

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: FAIL-SAFE

Report Number: P1357032

Luminaire Tested: 3ASL4-20HE-2-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357032
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 3ASL4-20HE-2-R63-UNV
Description: 3FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 2 ROW
Light Source: -
Ballast/Driver: -

Summary

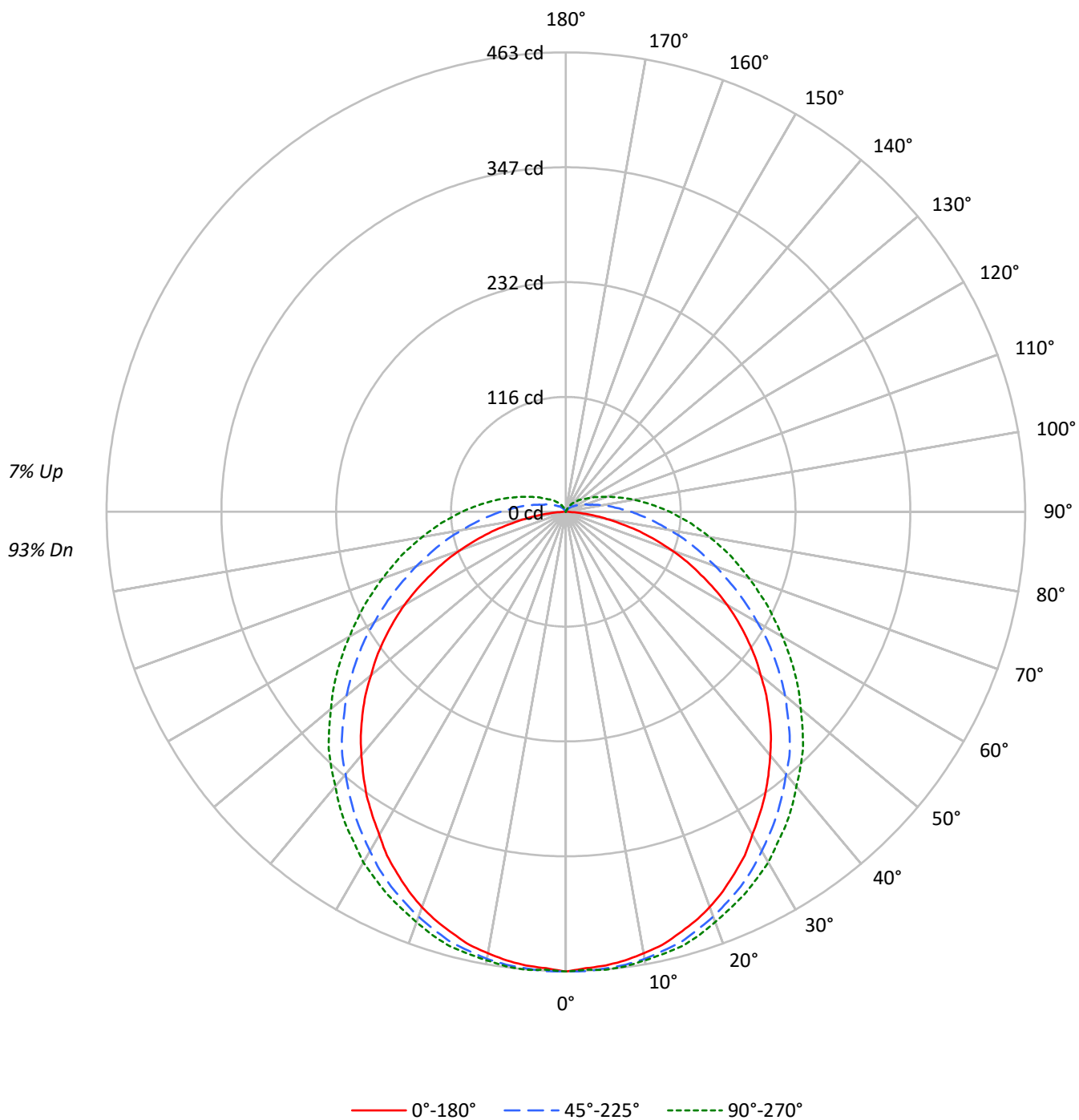
Lumens per Lamp: N/A
Luminaire Lumens: 1591.0 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 39.7
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: 24 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
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	95	95	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	65	70	66	63	63	63	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	55	62	57	53	53	53	50
4	79	66	57	50	76	64	56	49	61	54	48	58	51	46	55	49	45	45	45	42
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	39	39	36
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	34	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	24	24	22
10	50	37	29	24	49	36	28	23	35	28	23	33	27	22	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5023	5023	5023
5°	4980	4921	4908
10°	4942	4827	4789
15°	4893	4726	4693
20°	4830	4598	4558
25°	4733	4472	4443
30°	4613	4329	4327
35°	4518	4195	4193
40°	4407	4052	4051
45°	4295	3928	3949
50°	4152	3764	3797
55°	4014	3588	3676
60°	3843	3391	3546
65°	3581	3207	3446
70°	3288	3033	3354
75°	2860	2897	3325
80°	2203	2775	3314
85°	1297	2759	3408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4295 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	2.8
10°-20°	126.3	7.9
20°-30°	191.4	12.0
30°-40°	231.5	14.6
40°-50°	244.1	15.3
50°-60°	227.8	14.3
60°-70°	188.1	11.8
70°-80°	136.4	8.6
80°-90°	86.2	5.4
90°-100°	51.5	3.2
100°-110°	29.5	1.9
110°-120°	16.7	1.1
120°-130°	9.6	0.6
130°-140°	5.2	0.3
140°-150°	2.3	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	361.7	22.7
0°-40°	593.2	37.3
0°-60°	1065.1	66.9
0°-90°	1475.9	92.8
90°-120°	97.7	6.1
90°-150°	114.7	7.2
90°-180°	115.0	7.2
0°-180°	1591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	459	463	462	462	463	44
15°	440	446	449	450	453	124
25°	402	408	417	423	426	185
35°	350	358	372	382	386	219
45°	290	302	319	332	338	224
55°	223	236	256	274	281	199
65°	150	166	191	214	224	149
75°	77	98	133	160	172	81
85°	15	45	84	114	125	18
90°	0	28	66	93	105	1
95°	0	18	50	76	86	0
105°	0	6	28	48	55	0
115°	0	3	16	29	35	0
125°	0	2	10	19	22	0
135°	0	0	6	12	15	0
145°	0	0	3	7	9	0
155°	0	0	0	2	3	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	463.4	463.4	463.4	463.4	463.4
2.5°	460.5	464.9	463.4	462.0	462.0
5°	459.1	463.4	462.0	462.0	463.4
7.5°	456.2	460.5	460.5	460.5	462.0
10°	451.8	457.6	457.6	457.6	459.1
12.5°	447.4	451.8	453.2	454.7	456.2
15°	440.1	446.0	448.9	450.3	453.2
17.5°	432.8	437.2	441.6	446.0	447.4
20°	424.1	429.9	434.3	438.7	440.1
22.5°	413.9	419.7	425.6	429.9	432.8
25°	402.2	408.1	416.8	422.6	425.6
27.5°	390.6	396.4	406.6	413.9	416.8
30°	376.0	384.7	394.9	403.7	408.1
32.5°	362.9	371.6	383.3	393.5	396.4
35°	349.8	358.5	371.6	381.8	386.2
37.5°	335.2	345.4	358.5	370.2	374.5
40°	320.6	330.8	345.4	358.5	361.4
42.5°	306.0	316.2	333.7	345.4	349.8
45°	290.0	301.7	319.2	332.3	338.1
47.5°	274.0	285.6	303.1	317.7	323.5
50°	256.5	269.6	288.6	303.1	309.0
52.5°	240.5	253.6	272.5	288.6	295.8
55°	223.0	236.1	256.5	274.0	281.3
57.5°	205.5	218.6	240.5	259.4	266.7
60°	188.0	201.1	223.0	244.8	252.1
62.5°	169.1	183.6	206.9	228.8	237.6
65°	150.1	166.1	190.9	214.2	224.4
67.5°	132.6	148.7	174.9	201.1	209.9
70°	113.7	131.2	160.3	186.5	196.7
72.5°	94.7	113.7	145.7	173.4	183.6
75°	77.2	97.6	132.6	160.3	172.0
77.5°	58.3	83.1	119.5	148.7	158.9
80°	42.3	68.5	106.4	137.0	147.2
82.5°	27.7	55.4	94.7	125.3	135.5
85°	14.6	45.2	84.5	113.7	125.3
87.5°	4.4	35.0	74.3	103.5	113.7
90°	0.0	27.7	65.6	93.3	104.9
92.5°	0.0	21.9	56.8	84.5	94.7
95°	0.0	17.5	49.6	75.8	86.0
97.5°	0.0	14.6	43.7	68.5	77.2
100°	0.0	11.7	37.9	61.2	70.0
102.5°	0.0	8.7	32.1	53.9	62.7
105°	0.0	5.8	27.7	48.1	55.4
107.5°	0.0	4.4	23.3	42.3	49.6
110°	0.0	4.4	21.9	36.4	43.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	2.9	18.9	33.5	39.3
115°	0.0	2.9	16.0	29.1	35.0
117.5°	0.0	2.9	14.6	26.2	32.1
120°	0.0	2.9	13.1	23.3	27.7
122.5°	0.0	1.5	11.7	20.4	24.8
125°	0.0	1.5	10.2	18.9	21.9
127.5°	0.0	1.5	8.7	17.5	20.4
130°	0.0	1.5	8.7	16.0	18.9
132.5°	0.0	0.0	7.3	14.6	17.5
135°	0.0	0.0	5.8	11.7	14.6
137.5°	0.0	0.0	5.8	10.2	13.1
140°	0.0	0.0	4.4	10.2	11.7
142.5°	0.0	0.0	2.9	8.7	10.2
145°	0.0	0.0	2.9	7.3	8.7
147.5°	0.0	0.0	1.5	5.8	7.3
150°	0.0	0.0	1.5	4.4	5.8
152.5°	0.0	0.0	0.0	2.9	4.4
155°	0.0	0.0	0.0	1.5	2.9
157.5°	0.0	0.0	0.0	0.0	1.5
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

TEST NUMBER: P1357032

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.91	16.44	15.38	16.91	17.40	16.94	18.48	17.41	18.94	19.43
	3H	16.41	17.81	16.90	18.28	18.81	19.38	20.78	19.86	21.25	21.78
	4H	16.89	18.22	17.40	18.71	19.25	20.58	21.91	21.08	22.39	22.94
	6H	17.17	18.41	17.69	18.91	19.47	21.83	23.07	22.35	23.57	24.13
	8H	17.22	18.41	17.75	18.93	19.50	22.48	23.66	23.01	24.19	24.75
	12H	17.24	18.37	17.78	18.89	19.49	23.18	24.32	23.72	24.84	25.44
4H	2H	15.78	17.11	16.29	17.60	18.14	17.37	18.70	17.88	19.19	19.73
	3H	17.53	18.66	18.05	19.19	19.76	20.04	21.17	20.56	21.70	22.27
	4H	18.14	19.17	18.67	19.71	20.31	21.42	22.45	21.95	22.99	23.59
	6H	18.54	19.45	19.10	20.02	20.63	22.87	23.78	23.43	24.35	24.96
	8H	18.64	19.50	19.20	20.06	20.69	23.62	24.48	24.19	25.05	25.68
	12H	18.68	19.47	19.27	20.06	20.69	24.45	25.24	25.04	25.83	26.46
8H	4H	18.82	19.69	19.39	20.25	20.88	21.64	22.50	22.20	23.07	23.69
	6H	19.41	20.14	20.01	20.75	21.38	23.27	24.00	23.86	24.60	25.24
	8H	19.60	20.26	20.21	20.88	21.52	24.16	24.82	24.77	25.44	26.09
	12H	19.72	20.31	20.33	20.92	21.63	25.18	25.77	25.79	26.38	27.09
12H	4H	19.02	19.80	19.61	20.40	21.03	21.65	22.43	22.23	23.02	23.65
	6H	19.71	20.37	20.32	20.99	21.63	23.30	23.97	23.91	24.58	25.23
	8H	20.00	20.59	20.61	21.20	21.91	24.27	24.86	24.88	25.47	26.18

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-7

Test Date: 01/21/2026

Luminaire Tested: 4ASL-2-R630-UNV-OPL-1_600mA

Data in this report applies to families of products including 4ASL

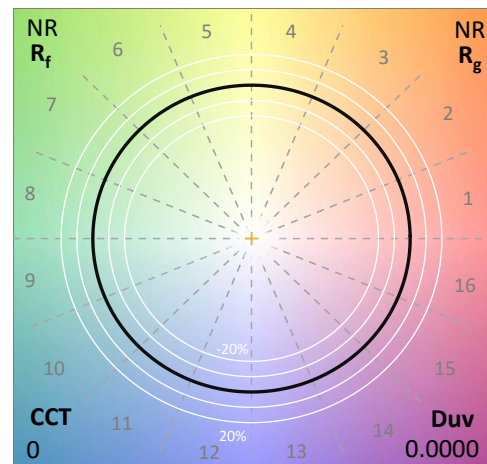
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-7
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 01/29/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Fail-Safe
 Catalog Number: **4ASL-2-R630-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND RED 630NM LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K): 0
 CIE u' : 0.5395
 CIE v' : 0.5190
 Duv: 0.0000
 CIE x: 0.7004
 CIE y: 0.2995
 CIE z: 0.0001
 Peak Wavelength (nm): 638
 Dominant Wavelength (nm): 624
 Purity: 99.9862
 Rf: NR
 Rg: NR

CRI (Ra): 0.0
 R1: 0.0
 R2: 0.0
 R3: 0.0
 R4: 0.0
 R5: 0.0
 R6: 0.0
 R7: 0.0
 R8: 0.0
 R9: 0.0
 R10: 0.0
 R11: 0.0
 R12: 0.0
 R13: 0.0
 R14: 0.0
 R15: 0.0



Test Conditions

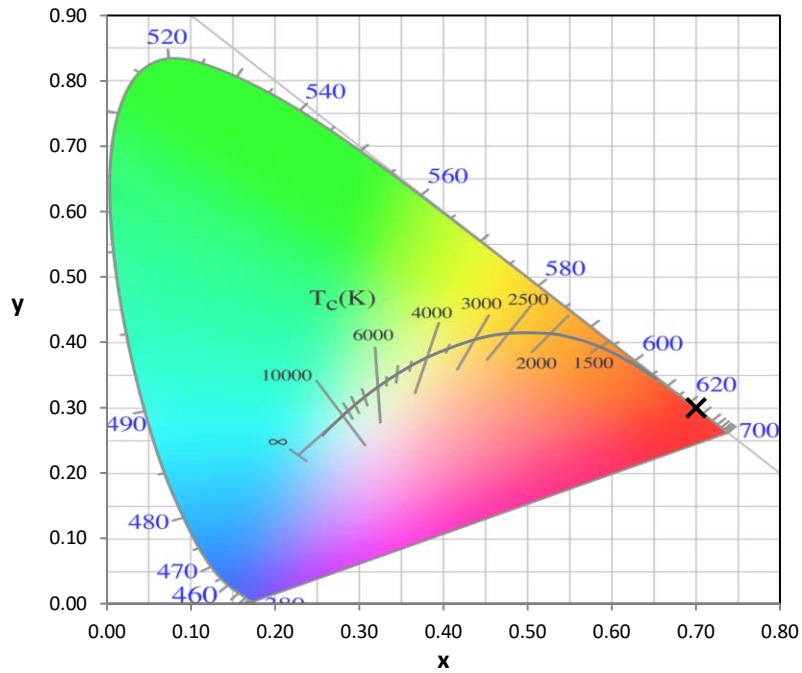
Stabilization Time: 69M
 Operation Time: 2H 9M
 Sphere Temperature (°C): 25.1

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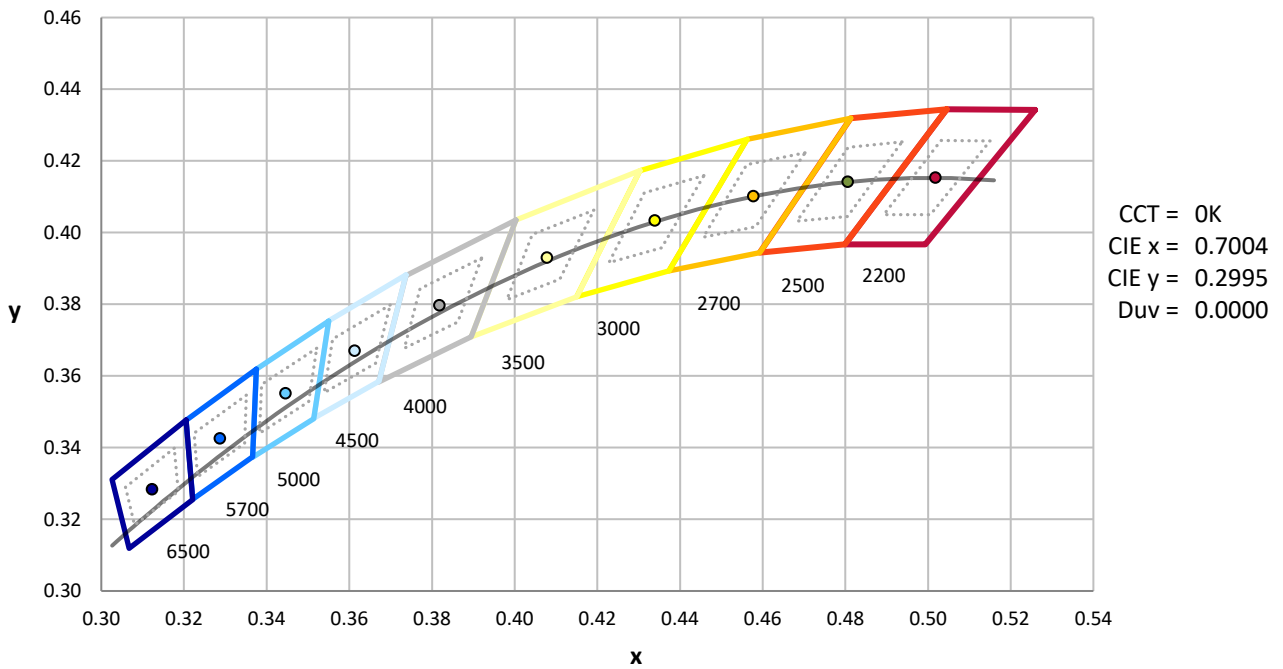
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

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CIE 1931 Chromaticity Diagram



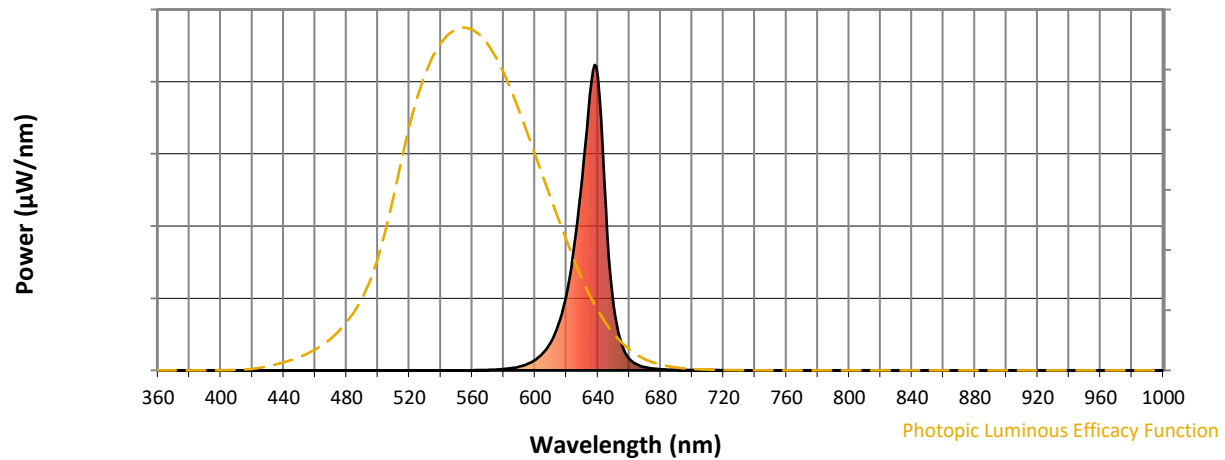
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



CCT = 0K
 CIE x = 0.7004
 CIE y = 0.2995
 Duv = 0.0000

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Photopic Flux vs. Wavelength

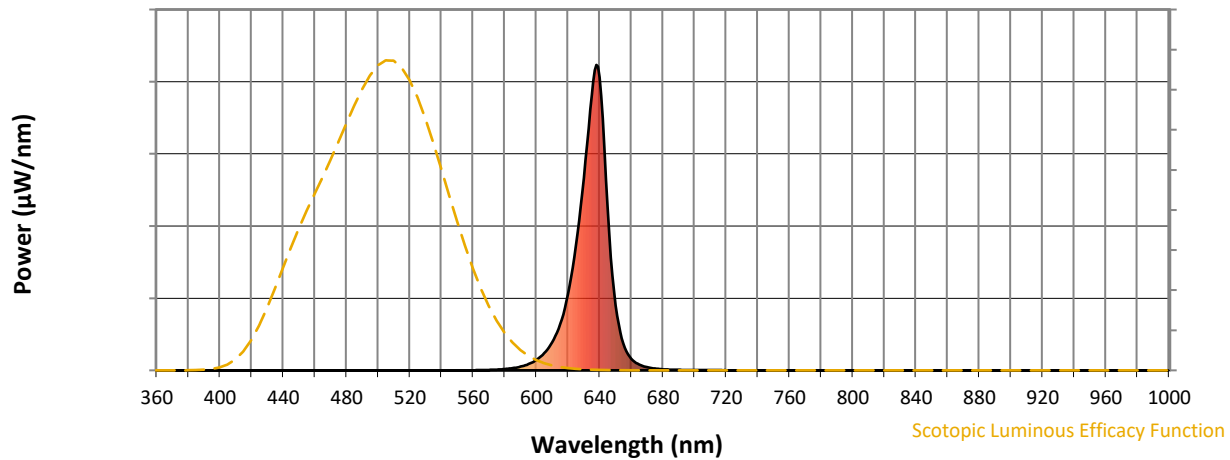


Photopic Lumens: NR

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	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



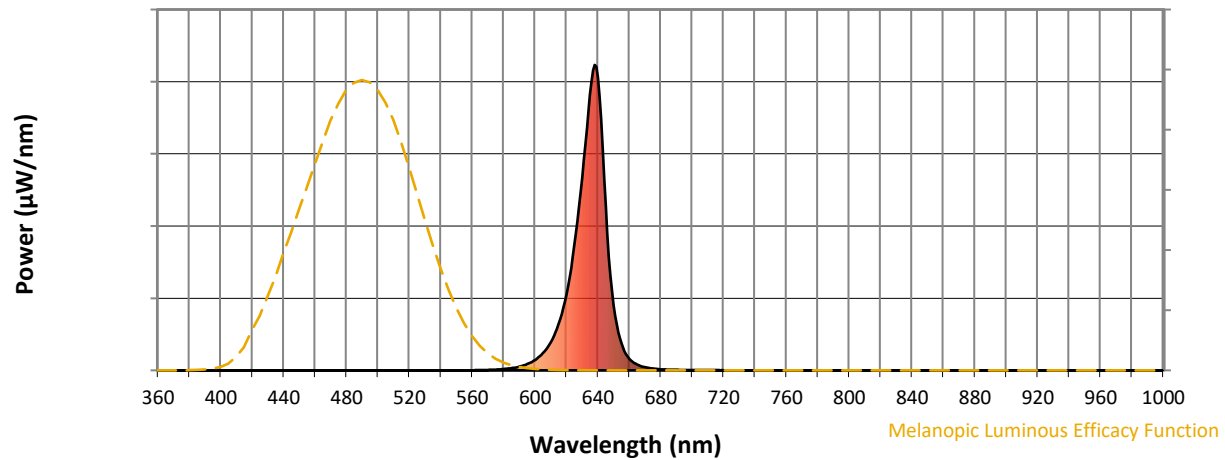
Scotopic Lumens: NR

S/P: 0.05

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	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 0.02

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

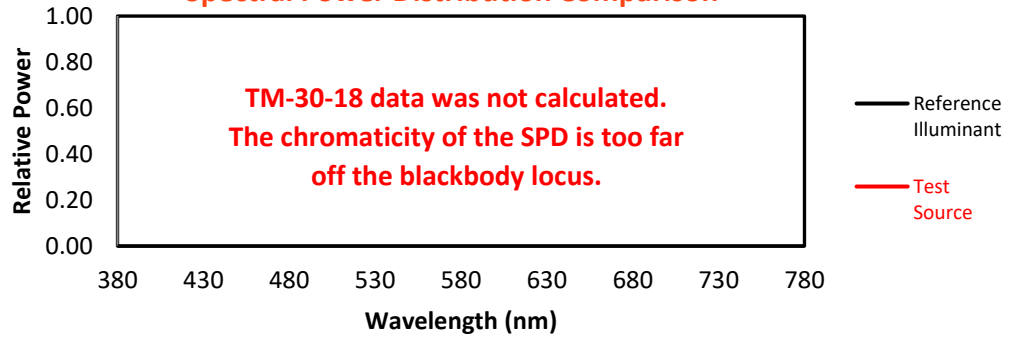
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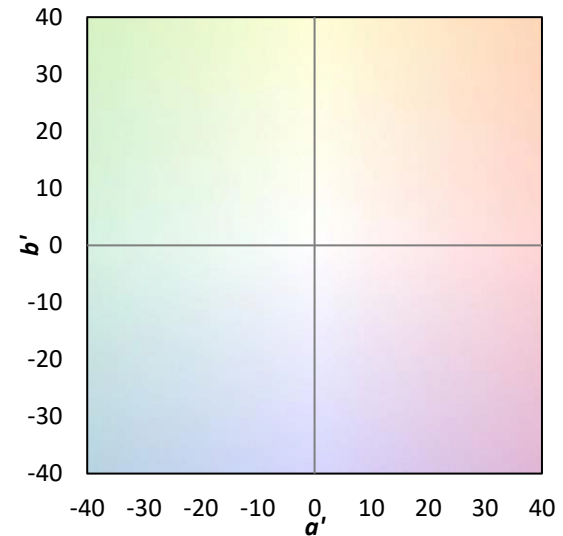
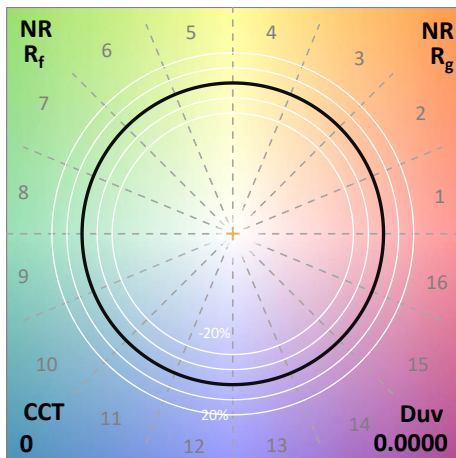
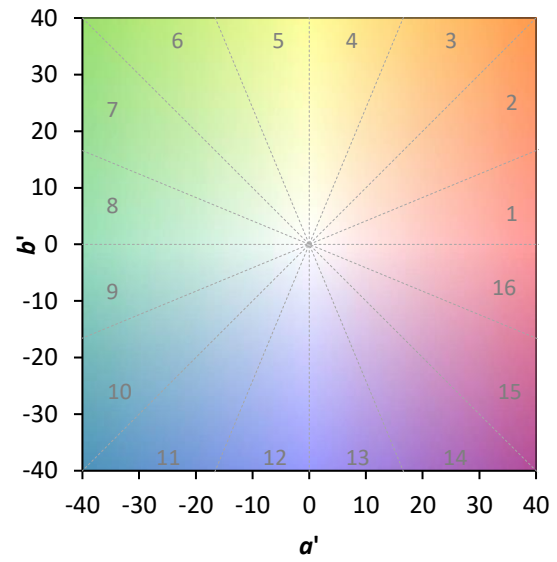
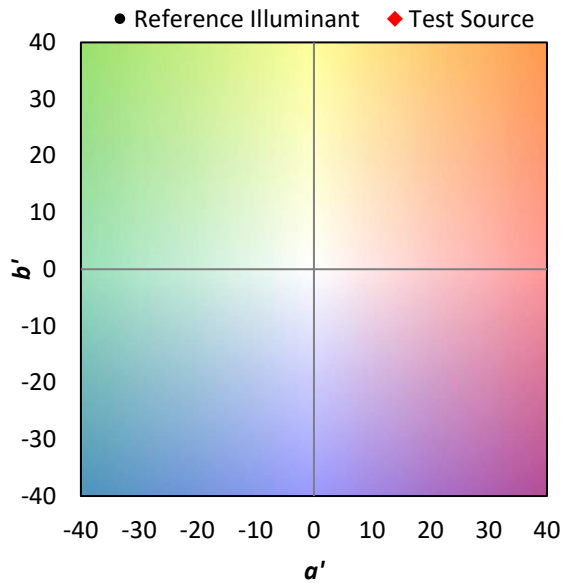
Summary

$R_f = 0$
 $R_g = 0$
 CIE $R_a = 0.0$
 $R_9 = 0.0$

Spectral Power Distribution Comparison

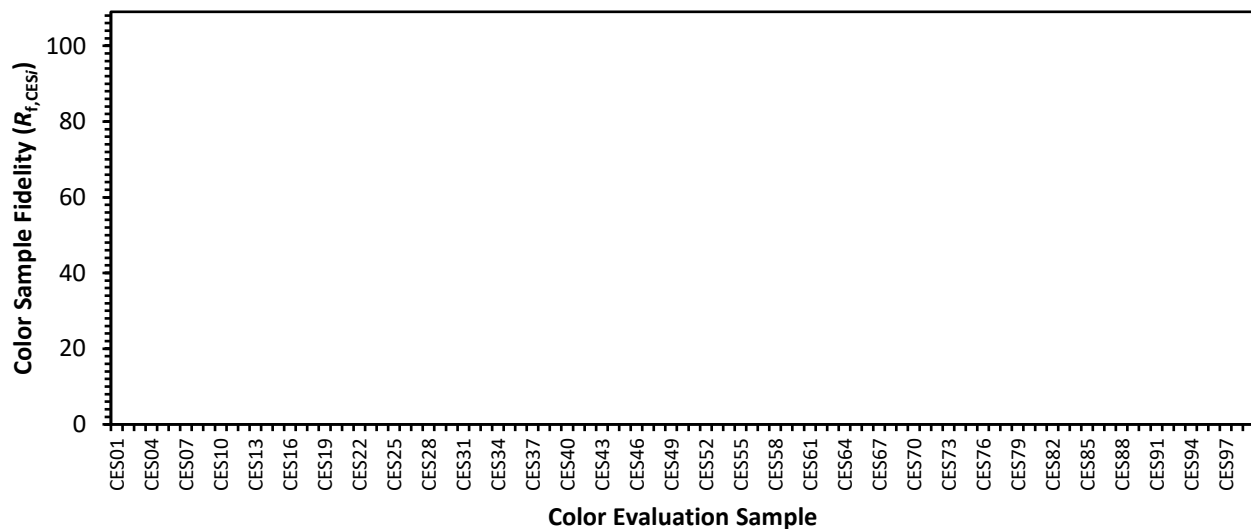


Color Vector Graphics



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

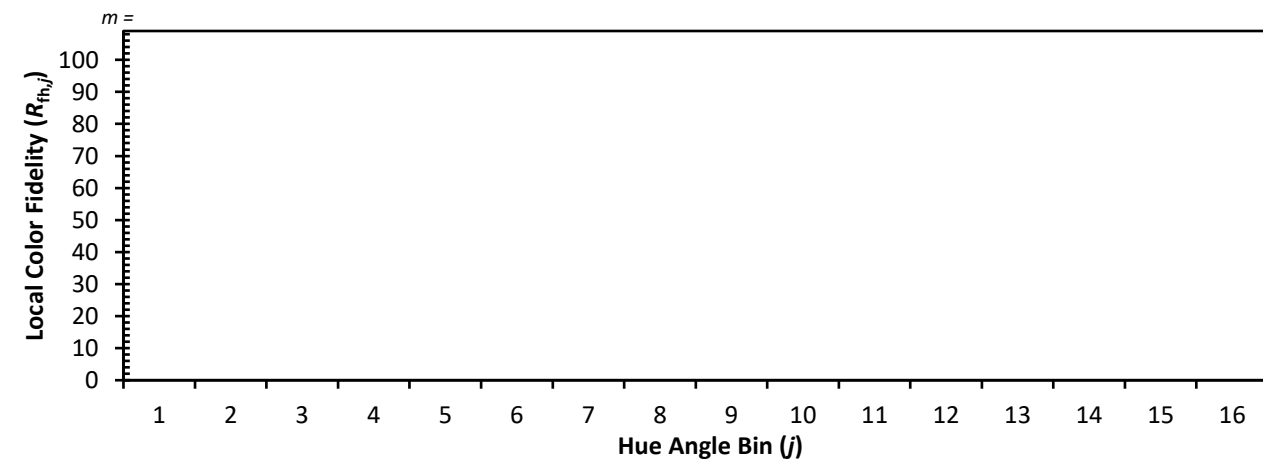
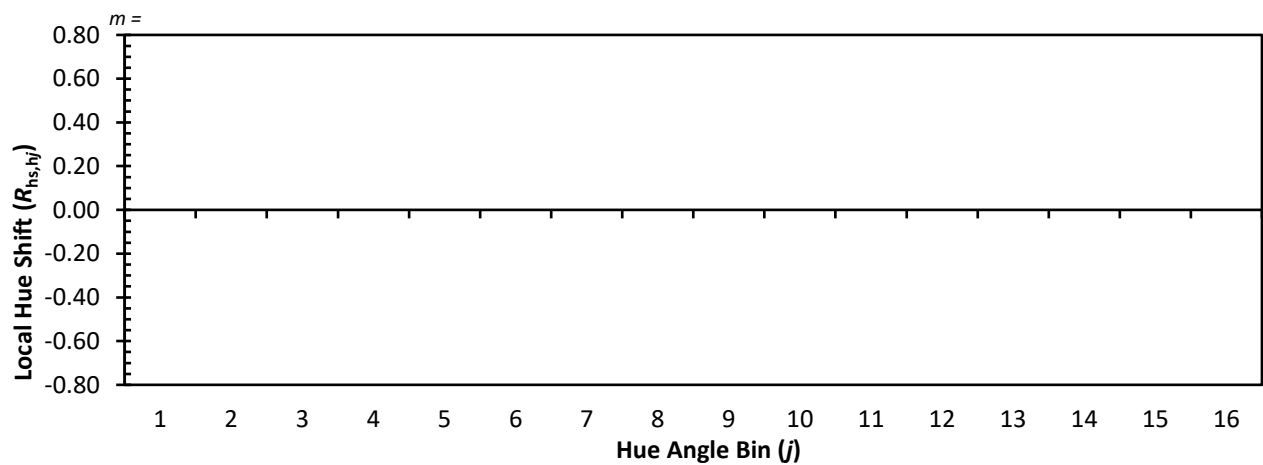
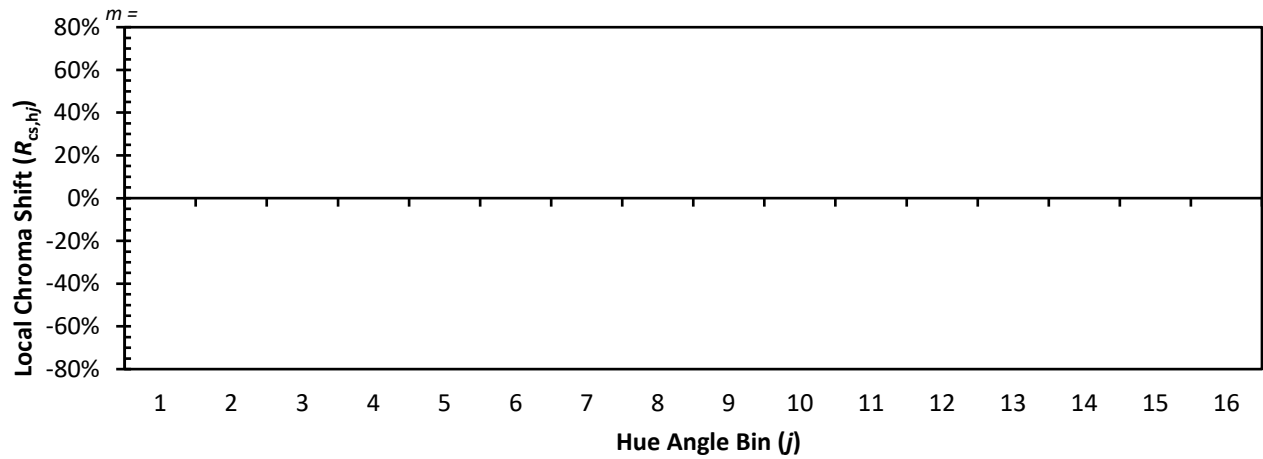
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CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
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CES10 = 0	CES35 = 0	CES60 = 0	CES85 = 0
CES11 = 0	CES36 = 0	CES61 = 0	CES86 = 0
CES12 = 0	CES37 = 0	CES62 = 0	CES87 = 0
CES13 = 0	CES38 = 0	CES63 = 0	CES88 = 0
CES14 = 0	CES39 = 0	CES64 = 0	CES89 = 0
CES15 = 0	CES40 = 0	CES65 = 0	CES90 = 0
CES16 = 0	CES41 = 0	CES66 = 0	CES91 = 0
CES17 = 0	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 0	CES43 = 0	CES68 = 0	CES93 = 0
CES19 = 0	CES44 = 0	CES69 = 0	CES94 = 0
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CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
CES23 = 0	CES48 = 0	CES73 = 0	CES98 = 0
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CES25 = 0	CES50 = 0	CES75 = 0	



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Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)