

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: P1356986

Luminaire Tested: 3ASL4-10-1-G52-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356986
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-6)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 3ASL4-10-1-G52-UNV
Description: 3FT 1000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

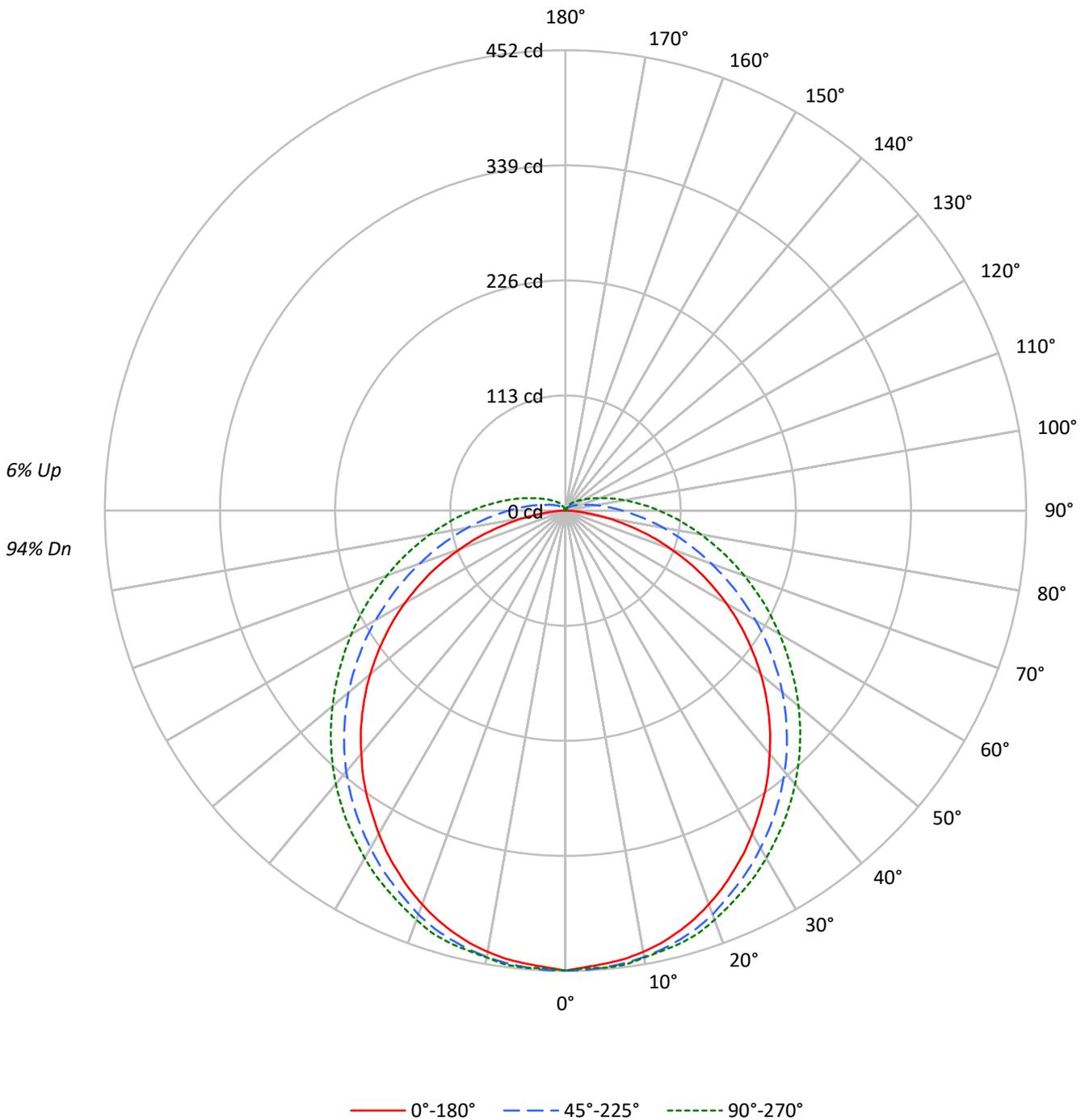
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1512.0 lumens
Efficiency: N/A
Efficacy: 49.7 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): 30.4
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

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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	96	96	96	94
1	106	100	95	91	102	97	93	89	92	88	85	87	84	81	82	80	78	78	78	78	75
2	95	86	79	73	92	84	77	71	79	74	69	75	70	66	71	67	64	64	64	64	61
3	87	76	67	60	84	73	65	59	69	63	57	66	60	55	62	58	54	54	54	54	51
4	79	67	57	50	76	65	56	50	62	54	48	58	52	47	56	50	46	46	46	46	43
5	73	59	50	43	70	58	49	43	55	47	42	52	46	41	50	44	40	40	40	40	37
6	67	53	44	38	65	52	43	37	50	42	36	47	41	35	45	39	35	35	35	35	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	31	31	31	29
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4895	4895	4895
5°	4843	4794	4772
10°	4812	4695	4647
15°	4759	4588	4550
20°	4685	4468	4429
25°	4593	4325	4299
30°	4494	4195	4177
35°	4394	4061	4055
40°	4283	3925	3929
45°	4177	3778	3800
50°	4052	3625	3666
55°	3899	3452	3532
60°	3728	3271	3414
65°	3510	3081	3296
70°	3175	2880	3180
75°	2745	2700	3091
80°	2157	2545	3037
85°	1226	2436	3058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4177 cd/sqm



TEST NUMBER: P1356986
 CATALOG NUMBER: 3ASL4-10-1-G52-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	2.8
10°-20°	122.8	8.1
20°-30°	185.6	12.3
30°-40°	224.4	14.8
40°-50°	235.9	15.6
50°-60°	219.8	14.5
60°-70°	180.5	11.9
70°-80°	128.2	8.5
80°-90°	77.3	5.1
90°-100°	43.3	2.9
100°-110°	24.0	1.6
110°-120°	13.4	0.9
120°-130°	7.7	0.5
130°-140°	4.2	0.3
140°-150°	1.9	0.1
150°-160°	0.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	351.2	23.2
0°-40°	575.5	38.1
0°-60°	1031.2	68.2
0°-90°	1417.2	93.7
90°-120°	80.6	5.3
90°-150°	94.4	6.2
90°-180°	95.0	6.3
0°-180°	1512.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	446	451	450	450	451	42
15°	428	434	436	438	439	121
25°	390	398	403	409	412	180
35°	340	349	360	369	374	213
45°	282	292	307	320	325	217
55°	217	229	247	263	270	194
65°	147	160	183	205	215	145
75°	74	93	124	149	160	79
85°	14	40	75	102	112	17
90°	0	24	56	82	91	1
95°	0	14	41	64	74	0
105°	0	5	22	39	46	0
115°	0	3	13	24	28	0
125°	0	2	8	15	18	0
135°	0	0	5	10	12	0
145°	0	0	2	6	7	0
155°	0	0	0	2	2	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1356986
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	451.6	451.6	451.6	451.6	451.6
2.5°	448.6	452.6	451.6	449.6	449.6
5°	446.5	450.6	450.1	449.6	450.6
7.5°	444.0	448.0	448.0	448.6	449.6
10°	439.9	445.0	445.0	445.0	445.5
12.5°	434.8	439.9	440.9	441.4	442.4
15°	428.1	433.7	435.8	437.8	439.4
17.5°	420.5	426.1	429.7	432.2	434.8
20°	411.3	417.4	422.0	425.1	427.6
22.5°	401.6	407.7	412.3	416.9	419.9
25°	390.3	397.5	403.1	408.7	411.8
27.5°	379.1	386.2	393.4	400.0	403.6
30°	366.3	374.5	382.7	390.3	393.9
32.5°	353.0	361.7	371.4	379.6	383.7
35°	340.2	348.9	359.7	368.9	373.5
37.5°	326.5	335.1	347.4	357.6	362.2
40°	311.6	321.3	334.6	345.4	350.5
42.5°	297.3	307.0	321.3	333.1	338.2
45°	282.0	292.2	307.0	319.8	325.4
47.5°	266.2	276.9	292.7	306.0	312.2
50°	250.3	261.6	277.9	292.2	298.4
52.5°	233.5	245.2	262.6	277.9	284.6
55°	216.6	228.9	246.8	263.1	270.3
57.5°	199.8	212.0	231.4	248.8	256.5
60°	182.4	195.2	215.1	234.0	242.7
62.5°	164.5	177.8	198.7	219.2	228.4
65°	147.1	160.4	183.4	204.9	214.6
67.5°	128.7	143.0	167.6	190.0	200.3
70°	109.8	126.2	152.2	176.3	186.5
72.5°	93.0	109.8	137.9	162.5	173.2
75°	74.1	93.0	123.6	149.2	159.9
77.5°	57.7	78.2	110.4	136.4	147.1
80°	41.4	63.9	97.6	124.1	134.9
82.5°	26.6	51.1	85.8	112.9	123.1
85°	13.8	39.8	74.6	102.2	112.4
87.5°	4.1	30.7	64.4	91.4	101.7
90°	0.0	23.5	55.7	81.7	91.4
92.5°	0.0	17.9	48.0	73.1	82.8
95°	0.0	13.8	40.9	64.4	73.6
97.5°	0.0	10.7	35.3	56.7	65.9
100°	0.0	8.7	30.1	50.1	58.8
102.5°	0.0	7.2	26.1	44.4	52.1
105°	0.0	5.1	21.5	38.8	46.0
107.5°	0.0	3.6	18.9	34.2	40.4
110°	0.0	3.1	16.9	29.6	35.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	2.6	14.8	26.6	31.7
115°	0.0	2.6	13.3	23.5	28.1
117.5°	0.0	2.0	11.2	20.9	25.0
120°	0.0	2.0	10.2	18.9	22.5
122.5°	0.0	1.5	9.2	16.9	20.4
125°	0.0	1.5	8.2	15.3	17.9
127.5°	0.0	1.0	7.2	13.8	16.3
130°	0.0	1.0	6.6	12.3	14.8
132.5°	0.0	0.5	6.1	11.2	13.3
135°	0.0	0.5	5.1	9.7	12.3
137.5°	0.0	0.0	4.6	8.7	10.7
140°	0.0	0.0	3.6	7.7	9.7
142.5°	0.5	0.0	3.1	6.6	8.2
145°	0.5	0.0	2.0	5.6	7.2
147.5°	0.5	0.5	1.5	4.6	5.6
150°	0.5	0.5	1.0	3.1	4.6
152.5°	0.5	0.5	0.5	2.0	3.1
155°	0.5	0.5	0.0	1.5	2.0
157.5°	0.5	0.5	0.0	0.5	1.0
160°	0.5	0.5	0.0	0.0	0.5
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	16.46	15.37	16.91	17.38	16.87	18.42	17.33	18.86	19.33
	3H	16.40	17.82	16.88	18.27	18.78	19.27	20.68	19.74	21.13	21.64
	4H	16.88	18.22	17.37	18.69	19.21	20.42	21.76	20.91	22.23	22.75
	6H	17.16	18.41	17.66	18.89	19.43	21.61	22.86	22.12	23.34	23.88
	8H	17.21	18.41	17.73	18.91	19.46	22.22	23.41	22.74	23.92	24.47
	12H	17.22	18.37	17.75	18.87	19.45	22.88	24.03	23.40	24.53	25.10
4H	2H	15.77	17.11	16.26	17.58	18.10	17.30	18.64	17.80	19.11	19.64
	3H	17.50	18.64	18.01	19.16	19.70	19.92	21.07	20.43	21.58	22.13
	4H	18.10	19.14	18.63	19.67	20.25	21.25	22.29	21.77	22.82	23.40
	6H	18.50	19.42	19.04	19.97	20.56	22.63	23.55	23.17	24.10	24.69
	8H	18.59	19.46	19.14	20.01	20.61	23.34	24.21	23.89	24.76	25.36
	12H	18.63	19.42	19.21	20.00	20.61	24.12	24.91	24.70	25.49	26.10
8H	4H	18.74	19.61	19.30	20.16	20.77	21.46	22.33	22.01	22.88	23.49
	6H	19.31	20.05	19.90	20.64	21.25	23.01	23.74	23.59	24.34	24.95
	8H	19.49	20.15	20.09	20.76	21.38	23.86	24.52	24.45	25.13	25.75
	12H	19.60	20.19	20.20	20.78	21.47	24.83	25.42	25.42	26.01	26.70
12H	4H	18.92	19.71	19.49	20.29	20.90	21.47	22.26	22.04	22.84	23.45
	6H	19.58	20.25	20.18	20.85	21.47	23.04	23.71	23.64	24.31	24.94
	8H	19.85	20.44	20.45	21.04	21.73	23.96	24.55	24.56	25.15	25.84

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-8

Test Date: 01/22/2026

Luminaire Tested: 4ASL-2-G520-UNV-OPL-1_600mA

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

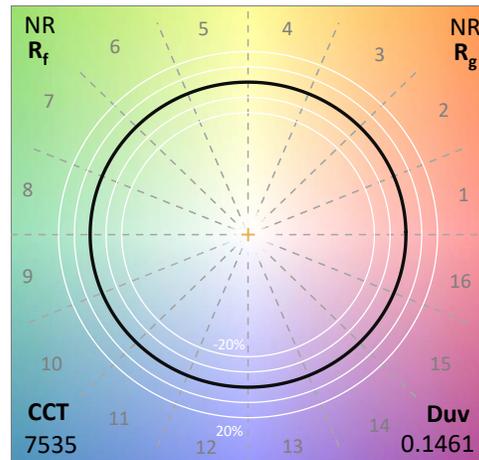
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-8
 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-G520-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND GREEN 520NM LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K): 7535
 CIE u': 0.0718
 CIE v': 0.5710
 Duv: 0.1461
 CIE x: 0.1962
 CIE y: 0.6931
 CIE z: 0.1107
 Peak Wavelength (nm): 524
 Dominant Wavelength (nm): 529
 Purity: 75.95236
 Rf: NR
 Rg: NR

CRI (Ra):	-11.7		
R1:	-30.6	R9:	-351.9
R2:	5.1	R10:	-75.5
R3:	5.6	R11:	-78.0
R4:	-51.7	R12:	-14.7
R5:	-6.4	R13:	-32.5
R6:	-0.6	R14:	52.7
R7:	10.9	R15:	-37.0
R8:	-25.8		



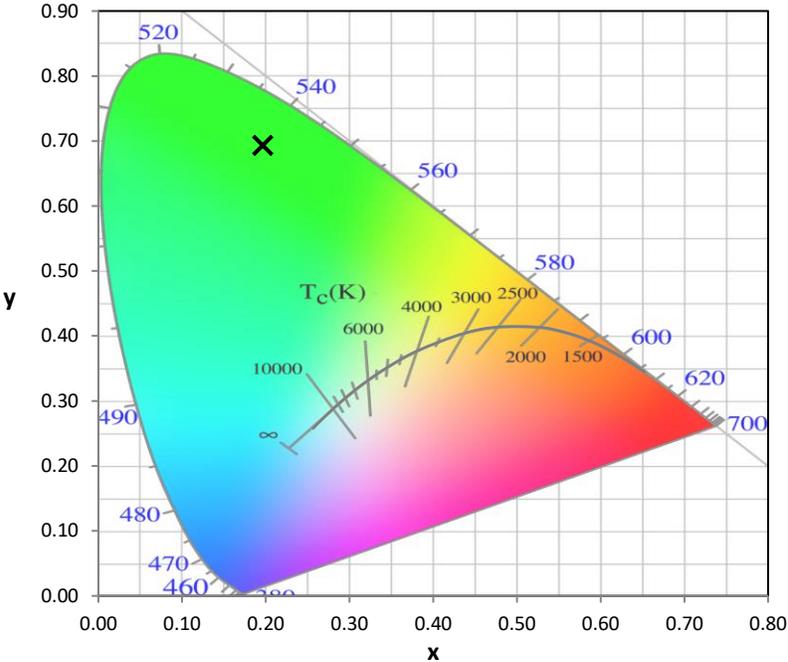
Test Conditions
 Stabilization Time: 48M
 Operation Time: 1H 48M
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2511-597-8

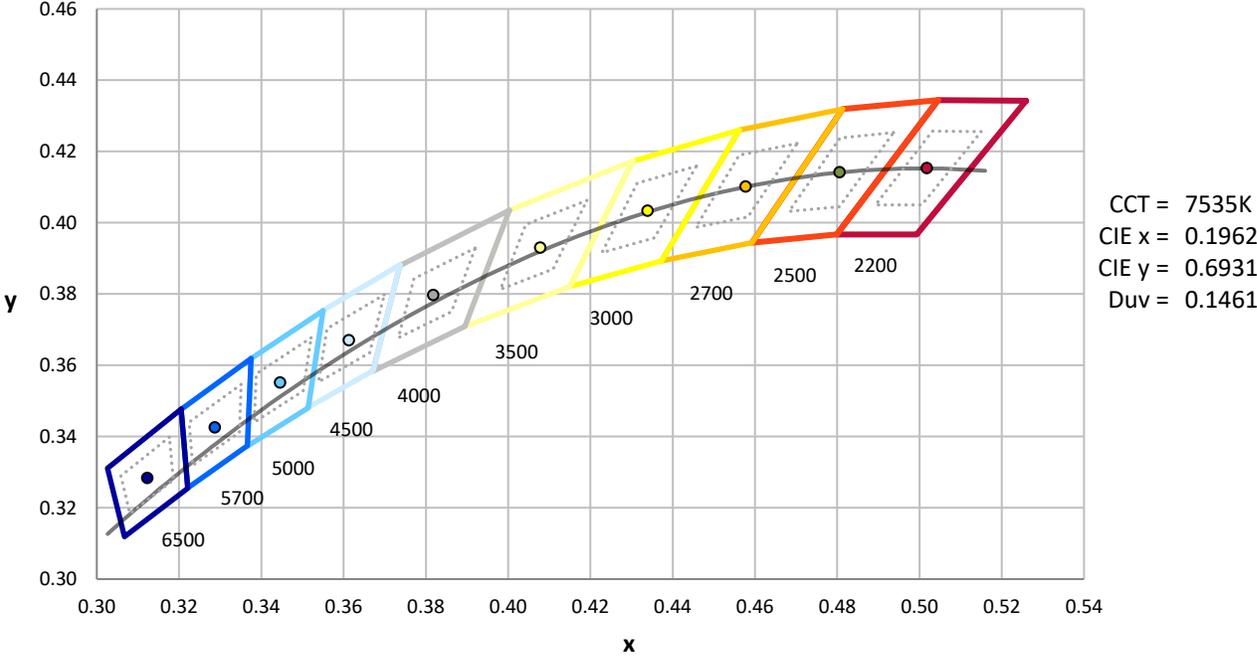
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



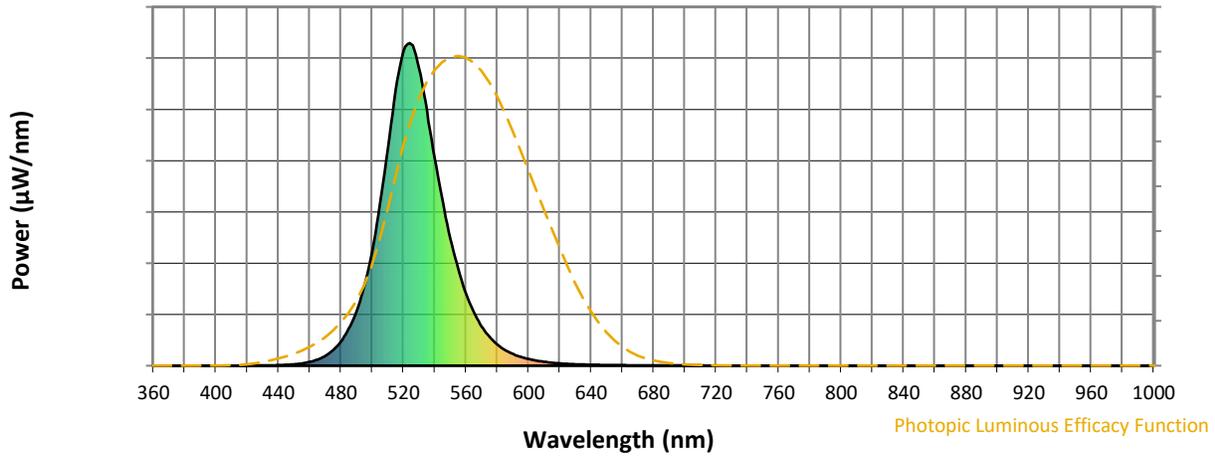
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies outside the range

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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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



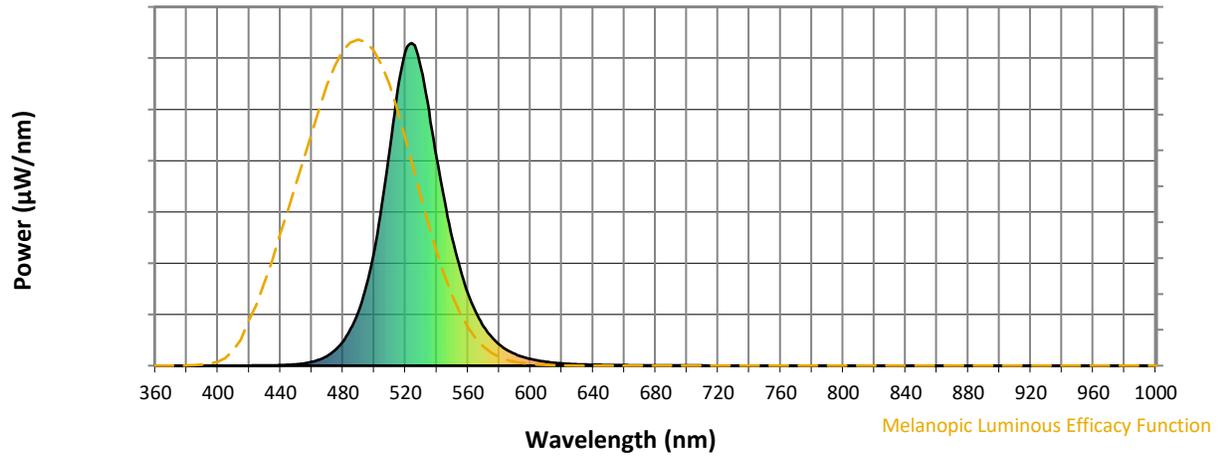
Scotopic Lumens: NR

S/P: 2.63

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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

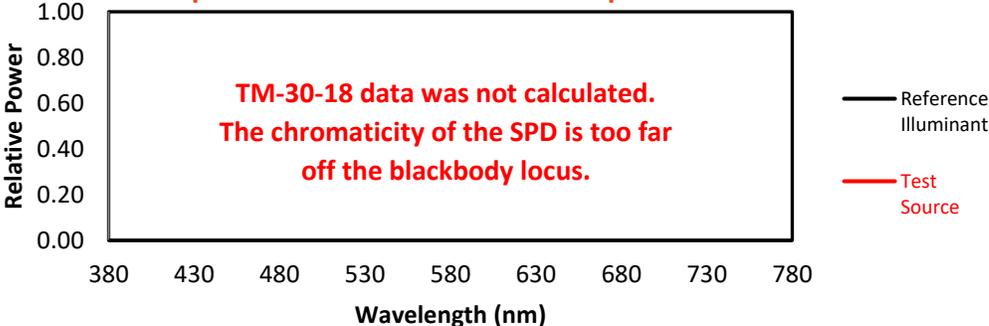
M/P: 4.87

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	169	NR	620	7	NR	750	0	NR	880	0	NR
365	0	NR	495	249	NR	625	6	NR	755	0	NR	885	0	NR
370	0	NR	500	356	NR	630	4	NR	760	0	NR	890	0	NR
375	0	NR	505	502	NR	635	4	NR	765	0	NR	895	0	NR
380	0	NR	510	674	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	853	NR	645	3	NR	775	0	NR	905	0	NR
390	0	NR	520	976	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	996	NR	655	2	NR	785	0	NR	915	0	NR
400	0	NR	530	920	NR	660	2	NR	790	0	NR	920	0	NR
405	0	NR	535	792	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	642	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	511	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	394	NR	680	1	NR	810	0	NR	940	0	NR
425	1	NR	555	300	NR	685	1	NR	815	0	NR	945	0	NR
430	1	NR	560	224	NR	690	1	NR	820	0	NR	950	0	NR
435	1	NR	565	166	NR	695	1	NR	825	0	NR	955	0	NR
440	2	NR	570	122	NR	700	1	NR	830	0	NR	960	0	NR
445	3	NR	575	90	NR	705	1	NR	835	0	NR	965	0	NR
450	4	NR	580	66	NR	710	1	NR	840	0	NR	970	0	NR
455	7	NR	585	48	NR	715	0	NR	845	0	NR	975	0	NR
460	12	NR	590	36	NR	720	0	NR	850	0	NR	980	0	NR
465	19	NR	595	27	NR	725	0	NR	855	0	NR	985	0	NR
470	31	NR	600	21	NR	730	0	NR	860	0	NR	990	0	NR
475	49	NR	605	16	NR	735	0	NR	865	0	NR	995	0	NR
480	75	NR	610	12	NR	740	0	NR	870	0	NR	1000	0	NR
485	115	NR	615	9	NR	745	0	NR	875	0	NR			

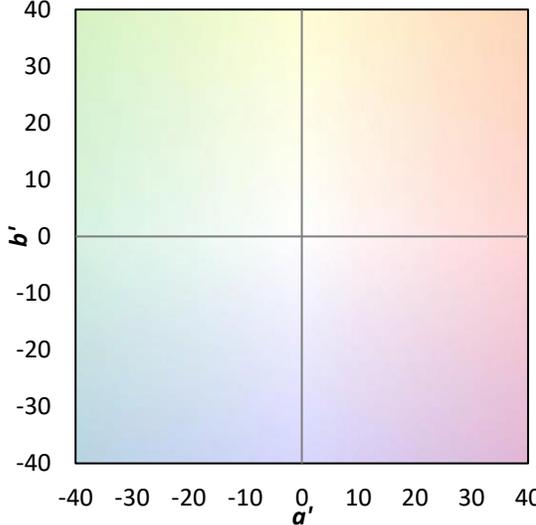
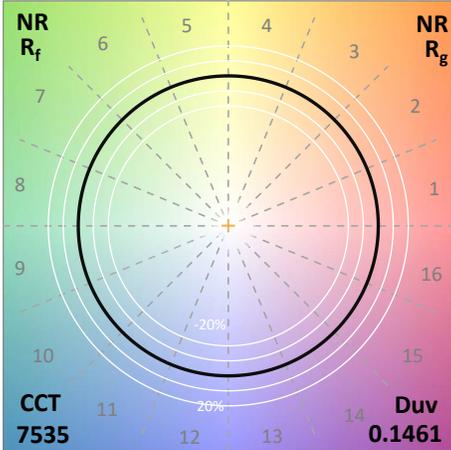
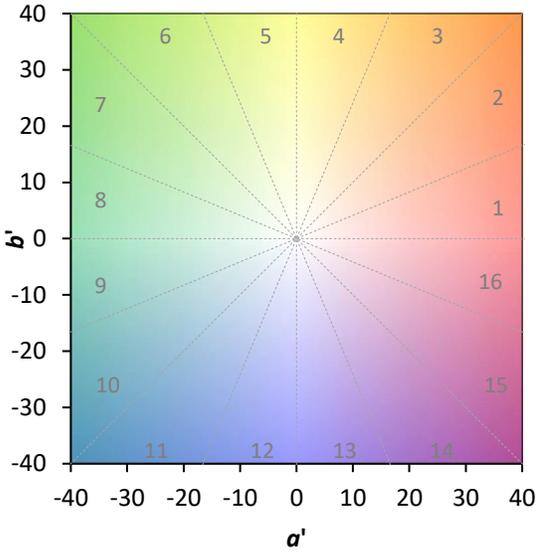
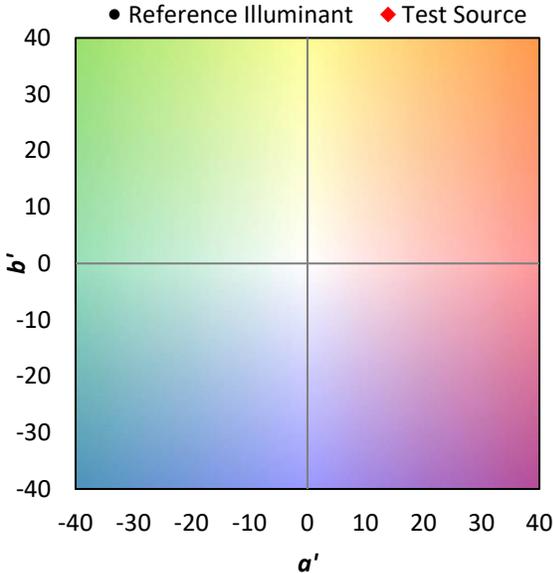
Summary

$R_f = 0$
 $R_g = 0$
 $CIE R_a = -11.7$
 $R_g = -351.9$

Spectral Power Distribution Comparison



Color Vector Graphics



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

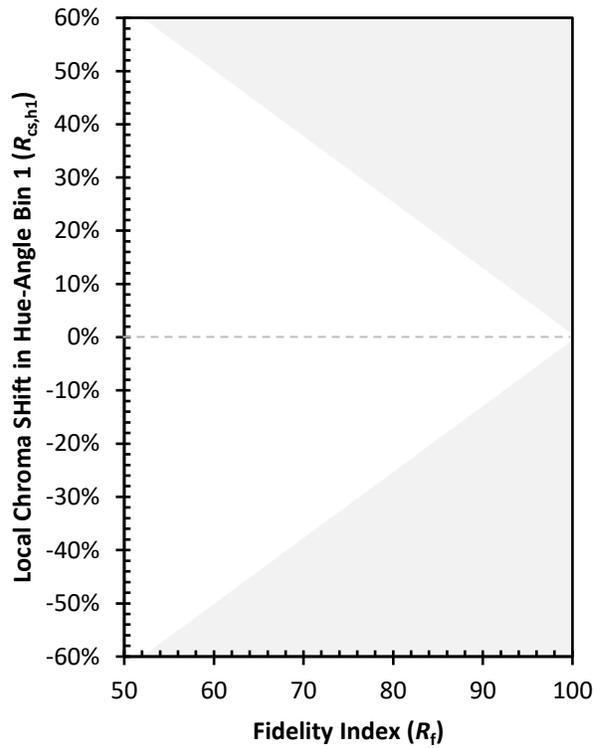
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CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
CES09 = 0	CES34 = 0	CES59 = 0	CES84 = 0
CES10 = 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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)