

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: P1356880

Luminaire Tested: 2ASL4-20VHE-3-27-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356880
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: 2ASL4-20VHE-3-27-UNV
Description: 2FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 2700K LEDS 3 ROW
Light Source: -
Ballast/Driver: -

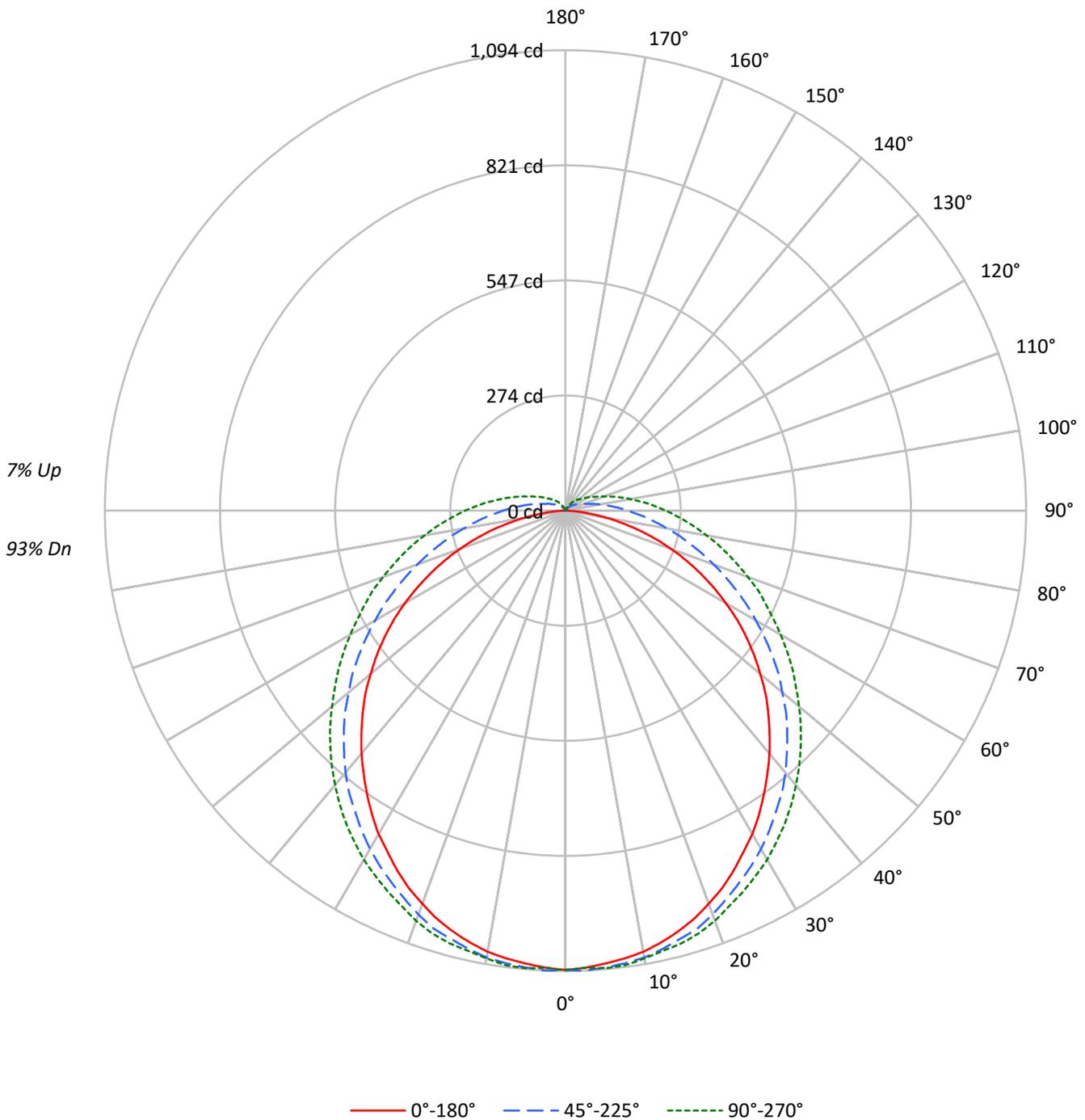
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3712.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 33.6
Input Voltage (V): NR
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: 24 FT

TEST NUMBER: P1356880
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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17812	17812	17812
5°	17614	17450	17404
10°	17474	17084	16965
15°	17240	16639	16592
20°	16936	16211	16171
25°	16591	15683	15693
30°	16227	15220	15287
35°	15783	14703	14837
40°	15372	14226	14363
45°	14926	13654	13887
50°	14422	13040	13390
55°	13872	12453	12946
60°	13167	11770	12494
65°	12284	11110	12119
70°	11161	10451	11827
75°	9569	9837	11626
80°	7229	9345	11540
85°	3974	9140	11711

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14926 cd/sqm



TEST NUMBER: P1356880
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.5	2.8
10°-20°	297.2	8.0
20°-30°	449.4	12.1
30°-40°	544.2	14.7
40°-50°	571.5	15.4
50°-60°	533.2	14.4
60°-70°	440.7	11.9
70°-80°	317.3	8.5
80°-90°	197.2	5.3
90°-100°	115.5	3.1
100°-110°	66.1	1.8
110°-120°	37.3	1.0
120°-130°	21.5	0.6
130°-140°	11.6	0.3
140°-150°	4.9	0.1
150°-160°	0.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	850.2	22.9
0°-40°	1394.3	37.6
0°-60°	2499.1	67.3
0°-90°	3454.2	93.1
90°-120°	218.9	5.9
90°-150°	256.8	6.9
90°-180°	258.0	7.0
0°-180°	3712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1092	1092	1092	1092	1092	
5°	1080	1090	1090	1090	1092	103
15°	1035	1049	1053	1060	1064	292
25°	944	960	976	990	999	435
35°	822	844	872	897	908	514
45°	681	706	744	776	790	525
55°	524	554	599	642	658	468
65°	354	388	447	504	524	350
75°	182	227	306	372	400	192
85°	34	102	193	261	286	42
90°	0	61	148	211	238	2
95°	0	39	111	170	195	0
105°	0	14	61	107	125	0
115°	0	7	36	66	77	0
125°	0	4	23	43	50	0
135°	0	0	14	27	34	0
145°	0	0	7	16	18	0
155°	0	0	0	4	7	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1356880
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1091.7	1091.7	1091.7	1091.7	1091.7
2.5°	1087.2	1094.0	1094.0	1087.2	1087.2
5°	1080.4	1089.5	1089.5	1089.5	1091.7
7.5°	1073.6	1084.9	1084.9	1084.9	1089.5
10°	1064.5	1075.9	1078.1	1078.1	1080.4
12.5°	1050.9	1064.5	1066.8	1069.1	1071.3
15°	1035.0	1048.6	1053.2	1060.0	1064.5
17.5°	1016.8	1032.7	1041.8	1048.6	1053.2
20°	994.1	1010.0	1021.4	1030.5	1037.3
22.5°	971.5	985.1	998.7	1010.0	1016.8
25°	944.2	960.1	976.0	989.6	998.7
27.5°	914.7	932.9	953.3	969.2	978.3
30°	887.5	905.6	928.3	948.8	957.8
32.5°	855.7	876.1	901.1	921.5	932.9
35°	821.6	844.3	871.6	896.6	907.9
37.5°	787.6	810.3	844.3	869.3	880.7
40°	753.6	776.3	812.6	839.8	851.2
42.5°	717.2	739.9	778.5	808.0	821.6
45°	680.9	705.9	744.5	776.3	789.9
47.5°	644.6	669.6	710.4	744.5	758.1
50°	603.8	631.0	671.8	710.4	724.0
52.5°	565.2	592.4	637.8	676.4	690.0
55°	524.3	553.8	599.2	642.3	658.2
57.5°	483.5	513.0	560.6	606.0	624.2
60°	440.3	472.1	522.0	569.7	590.1
62.5°	397.2	431.3	485.7	535.7	556.1
65°	354.1	388.1	447.1	503.9	524.3
67.5°	311.0	347.3	410.8	469.8	494.8
70°	267.8	306.4	374.5	435.8	460.8
72.5°	224.7	265.6	340.5	404.0	429.0
75°	181.6	227.0	306.4	372.2	399.5
77.5°	138.5	190.7	276.9	342.7	370.0
80°	99.9	158.9	245.1	313.2	340.5
82.5°	63.6	127.1	217.9	286.0	313.2
85°	34.0	102.1	192.9	261.0	286.0
87.5°	11.3	79.4	168.0	236.1	261.0
90°	0.0	61.3	147.5	211.1	238.3
92.5°	0.0	47.7	129.4	190.7	215.6
95°	0.0	38.6	111.2	170.2	195.2
97.5°	0.0	31.8	97.6	152.1	174.8
100°	0.0	25.0	84.0	136.2	156.6
102.5°	0.0	20.4	72.6	120.3	140.7
105°	0.0	13.6	61.3	106.7	124.8
107.5°	0.0	11.3	52.2	95.3	111.2
110°	0.0	9.1	47.7	81.7	97.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	6.8	43.1	72.6	88.5
115°	0.0	6.8	36.3	65.8	77.2
117.5°	0.0	6.8	31.8	59.0	70.4
120°	0.0	4.5	29.5	52.2	63.6
122.5°	0.0	4.5	25.0	47.7	56.7
125°	0.0	4.5	22.7	43.1	49.9
127.5°	0.0	2.3	20.4	38.6	45.4
130°	0.0	2.3	18.2	34.0	40.9
132.5°	0.0	2.3	15.9	31.8	38.6
135°	0.0	0.0	13.6	27.2	34.0
137.5°	0.0	0.0	11.3	25.0	29.5
140°	0.0	0.0	9.1	20.4	27.2
142.5°	0.0	0.0	6.8	18.2	22.7
145°	0.0	0.0	6.8	15.9	18.2
147.5°	0.0	0.0	4.5	11.3	15.9
150°	0.0	0.0	2.3	9.1	11.3
152.5°	0.0	0.0	0.0	6.8	9.1
155°	0.0	0.0	0.0	4.5	6.8
157.5°	0.0	0.0	0.0	0.0	2.3
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	19.31	20.85	19.78	21.30	21.79	21.25	22.79	21.72	23.25	23.73
	3H	20.81	22.21	21.29	22.68	23.20	23.68	25.08	24.16	25.55	26.07
	4H	21.29	22.62	21.79	23.10	23.64	24.85	26.18	25.35	26.66	27.20
	6H	21.57	22.81	22.08	23.30	23.86	26.05	27.29	26.56	27.78	28.34
	8H	21.62	22.81	22.15	23.33	23.89	26.66	27.85	27.19	28.37	28.93
	12H	21.63	22.77	22.17	23.28	23.87	27.31	28.45	27.84	28.96	29.55
4H	2H	20.17	21.50	20.67	21.98	22.52	21.69	23.02	22.19	23.50	24.04
	3H	21.91	23.04	22.42	23.57	24.13	24.34	25.48	24.86	26.00	26.56
	4H	22.51	23.55	23.05	24.08	24.68	25.68	26.72	26.22	27.26	27.85
	6H	22.91	23.83	23.46	24.39	25.00	27.08	28.00	27.63	28.56	29.16
	8H	23.00	23.87	23.56	24.43	25.05	27.79	28.66	28.35	29.22	29.84
	12H	23.05	23.83	23.63	24.42	25.05	28.57	29.35	29.15	29.94	30.57
8H	4H	23.17	24.04	23.73	24.60	25.22	25.90	26.76	26.46	27.33	27.95
	6H	23.75	24.48	24.34	25.09	25.71	27.47	28.20	28.06	28.80	29.43
	8H	23.93	24.59	24.54	25.21	25.85	28.32	28.99	28.93	29.60	30.24
	12H	24.05	24.64	24.66	25.24	25.95	29.29	29.87	29.89	30.48	31.18
12H	4H	23.36	24.14	23.94	24.73	25.36	25.91	26.69	26.49	27.28	27.91
	6H	24.03	24.69	24.64	25.31	25.95	27.51	28.17	28.11	28.78	29.42
	8H	24.31	24.90	24.92	25.50	26.21	28.43	29.02	29.04	29.63	30.33

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-2

Test Date: 11/17/2025

Luminaire Tested: 4ASL-2-27-UNV-OPL-1_600mA

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

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/18/2025
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Fail-Safe
 Catalog Number: **4ASL-2-27-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 2700K LEDs with 1 rows at 600mA

Spectral Parameters

CCT (K): 2696
 CIE u': 0.2632
 CIE v': 0.5245
 Duv: -0.0020
 CIE x: 0.4568
 CIE y: 0.4045
 CIE z: 0.1387
 Peak Wavelength (nm): 630
 Dominant Wavelength (nm): 584
 Purity: 58.52757
 R_f: 90.1
 R_g: 103.5

CRI (Ra): 94.4
 R1: 97.5
 R2: 97.8
 R3: 96.9
 R4: 95.3
 R5: 97.2
 R6: 96.5
 R7: 91.2
 R8: 83.2
 R9: 61.8
 R10: 93.6
 R11: 93.7
 R12: 94.1
 R13: 97.6
 R14: 96.8
 R15: 91.9



Test Conditions

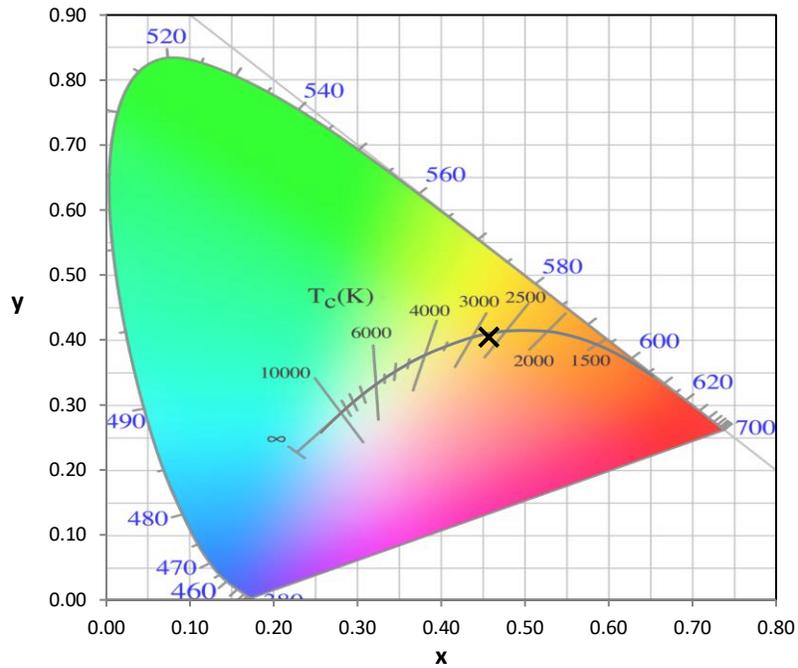
Stabilization Time: 32M
 Operation Time: 1H 32M
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2511-597-2

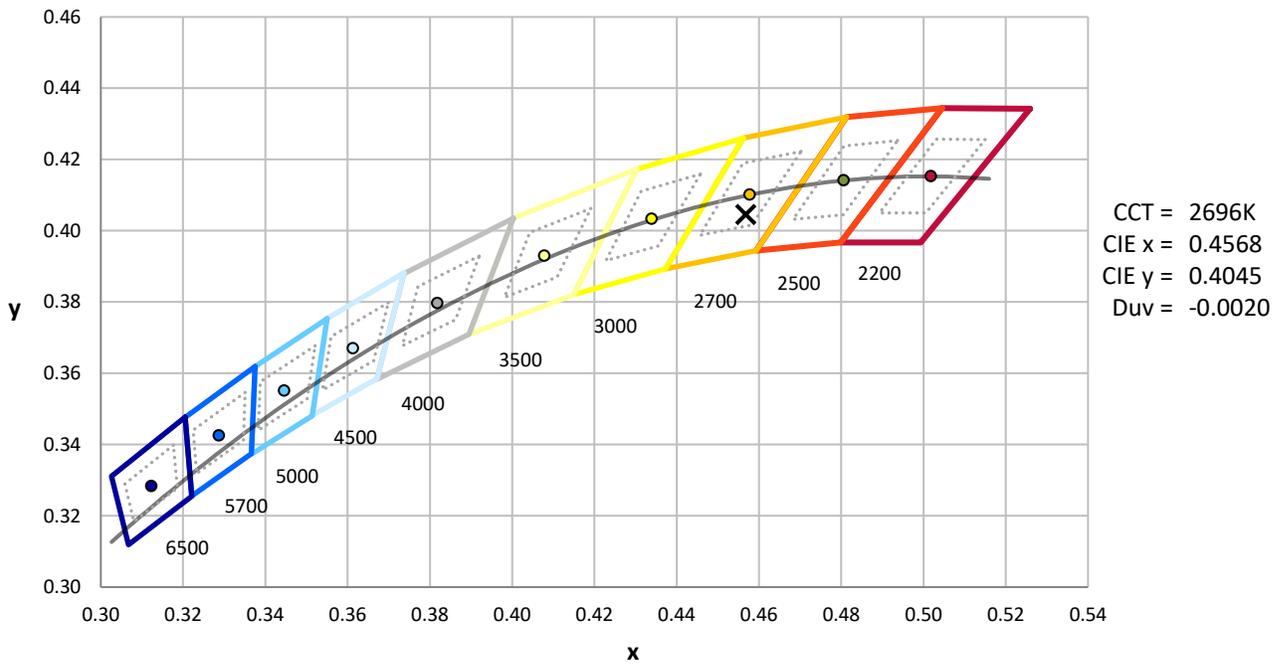
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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 = 2696K
 CIE x = 0.4568
 CIE y = 0.4045
 Duv = -0.0020

Point lies inside the ANSI 2700K 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	70	NR	620	281	NR	750	7	NR	880	0	NR
365	0	NR	495	88	NR	625	288	NR	755	6	NR	885	0	NR
370	0	NR	500	106	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	121	NR	635	581	NR	765	5	NR	895	0	NR
380	0	NR	510	133	NR	640	184	NR	770	4	NR	900	0	NR
385	0	NR	515	143	NR	645	191	NR	775	3	NR	905	0	NR
390	0	NR	520	149	NR	650	161	NR	780	3	NR	910	0	NR
395	1	NR	525	155	NR	655	136	NR	785	2	NR	915	0	NR
400	1	NR	530	158	NR	660	116	NR	790	2	NR	920	0	NR
405	2	NR	535	163	NR	665	99	NR	795	2	NR	925	0	NR
410	3	NR	540	168	NR	670	92	NR	800	2	NR	930	0	NR
415	6	NR	545	173	NR	675	75	NR	805	1	NR	935	0	NR
420	11	NR	550	179	NR	680	65	NR	810	1	NR	940	0	NR
425	19	NR	555	187	NR	685	56	NR	815	1	NR	945	0	NR
430	32	NR	560	195	NR	690	48	NR	820	1	NR	950	0	NR
435	54	NR	565	203	NR	695	41	NR	825	1	NR	955	0	NR
440	90	NR	570	211	NR	700	35	NR	830	1	NR	960	0	NR
445	134	NR	575	219	NR	705	30	NR	835	1	NR	965	0	NR
450	128	NR	580	228	NR	710	26	NR	840	1	NR	970	0	NR
455	83	NR	585	237	NR	715	22	NR	845	0	NR	975	0	NR
460	67	NR	590	246	NR	720	19	NR	850	0	NR	980	0	NR
465	55	NR	595	251	NR	725	16	NR	855	0	NR	985	0	NR
470	42	NR	600	259	NR	730	13	NR	860	0	NR	990	0	NR
475	41	NR	605	266	NR	735	11	NR	865	0	NR	995	0	NR
480	46	NR	610	299	NR	740	10	NR	870	0	NR	1000	0	NR
485	55	NR	615	317	NR	745	8	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.29

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	70	NR	620	281	NR	750	7	NR	880	0	NR
365	0	NR	495	88	NR	625	288	NR	755	6	NR	885	0	NR
370	0	NR	500	106	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	121	NR	635	581	NR	765	5	NR	895	0	NR
380	0	NR	510	133	NR	640	184	NR	770	4	NR	900	0	NR
385	0	NR	515	143	NR	645	191	NR	775	3	NR	905	0	NR
390	0	NR	520	149	NR	650	161	NR	780	3	NR	910	0	NR
395	1	NR	525	155	NR	655	136	NR	785	2	NR	915	0	NR
400	1	NR	530	158	NR	660	116	NR	790	2	NR	920	0	NR
405	2	NR	535	163	NR	665	99	NR	795	2	NR	925	0	NR
410	3	NR	540	168	NR	670	92	NR	800	2	NR	930	0	NR
415	6	NR	545	173	NR	675	75	NR	805	1	NR	935	0	NR
420	11	NR	550	179	NR	680	65	NR	810	1	NR	940	0	NR
425	19	NR	555	187	NR	685	56	NR	815	1	NR	945	0	NR
430	32	NR	560	195	NR	690	48	NR	820	1	NR	950	0	NR
435	54	NR	565	203	NR	695	41	NR	825	1	NR	955	0	NR
440	90	NR	570	211	NR	700	35	NR	830	1	NR	960	0	NR
445	134	NR	575	219	NR	705	30	NR	835	1	NR	965	0	NR
450	128	NR	580	228	NR	710	26	NR	840	1	NR	970	0	NR
455	83	NR	585	237	NR	715	22	NR	845	0	NR	975	0	NR
460	67	NR	590	246	NR	720	19	NR	850	0	NR	980	0	NR
465	55	NR	595	251	NR	725	16	NR	855	0	NR	985	0	NR
470	42	NR	600	259	NR	730	13	NR	860	0	NR	990	0	NR
475	41	NR	605	266	NR	735	11	NR	865	0	NR	995	0	NR
480	46	NR	610	299	NR	740	10	NR	870	0	NR	1000	0	NR
485	55	NR	615	317	NR	745	8	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.45

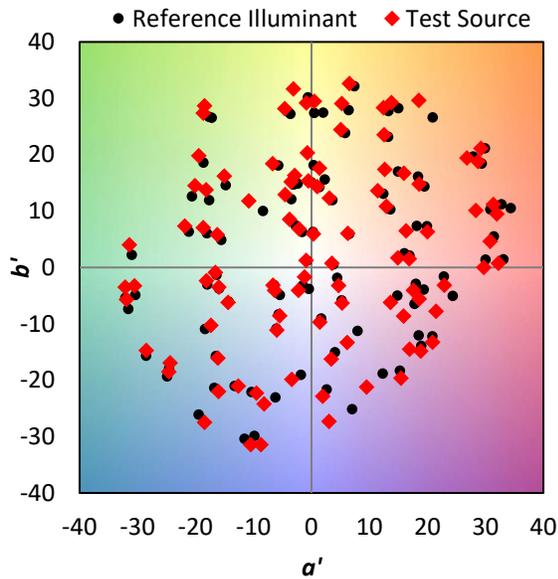
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	70	NR	620	281	NR	750	7	NR	880	0	NR
365	0	NR	495	88	NR	625	288	NR	755	6	NR	885	0	NR
370	0	NR	500	106	NR	630	1000	NR	760	5	NR	890	0	NR
375	0	NR	505	121	NR	635	581	NR	765	5	NR	895	0	NR
380	0	NR	510	133	NR	640	184	NR	770	4	NR	900	0	NR
385	0	NR	515	143	NR	645	191	NR	775	3	NR	905	0	NR
390	0	NR	520	149	NR	650	161	NR	780	3	NR	910	0	NR
395	1	NR	525	155	NR	655	136	NR	785	2	NR	915	0	NR
400	1	NR	530	158	NR	660	116	NR	790	2	NR	920	0	NR
405	2	NR	535	163	NR	665	99	NR	795	2	NR	925	0	NR
410	3	NR	540	168	NR	670	92	NR	800	2	NR	930	0	NR
415	6	NR	545	173	NR	675	75	NR	805	1	NR	935	0	NR
420	11	NR	550	179	NR	680	65	NR	810	1	NR	940	0	NR
425	19	NR	555	187	NR	685	56	NR	815	1	NR	945	0	NR
430	32	NR	560	195	NR	690	48	NR	820	1	NR	950	0	NR
435	54	NR	565	203	NR	695	41	NR	825	1	NR	955	0	NR
440	90	NR	570	211	NR	700	35	NR	830	1	NR	960	0	NR
445	134	NR	575	219	NR	705	30	NR	835	1	NR	965	0	NR
450	128	NR	580	228	NR	710	26	NR	840	1	NR	970	0	NR
455	83	NR	585	237	NR	715	22	NR	845	0	NR	975	0	NR
460	67	NR	590	246	NR	720	19	NR	850	0	NR	980	0	NR
465	55	NR	595	251	NR	725	16	NR	855	0	NR	985	0	NR
470	42	NR	600	259	NR	730	13	NR	860	0	NR	990	0	NR
475	41	NR	605	266	NR	735	11	NR	865	0	NR	995	0	NR
480	46	NR	610	299	NR	740	10	NR	870	0	NR	1000	0	NR
485	55	NR	615	317	NR	745	8	NR	875	0	NR			

Summary

$R_f = 90.1$
 $R_g = 103.5$
 $CIE R_a = 94.4$
 $R_9 = 61.8$

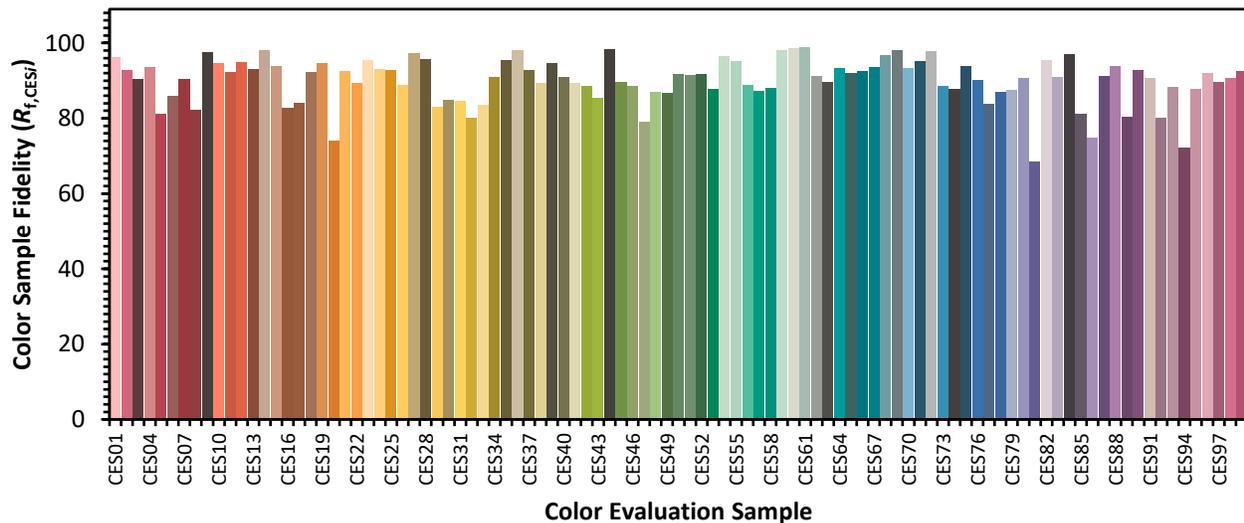


Color Vector Graphics

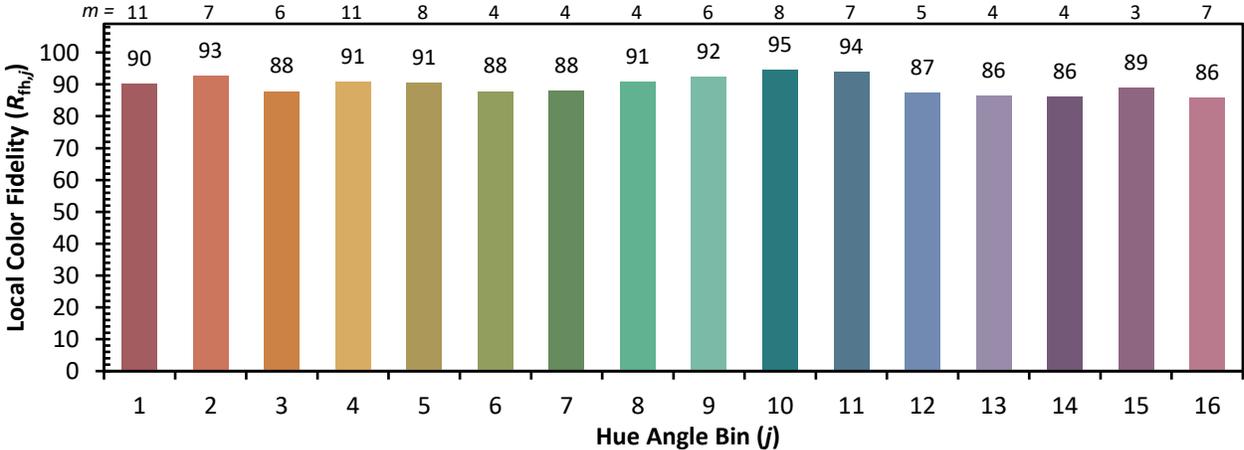


Individual Sample Fidelity Index ($R_{f,i}$)

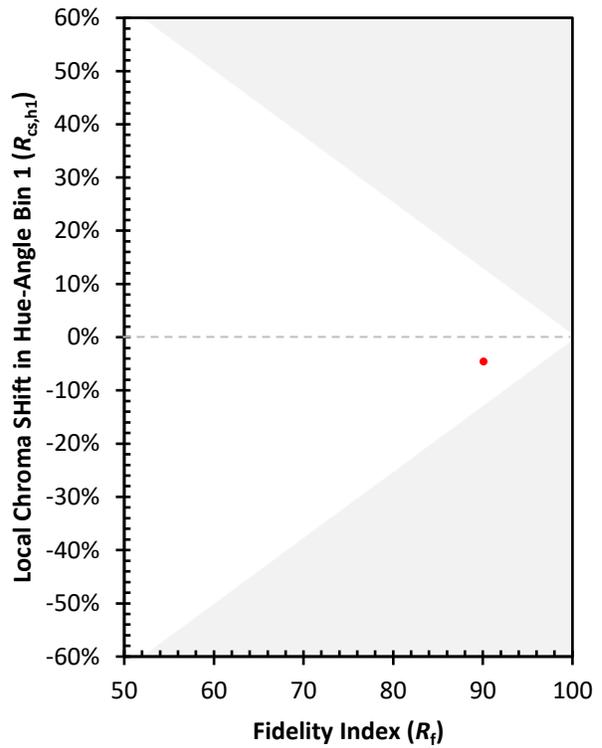
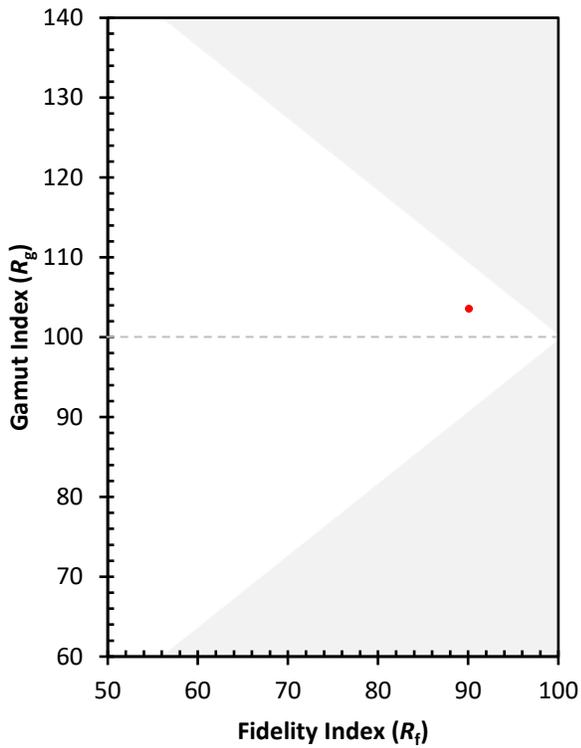
CES01 = 86	CES26 = 89	CES51 = 92	CES76 = 90
CES02 = 64	CES27 = 97	CES52 = 92	CES77 = 84
CES03 = 32	CES28 = 96	CES53 = 88	CES78 = 87
CES04 = 71	CES29 = 83	CES54 = 97	CES79 = 88
CES05 = 51	CES30 = 85	CES55 = 95	CES80 = 91
CES06 = 51	CES31 = 85	CES56 = 89	CES81 = 69
CES07 = 44	CES32 = 80	CES57 = 87	CES82 = 95
CES08 = 43	CES33 = 84	CES58 = 88	CES83 = 91
CES09 = 29	CES34 = 91	CES59 = 98	CES84 = 97
CES10 = 77	CES35 = 96	CES60 = 99	CES85 = 81
CES11 = 59	CES36 = 98	CES61 = 99	CES86 = 75
CES12 = 66	CES37 = 93	CES62 = 91	CES87 = 91
CES13 = 45	CES38 = 89	CES63 = 90	CES88 = 94
CES14 = 74	CES39 = 95	CES64 = 93	CES89 = 80
CES15 = 72	CES40 = 91	CES65 = 92	CES90 = 93
CES16 = 48	CES41 = 89	CES66 = 92	CES91 = 91
CES17 = 50	CES42 = 89	CES67 = 93	CES92 = 80
CES18 = 57	CES43 = 85	CES68 = 97	CES93 = 88
CES19 = 72	CES44 = 98	CES69 = 98	CES94 = 72
CES20 = 68	CES45 = 90	CES70 = 93	CES95 = 88
CES21 = 87	CES46 = 89	CES71 = 95	CES96 = 92
CES22 = 79	CES47 = 79	CES72 = 98	CES97 = 90
CES23 = 92	CES48 = 87	CES73 = 89	CES98 = 91
CES24 = 91	CES49 = 87	CES74 = 88	CES99 = 92
CES25 = 72	CES50 = 92	CES75 = 94	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)