

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: P1356878

Luminaire Tested: 2ASL4-20HE-2-G52-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1356878
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: 2ASL4-20HE-2-G52-UNV
Description: 2FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND G52 LEDS 2 ROW
Light Source: -
Ballast/Driver: -

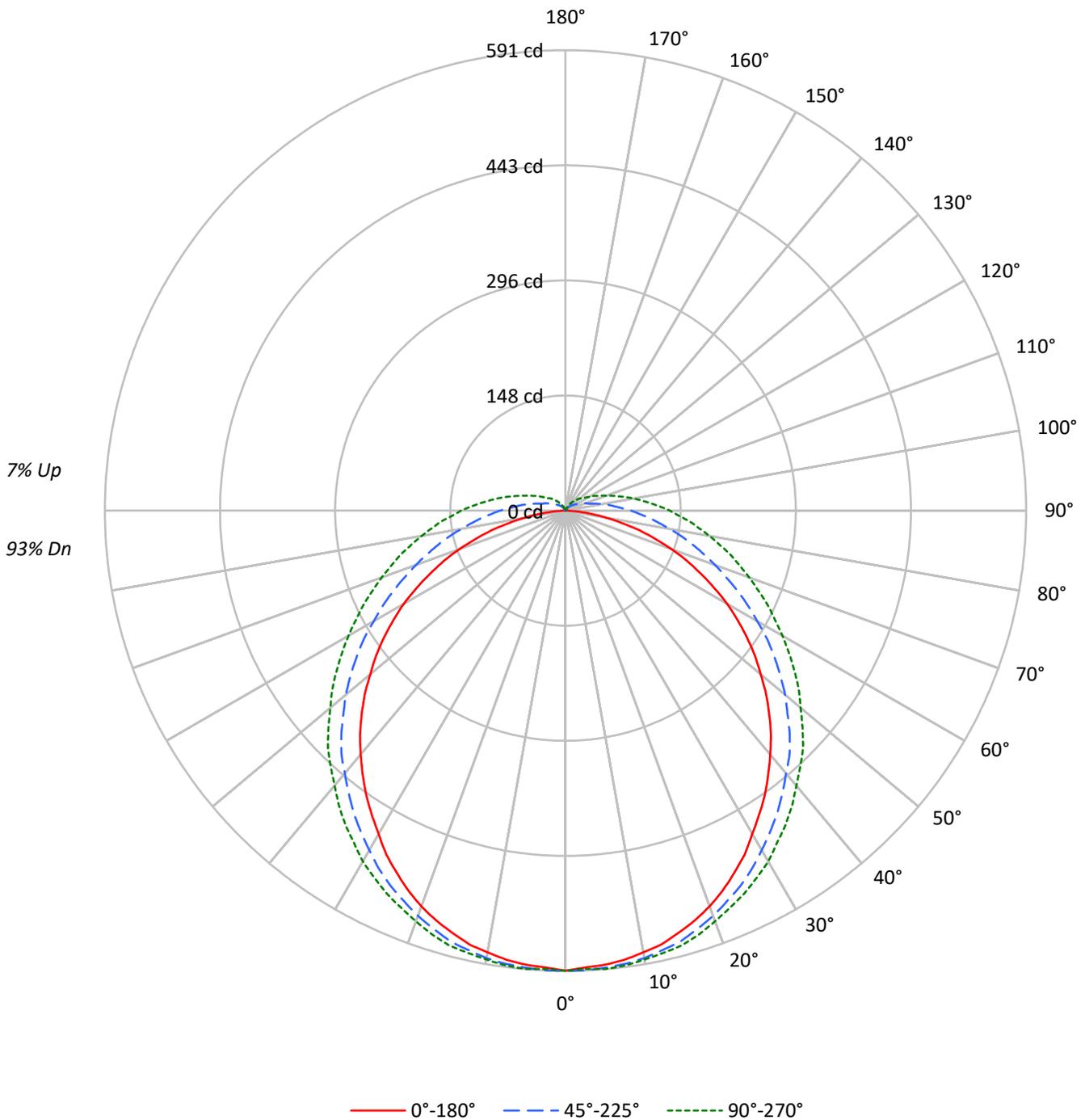
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2028.0 lumens
Efficiency: N/A
Efficacy: 49.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 41.2
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				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	95	95	95	95	95	95	95
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	65	70	66	63	63	63	63	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	55	62	57	53	53	53	53	50
4	79	66	57	50	76	64	56	49	61	54	48	58	51	46	55	49	45	45	45	45	42
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	39	39	39	36
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	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	34	29	41	33	28	39	32	28	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	24	24	24	22
10	50	37	29	24	49	36	28	23	35	28	23	33	27	22	32	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9638	9638	9638
5°	9541	9432	9417
10°	9454	9243	9189
15°	9344	9040	9004
20°	9210	8787	8746
25°	9009	8537	8523
30°	8764	8254	8301
35°	8564	7991	8045
40°	8337	7708	7774
45°	8104	7460	7577
50°	7808	7139	7283
55°	7519	6794	7051
60°	7165	6408	6805
65°	6636	6048	6613
70°	6039	5702	6437
75°	5190	5426	6379
80°	3900	5170	6358
85°	2174	5103	6543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8104 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	2.8
10°-20°	161.0	7.9
20°-30°	244.0	12.0
30°-40°	295.1	14.6
40°-50°	311.1	15.3
50°-60°	290.4	14.3
60°-70°	239.8	11.8
70°-80°	173.9	8.6
80°-90°	109.9	5.4
90°-100°	65.6	3.2
100°-110°	37.6	1.9
110°-120°	21.3	1.1
120°-130°	12.2	0.6
130°-140°	6.6	0.3
140°-150°	2.9	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	461.1	22.7
0°-40°	756.2	37.3
0°-60°	1357.7	66.9
0°-90°	1881.3	92.8
90°-120°	124.5	6.1
90°-150°	146.2	7.2
90°-180°	147.0	7.2
0°-180°	2028.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	591	591	591	591	591	
5°	585	591	589	589	591	56
15°	561	568	572	574	578	158
25°	513	520	531	539	542	236
35°	446	457	474	487	492	279
45°	370	384	407	424	431	285
55°	284	301	327	349	358	254
65°	191	212	243	273	286	190
75°	98	124	169	204	219	104
85°	19	58	108	145	160	23
90°	0	35	84	119	134	1
95°	0	22	63	97	110	0
105°	0	7	35	61	71	0
115°	0	4	20	37	45	0
125°	0	2	13	24	28	0
135°	0	0	7	15	19	0
145°	0	0	4	9	11	0
155°	0	0	0	2	4	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1356878

CATALOG NUMBER: 2ASL4-20HE-2-G52-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	590.7	590.7	590.7	590.7	590.7
2.5°	587.0	592.6	590.7	588.9	588.9
5°	585.2	590.7	588.9	588.9	590.7
7.5°	581.4	587.0	587.0	587.0	588.9
10°	575.9	583.3	583.3	583.3	585.2
12.5°	570.3	575.9	577.7	579.6	581.4
15°	561.0	568.4	572.2	574.0	577.7
17.5°	551.7	557.3	562.9	568.4	570.3
20°	540.6	548.0	553.6	559.2	561.0
22.5°	527.6	535.0	542.4	548.0	551.7
25°	512.7	520.1	531.3	538.7	542.4
27.5°	497.9	505.3	518.3	527.6	531.3
30°	479.3	490.4	503.4	514.6	520.1
32.5°	462.6	473.7	488.6	501.6	505.3
35°	445.8	457.0	473.7	486.7	492.3
37.5°	427.3	440.3	457.0	471.8	477.4
40°	408.7	421.7	440.3	457.0	460.7
42.5°	390.1	403.1	425.4	440.3	445.8
45°	369.7	384.5	406.8	423.5	431.0
47.5°	349.2	364.1	386.4	405.0	412.4
50°	326.9	343.7	367.8	386.4	393.8
52.5°	306.5	323.2	347.4	367.8	377.1
55°	284.2	300.9	326.9	349.2	358.5
57.5°	261.9	278.6	306.5	330.7	340.0
60°	239.6	256.4	284.2	312.1	321.4
62.5°	215.5	234.1	263.8	291.7	302.8
65°	191.3	211.8	243.4	273.1	286.1
67.5°	169.0	189.5	222.9	256.4	267.5
70°	144.9	167.2	204.3	237.8	250.8
72.5°	120.7	144.9	185.8	221.1	234.1
75°	98.5	124.5	169.0	204.3	219.2
77.5°	74.3	105.9	152.3	189.5	202.5
80°	53.9	87.3	135.6	174.6	187.6
82.5°	35.3	70.6	120.7	159.8	172.8
85°	18.6	57.6	107.7	144.9	159.8
87.5°	5.6	44.6	94.7	131.9	144.9
90°	0.0	35.3	83.6	118.9	133.8
92.5°	0.0	27.9	72.4	107.7	120.7
95°	0.0	22.3	63.2	96.6	109.6
97.5°	0.0	18.6	55.7	87.3	98.5
100°	0.0	14.9	48.3	78.0	89.2
102.5°	0.0	11.1	40.9	68.7	79.9
105°	0.0	7.4	35.3	61.3	70.6
107.5°	0.0	5.6	29.7	53.9	63.2
110°	0.0	5.6	27.9	46.4	55.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	3.7	24.1	42.7	50.2
115°	0.0	3.7	20.4	37.2	44.6
117.5°	0.0	3.7	18.6	33.4	40.9
120°	0.0	3.7	16.7	29.7	35.3
122.5°	0.0	1.9	14.9	26.0	31.6
125°	0.0	1.9	13.0	24.1	27.9
127.5°	0.0	1.9	11.1	22.3	26.0
130°	0.0	1.9	11.1	20.4	24.1
132.5°	0.0	0.0	9.3	18.6	22.3
135°	0.0	0.0	7.4	14.9	18.6
137.5°	0.0	0.0	7.4	13.0	16.7
140°	0.0	0.0	5.6	13.0	14.9
142.5°	0.0	0.0	3.7	11.1	13.0
145°	0.0	0.0	3.7	9.3	11.1
147.5°	0.0	0.0	1.9	7.4	9.3
150°	0.0	0.0	1.9	5.6	7.4
152.5°	0.0	0.0	0.0	3.7	5.6
155°	0.0	0.0	0.0	1.9	3.7
157.5°	0.0	0.0	0.0	0.0	1.9
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	17.15	18.69	17.62	19.15	19.64	19.13	20.67	19.60	21.13	21.62
	3H	18.66	20.06	19.14	20.53	21.06	21.55	22.95	22.03	23.42	23.95
	4H	19.14	20.47	19.64	20.95	21.50	22.72	24.05	23.23	24.54	25.08
	6H	19.41	20.65	19.93	21.15	21.71	23.95	25.18	24.47	25.68	26.24
	8H	19.47	20.65	20.00	21.18	21.74	24.57	25.75	25.10	26.28	26.84
	12H	19.48	20.62	20.02	21.14	21.74	25.24	26.37	25.77	26.89	27.49
4H	2H	18.02	19.34	18.52	19.83	20.38	19.57	20.89	20.07	21.38	21.93
	3H	19.76	20.89	20.28	21.42	21.99	22.21	23.34	22.73	23.87	24.44
	4H	20.37	21.41	20.91	21.95	22.55	23.56	24.60	24.10	25.14	25.74
	6H	20.77	21.69	21.33	22.25	22.87	24.99	25.90	25.54	26.47	27.08
	8H	20.87	21.73	21.43	22.30	22.92	25.71	26.58	26.28	27.14	27.77
	12H	20.92	21.70	21.50	22.30	22.93	26.51	27.29	27.09	27.88	28.52
8H	4H	21.05	21.91	21.61	22.47	23.10	23.79	24.65	24.35	25.22	25.84
	6H	21.63	22.36	22.23	22.97	23.60	25.39	26.12	25.98	26.72	27.36
	8H	21.82	22.48	22.43	23.10	23.74	26.26	26.92	26.87	27.54	28.18
	12H	21.94	22.53	22.55	23.14	23.85	27.24	27.83	27.85	28.44	29.15
12H	4H	21.24	22.02	21.82	22.61	23.25	23.80	24.58	24.38	25.18	25.81
	6H	21.92	22.59	22.53	23.20	23.85	25.43	26.09	26.03	26.71	27.35
	8H	22.21	22.80	22.82	23.41	24.12	26.37	26.96	26.98	27.57	28.28

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

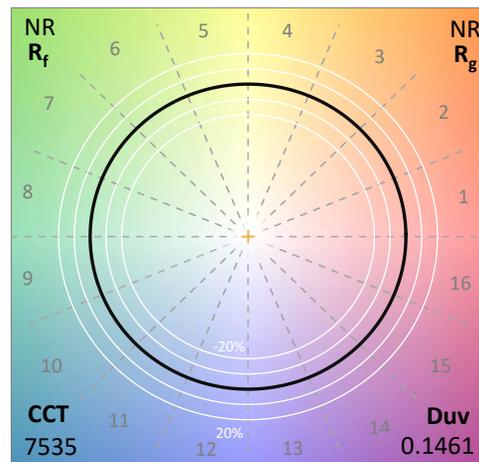
Test Information

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

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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



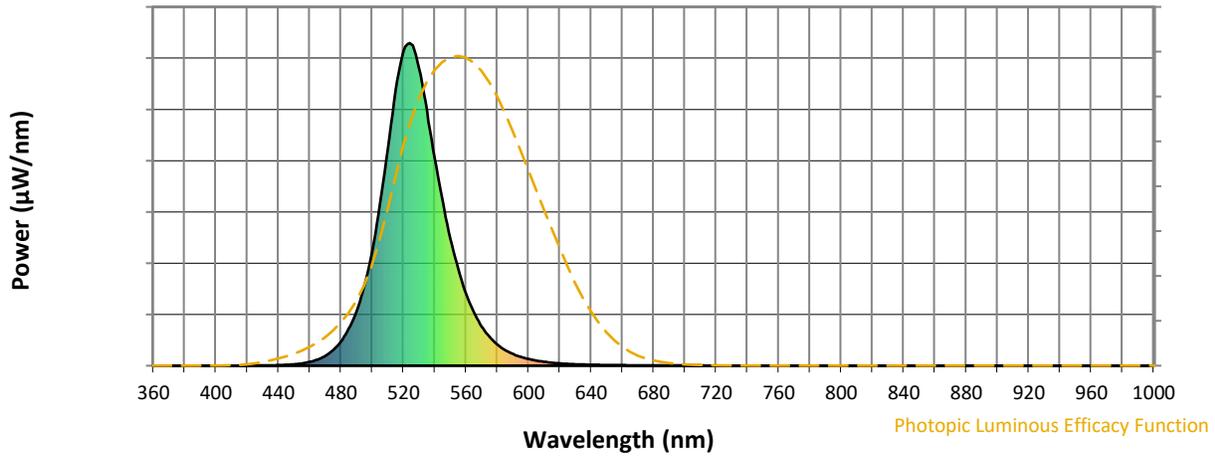
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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



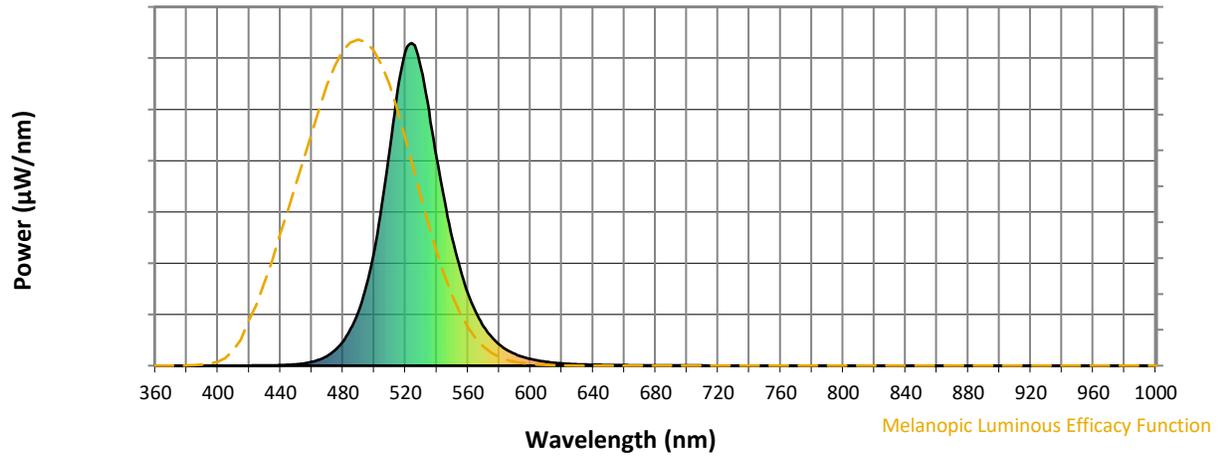
Scotopic Lumens: NR

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

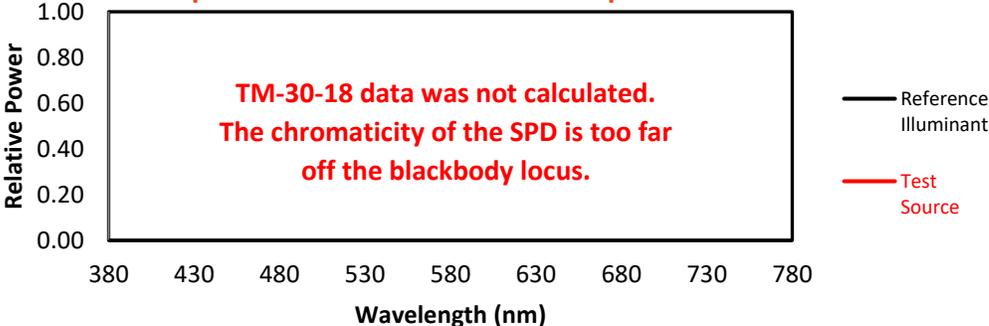
M/P: 4.87

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			

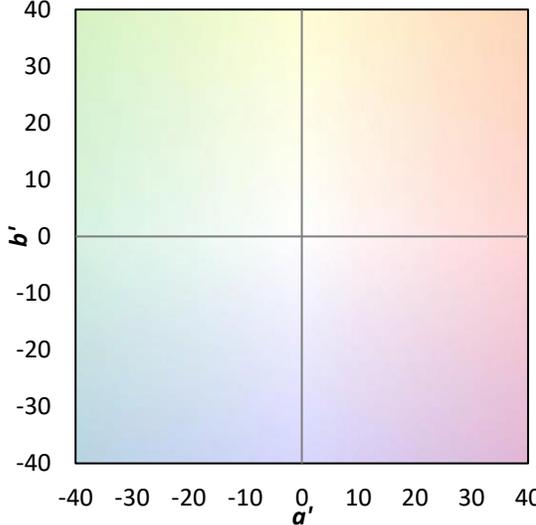
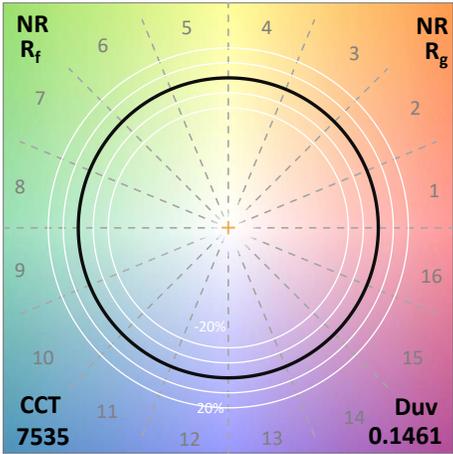
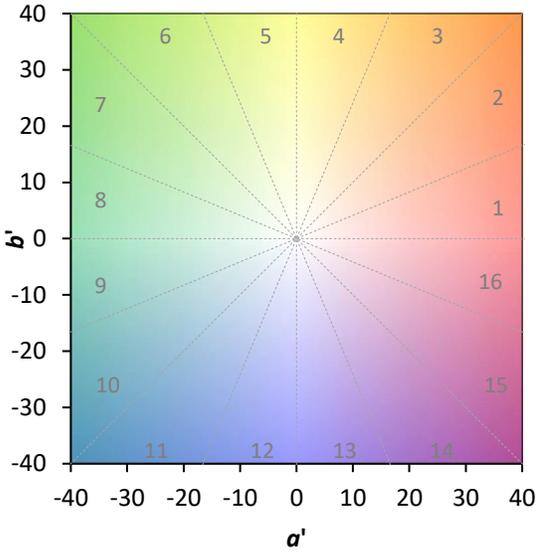
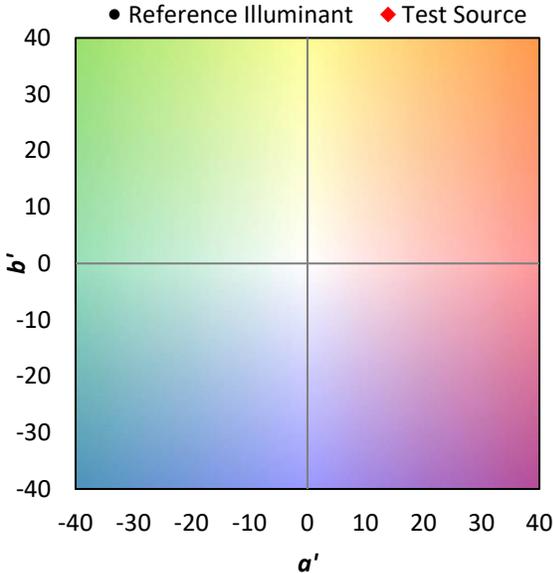
Summary

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

Spectral Power Distribution Comparison

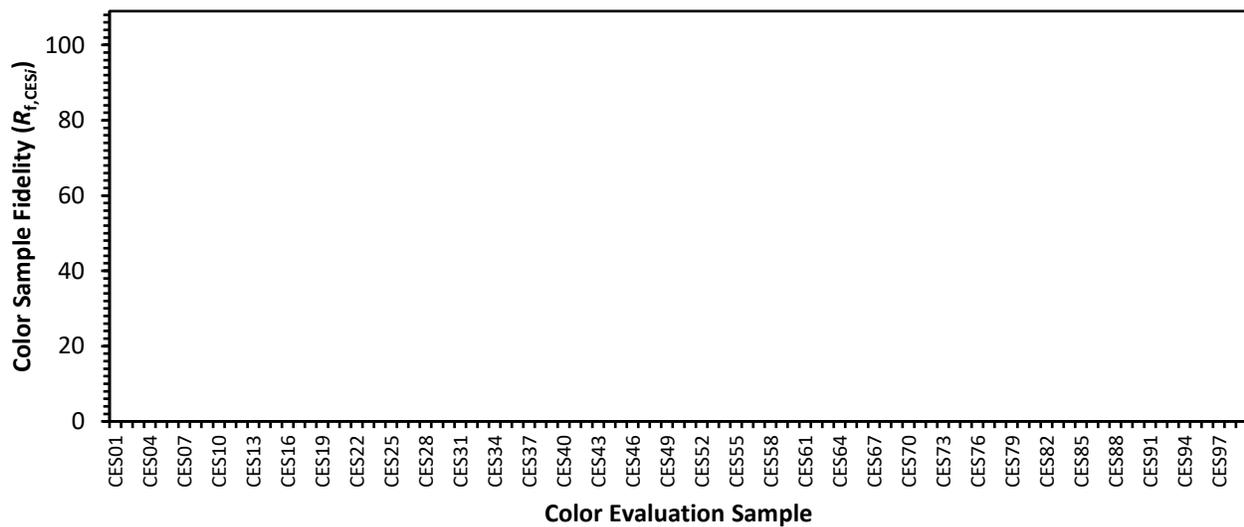


Color Vector Graphics



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

CES01 = 0	CES26 = 0	CES51 = 0	CES76 = 0
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)