

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: P1357041

Luminaire Tested: 3ASL4-20VHE-3-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 3ASL4-20VHE-3-R63-UNV
Description: 3FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

Summary

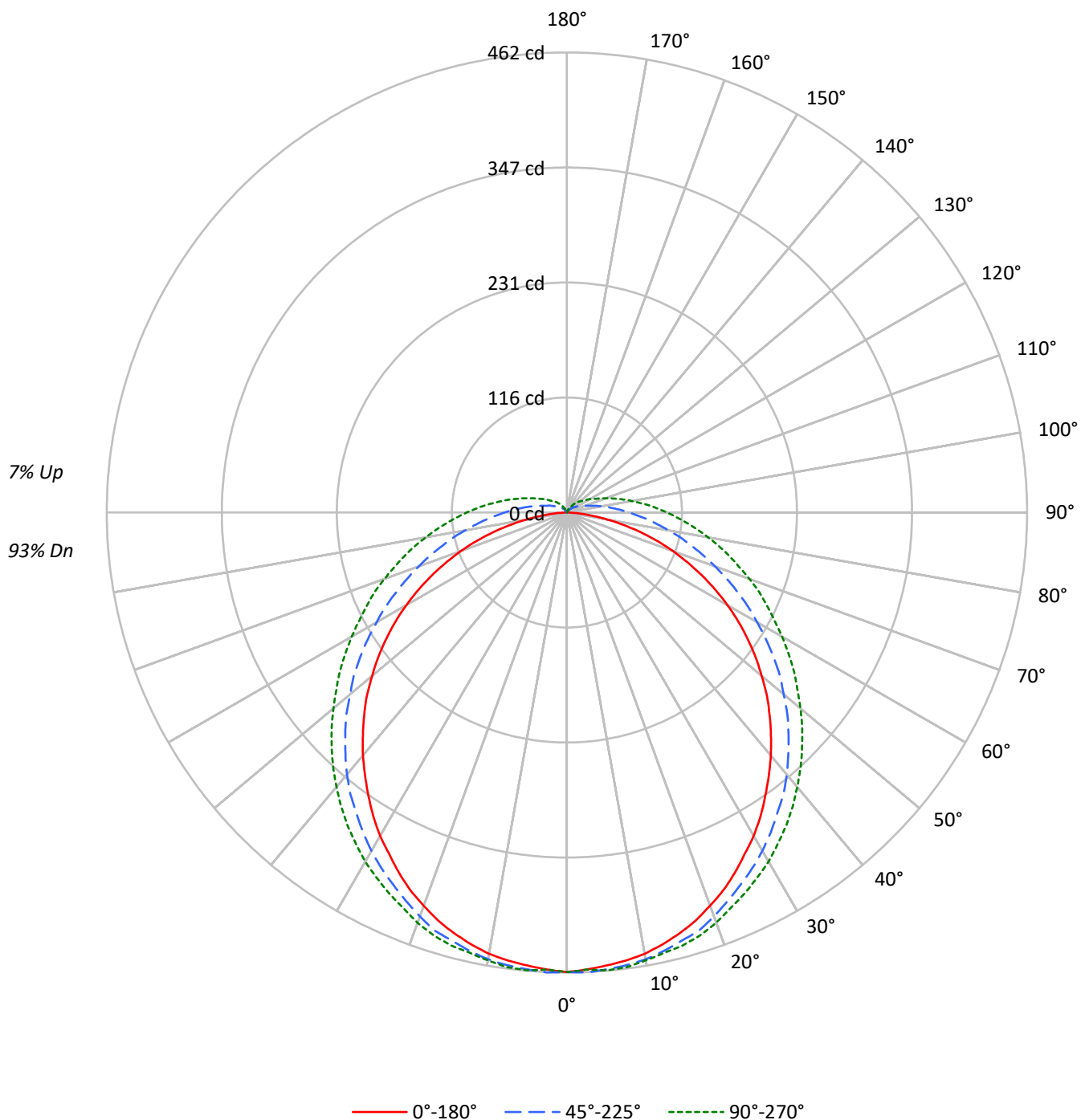
Lumens per Lamp: N/A
Luminaire Lumens: 1569.0 lumens
Efficiency: N/A
Efficacy: 42.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 37.3
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	0
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107		101	101	101		96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84		86	83	80		81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68		75	70	66		71	67	63	61
3	86	75	67	60	83	73	65	59	69	62	57		65	60	55		62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48		58	52	47		55	50	45	43
5	73	59	50	43	70	58	49	42	55	47	41		52	45	40		49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36		47	40	35		45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32		43	36	31		41	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28		39	32	28		37	32	27	25
9	54	40	32	26	52	39	31	26	38	30	25		36	30	25		35	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23		33	27	23		32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5002	5002	5002
5°	4954	4905	4888
10°	4923	4807	4764
15°	4864	4687	4660
20°	4786	4571	4540
25°	4697	4426	4406
30°	4602	4301	4293
35°	4486	4159	4167
40°	4378	4030	4033
45°	4263	3873	3900
50°	4131	3704	3760
55°	3989	3543	3635
60°	3804	3356	3508
65°	3572	3175	3403
70°	3273	2995	3322
75°	2845	2829	3265
80°	2198	2702	3240
85°	1280	2662	3289

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4263 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	2.8
10°-20°	125.6	8.0
20°-30°	190.0	12.1
30°-40°	230.0	14.7
40°-50°	241.6	15.4
50°-60°	225.4	14.4
60°-70°	186.3	11.9
70°-80°	134.1	8.5
80°-90°	83.3	5.3
90°-100°	48.8	3.1
100°-110°	27.9	1.8
110°-120°	15.8	1.0
120°-130°	9.1	0.6
130°-140°	4.9	0.3
140°-150°	2.1	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	359.4	22.9
0°-40°	589.4	37.6
0°-60°	1056.3	67.3
0°-90°	1460.1	93.1
90°-120°	92.5	5.9
90°-150°	108.6	6.9
90°-180°	109.0	6.9
0°-180°	1569.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	462	462	462	462	462	
5°	457	460	460	460	462	43
15°	438	443	445	448	450	123
25°	399	406	412	418	422	184
35°	347	357	368	379	384	217
45°	288	298	315	328	334	222
55°	222	234	253	272	278	198
65°	150	164	189	213	222	148
75°	77	96	130	157	169	81
85°	14	43	82	110	121	18
90°	0	26	62	89	101	1
95°	0	16	47	72	82	0
105°	0	6	26	45	53	0
115°	0	3	15	28	33	0
125°	0	2	10	18	21	0
135°	0	0	6	12	14	0
145°	0	0	3	7	8	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°	461.5	461.5	461.5	461.5	461.5
2.5°	459.5	462.4	462.4	459.5	459.5
5°	456.7	460.5	460.5	460.5	461.5
7.5°	453.8	458.6	458.6	458.6	460.5
10°	450.0	454.7	455.7	455.7	456.7
12.5°	444.2	450.0	450.9	451.9	452.8
15°	437.5	443.2	445.2	448.0	450.0
17.5°	429.8	436.5	440.4	443.2	445.2
20°	420.2	426.9	431.7	435.6	438.4
22.5°	410.6	416.4	422.1	426.9	429.8
25°	399.1	405.8	412.5	418.3	422.1
27.5°	386.6	394.3	402.9	409.7	413.5
30°	375.1	382.8	392.4	401.0	404.9
32.5°	361.7	370.3	380.9	389.5	394.3
35°	347.3	356.9	368.4	379.0	383.8
37.5°	332.9	342.5	356.9	367.4	372.2
40°	318.5	328.1	343.5	355.0	359.8
42.5°	303.2	312.8	329.1	341.5	347.3
45°	287.8	298.4	314.7	328.1	333.9
47.5°	272.5	283.0	300.3	314.7	320.4
50°	255.2	266.7	284.0	300.3	306.0
52.5°	238.9	250.4	269.6	285.9	291.7
55°	221.6	234.1	253.3	271.5	278.2
57.5°	204.3	216.8	237.0	256.2	263.8
60°	186.1	199.6	220.7	240.8	249.4
62.5°	167.9	182.3	205.3	226.4	235.0
65°	149.7	164.1	189.0	213.0	221.6
67.5°	131.4	146.8	173.6	198.6	209.1
70°	113.2	129.5	158.3	184.2	194.8
72.5°	95.0	112.2	143.9	170.8	181.3
75°	76.8	95.9	129.5	157.3	168.9
77.5°	58.5	80.6	117.0	144.9	156.4
80°	42.2	67.2	103.6	132.4	143.9
82.5°	26.9	53.7	92.1	120.9	132.4
85°	14.4	43.2	81.5	110.3	120.9
87.5°	4.8	33.6	71.0	99.8	110.3
90°	0.0	25.9	62.4	89.2	100.7
92.5°	0.0	20.1	54.7	80.6	91.1
95°	0.0	16.3	47.0	72.0	82.5
97.5°	0.0	13.4	41.3	64.3	73.9
100°	0.0	10.6	35.5	57.6	66.2
102.5°	0.0	8.6	30.7	50.8	59.5
105°	0.0	5.8	25.9	45.1	52.8
107.5°	0.0	4.8	22.1	40.3	47.0
110°	0.0	3.8	20.1	34.5	41.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	2.9	18.2	30.7	37.4
115°	0.0	2.9	15.4	27.8	32.6
117.5°	0.0	2.9	13.4	24.9	29.7
120°	0.0	1.9	12.5	22.1	26.9
122.5°	0.0	1.9	10.6	20.1	24.0
125°	0.0	1.9	9.6	18.2	21.1
127.5°	0.0	1.0	8.6	16.3	19.2
130°	0.0	1.0	7.7	14.4	17.3
132.5°	0.0	1.0	6.7	13.4	16.3
135°	0.0	0.0	5.8	11.5	14.4
137.5°	0.0	0.0	4.8	10.6	12.5
140°	0.0	0.0	3.8	8.6	11.5
142.5°	0.0	0.0	2.9	7.7	9.6
145°	0.0	0.0	2.9	6.7	7.7
147.5°	0.0	0.0	1.9	4.8	6.7
150°	0.0	0.0	1.0	3.8	4.8
152.5°	0.0	0.0	0.0	2.9	3.8
155°	0.0	0.0	0.0	1.9	2.9
157.5°	0.0	0.0	0.0	0.0	1.0
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

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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	16.45	15.38	16.91	17.39	16.91	18.45	17.38	18.91	19.39
	3H	16.41	17.82	16.89	18.28	18.81	19.36	20.77	19.85	21.23	21.76
	4H	16.89	18.23	17.40	18.71	19.25	20.55	21.88	21.05	22.37	22.90
	6H	17.17	18.41	17.68	18.91	19.46	21.79	23.03	22.30	23.52	24.08
	8H	17.22	18.41	17.75	18.93	19.49	22.42	23.61	22.95	24.13	24.69
	12H	17.24	18.38	17.77	18.89	19.48	23.11	24.25	23.64	24.76	25.35
4H	2H	15.79	17.12	16.29	17.60	18.14	17.35	18.68	17.85	19.16	19.70
	3H	17.52	18.66	18.04	19.18	19.74	20.03	21.16	20.54	21.69	22.25
	4H	18.13	19.16	18.66	19.70	20.29	21.38	22.42	21.92	22.96	23.55
	6H	18.52	19.44	19.08	20.00	20.61	22.81	23.73	23.37	24.29	24.90
	8H	18.62	19.48	19.18	20.04	20.66	23.55	24.41	24.11	24.98	25.60
	12H	18.66	19.45	19.25	20.04	20.66	24.36	25.15	24.95	25.74	26.36
8H	4H	18.80	19.66	19.36	20.23	20.85	21.60	22.47	22.16	23.03	23.65
	6H	19.38	20.11	19.97	20.72	21.34	23.20	23.93	23.79	24.54	25.16
	8H	19.56	20.22	20.17	20.84	21.47	24.08	24.74	24.68	25.36	25.99
	12H	19.68	20.27	20.28	20.87	21.57	25.08	25.67	25.69	26.27	26.98
12H	4H	18.99	19.78	19.57	20.37	20.99	21.61	22.39	22.19	22.98	23.61
	6H	19.67	20.33	20.27	20.95	21.58	23.24	23.90	23.84	24.51	25.15
	8H	19.95	20.54	20.56	21.14	21.85	24.19	24.78	24.79	25.38	26.08

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

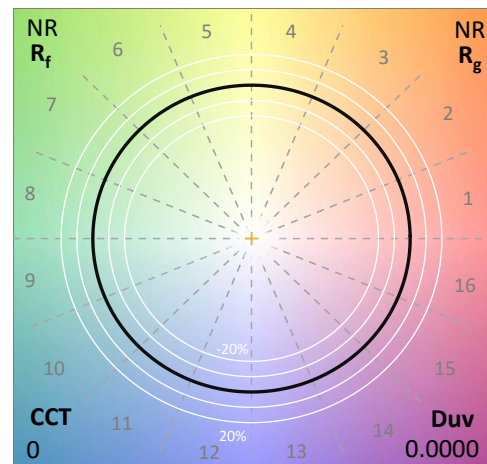
Test Information

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

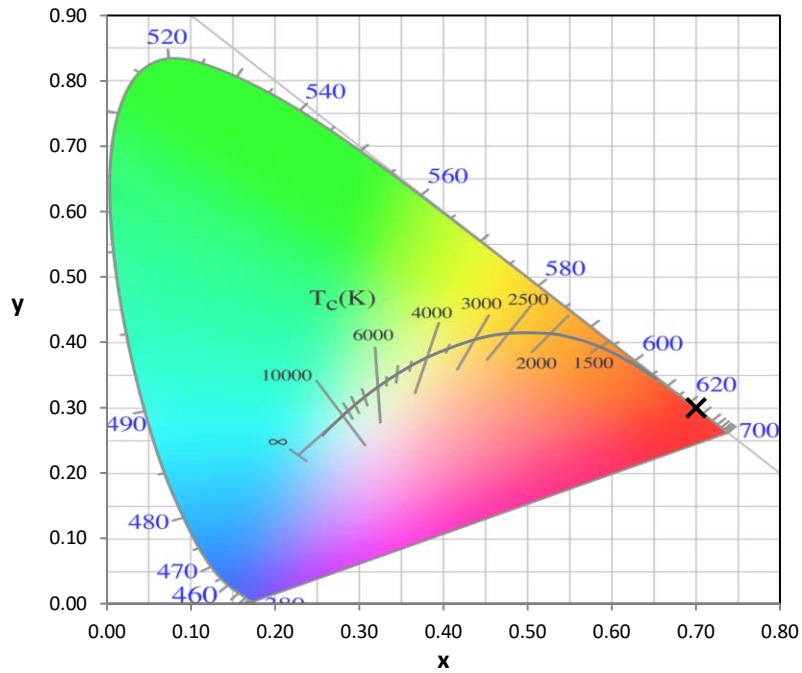
Stabilization Time: 69M
 Operation Time: 2H 9M
 Sphere Temperature (°C): 25.1

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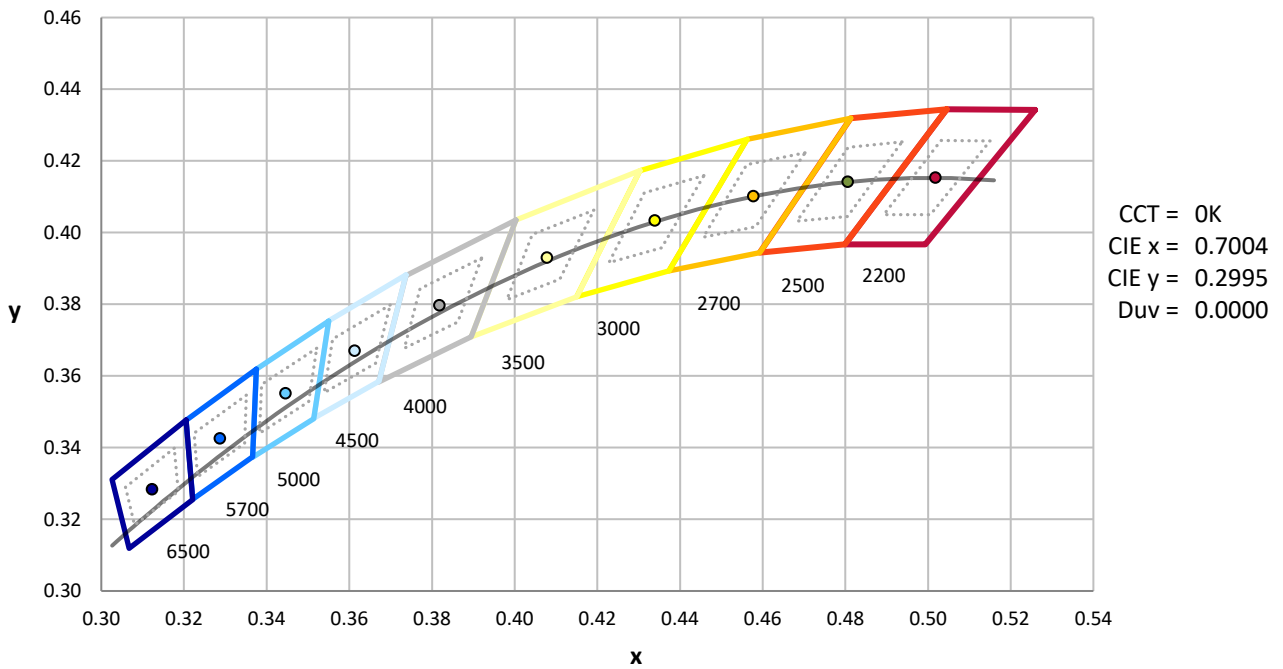
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



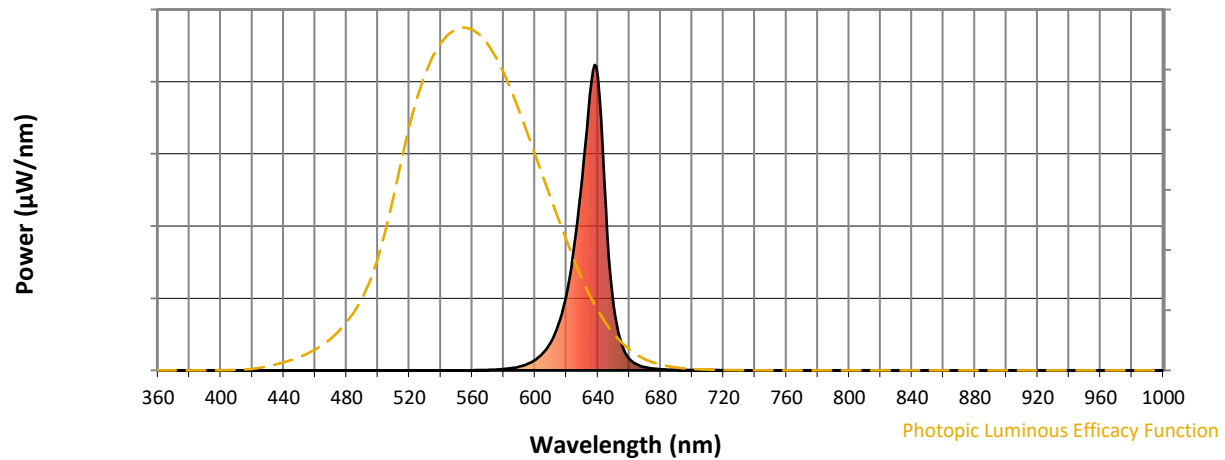
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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

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Photopic Flux vs. Wavelength

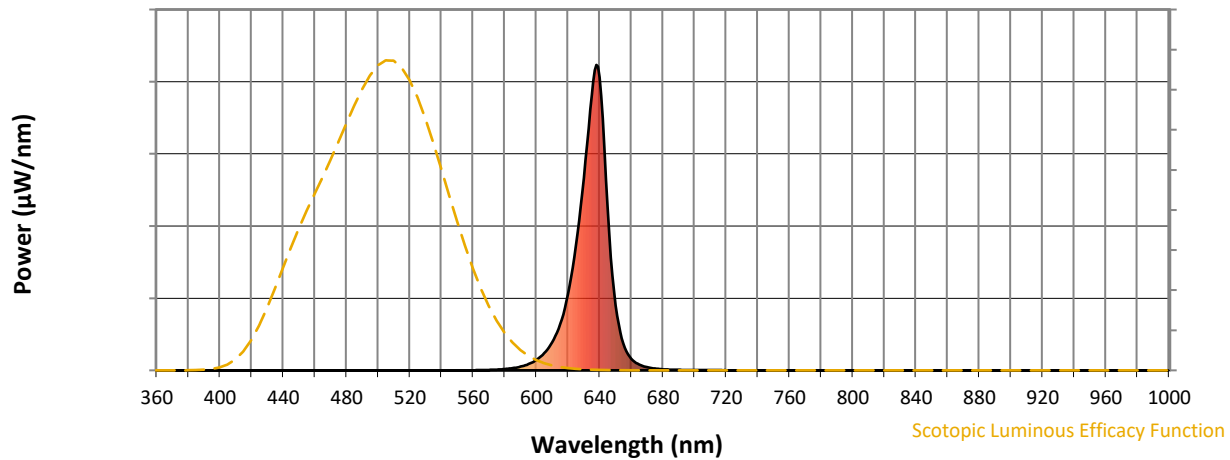


Photopic Lumens: NR

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



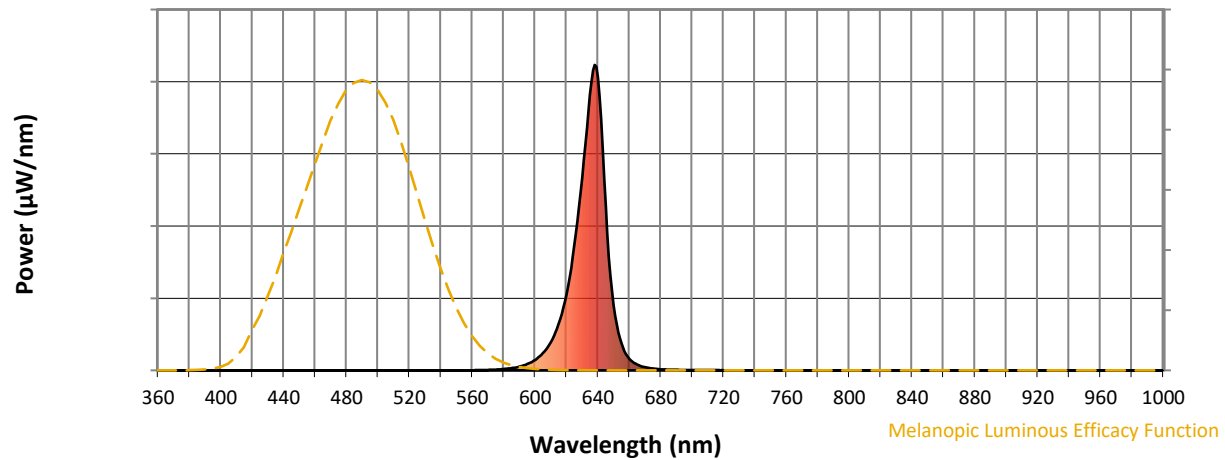
Scotopic Lumens: NR

S/P: 0.05

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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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Melanopic Flux vs. Wavelength

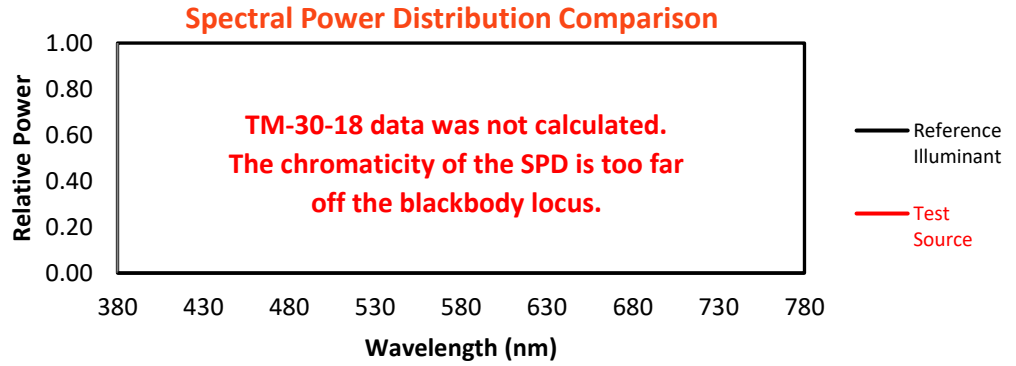
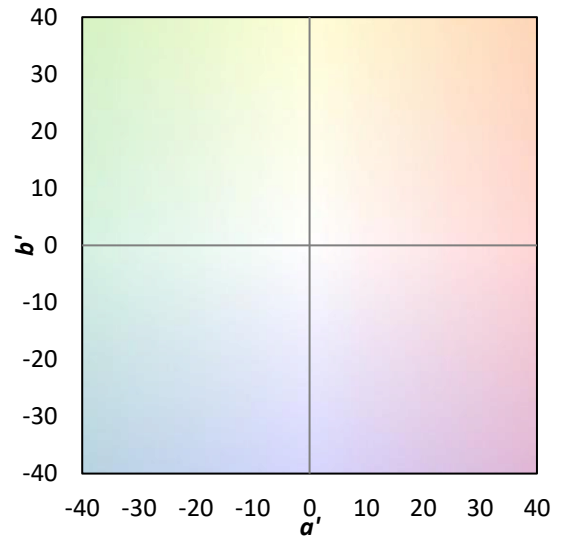
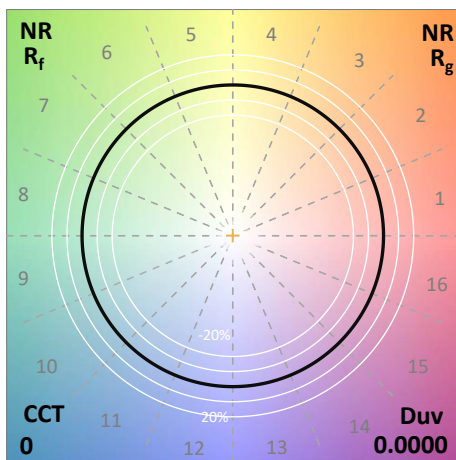
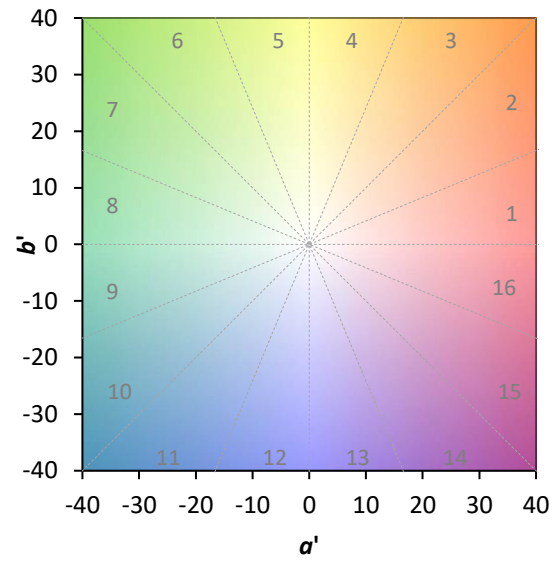
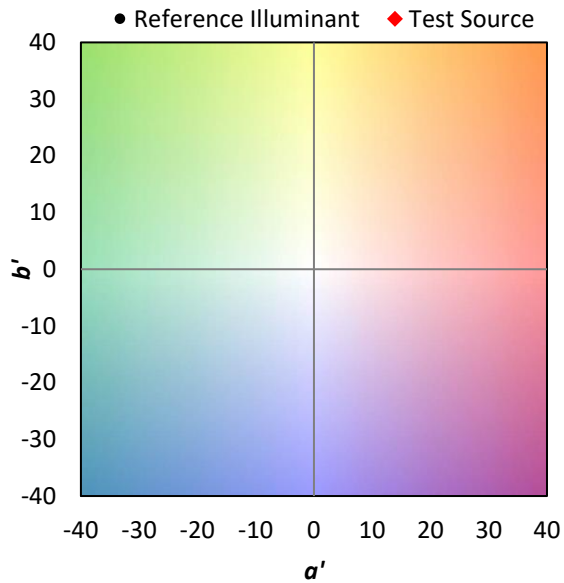


Melanopic Lumens: NR

M/P: 0.02

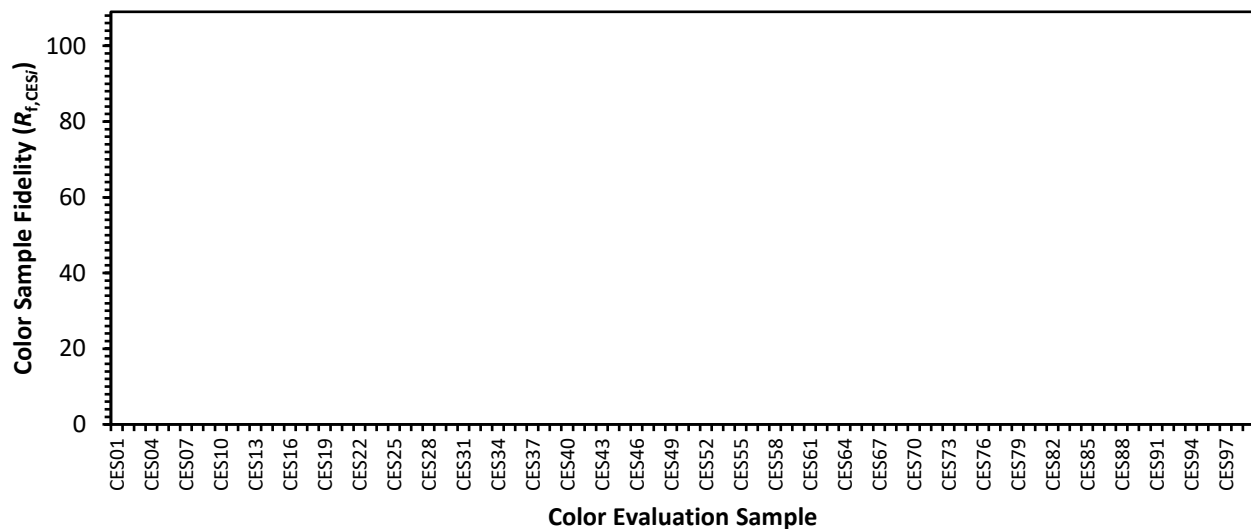
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	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 $R_a = 0.0$
 $R_9 = 0.0$

Color Vector Graphics


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

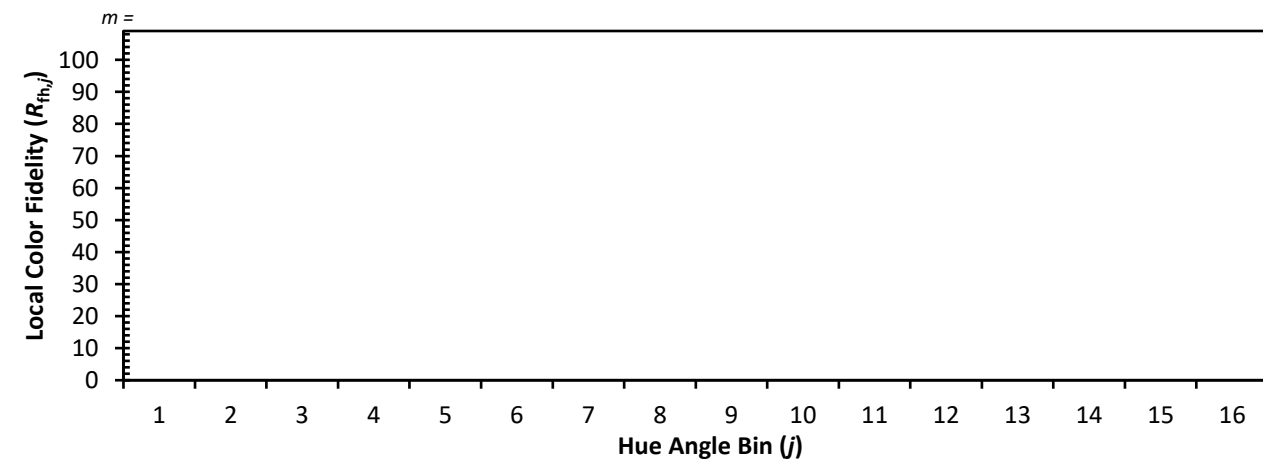
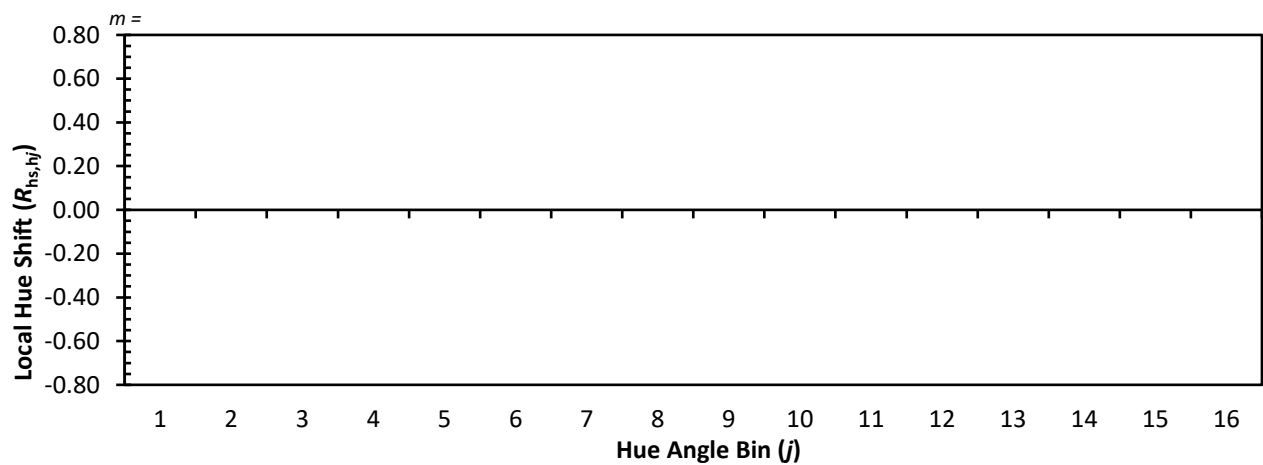
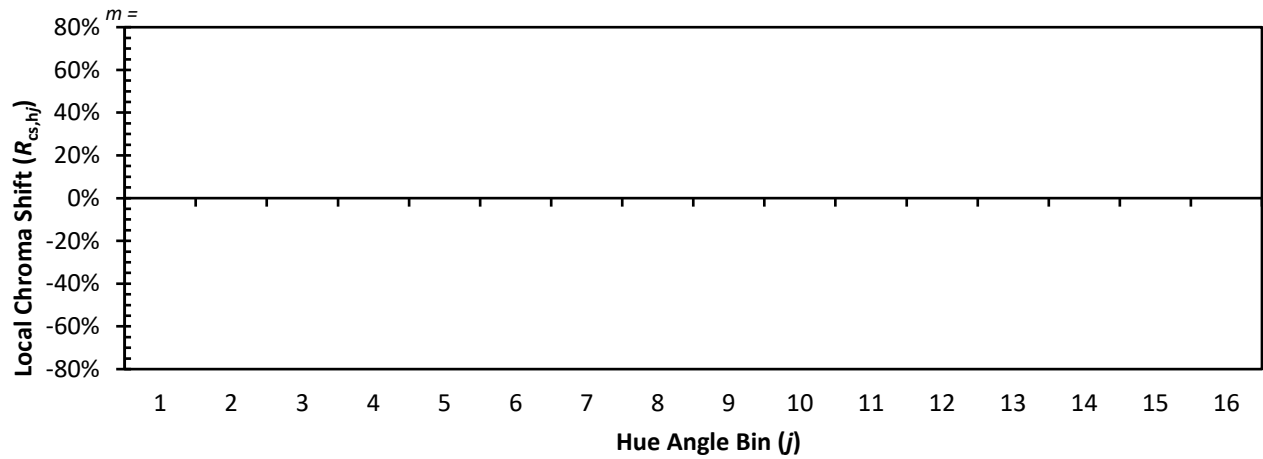
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CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
CES09 = 0	CES34 = 0	CES59 = 0	CES84 = 0
CES10 = 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
CES20 = 0	CES45 = 0	CES70 = 0	CES95 = 0
CES21 = 0	CES46 = 0	CES71 = 0	CES96 = 0
CES22 = 0	CES47 = 0	CES72 = 0	CES97 = 0
CES23 = 0	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 0	CES49 = 0	CES74 = 0	CES99 = 0
CES25 = 0	CES50 = 0	CES75 = 0	



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Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)