

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: P1357520

Luminaire Tested: 8ASL4-25VHE-3-G52-UNV

Issue Date: 2/17/2026

**Test Information**

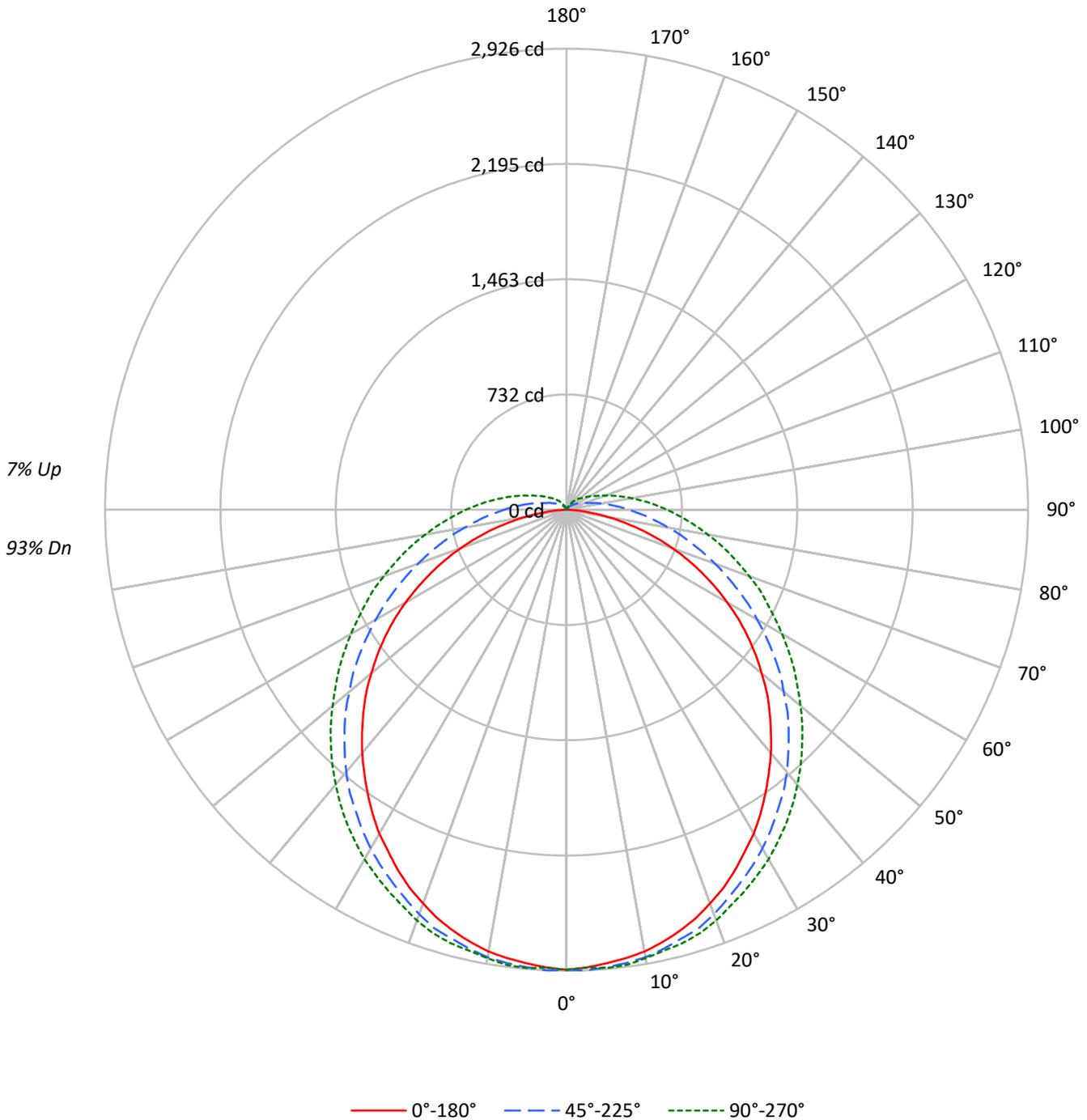
Test Method: LM-79-2019  
Report Number: P1357520  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/17/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: 8ASL4-25VHE-3-G52-UNV  
Description: 8FT 2500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 3 ROW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9928.0 lumens  
Efficiency: N/A  
Efficacy: 50.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')  
CIE Type: Direct  
  
Input Watts (W): 197.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P1357520  
CATALOG NUMBER: 8ASL4-25VHE-3-G52-UNV

### Luminous Intensity Polar Plot





TEST NUMBER: P1357520  
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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°	11817	11817	11817
5°	11726	11604	11547
10°	11673	11387	11255
15°	11558	11116	11007
20°	11397	10856	10728
25°	11209	10527	10411
30°	11009	10242	10142
35°	10759	9918	9843
40°	10532	9623	9528
45°	10289	9264	9212
50°	10011	8878	8884
55°	9713	8510	8589
60°	9322	8079	8289
65°	8822	7667	8040
70°	8182	7260	7845
75°	7240	6893	7712
80°	5796	6627	7655
85°	3681	6598	7769

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10289 cd/sqm



TEST NUMBER: P1357520  
 CATALOG NUMBER: 8ASL4-25VHE-3-G52-UNV

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	276.9	2.8
10°-20°	795.0	8.0
20°-30°	1202.0	12.1
30°-40°	1455.4	14.7
40°-50°	1528.6	15.4
50°-60°	1426.1	14.4
60°-70°	1178.6	11.9
70°-80°	848.6	8.5
80°-90°	527.4	5.3
90°-100°	309.0	3.1
100°-110°	176.8	1.8
110°-120°	99.8	1.0
120°-130°	57.4	0.6
130°-140°	30.9	0.3
140°-150°	13.0	0.1
150°-160°	2.4	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2273.9	22.9
0°-40°	3729.3	37.6
0°-60°	6684.0	67.3
0°-90°	9238.6	93.1
90°-120°	585.6	5.9
90°-150°	687.0	6.9
90°-180°	689.0	6.9
0°-180°	9928.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2920	2920	2920	2920	2920	
5°	2890	2914	2914	2914	2920	275
15°	2768	2805	2817	2835	2847	781
25°	2525	2568	2610	2647	2671	1163
35°	2198	2258	2331	2398	2428	1376
45°	1821	1888	1991	2076	2113	1405
55°	1402	1481	1603	1718	1760	1253
65°	947	1038	1196	1348	1402	937
75°	486	607	820	996	1068	514
85°	91	273	516	698	765	111
90°	0	164	395	565	637	4
95°	0	103	298	455	522	0
105°	0	36	164	285	334	0
115°	0	18	97	176	206	0
125°	0	12	61	115	134	0
135°	0	0	36	73	91	0
145°	0	0	18	42	49	0
155°	0	0	0	12	18	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357520  
 CATALOG NUMBER: 8ASL4-25VHE-3-G52-UNV

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2920.0	2920.0	2920.0	2920.0	2920.0
2.5°	2907.8	2926.0	2926.0	2907.8	2907.8
5°	2889.6	2913.9	2913.9	2913.9	2920.0
7.5°	2871.4	2901.7	2901.7	2901.7	2913.9
10°	2847.1	2877.5	2883.5	2883.5	2889.6
12.5°	2810.7	2847.1	2853.2	2859.3	2865.3
15°	2768.2	2804.6	2816.8	2835.0	2847.1
17.5°	2719.6	2762.1	2786.4	2804.6	2816.8
20°	2658.9	2701.4	2731.8	2756.1	2774.3
22.5°	2598.2	2634.6	2671.1	2701.4	2719.6
25°	2525.4	2567.9	2610.4	2646.8	2671.1
27.5°	2446.5	2495.0	2549.7	2592.1	2616.4
30°	2373.6	2422.2	2482.9	2537.5	2561.8
32.5°	2288.6	2343.3	2410.0	2464.7	2495.0
35°	2197.6	2258.3	2331.1	2397.9	2428.2
37.5°	2106.5	2167.2	2258.3	2325.0	2355.4
40°	2015.4	2076.1	2173.3	2246.1	2276.5
42.5°	1918.3	1979.0	2082.2	2161.1	2197.6
45°	1821.2	1888.0	1991.2	2076.1	2112.6
47.5°	1724.1	1790.8	1900.1	1991.2	2027.6
50°	1614.8	1687.6	1796.9	1900.1	1936.5
52.5°	1511.6	1584.4	1705.8	1809.0	1845.5
55°	1402.3	1481.2	1602.6	1718.0	1760.5
57.5°	1293.0	1372.0	1499.4	1620.8	1669.4
60°	1177.7	1262.7	1396.2	1523.7	1578.4
62.5°	1062.4	1153.4	1299.1	1432.7	1487.3
65°	947.0	1038.1	1195.9	1347.7	1402.3
67.5°	831.7	928.8	1098.8	1256.6	1323.4
70°	716.3	819.5	1001.6	1165.6	1232.3
72.5°	601.0	710.3	910.6	1080.6	1147.3
75°	485.6	607.1	819.5	995.6	1068.4
77.5°	370.3	509.9	740.6	916.7	989.5
80°	267.1	424.9	655.6	837.7	910.6
82.5°	170.0	340.0	582.8	764.9	837.7
85°	91.1	273.2	516.0	698.1	764.9
87.5°	30.4	212.5	449.2	631.3	698.1
90°	0.0	163.9	394.6	564.6	637.4
92.5°	0.0	127.5	346.0	509.9	576.7
95°	0.0	103.2	297.5	455.3	522.1
97.5°	0.0	85.0	261.0	406.7	467.4
100°	0.0	66.8	224.6	364.2	418.9
102.5°	0.0	54.6	194.3	321.7	376.4
105°	0.0	36.4	163.9	285.3	333.9
107.5°	0.0	30.4	139.6	255.0	297.5
110°	0.0	24.3	127.5	218.5	261.0



TEST NUMBER: P1357520  
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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	18.2	115.3	194.3	236.8
115°	0.0	18.2	97.1	176.0	206.4
117.5°	0.0	18.2	85.0	157.8	188.2
120°	0.0	12.1	78.9	139.6	170.0
122.5°	0.0	12.1	66.8	127.5	151.8
125°	0.0	12.1	60.7	115.3	133.6
127.5°	0.0	6.1	54.6	103.2	121.4
130°	0.0	6.1	48.6	91.1	109.3
132.5°	0.0	6.1	42.5	85.0	103.2
135°	0.0	0.0	36.4	72.8	91.1
137.5°	0.0	0.0	30.4	66.8	78.9
140°	0.0	0.0	24.3	54.6	72.8
142.5°	0.0	0.0	18.2	48.6	60.7
145°	0.0	0.0	18.2	42.5	48.6
147.5°	0.0	0.0	12.1	30.4	42.5
150°	0.0	0.0	6.1	24.3	30.4
152.5°	0.0	0.0	0.0	18.2	24.3
155°	0.0	0.0	0.0	12.1	18.2
157.5°	0.0	0.0	0.0	0.0	6.1
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	17.93	19.47	18.40	19.92	20.41	20.00	21.54	20.47	21.99	22.48
	3H	19.42	20.83	19.91	21.29	21.82	22.48	23.88	22.96	24.35	24.87
	4H	19.90	21.24	20.41	21.72	22.26	23.69	25.02	24.19	25.51	26.04
	6H	20.18	21.42	20.69	21.92	22.47	24.97	26.21	25.49	26.71	27.26
	8H	20.23	21.42	20.76	21.94	22.50	25.64	26.83	26.17	27.35	27.91
	12H	20.24	21.38	20.78	21.90	22.49	26.39	27.53	26.92	28.04	28.63
4H	2H	18.81	20.14	19.32	20.63	21.16	20.43	21.76	20.93	22.24	22.78
	3H	20.55	21.68	21.06	22.21	22.77	23.14	24.27	23.65	24.80	25.36
	4H	21.15	22.19	21.69	22.73	23.32	24.52	25.56	25.06	26.10	26.69
	6H	21.55	22.47	22.10	23.03	23.63	25.99	26.91	26.55	27.47	28.08
	8H	21.64	22.51	22.20	23.07	23.69	26.77	27.63	27.33	28.19	28.81
	12H	21.69	22.47	22.27	23.06	23.69	27.64	28.42	28.22	29.01	29.64
8H	4H	21.84	22.71	22.40	23.27	23.89	24.74	25.60	25.30	26.16	26.78
	6H	22.42	23.15	23.01	23.76	24.38	26.38	27.11	26.97	27.71	28.34
	8H	22.60	23.26	23.21	23.88	24.52	27.29	27.95	27.90	28.57	29.20
	12H	22.72	23.31	23.32	23.91	24.62	28.35	28.94	28.96	29.54	30.25
12H	4H	22.04	22.82	22.62	23.42	24.04	24.74	25.53	25.33	26.12	26.74
	6H	22.72	23.38	23.33	24.00	24.64	26.41	27.07	27.02	27.69	28.33
	8H	23.00	23.59	23.61	24.19	24.90	27.40	27.99	28.00	28.59	29.29

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

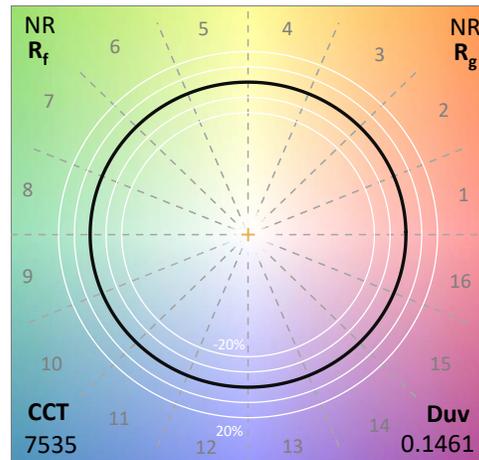
**Test Information**

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**



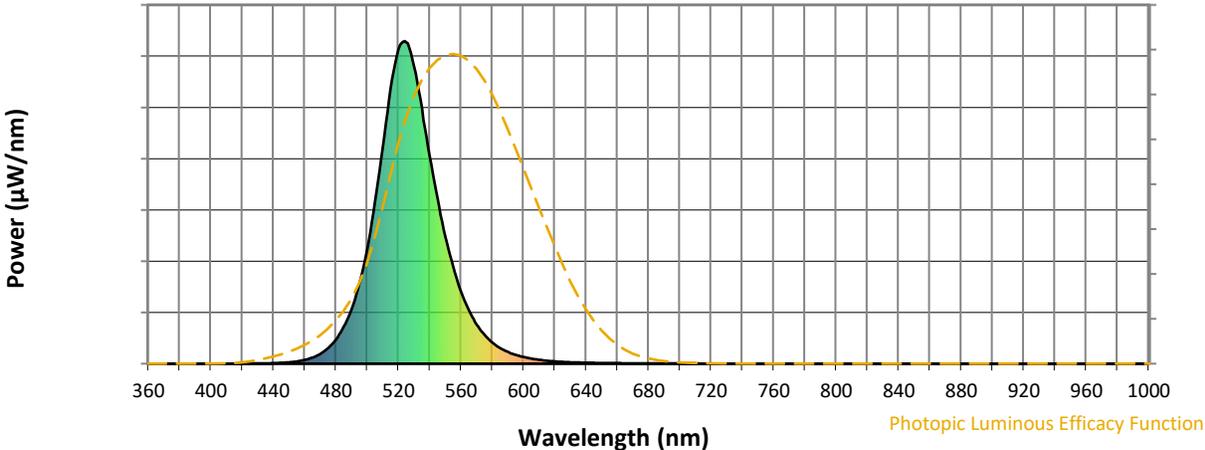
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies outside the range

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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			

REPORT NUMBER: SP1-2511-597-8

**Scotopic Flux vs. Wavelength**



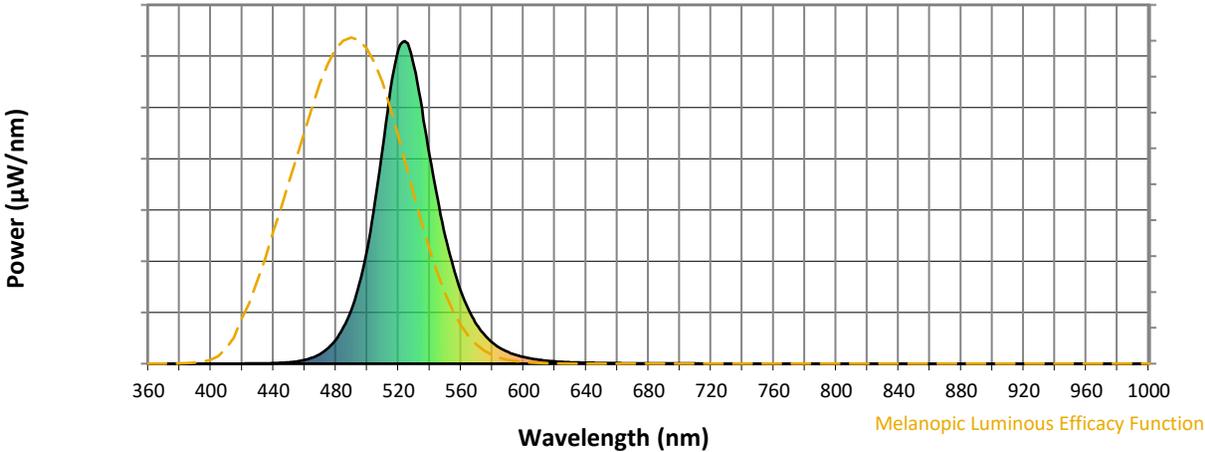
**Scotopic Lumens: NR**

**S/P: 2.63**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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

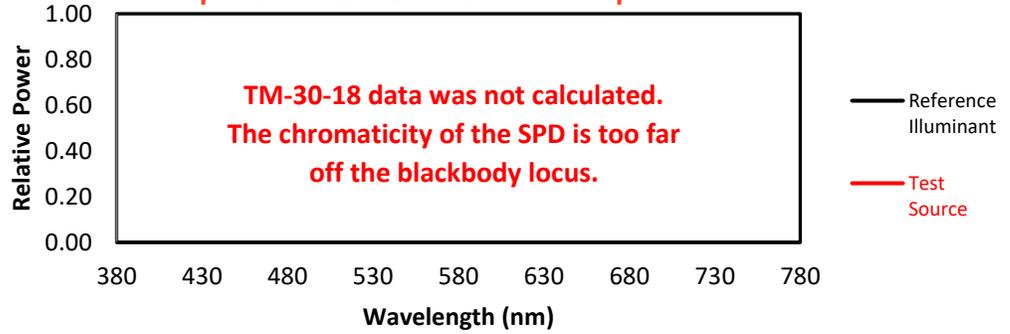
M/P: 4.87

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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			

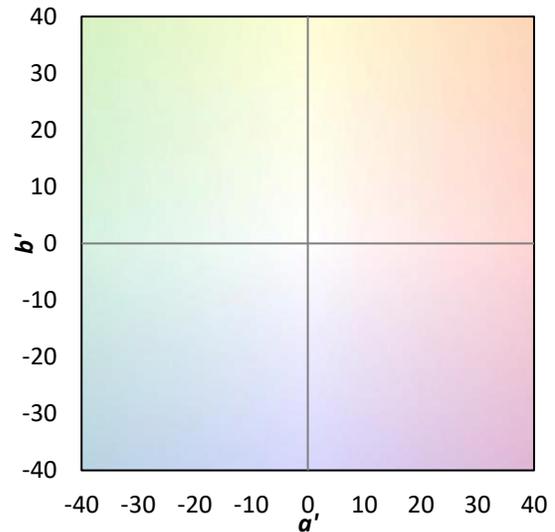
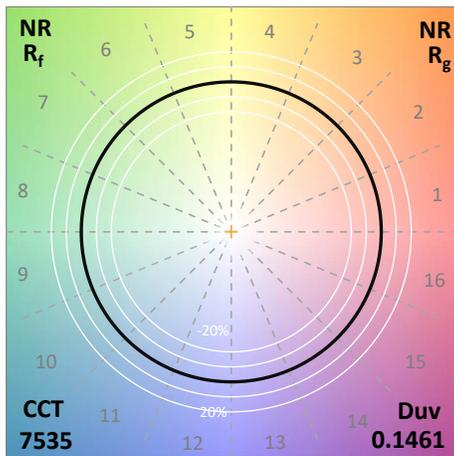
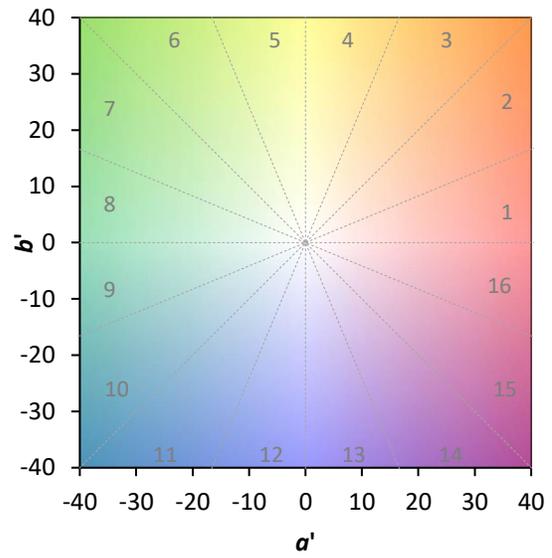
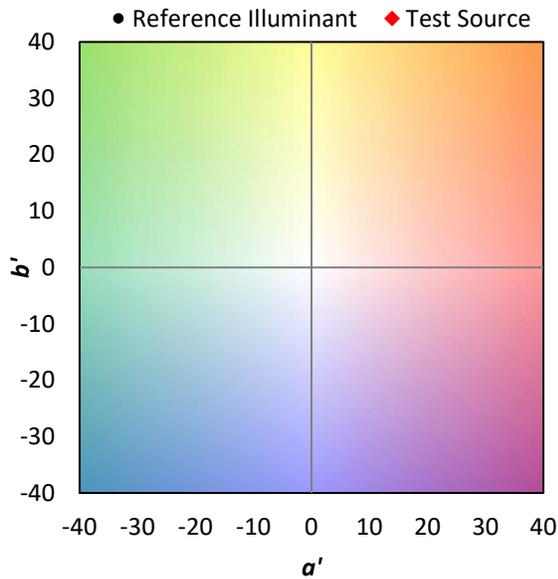
**Summary**

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

**Spectral Power Distribution Comparison**

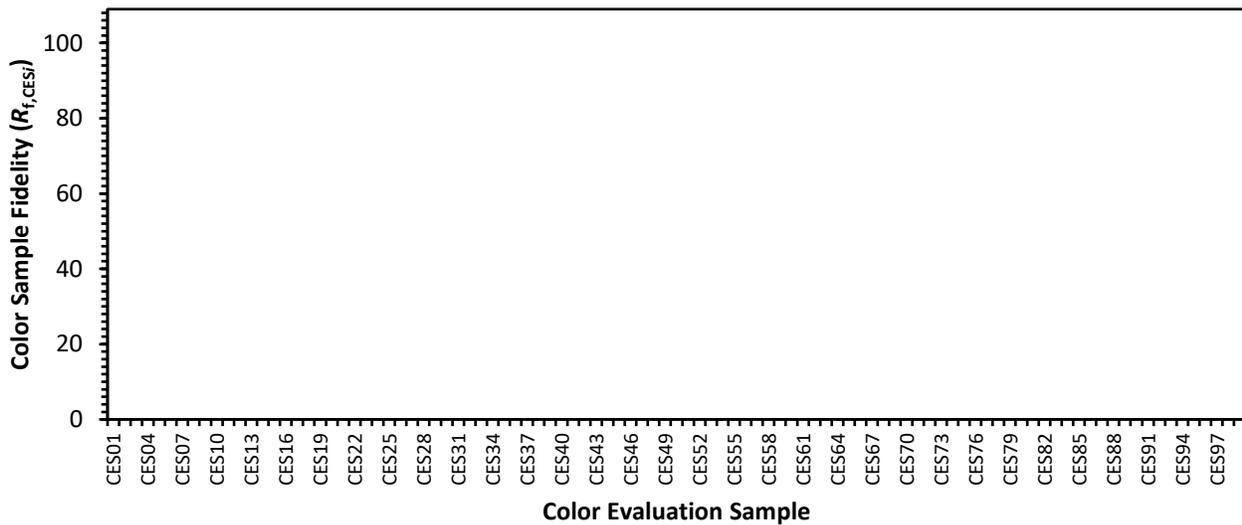


**Color Vector Graphics**

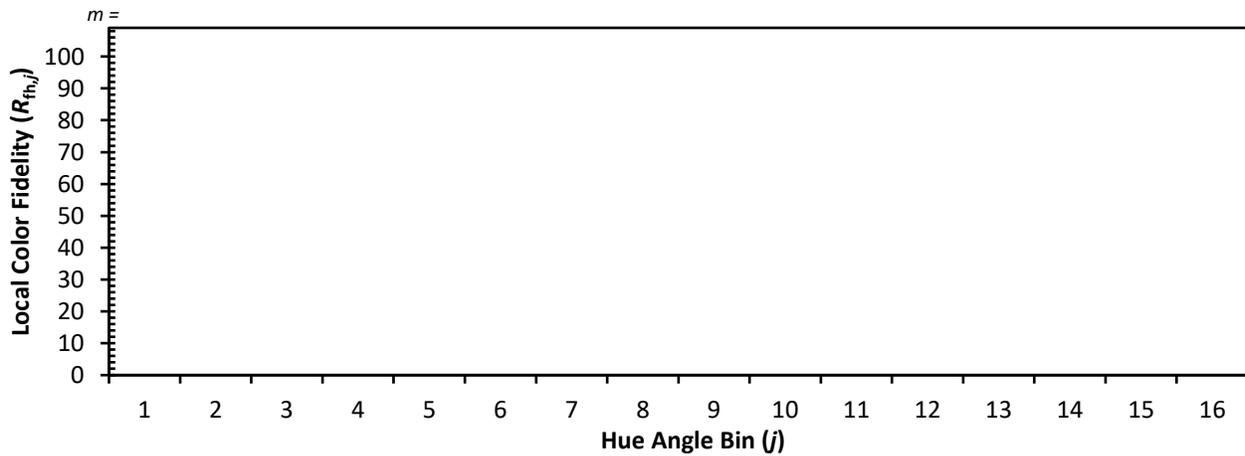


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

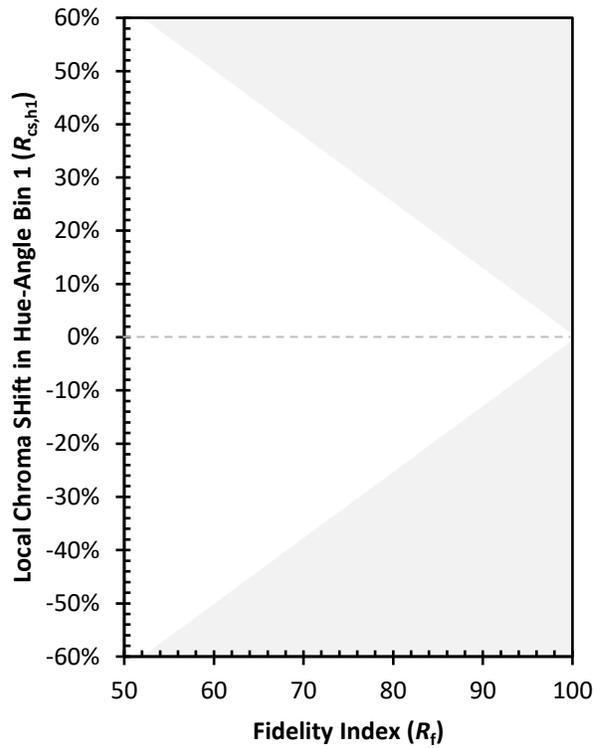
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CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 0	CES83 = 0
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)