

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: P1357075

Luminaire Tested: 3ASL4-5-1-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357075
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: 3ASL4-5-1-A59-UNV
Description: 3FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

Summary

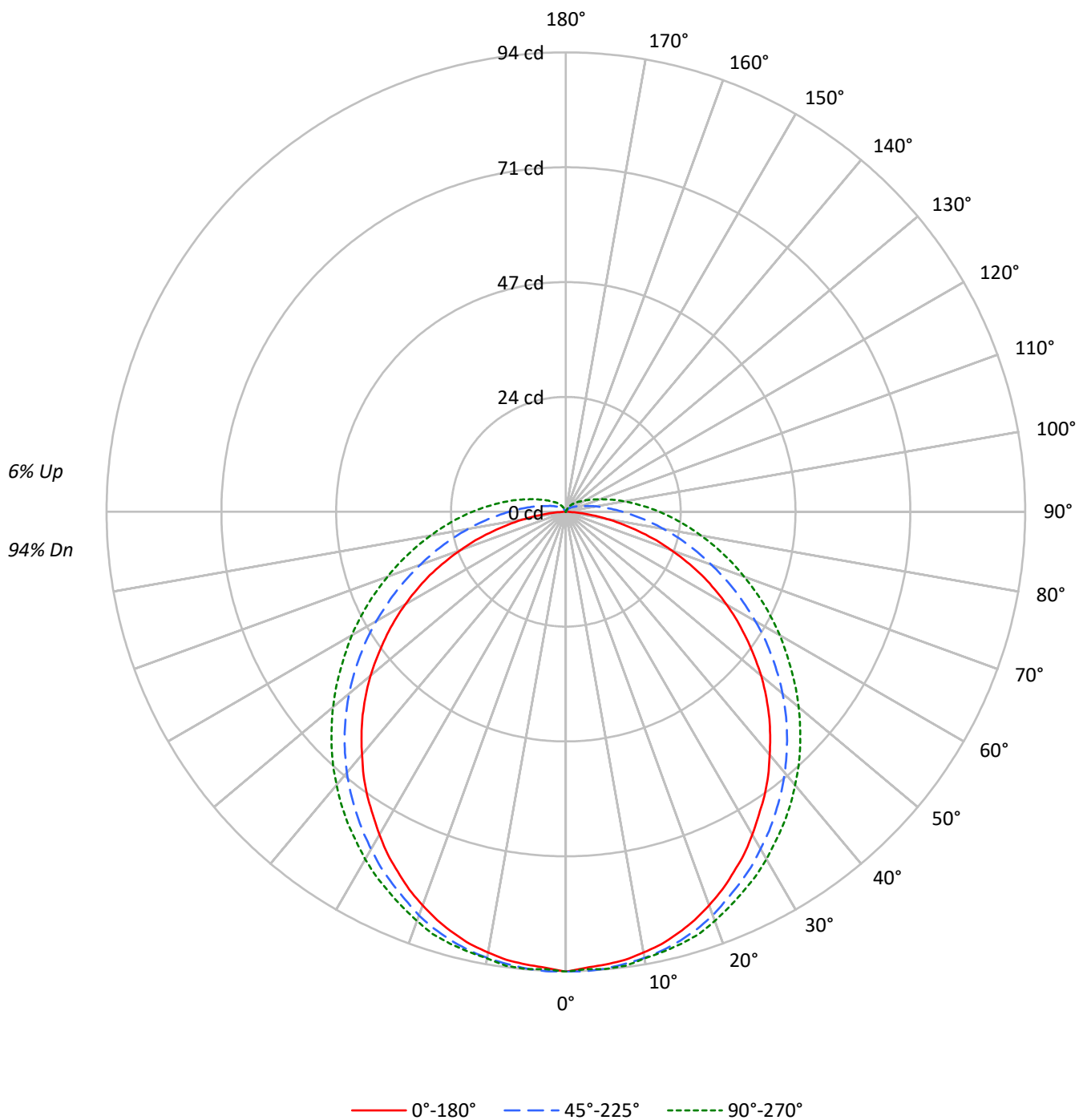
Lumens per Lamp: N/A
Luminaire Lumens: 315.0 lumens
Efficiency: N/A
Efficacy: 35.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 8.9
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



TEST NUMBER: P1357075

CATALOG NUMBER: 3ASL4-5-1-A59-UNV

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108		102	102	102		96
1	106	100	95	91	102	97	93	89	92	88	85		87	84	81		82
2	95	86	79	73	92	84	77	71	79	74	69		75	70	66		71
3	87	76	67	60	84	73	65	59	69	63	57		66	60	55		62
4	79	67	57	50	76	65	56	50	62	54	48		58	52	47		56
5	73	59	50	43	70	58	49	43	55	47	42		52	46	41		50
6	67	53	44	38	65	52	43	37	50	42	36		47	41	35		45
7	62	48	39	33	60	47	39	33	45	37	32		43	36	31		41
8	58	44	35	29	56	43	35	29	41	34	29		39	33	28		38
9	54	40	32	26	52	39	32	26	38	31	26		36	30	25		35
10	51	37	29	24	49	36	29	24	35	28	23		34	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1020	1020	1020
5°	1009	999	995
10°	1002	978	968
15°	992	956	947
20°	976	931	923
25°	957	901	896
30°	936	874	871
35°	916	846	845
40°	892	818	818
45°	871	788	792
50°	845	755	764
55°	812	719	736
60°	777	681	712
65°	732	642	686
70°	662	600	662
75°	571	564	644
80°	448	529	633
85°	258	506	637

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 871 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.9	2.8
10°-20°	25.6	8.1
20°-30°	38.7	12.3
30°-40°	46.7	14.8
40°-50°	49.2	15.6
50°-60°	45.8	14.5
60°-70°	37.6	11.9
70°-80°	26.7	8.5
80°-90°	16.1	5.1
90°-100°	9.0	2.9
100°-110°	5.0	1.6
110°-120°	2.8	0.9
120°-130°	1.6	0.5
130°-140°	0.9	0.3
140°-150°	0.4	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	73.2	23.2
0°-40°	119.9	38.1
0°-60°	214.8	68.2
0°-90°	295.2	93.7
90°-120°	16.8	5.3
90°-150°	19.6	6.2
90°-180°	20.0	6.3
0°-180°	315.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	94	94	94	94	94	
5°	93	94	94	94	94	9
15°	89	90	91	91	92	25
25°	81	83	84	85	86	37
35°	71	73	75	77	78	44
45°	59	61	64	67	68	45
55°	45	48	51	55	56	40
65°	31	33	38	43	45	30
75°	15	19	26	31	33	16
85°	3	8	16	21	23	4
90°	0	5	12	17	19	0
95°	0	3	8	13	15	0
105°	0	1	4	8	10	0
115°	0	0	3	5	6	0
125°	0	0	2	3	4	0
135°	0	0	1	2	3	0
145°	0	0	0	1	2	0
155°	0	0	0	0	0	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°	94.1	94.1	94.1	94.1	94.1
2.5°	93.4	94.3	94.1	93.7	93.7
5°	93.0	93.9	93.8	93.7	93.9
7.5°	92.5	93.3	93.3	93.4	93.7
10°	91.6	92.7	92.7	92.7	92.8
12.5°	90.6	91.6	91.9	92.0	92.2
15°	89.2	90.4	90.8	91.2	91.5
17.5°	87.6	88.8	89.5	90.0	90.6
20°	85.7	87.0	87.9	88.6	89.1
22.5°	83.7	84.9	85.9	86.9	87.5
25°	81.3	82.8	84.0	85.1	85.8
27.5°	79.0	80.5	82.0	83.3	84.1
30°	76.3	78.0	79.7	81.3	82.1
32.5°	73.5	75.4	77.4	79.1	79.9
35°	70.9	72.7	74.9	76.8	77.8
37.5°	68.0	69.8	72.4	74.5	75.5
40°	64.9	66.9	69.7	71.9	73.0
42.5°	61.9	64.0	66.9	69.4	70.5
45°	58.8	60.9	64.0	66.6	67.8
47.5°	55.5	57.7	61.0	63.8	65.0
50°	52.2	54.5	57.9	60.9	62.2
52.5°	48.6	51.1	54.7	57.9	59.3
55°	45.1	47.7	51.4	54.8	56.3
57.5°	41.6	44.2	48.2	51.8	53.4
60°	38.0	40.7	44.8	48.7	50.6
62.5°	34.3	37.0	41.4	45.7	47.6
65°	30.7	33.4	38.2	42.7	44.7
67.5°	26.8	29.8	34.9	39.6	41.7
70°	22.9	26.3	31.7	36.7	38.8
72.5°	19.4	22.9	28.7	33.8	36.1
75°	15.4	19.4	25.8	31.1	33.3
77.5°	12.0	16.3	23.0	28.4	30.7
80°	8.6	13.3	20.3	25.9	28.1
82.5°	5.5	10.6	17.9	23.5	25.7
85°	2.9	8.3	15.5	21.3	23.4
87.5°	0.9	6.4	13.4	19.1	21.2
90°	0.0	4.9	11.6	17.0	19.1
92.5°	0.0	3.7	10.0	15.2	17.2
95°	0.0	2.9	8.5	13.4	15.3
97.5°	0.0	2.2	7.3	11.8	13.7
100°	0.0	1.8	6.3	10.4	12.2
102.5°	0.0	1.5	5.4	9.3	10.9
105°	0.0	1.1	4.5	8.1	9.6
107.5°	0.0	0.7	3.9	7.1	8.4
110°	0.0	0.6	3.5	6.2	7.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.5	3.1	5.5	6.6
115°	0.0	0.5	2.8	4.9	5.9
117.5°	0.0	0.4	2.3	4.4	5.2
120°	0.0	0.4	2.1	3.9	4.7
122.5°	0.0	0.3	1.9	3.5	4.3
125°	0.0	0.3	1.7	3.2	3.7
127.5°	0.0	0.2	1.5	2.9	3.4
130°	0.0	0.2	1.4	2.6	3.1
132.5°	0.0	0.1	1.3	2.3	2.8
135°	0.0	0.1	1.1	2.0	2.6
137.5°	0.0	0.0	1.0	1.8	2.2
140°	0.0	0.0	0.7	1.6	2.0
142.5°	0.1	0.0	0.6	1.4	1.7
145°	0.1	0.0	0.4	1.2	1.5
147.5°	0.1	0.1	0.3	1.0	1.2
150°	0.1	0.1	0.2	0.6	1.0
152.5°	0.1	0.1	0.1	0.4	0.6
155°	0.1	0.1	0.0	0.3	0.4
157.5°	0.1	0.1	0.0	0.1	0.2
160°	0.1	0.1	0.0	0.0	0.1
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	9.47	11.02	9.93	11.46	11.93	11.41	12.96	11.87	13.41	13.87
	3H	10.96	12.37	11.43	12.82	13.33	13.81	15.23	14.28	15.68	16.19
	4H	11.43	12.77	11.93	13.24	13.77	14.97	16.31	15.46	16.78	17.30
	6H	11.71	12.96	12.22	13.44	13.98	16.16	17.41	16.67	17.89	18.43
	8H	11.76	12.96	12.28	13.47	14.01	16.77	17.97	17.29	18.47	19.02
	12H	11.77	12.92	12.30	13.42	14.00	17.43	18.58	17.96	19.08	19.66
4H	2H	10.32	11.67	10.82	12.14	12.66	11.85	13.19	12.34	13.66	14.18
	3H	12.05	13.19	12.56	13.71	14.25	14.47	15.61	14.98	16.13	16.67
	4H	12.65	13.70	13.18	14.22	14.80	15.80	16.84	16.32	17.37	17.94
	6H	13.05	13.97	13.59	14.52	15.11	17.18	18.10	17.72	18.65	19.24
	8H	13.14	14.01	13.69	14.56	15.16	17.89	18.76	18.44	19.31	19.91
	12H	13.18	13.97	13.76	14.55	15.16	18.68	19.46	19.25	20.04	20.65
8H	4H	13.30	14.16	13.85	14.72	15.32	16.01	16.88	16.56	17.43	18.03
	6H	13.86	14.60	14.45	15.19	15.80	17.56	18.29	18.14	18.89	19.50
	8H	14.04	14.70	14.64	15.31	15.93	18.41	19.07	19.01	19.68	20.30
	12H	14.15	14.74	14.75	15.33	16.02	19.38	19.97	19.97	20.56	21.25
12H	4H	13.47	14.26	14.05	14.84	15.45	16.02	16.81	16.59	17.39	18.00
	6H	14.13	14.80	14.73	15.40	16.03	17.59	18.26	18.19	18.86	19.49
	8H	14.40	14.99	15.00	15.59	16.28	18.51	19.11	19.11	19.70	20.39

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-9

Test Date: 01/22/2026

Luminaire Tested: 4ASL-2-A590-UNV-OPL-1_600mA

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

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-9
 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-A590-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND AMBER 590 LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	1535	CRI (Ra):	-20.0		
CIE u':	0.3534	R1:	-32.1	R9:	-380.5
CIE v':	0.5468	R2:	53.1	R10:	29.9
Duv:	0.0117	R3:	18.5	R11:	-92.0
CIE x:	0.5921	R4:	-65.7	R12:	-8.5
CIE y:	0.4072	R5:	-38.6	R13:	-13.5
CIE z:	0.0007	R6:	42.8	R14:	47.1
Peak Wavelength (nm):	598	R7:	-6.2	R15:	-65.4
Dominant Wavelength (nm):	592	R8:	-132.3		
Purity:	99.97894				
Rf:	1.3				
Rg:	0.1				



Test Conditions

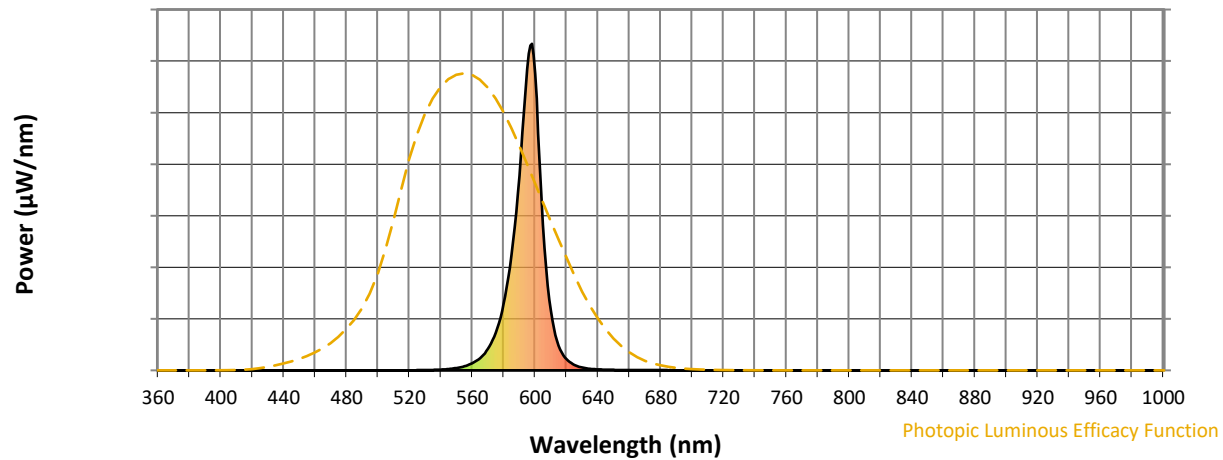
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

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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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Photopic Flux vs. Wavelength

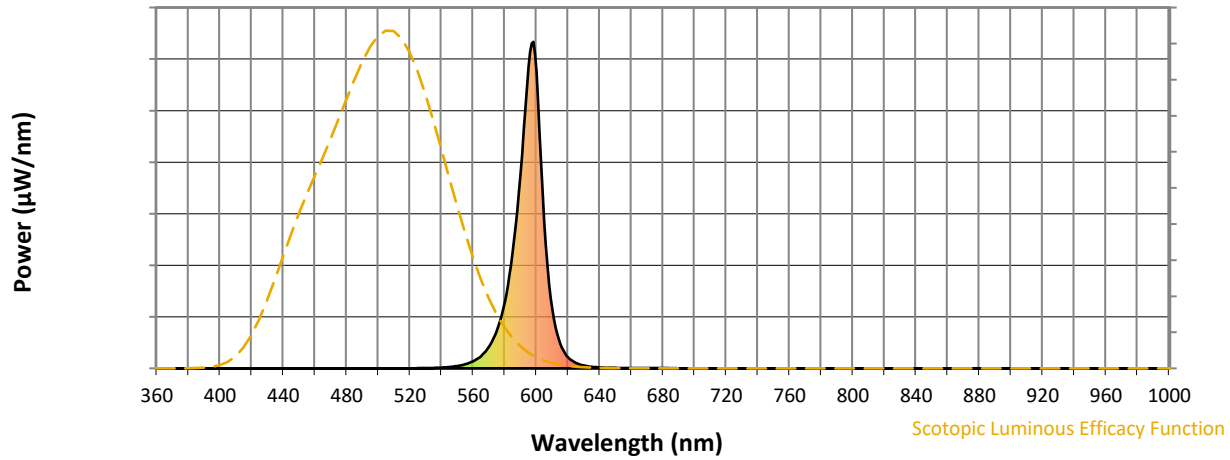


Photopic Lumens: NR

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	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



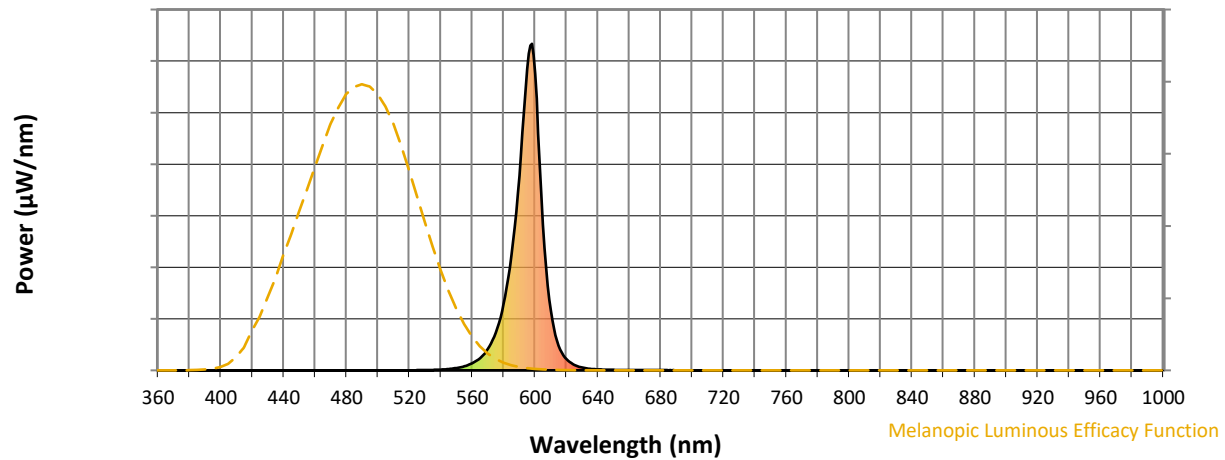
Scotopic Lumens: NR

S/P: 0.22

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	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 0.12

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	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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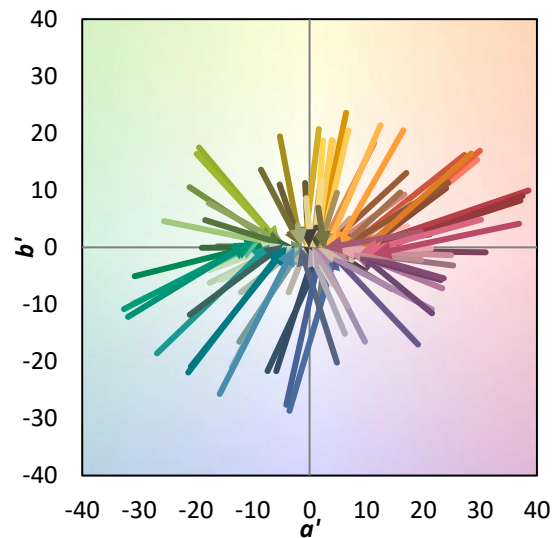
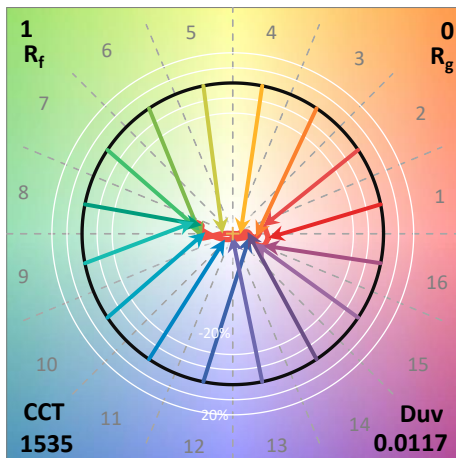
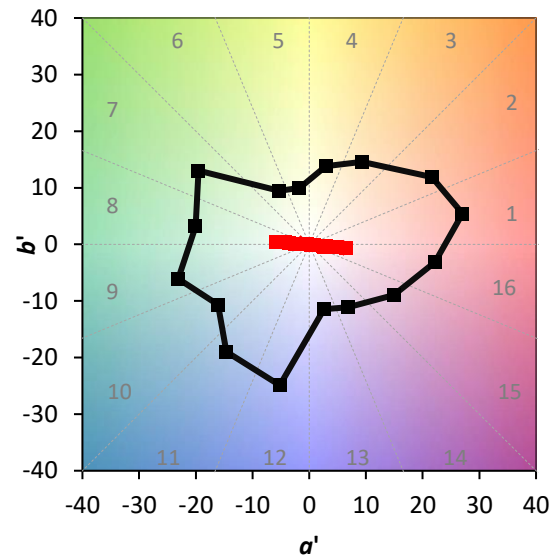
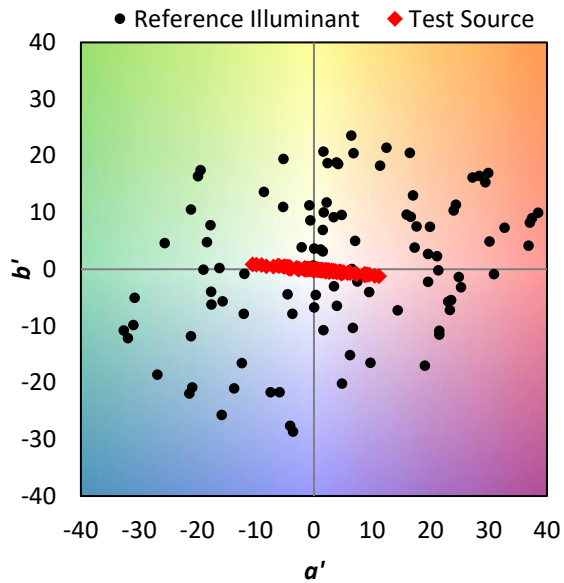
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Summary

$R_f = 1.3$
 $R_g = 0.1$
 $CIE\ R_a = -20.0$
 $R_g = -380.5$

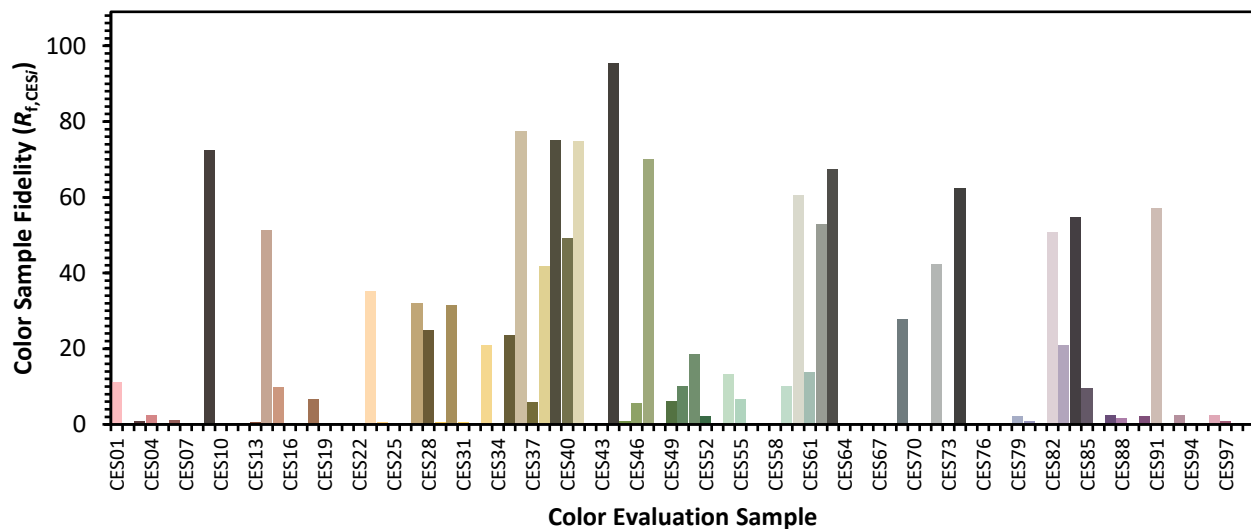


Color Vector Graphics

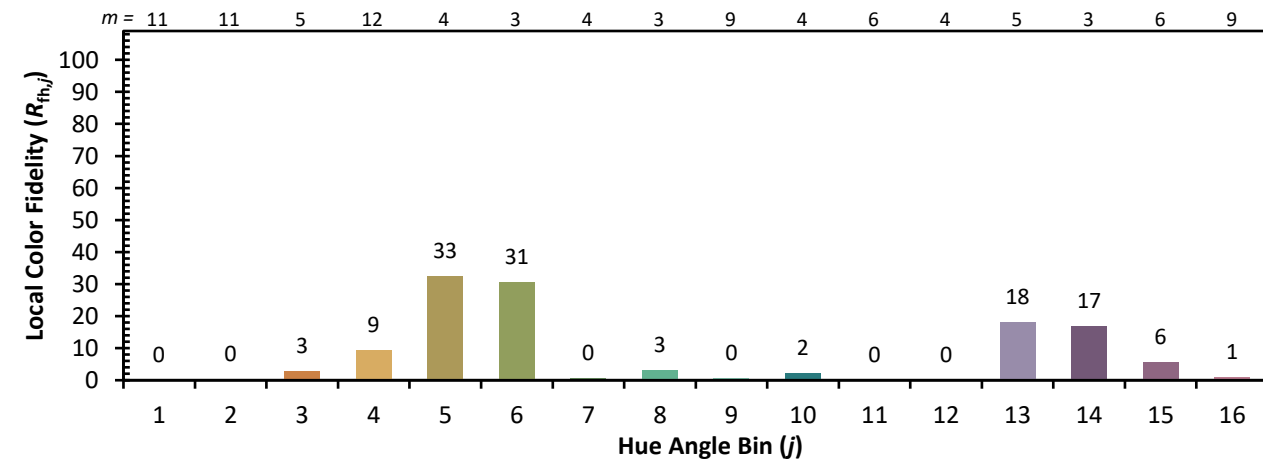
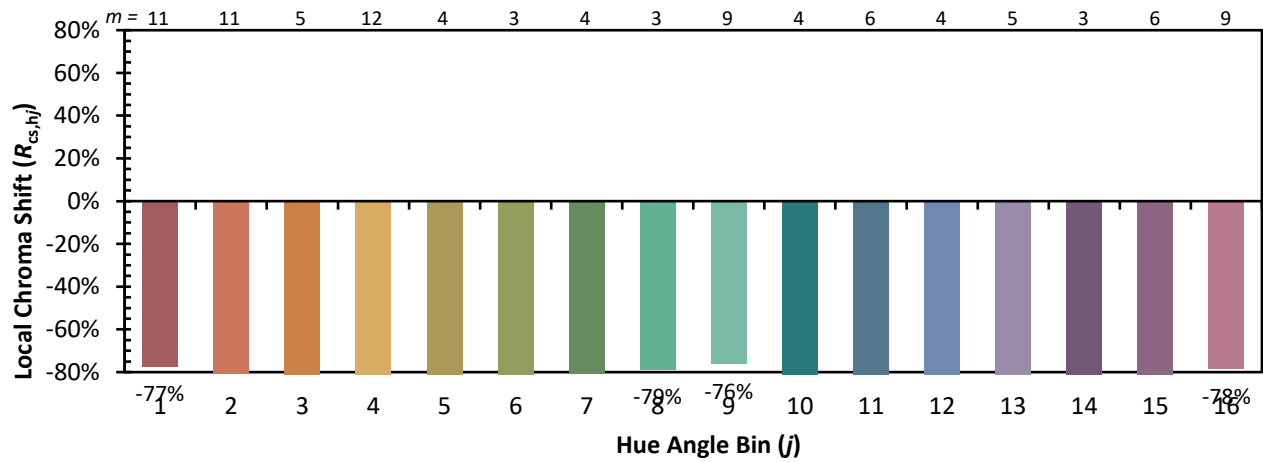


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 90	CES26 = 0	CES51 = 19	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 25	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 13	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 7	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 51
CES08 = 39	CES33 = 21	CES58 = 0	CES83 = 21
CES09 = 29	CES34 = 0	CES59 = 10	CES84 = 55
CES10 = 87	CES35 = 24	CES60 = 60	CES85 = 10
CES11 = 70	CES36 = 77	CES61 = 14	CES86 = 0
CES12 = 76	CES37 = 6	CES62 = 53	CES87 = 2
CES13 = 47	CES38 = 42	CES63 = 68	CES88 = 2
CES14 = 77	CES39 = 75	CES64 = 0	CES89 = 0
CES15 = 74	CES40 = 49	CES65 = 0	CES90 = 2
CES16 = 49	CES41 = 75	CES66 = 0	CES91 = 57
CES17 = 56	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 60	CES43 = 0	CES68 = 0	CES93 = 3
CES19 = 80	CES44 = 95	CES69 = 28	CES94 = 0
CES20 = 71	CES45 = 1	CES70 = 0	CES95 = 0
CES21 = 94	CES46 = 6	CES71 = 0	CES96 = 2
CES22 = 87	CES47 = 70	CES72 = 42	CES97 = 1
CES23 = 94	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 95	CES49 = 6	CES74 = 62	CES99 = 0
CES25 = 79	CES50 = 10	CES75 = 0	



Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)