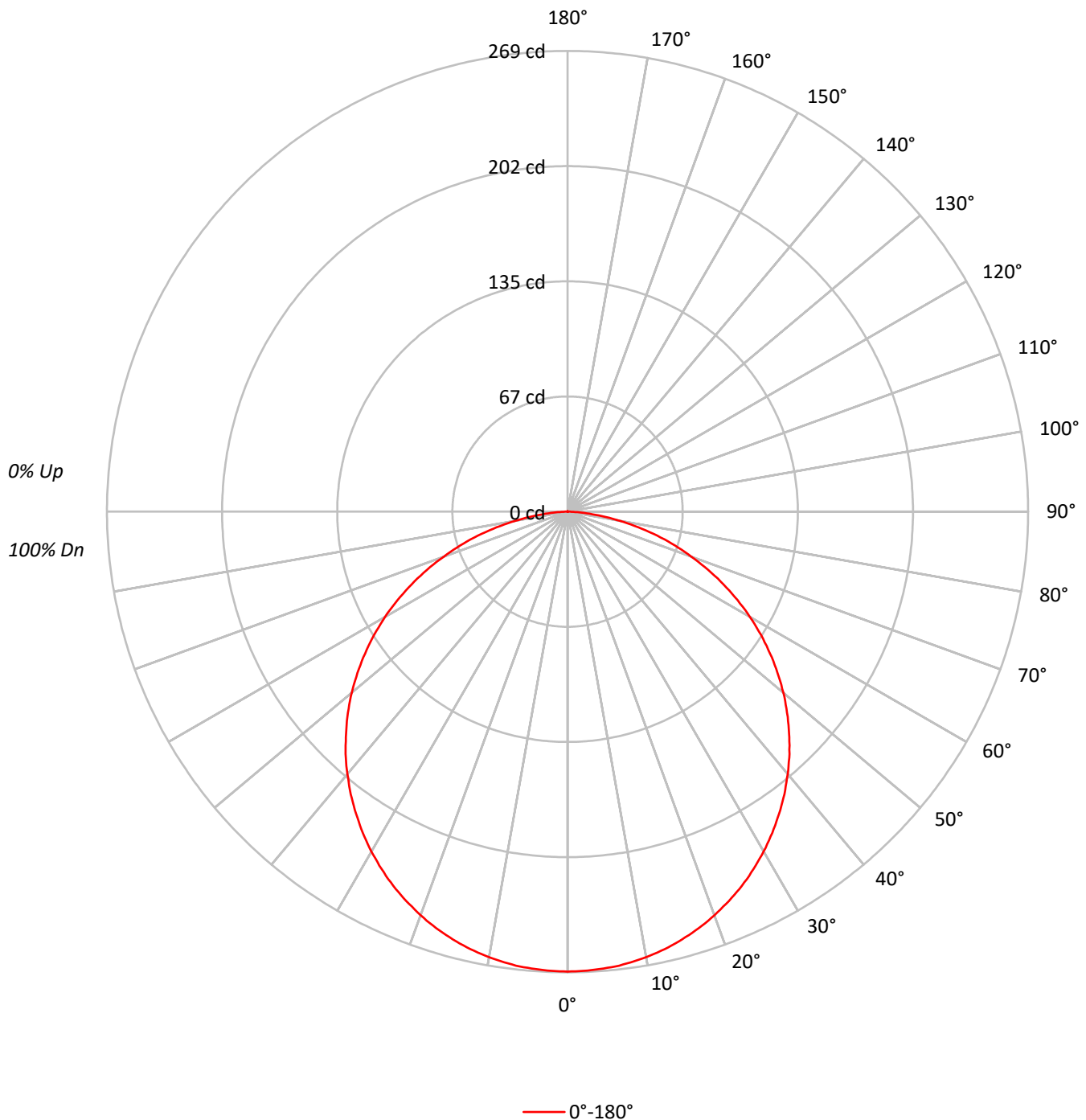
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 785.2 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
Luminous Opening: Circular (Dia: 0.3' x H: 0')
CIE Type: Direct

Input Watts (W): 8.5
Input Voltage (V): 120
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	99	96	106	101	98	94	97	94	91		93	91	88		90
2	99	90	83	77	96	88	82	77	85	79	75		81	77	73		78
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		69
4	82	70	61	54	80	69	60	54	66	59	53		64	57	52		61
5	75	62	53	47	73	61	53	46	59	52	46		57	50	45		55
6	70	56	47	41	68	55	47	40	53	46	40		52	45	40		50
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		46
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		42
9	56	42	34	29	55	42	34	29	41	33	28		40	33	28		39
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	40902
5°	40875
10°	40853
15°	40768
20°	40642
25°	40493
30°	40284
35°	40042
40°	39757
45°	39410
50°	38971
55°	38337
60°	37491
65°	36212
70°	34327
75°	31830
80°	27185
85°	19743



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.4	3.2
10°-20°	73.0	9.3
20°-30°	111.1	14.1
30°-40°	134.8	17.2
40°-50°	141.1	18.0
50°-60°	129.0	16.4
60°-70°	99.4	12.7
70°-80°	57.0	7.3
80°-90°	13.9	1.8
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°	209.5	26.7
0°-40°	344.2	43.8
0°-60°	614.3	78.2
0°-90°	784.6	99.9
90°-120°	0.1	0.0
90°-150°	0.4	0.1
90°-180°	1.0	0.1
0°-180°	785.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	269	
5°	267	25
15°	259	73
25°	241	111
35°	215	135
45°	183	141
55°	144	129
65°	100	99
75°	54	57
85°	11	13
90°	0	1
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	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	268.6
0.5°	268.5
1°	268.5
1.5°	268.4
2°	268.3
2.5°	268.2
3°	268.1
3.5°	267.9
4°	267.8
4.5°	267.6
5°	267.4
5.5°	267.2
6°	267.0
6.5°	266.8
7°	266.4
7.5°	266.1
8°	265.7
8.5°	265.4
9°	265.0
9.5°	264.6
10°	264.2
10.5°	263.7
11°	263.2
11.5°	262.8
12°	262.2
12.5°	261.7
13°	261.1
13.5°	260.5
14°	259.9
14.5°	259.2
15°	258.6
15.5°	257.8
16°	257.2
16.5°	256.4
17°	255.7
17.5°	255.0
18°	254.2
18.5°	253.4
19°	252.6
19.5°	251.7
20°	250.8
20.5°	249.9
21°	248.9
21.5°	247.9
22°	247.1



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CANDELA DISTRIBUTION (continued):

	0°
22.5°	246.1
23°	245.1
23.5°	244.1
24°	243.1
24.5°	242.1
25°	241.0
25.5°	239.8
26°	238.8
26.5°	237.6
27°	236.4
27.5°	235.2
28°	234.1
28.5°	232.8
29°	231.6
29.5°	230.4
30°	229.1
30.5°	227.9
31°	226.5
31.5°	225.2
32°	223.8
32.5°	222.5
33°	221.1
33.5°	219.7
34°	218.2
34.5°	216.8
35°	215.4
35.5°	214.0
36°	212.4
36.5°	210.9
37°	209.4
37.5°	208.0
38°	206.4
38.5°	204.8
39°	203.2
39.5°	201.5
40°	200.0
40.5°	198.4
41°	196.8
41.5°	195.1
42°	193.5
42.5°	191.9
43°	190.0
43.5°	188.3
44°	186.5
44.5°	184.7



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CANDELA DISTRIBUTION (continued):

	0°
45°	183.0
45.5°	181.2
46°	179.4
46.5°	177.6
47°	175.8
47.5°	173.9
48°	172.0
48.5°	170.2
49°	168.4
49.5°	166.5
50°	164.5
50.5°	162.5
51°	160.6
51.5°	158.6
52°	156.6
52.5°	154.6
53°	152.6
53.5°	150.5
54°	148.5
54.5°	146.5
55°	144.4
55.5°	142.3
56°	140.2
56.5°	138.1
57°	136.1
57.5°	133.9
58°	131.7
58.5°	129.5
59°	127.4
59.5°	125.2
60°	123.1
60.5°	120.9
61°	118.7
61.5°	116.4
62°	114.1
62.5°	111.9
63°	109.7
63.5°	107.3
64°	105.2
64.5°	102.8
65°	100.5
65.5°	98.3
66°	96.0
66.5°	93.6
67°	91.3



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CANDELA DISTRIBUTION (continued):

	0°
67.5°	89.0
68°	86.6
68.5°	84.2
69°	82.0
69.5°	79.5
70°	77.1
70.5°	74.7
71°	72.5
71.5°	70.2
72°	67.9
72.5°	65.8
73°	63.5
73.5°	61.3
74°	58.9
74.5°	56.5
75°	54.1
75.5°	51.7
76°	49.4
76.5°	47.0
77°	44.6
77.5°	42.4
78°	40.1
78.5°	37.7
79°	35.4
79.5°	33.2
80°	31.0
80.5°	28.8
81°	26.6
81.5°	24.6
82°	22.5
82.5°	20.4
83°	18.5
83.5°	16.6
84°	14.8
84.5°	12.9
85°	11.3
85.5°	9.7
86°	8.1
86.5°	6.9
87°	5.7
87.5°	4.5
88°	3.4
88.5°	2.2
89°	1.4
89.5°	0.7



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CANDELA DISTRIBUTION (continued):

	0°
90°	0.2
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°	0.1
109.5°	0.1
110°	0.1
110.5°	0.1
111°	0.1
111.5°	0.1
112°	0.1



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CANDELA DISTRIBUTION (continued):

	0°
112.5°	0.1
113°	0.1
113.5°	0.1
114°	0.1
114.5°	0.1
115°	0.1
115.5°	0.1
116°	0.1
116.5°	0.1
117°	0.1
117.5°	0.1
118°	0.1
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°	0.2
137°	0.2
137.5°	0.2
138°	0.2
138.5°	0.2
139°	0.2
139.5°	0.2
140°	0.2
140.5°	0.2
141°	0.2
141.5°	0.2
142°	0.2
142.5°	0.2
143°	0.2
143.5°	0.2
144°	0.2
144.5°	0.2
145°	0.2
145.5°	0.2
146°	0.2
146.5°	0.2
147°	0.2
147.5°	0.2
148°	0.2
148.5°	0.2
149°	0.2
149.5°	0.2
150°	0.2
150.5°	0.2
151°	0.2
151.5°	0.2
152°	0.2
152.5°	0.2
153°	0.2
153.5°	0.2
154°	0.2
154.5°	0.2
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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CANDELA DISTRIBUTION (continued):

0°
180° | 0.2

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

Report Prepared for

Cooper Lighting Solutions

Halo Home

Report Number: SP1-2501-315-6

Test Date: 01/13/2025

Luminaire Tested: HLBPH406FS6-6500K

Data in this report applies to families of products including HLBPH406FS6-6500K

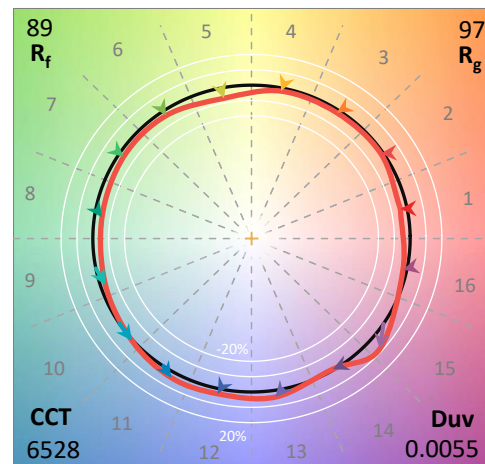
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2501-315-6
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 01/15/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Halo Home
 Catalog Number: **HLBPH406FS6-6500K**
 Description: HLBPH 4 INCH 6 CCT FIXTURE@6500K

Spectral Parameters

CCT (K): 6528
 CIE u' : 0.1959
 CIE v' : 0.4700
 Duv: 0.0055
 CIE x: 0.3118
 CIE y: 0.3325
 CIE z: 0.3557
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 491
 Purity: 7.34874
 R_f: 89.4
 R_g: 96.9

CRI (Ra): 94.0
 R1: 95.0
 R2: 96.4
 R3: 94.7
 R4: 92.8
 R5: 92.4
 R6: 92.4
 R7: 96.0
 R8: 92.3
 R9: 79.2
 R10: 88.8
 R11: 92.8
 R12: 65.1
 R13: 95.5
 R14: 96.8
 R15: 92.6



Test Conditions

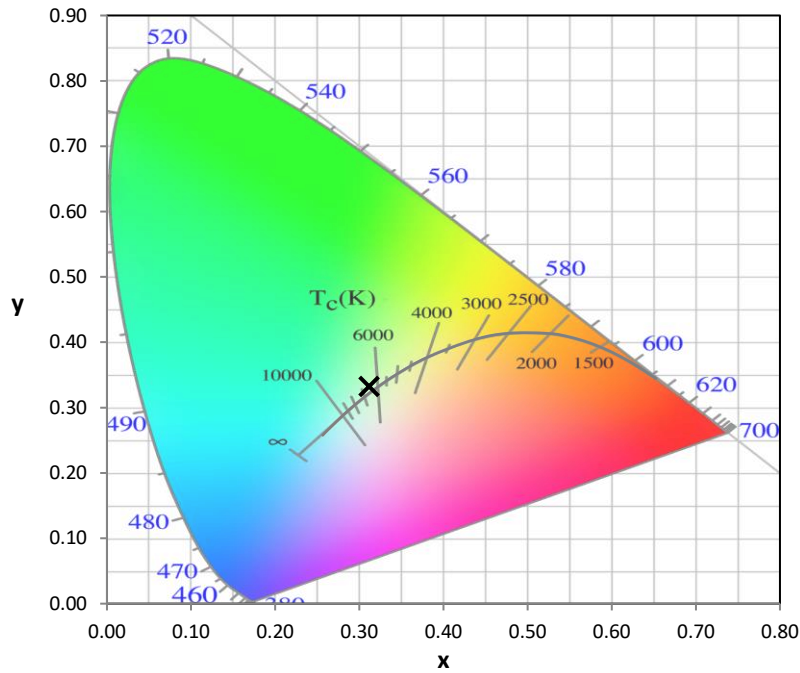
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.4

REPORT NUMBER: SP1-2501-315-6

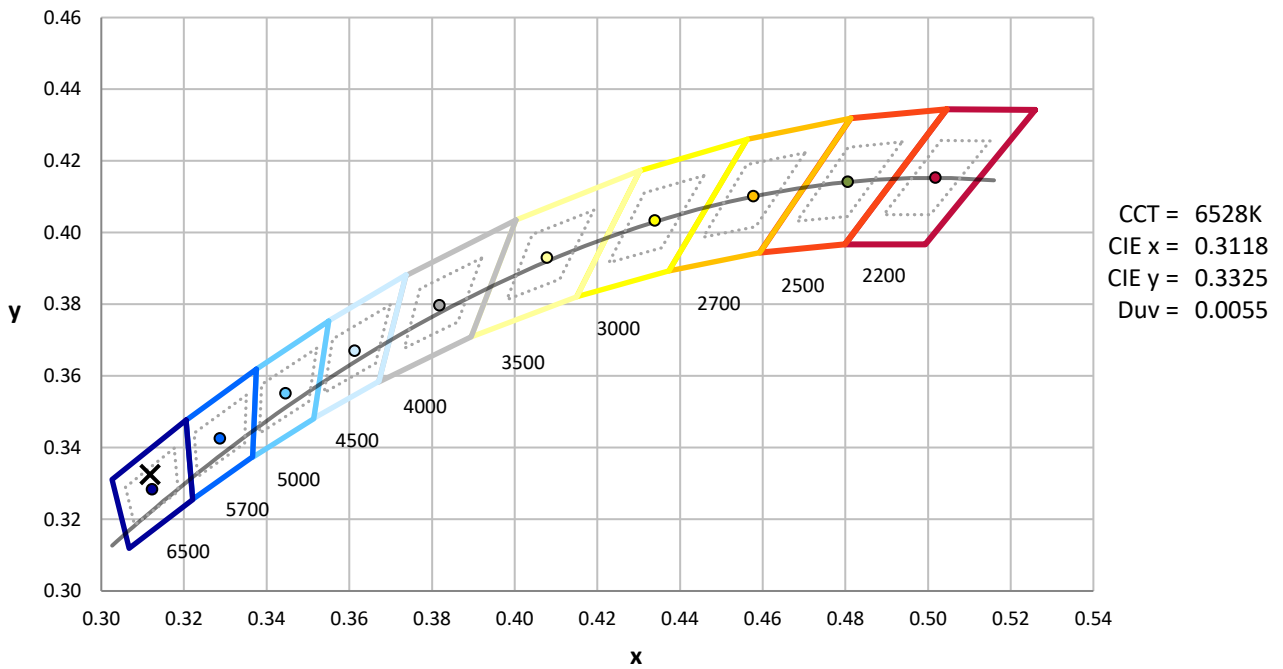
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

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CIE 1931 Chromaticity Diagram



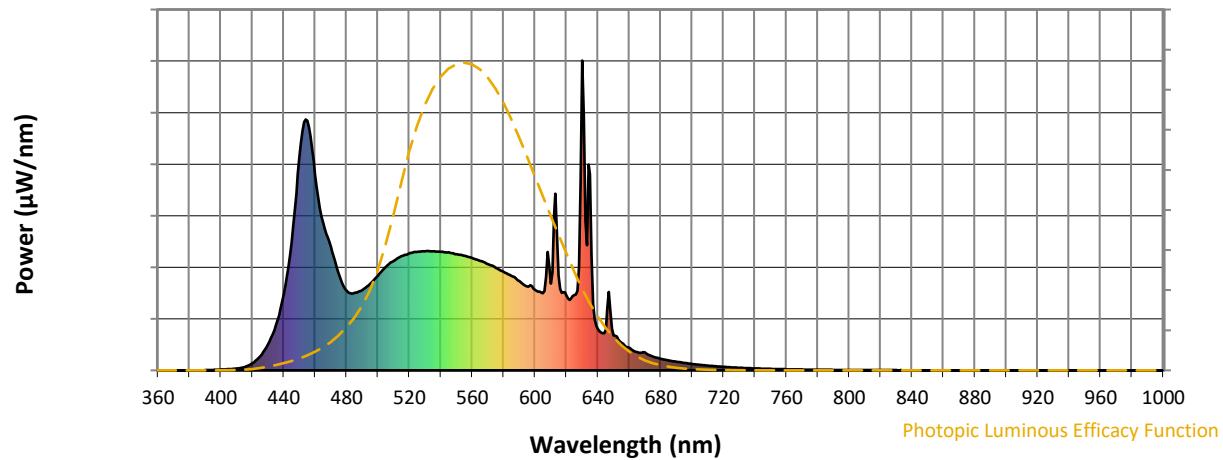
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 6500K 4-step quadrangle

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Photopic Flux vs. Wavelength

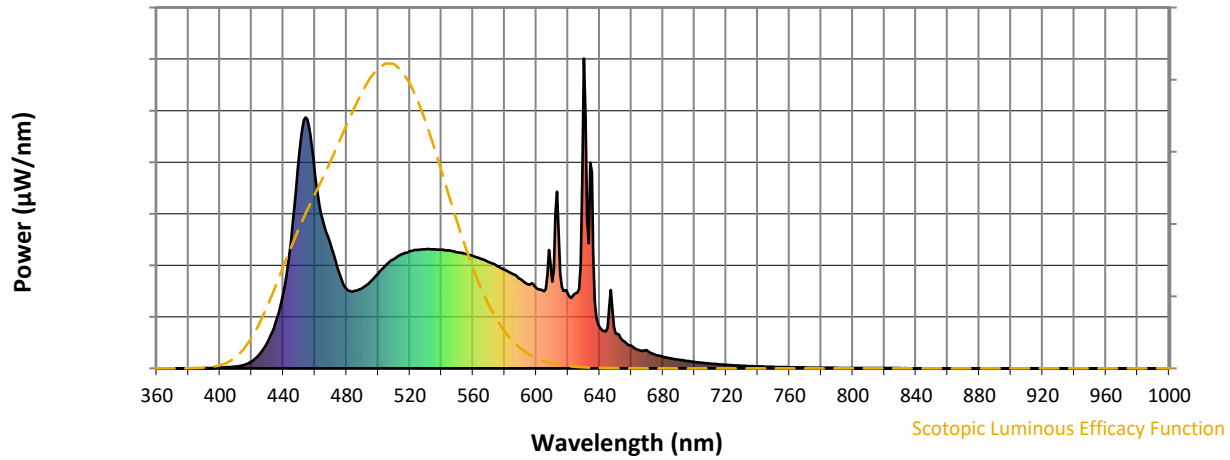


Photopic Lumens: NR

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	259	NR	620	240	NR	750	5	NR	880	0	NR
365	0	NR	495	279	NR	625	243	NR	755	4	NR	885	0	NR
370	0	NR	500	306	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	334	NR	635	634	NR	765	3	NR	895	0	NR
380	0	NR	510	353	NR	640	133	NR	770	3	NR	900	0	NR
385	0	NR	515	369	NR	645	132	NR	775	2	NR	905	0	NR
390	1	NR	520	378	NR	650	113	NR	780	2	NR	910	0	NR
395	2	NR	525	382	NR	655	89	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	73	NR	790	2	NR	920	0	NR
405	4	NR	535	384	NR	665	59	NR	795	1	NR	925	0	NR
410	6	NR	540	383	NR	670	58	NR	800	1	NR	930	0	NR
415	11	NR	545	381	NR	675	44	NR	805	1	NR	935	0	NR
420	23	NR	550	375	NR	680	38	NR	810	1	NR	940	0	NR
425	46	NR	555	370	NR	685	32	NR	815	1	NR	945	0	NR
430	84	NR	560	362	NR	690	28	NR	820	1	NR	950	0	NR
435	147	NR	565	353	NR	695	24	NR	825	1	NR	955	0	NR
440	244	NR	570	343	NR	700	21	NR	830	1	NR	960	0	NR
445	413	NR	575	331	NR	705	18	NR	835	1	NR	965	0	NR
450	688	NR	580	318	NR	710	15	NR	840	0	NR	970	0	NR
455	806	NR	585	305	NR	715	13	NR	845	0	NR	975	0	NR
460	631	NR	590	289	NR	720	11	NR	850	0	NR	980	0	NR
465	478	NR	595	270	NR	725	10	NR	855	0	NR	985	0	NR
470	398	NR	600	259	NR	730	8	NR	860	0	NR	990	0	NR
475	312	NR	605	249	NR	735	7	NR	865	0	NR	995	0	NR
480	258	NR	610	280	NR	740	6	NR	870	0	NR	1000	0	NR
485	250	NR	615	305	NR	745	6	NR	875	0	NR			

REPORT NUMBER: SP1-2501-315-6

Scotopic Flux vs. Wavelength



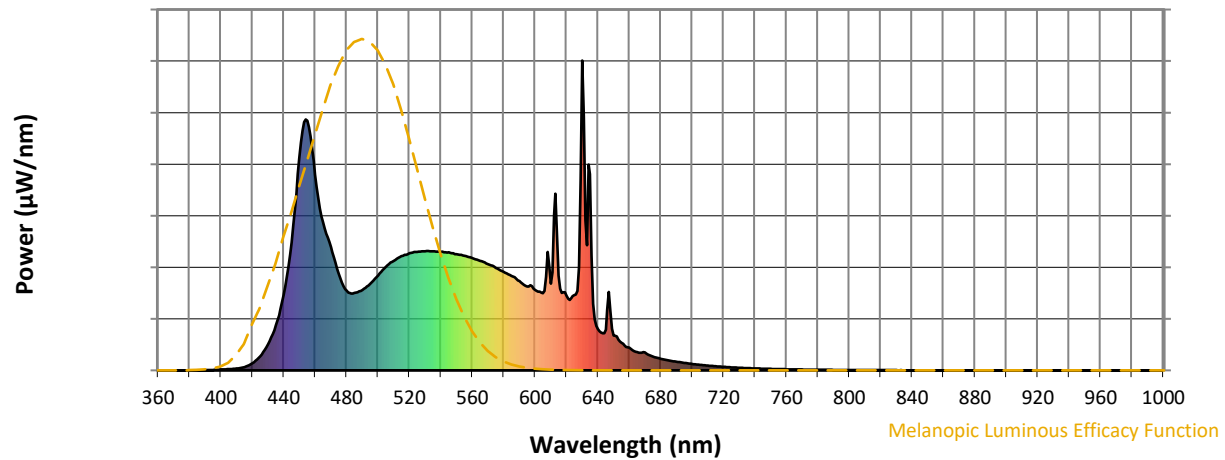
Scotopic Lumens: NR

S/P: 2.4

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	259	NR	620	240	NR	750	5	NR	880	0	NR
365	0	NR	495	279	NR	625	243	NR	755	4	NR	885	0	NR
370	0	NR	500	306	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	334	NR	635	634	NR	765	3	NR	895	0	NR
380	0	NR	510	353	NR	640	133	NR	770	3	NR	900	0	NR
385	0	NR	515	369	NR	645	132	NR	775	2	NR	905	0	NR
390	1	NR	520	378	NR	650	113	NR	780	2	NR	910	0	NR
395	2	NR	525	382	NR	655	89	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	73	NR	790	2	NR	920	0	NR
405	4	NR	535	384	NR	665	59	NR	795	1	NR	925	0	NR
410	6	NR	540	383	NR	670	58	NR	800	1	NR	930	0	NR
415	11	NR	545	381	NR	675	44	NR	805	1	NR	935	0	NR
420	23	NR	550	375	NR	680	38	NR	810	1	NR	940	0	NR
425	46	NR	555	370	NR	685	32	NR	815	1	NR	945	0	NR
430	84	NR	560	362	NR	690	28	NR	820	1	NR	950	0	NR
435	147	NR	565	353	NR	695	24	NR	825	1	NR	955	0	NR
440	244	NR	570	343	NR	700	21	NR	830	1	NR	960	0	NR
445	413	NR	575	331	NR	705	18	NR	835	1	NR	965	0	NR
450	688	NR	580	318	NR	710	15	NR	840	0	NR	970	0	NR
455	806	NR	585	305	NR	715	13	NR	845	0	NR	975	0	NR
460	631	NR	590	289	NR	720	11	NR	850	0	NR	980	0	NR
465	478	NR	595	270	NR	725	10	NR	855	0	NR	985	0	NR
470	398	NR	600	259	NR	730	8	NR	860	0	NR	990	0	NR
475	312	NR	605	249	NR	735	7	NR	865	0	NR	995	0	NR
480	258	NR	610	280	NR	740	6	NR	870	0	NR	1000	0	NR
485	250	NR	615	305	NR	745	6	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 5.37

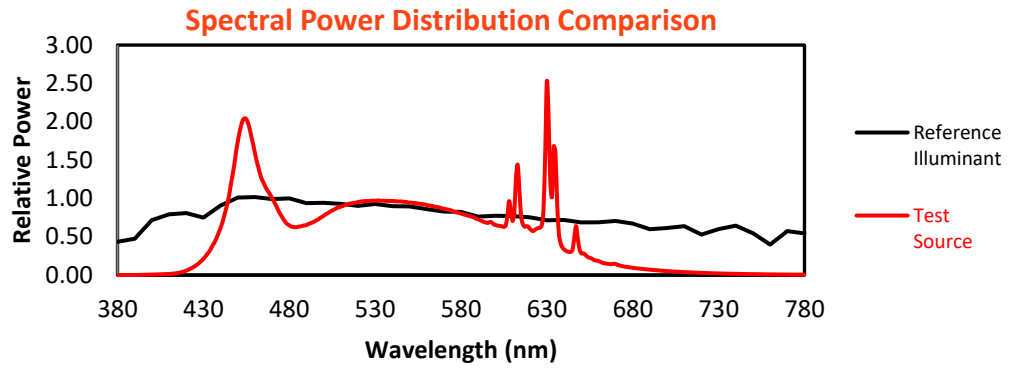
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	259	NR	620	240	NR	750	5	NR	880	0	NR
365	0	NR	495	279	NR	625	243	NR	755	4	NR	885	0	NR
370	0	NR	500	306	NR	630	1000	NR	760	4	NR	890	0	NR
375	0	NR	505	334	NR	635	634	NR	765	3	NR	895	0	NR
380	0	NR	510	353	NR	640	133	NR	770	3	NR	900	0	NR
385	0	NR	515	369	NR	645	132	NR	775	2	NR	905	0	NR
390	1	NR	520	378	NR	650	113	NR	780	2	NR	910	0	NR
395	2	NR	525	382	NR	655	89	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	73	NR	790	2	NR	920	0	NR
405	4	NR	535	384	NR	665	59	NR	795	1	NR	925	0	NR
410	6	NR	540	383	NR	670	58	NR	800	1	NR	930	0	NR
415	11	NR	545	381	NR	675	44	NR	805	1	NR	935	0	NR
420	23	NR	550	375	NR	680	38	NR	810	1	NR	940	0	NR
425	46	NR	555	370	NR	685	32	NR	815	1	NR	945	0	NR
430	84	NR	560	362	NR	690	28	NR	820	1	NR	950	0	NR
435	147	NR	565	353	NR	695	24	NR	825	1	NR	955	0	NR
440	244	NR	570	343	NR	700	21	NR	830	1	NR	960	0	NR
445	413	NR	575	331	NR	705	18	NR	835	1	NR	965	0	NR
450	688	NR	580	318	NR	710	15	NR	840	0	NR	970	0	NR
455	806	NR	585	305	NR	715	13	NR	845	0	NR	975	0	NR
460	631	NR	590	289	NR	720	11	NR	850	0	NR	980	0	NR
465	478	NR	595	270	NR	725	10	NR	855	0	NR	985	0	NR
470	398	NR	600	259	NR	730	8	NR	860	0	NR	990	0	NR
475	312	NR	605	249	NR	735	7	NR	865	0	NR	995	0	NR
480	258	NR	610	280	NR	740	6	NR	870	0	NR	1000	0	NR
485	250	NR	615	305	NR	745	6	NR	875	0	NR			

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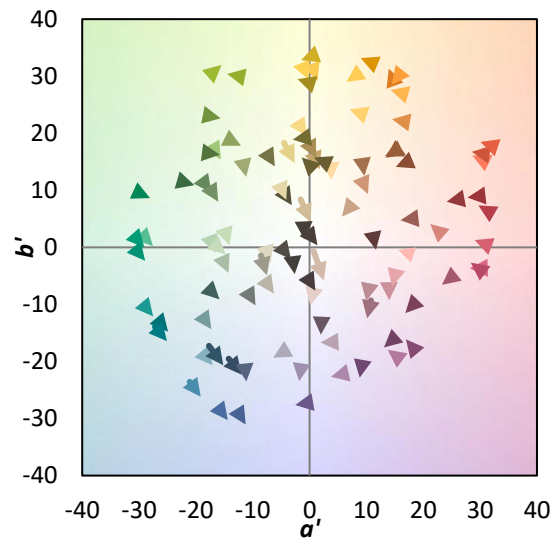
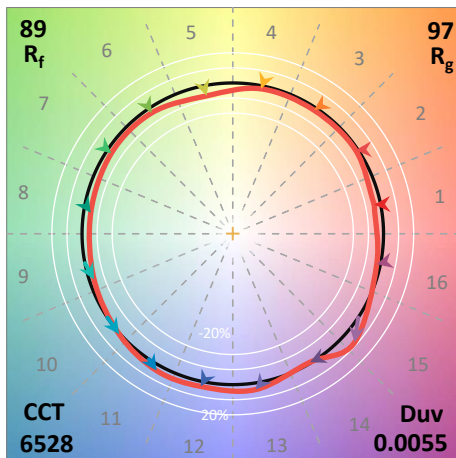
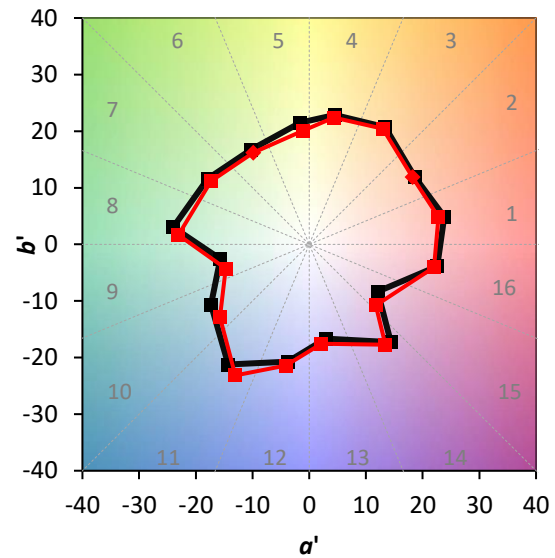
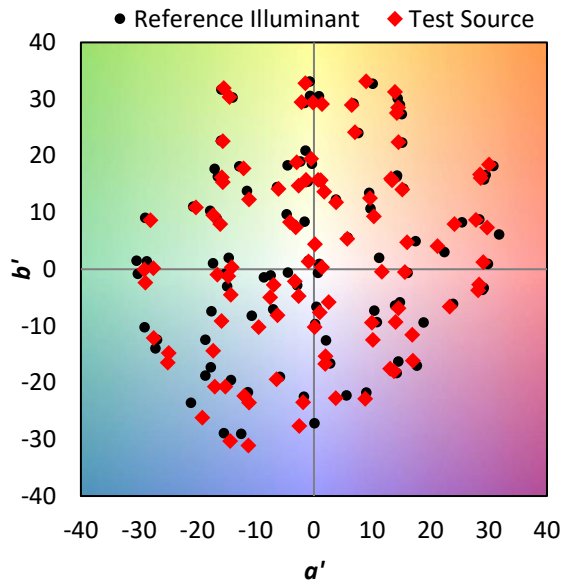
TM-30-18

Summary

$R_f = 89.4$
 $R_g = 96.9$
 $CIE R_a = 94.0$
 $R_9 = 79.2$

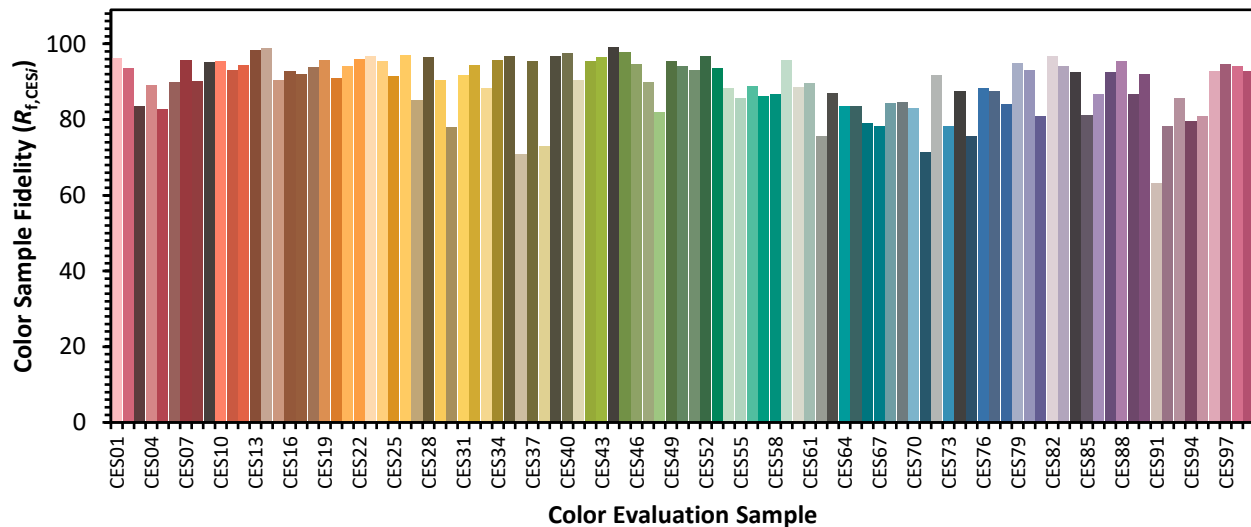


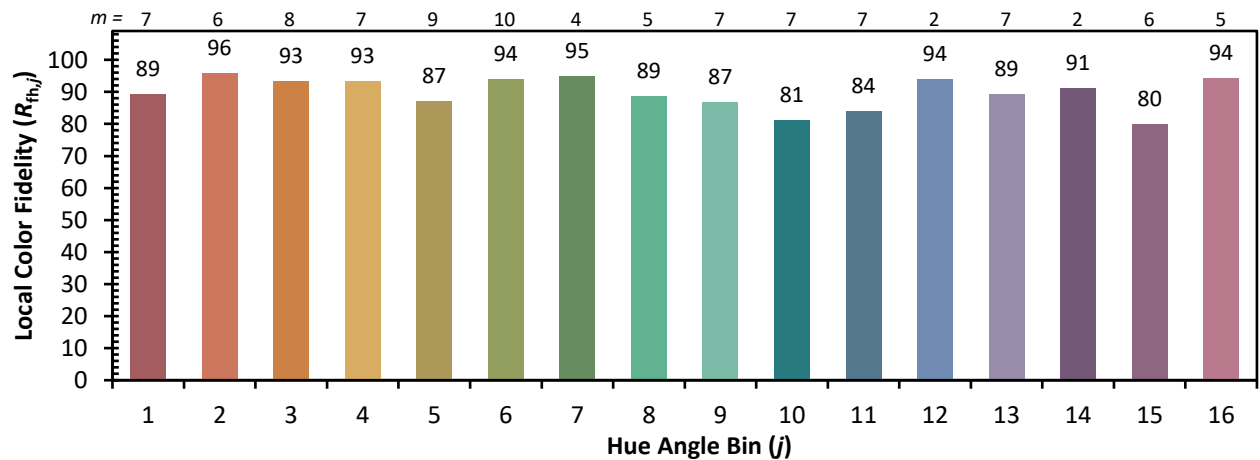
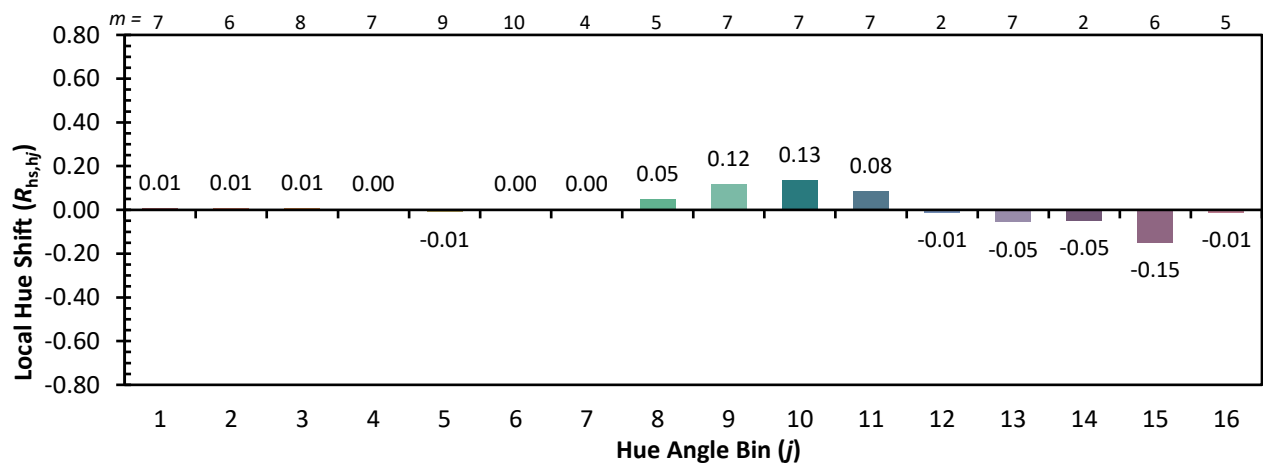
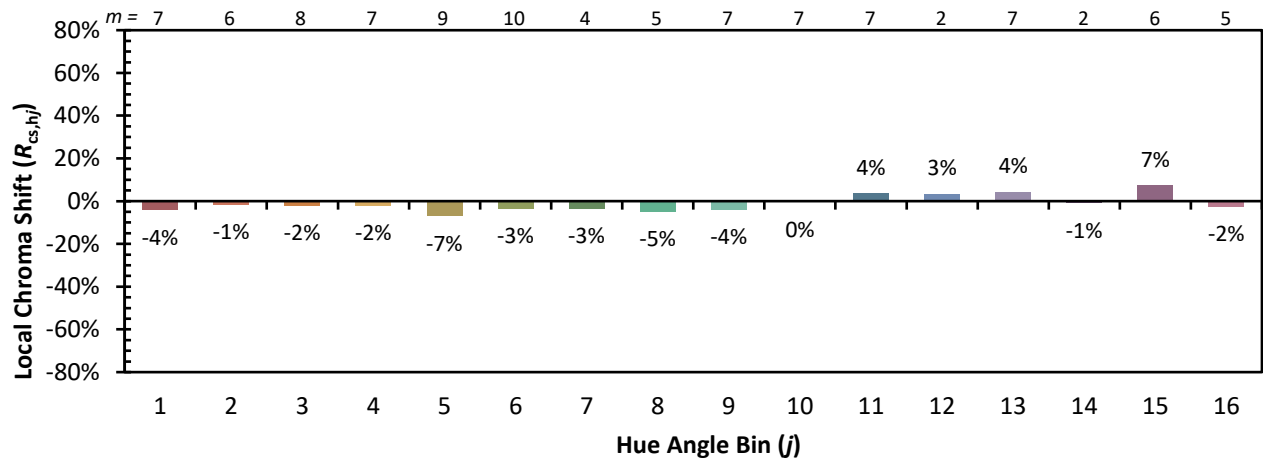
Color Vector Graphics

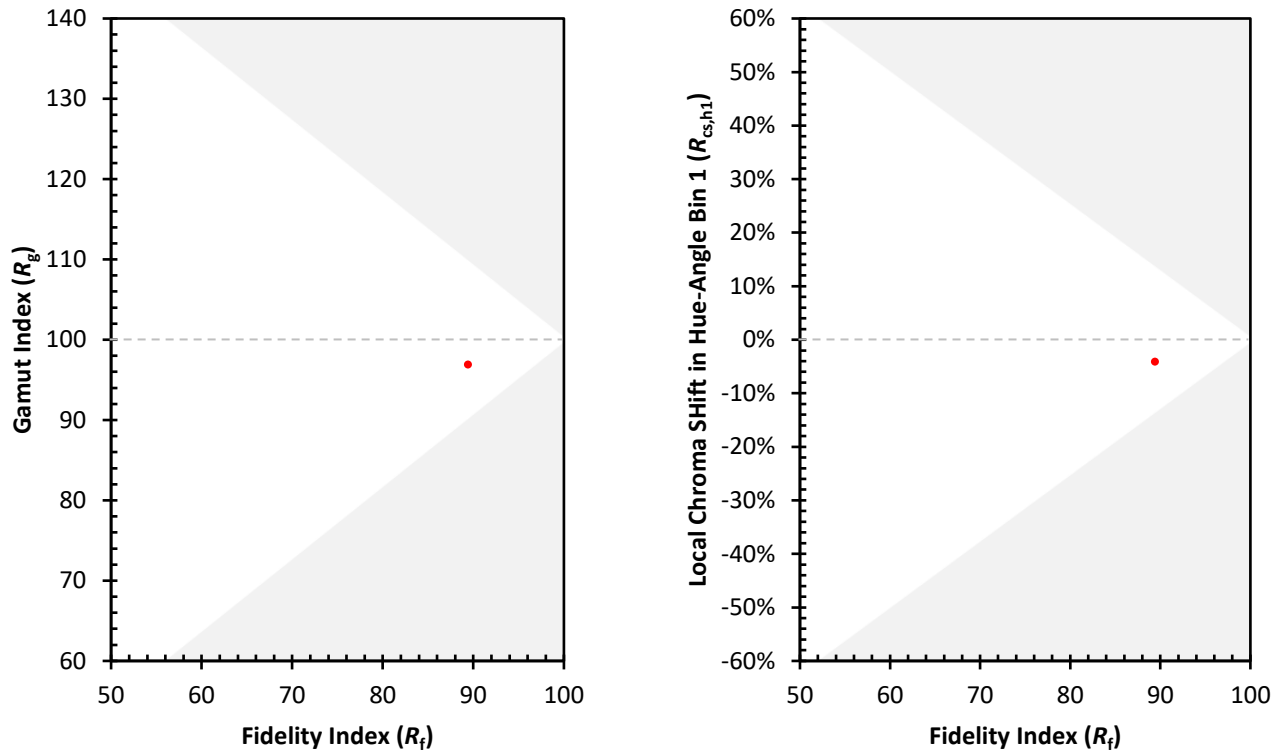


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 97	CES51 = 93	CES76 = 88
CES02 = 59	CES27 = 85	CES52 = 97	CES77 = 87
CES03 = 31	CES28 = 96	CES53 = 93	CES78 = 84
CES04 = 68	CES29 = 90	CES54 = 88	CES79 = 95
CES05 = 47	CES30 = 78	CES55 = 86	CES80 = 93
CES06 = 49	CES31 = 92	CES56 = 89	CES81 = 81
CES07 = 40	CES32 = 94	CES57 = 86	CES82 = 97
CES08 = 39	CES33 = 88	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 96	CES59 = 96	CES84 = 92
CES10 = 72	CES35 = 97	CES60 = 88	CES85 = 81
CES11 = 54	CES36 = 71	CES61 = 90	CES86 = 87
CES12 = 60	CES37 = 95	CES62 = 76	CES87 = 92
CES13 = 42	CES38 = 73	CES63 = 87	CES88 = 95
CES14 = 74	CES39 = 97	CES64 = 83	CES89 = 87
CES15 = 70	CES40 = 98	CES65 = 84	CES90 = 92
CES16 = 46	CES41 = 90	CES66 = 79	CES91 = 63
CES17 = 48	CES42 = 95	CES67 = 78	CES92 = 78
CES18 = 55	CES43 = 96	CES68 = 84	CES93 = 86
CES19 = 69	CES44 = 99	CES69 = 85	CES94 = 80
CES20 = 64	CES45 = 98	CES70 = 83	CES95 = 81
CES21 = 84	CES46 = 95	CES71 = 71	CES96 = 93
CES22 = 76	CES47 = 90	CES72 = 92	CES97 = 95
CES23 = 91	CES48 = 82	CES73 = 78	CES98 = 94
CES24 = 89	CES49 = 95	CES74 = 87	CES99 = 93
CES25 = 69	CES50 = 94	CES75 = 76	



Color Rendition by Hue-Angle Bin


Measure Comparisons


(END OF REPORT)