

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: P1357353

Luminaire Tested: 6ASL4-25VHE-3-65-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357353
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: 6ASL4-25VHE-3-65-UNV
Description: 6FT 2500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 6500K LEDS 3 ROW
Light Source: -
Ballast/Driver: -

Summary

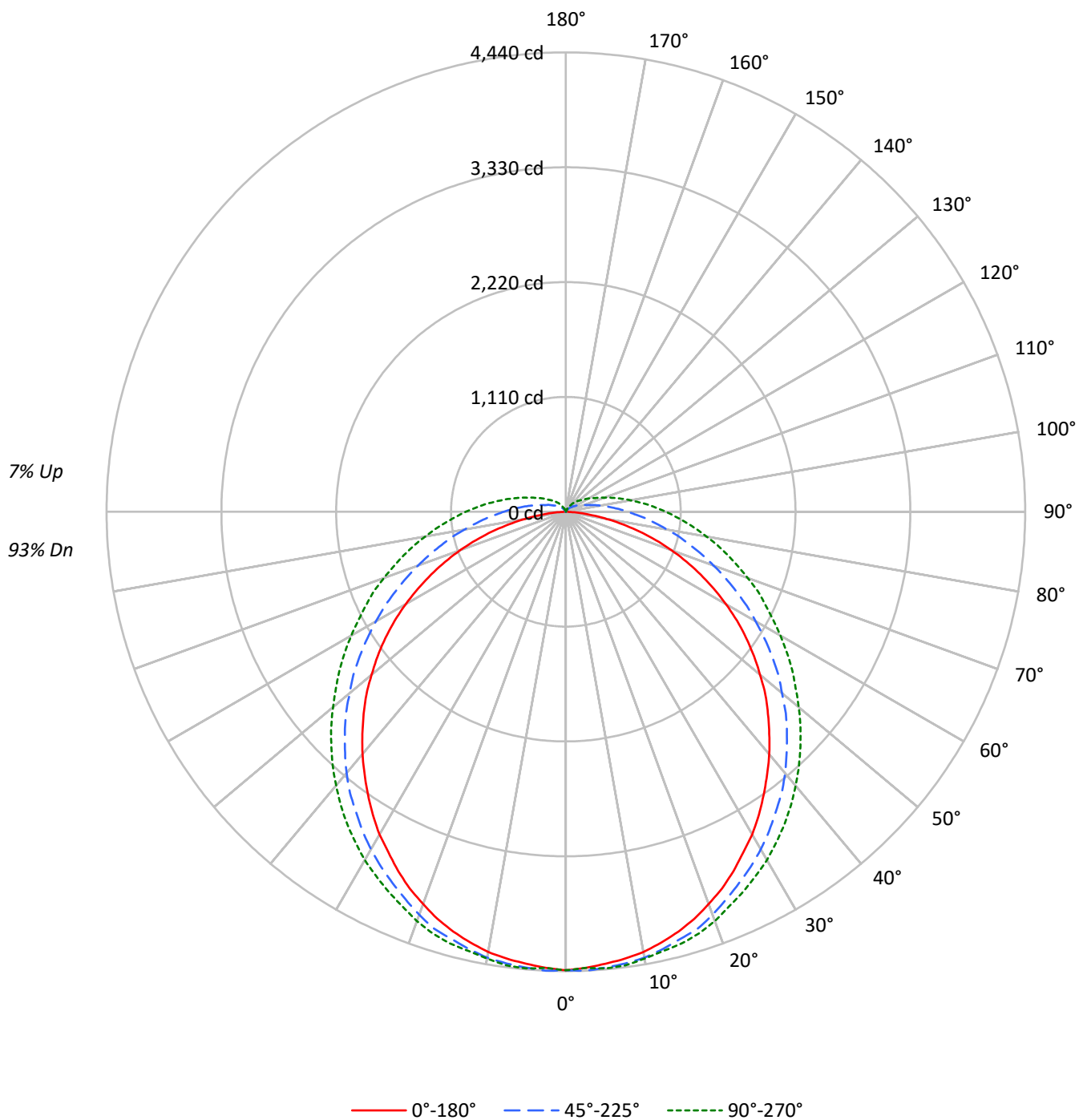
Lumens per Lamp: N/A
Luminaire Lumens: 15066.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 5.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 128.4
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			
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
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	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	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	63	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23931	23931	23931
5°	23737	23493	23383
10°	23622	23049	22792
15°	23379	22494	22291
20°	23045	21961	21725
25°	22653	21290	21082
30°	22239	20708	20538
35°	21722	20048	19933
40°	21252	19445	19296
45°	20747	18713	18656
50°	20171	17927	17991
55°	19551	17177	17393
60°	18739	16300	16786
65°	17704	15458	16282
70°	16382	14627	15888
75°	14440	13873	15618
80°	11472	13320	15502
85°	7142	13233	15732

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20747 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.2	2.8
10°-20°	1206.4	8.0
20°-30°	1824.0	12.1
30°-40°	2208.6	14.7
40°-50°	2319.7	15.4
50°-60°	2164.2	14.4
60°-70°	1788.6	11.9
70°-80°	1287.8	8.5
80°-90°	800.3	5.3
90°-100°	468.9	3.1
100°-110°	268.2	1.8
110°-120°	151.5	1.0
120°-130°	87.1	0.6
130°-140°	47.0	0.3
140°-150°	19.8	0.1
150°-160°	3.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3450.7	22.9
0°-40°	5659.3	37.6
0°-60°	10143.2	67.3
0°-90°	14019.8	93.1
90°-120°	888.6	5.9
90°-150°	1042.5	6.9
90°-180°	1046.0	6.9
0°-180°	15066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4431	4431	4431	4431	4431	
5°	4385	4422	4422	4422	4431	417
15°	4201	4256	4274	4302	4321	1184
25°	3832	3897	3961	4017	4053	1765
35°	3335	3427	3538	3639	3685	2088
45°	2764	2865	3022	3151	3206	2132
55°	2128	2248	2432	2607	2672	1901
65°	1437	1575	1815	2045	2128	1422
75°	737	921	1244	1511	1621	779
85°	138	415	783	1059	1161	169
90°	0	249	599	857	967	6
95°	0	157	451	691	792	0
105°	0	55	249	433	507	0
115°	0	28	147	267	313	0
125°	0	18	92	175	203	0
135°	0	0	55	110	138	0
145°	0	0	28	64	74	0
155°	0	0	0	18	28	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°	4431.1	4431.1	4431.1	4431.1	4431.1
2.5°	4412.7	4440.3	4440.3	4412.7	4412.7
5°	4385.1	4421.9	4421.9	4421.9	4431.1
7.5°	4357.4	4403.5	4403.5	4403.5	4421.9
10°	4320.6	4366.6	4375.8	4375.8	4385.1
12.5°	4265.3	4320.6	4329.8	4339.0	4348.2
15°	4200.8	4256.1	4274.5	4302.1	4320.6
17.5°	4127.1	4191.6	4228.4	4256.1	4274.5
20°	4035.0	4099.5	4145.5	4182.4	4210.0
22.5°	3942.9	3998.1	4053.4	4099.5	4127.1
25°	3832.3	3896.8	3961.3	4016.6	4053.4
27.5°	3712.6	3786.3	3869.2	3933.6	3970.5
30°	3602.0	3675.7	3767.8	3850.7	3887.6
32.5°	3473.0	3555.9	3657.3	3740.2	3786.3
35°	3334.9	3427.0	3537.5	3638.9	3684.9
37.5°	3196.7	3288.8	3427.0	3528.3	3574.4
40°	3058.5	3150.6	3298.0	3408.5	3454.6
42.5°	2911.1	3003.2	3159.8	3279.6	3334.9
45°	2763.7	2865.0	3021.6	3150.6	3205.9
47.5°	2616.3	2717.6	2883.4	3021.6	3076.9
50°	2450.5	2561.0	2726.8	2883.4	2938.7
52.5°	2293.9	2404.4	2588.7	2745.3	2800.5
55°	2128.0	2247.8	2432.0	2607.1	2671.6
57.5°	1962.2	2082.0	2275.4	2459.7	2533.4
60°	1787.2	1916.2	2118.8	2312.3	2395.2
62.5°	1612.2	1750.3	1971.4	2174.1	2257.0
65°	1437.1	1575.3	1814.8	2045.1	2128.0
67.5°	1262.1	1409.5	1667.4	1906.9	2008.3
70°	1087.1	1243.7	1520.0	1768.8	1870.1
72.5°	912.0	1077.8	1381.8	1639.8	1741.1
75°	737.0	921.2	1243.7	1510.8	1621.4
77.5°	561.9	773.8	1123.9	1391.1	1501.6
80°	405.3	644.9	994.9	1271.3	1381.8
82.5°	257.9	515.9	884.4	1160.7	1271.3
85°	138.2	414.6	783.0	1059.4	1160.7
87.5°	46.1	322.4	681.7	958.1	1059.4
90°	0.0	248.7	598.8	856.7	967.3
92.5°	0.0	193.5	525.1	773.8	875.2
95°	0.0	156.6	451.4	690.9	792.3
97.5°	0.0	129.0	396.1	617.2	709.3
100°	0.0	101.3	340.9	552.7	635.6
102.5°	0.0	82.9	294.8	488.3	571.2
105°	0.0	55.3	248.7	433.0	506.7
107.5°	0.0	46.1	211.9	386.9	451.4
110°	0.0	36.8	193.5	331.6	396.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	27.6	175.0	294.8	359.3
115°	0.0	27.6	147.4	267.2	313.2
117.5°	0.0	27.6	129.0	239.5	285.6
120°	0.0	18.4	119.8	211.9	257.9
122.5°	0.0	18.4	101.3	193.5	230.3
125°	0.0	18.4	92.1	175.0	202.7
127.5°	0.0	9.2	82.9	156.6	184.2
130°	0.0	9.2	73.7	138.2	165.8
132.5°	0.0	9.2	64.5	129.0	156.6
135°	0.0	0.0	55.3	110.5	138.2
137.5°	0.0	0.0	46.1	101.3	119.8
140°	0.0	0.0	36.8	82.9	110.5
142.5°	0.0	0.0	27.6	73.7	92.1
145°	0.0	0.0	27.6	64.5	73.7
147.5°	0.0	0.0	18.4	46.1	64.5
150°	0.0	0.0	9.2	36.8	46.1
152.5°	0.0	0.0	0.0	27.6	36.8
155°	0.0	0.0	0.0	18.4	27.6
157.5°	0.0	0.0	0.0	0.0	9.2
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	20.37	21.91	20.84	22.37	22.85	22.43	23.97	22.90	24.42	24.91
	3H	21.87	23.28	22.35	23.74	24.26	24.91	26.31	25.39	26.77	27.30
	4H	22.35	23.68	22.85	24.17	24.70	26.11	27.44	26.62	27.93	28.46
	6H	22.63	23.87	23.14	24.36	24.92	27.38	28.62	27.90	29.12	29.67
	8H	22.68	23.87	23.21	24.39	24.95	28.05	29.23	28.57	29.75	30.31
	12H	22.69	23.83	23.23	24.34	24.94	28.78	29.92	29.31	30.43	31.02
4H	2H	21.26	22.59	21.76	23.07	23.61	22.86	24.19	23.37	24.68	25.21
	3H	22.99	24.13	23.51	24.65	25.21	25.56	26.70	26.08	27.22	27.78
	4H	23.60	24.63	24.13	25.17	25.76	26.94	27.98	27.48	28.52	29.11
	6H	23.99	24.91	24.55	25.47	26.08	28.40	29.32	28.96	29.88	30.49
	8H	24.09	24.95	24.65	25.51	26.13	29.17	30.04	29.73	30.60	31.22
	12H	24.13	24.92	24.71	25.51	26.13	30.03	30.81	30.61	31.41	32.03
8H	4H	24.28	25.15	24.84	25.71	26.33	27.16	28.02	27.72	28.58	29.20
	6H	24.86	25.59	25.45	26.20	26.82	28.79	29.52	29.38	30.12	30.75
	8H	25.04	25.70	25.65	26.32	26.96	29.70	30.36	30.30	30.97	31.61
	12H	25.16	25.75	25.77	26.35	27.06	30.74	31.33	31.35	31.93	32.64
12H	4H	24.48	25.26	25.06	25.85	26.48	27.17	27.95	27.75	28.54	29.16
	6H	25.16	25.82	25.76	26.44	27.07	28.83	29.49	29.43	30.10	30.74
	8H	25.44	26.03	26.05	26.63	27.34	29.80	30.39	30.41	31.00	31.70

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-6

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-65-UNV-OPL-1_600mA

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

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2511-597-6
 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-2-65-UNV-OPL-1_600mA**
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 6500K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K): 6972
 CIE u' : 0.1979
 CIE v' : 0.4612
 Duv: 0.0005
 CIE x: 0.3066
 CIE y: 0.3177
 CIE z: 0.3758
 Peak Wavelength (nm): 455
 Dominant Wavelength (nm): 483
 Purity: 10.33335
 R_f: 88.2
 R_g: 97.1

CRI (Ra): 94.3
 R1: 96.1
 R2: 98.8
 R3: 96.4
 R4: 92.8
 R5: 92.9
 R6: 92.2
 R7: 93.5
 R8: 91.4
 R9: 82.6
 R10: 95.4
 R11: 95.2
 R12: 63.5
 R13: 99.3
 R14: 98.1
 R15: 93.7



Test Conditions

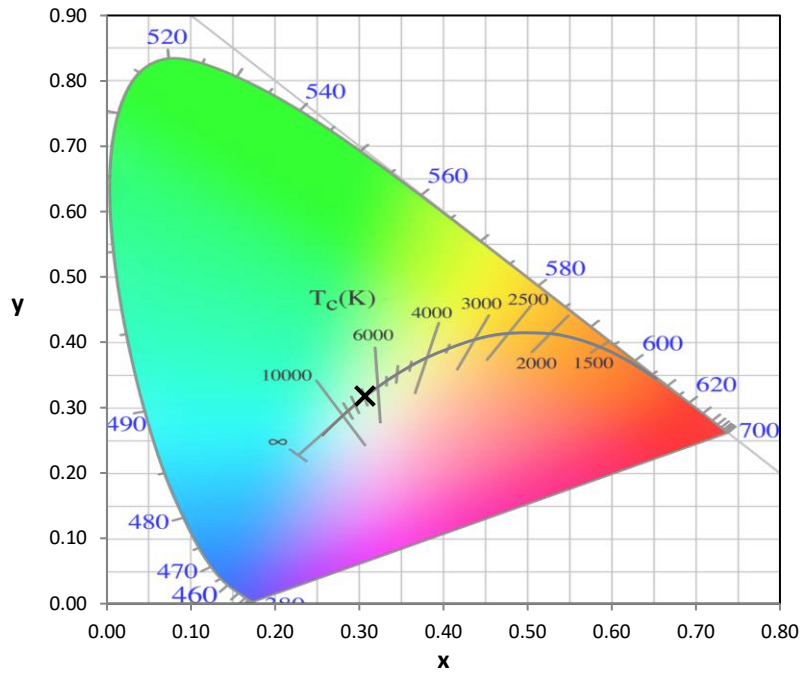
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2511-597-6

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



Point lies inside the ANSI 6500K 7-step quadrangle

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Photopic Flux vs. Wavelength

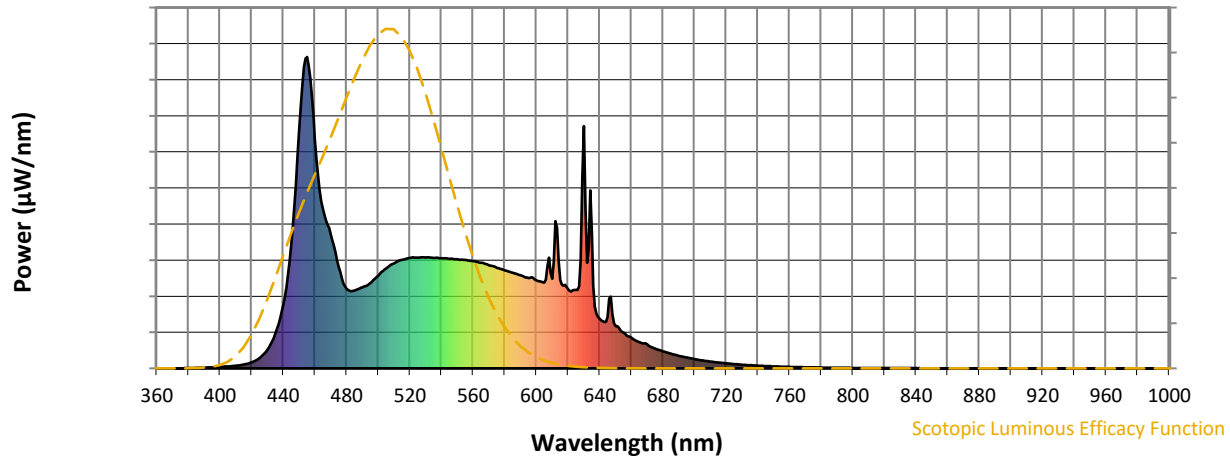


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	260	NR	620	255	NR	750	6	NR	880	0	NR
365	0	NR	495	274	NR	625	252	NR	755	6	NR	885	0	NR
370	0	NR	500	297	NR	630	778	NR	760	5	NR	890	0	NR
375	0	NR	505	320	NR	635	431	NR	765	4	NR	895	0	NR
380	1	NR	510	337	NR	640	160	NR	770	4	NR	900	0	NR
385	2	NR	515	349	NR	645	165	NR	775	3	NR	905	0	NR
390	2	NR	520	354	NR	650	135	NR	780	3	NR	910	0	NR
395	3	NR	525	356	NR	655	115	NR	785	2	NR	915	0	NR
400	5	NR	530	356	NR	660	99	NR	790	2	NR	920	0	NR
405	6	NR	535	355	NR	665	84	NR	795	2	NR	925	0	NR
410	8	NR	540	354	NR	670	77	NR	800	2	NR	930	0	NR
415	12	NR	545	351	NR	675	64	NR	805	1	NR	935	0	NR
420	19	NR	550	350	NR	680	55	NR	810	1	NR	940	0	NR
425	33	NR	555	348	NR	685	47	NR	815	1	NR	945	0	NR
430	60	NR	560	344	NR	690	41	NR	820	1	NR	950	0	NR
435	113	NR	565	339	NR	695	35	NR	825	1	NR	955	0	NR
440	206	NR	570	331	NR	700	30	NR	830	1	NR	960	0	NR
445	392	NR	575	323	NR	705	26	NR	835	1	NR	965	0	NR
450	764	NR	580	315	NR	710	22	NR	840	1	NR	970	0	NR
455	1000	NR	585	307	NR	715	19	NR	845	0	NR	975	0	NR
460	736	NR	590	299	NR	720	16	NR	850	0	NR	980	0	NR
465	513	NR	595	290	NR	725	14	NR	855	0	NR	985	0	NR
470	430	NR	600	282	NR	730	12	NR	860	0	NR	990	0	NR
475	325	NR	605	276	NR	735	10	NR	865	0	NR	995	0	NR
480	256	NR	610	287	NR	740	9	NR	870	0	NR	1000	0	NR
485	250	NR	615	284	NR	745	7	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



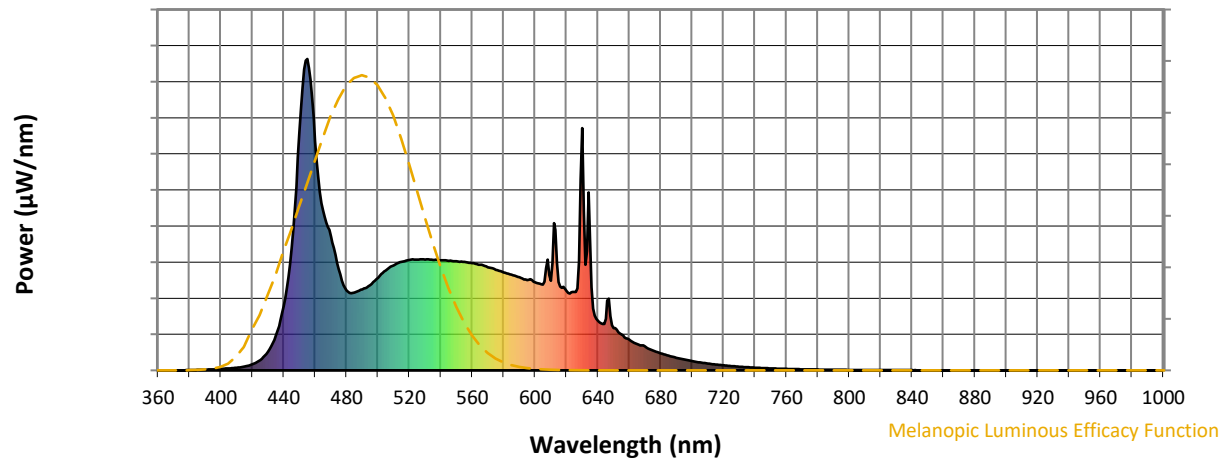
Scotopic Lumens: NR

S/P: 2.48

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	260	NR	620	255	NR	750	6	NR	880	0	NR
365	0	NR	495	274	NR	625	252	NR	755	6	NR	885	0	NR
370	0	NR	500	297	NR	630	778	NR	760	5	NR	890	0	NR
375	0	NR	505	320	NR	635	431	NR	765	4	NR	895	0	NR
380	1	NR	510	337	NR	640	160	NR	770	4	NR	900	0	NR
385	2	NR	515	349	NR	645	165	NR	775	3	NR	905	0	NR
390	2	NR	520	354	NR	650	135	NR	780	3	NR	910	0	NR
395	3	NR	525	356	NR	655	115	NR	785	2	NR	915	0	NR
400	5	NR	530	356	NR	660	99	NR	790	2	NR	920	0	NR
405	6	NR	535	355	NR	665	84	NR	795	2	NR	925	0	NR
410	8	NR	540	354	NR	670	77	NR	800	2	NR	930	0	NR
415	12	NR	545	351	NR	675	64	NR	805	1	NR	935	0	NR
420	19	NR	550	350	NR	680	55	NR	810	1	NR	940	0	NR
425	33	NR	555	348	NR	685	47	NR	815	1	NR	945	0	NR
430	60	NR	560	344	NR	690	41	NR	820	1	NR	950	0	NR
435	113	NR	565	339	NR	695	35	NR	825	1	NR	955	0	NR
440	206	NR	570	331	NR	700	30	NR	830	1	NR	960	0	NR
445	392	NR	575	323	NR	705	26	NR	835	1	NR	965	0	NR
450	764	NR	580	315	NR	710	22	NR	840	1	NR	970	0	NR
455	1000	NR	585	307	NR	715	19	NR	845	0	NR	975	0	NR
460	736	NR	590	299	NR	720	16	NR	850	0	NR	980	0	NR
465	513	NR	595	290	NR	725	14	NR	855	0	NR	985	0	NR
470	430	NR	600	282	NR	730	12	NR	860	0	NR	990	0	NR
475	325	NR	605	276	NR	735	10	NR	865	0	NR	995	0	NR
480	256	NR	610	287	NR	740	9	NR	870	0	NR	1000	0	NR
485	250	NR	615	284	NR	745	7	NR	875	0	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 5.67

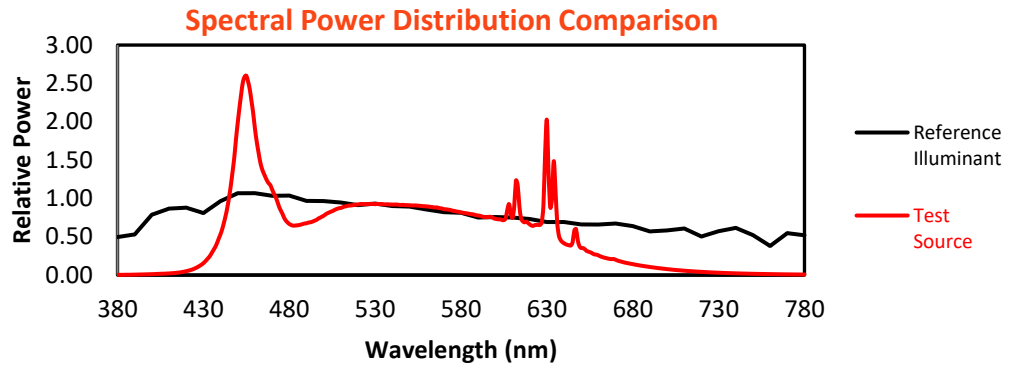
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	255	NR	750	6	NR	880	0	NR
365	0	NR	495	274	NR	625	252	NR	755	6	NR	885	0	NR
370	0	NR	500	297	NR	630	778	NR	760	5	NR	890	0	NR
375	0	NR	505	320	NR	635	431	NR	765	4	NR	895	0	NR
380	1	NR	510	337	NR	640	160	NR	770	4	NR	900	0	NR
385	2	NR	515	349	NR	645	165	NR	775	3	NR	905	0	NR
390	2	NR	520	354	NR	650	135	NR	780	3	NR	910	0	NR
395	3	NR	525	356	NR	655	115	NR	785	2	NR	915	0	NR
400	5	NR	530	356	NR	660	99	NR	790	2	NR	920	0	NR
405	6	NR	535	355	NR	665	84	NR	795	2	NR	925	0	NR
410	8	NR	540	354	NR	670	77	NR	800	2	NR	930	0	NR
415	12	NR	545	351	NR	675	64	NR	805	1	NR	935	0	NR
420	19	NR	550	350	NR	680	55	NR	810	1	NR	940	0	NR
425	33	NR	555	348	NR	685	47	NR	815	1	NR	945	0	NR
430	60	NR	560	344	NR	690	41	NR	820	1	NR	950	0	NR
435	113	NR	565	339	NR	695	35	NR	825	1	NR	955	0	NR
440	206	NR	570	331	NR	700	30	NR	830	1	NR	960	0	NR
445	392	NR	575	323	NR	705	26	NR	835	1	NR	965	0	NR
450	764	NR	580	315	NR	710	22	NR	840	1	NR	970	0	NR
455	1000	NR	585	307	NR	715	19	NR	845	0	NR	975	0	NR
460	736	NR	590	299	NR	720	16	NR	850	0	NR	980	0	NR
465	513	NR	595	290	NR	725	14	NR	855	0	NR	985	0	NR
470	430	NR	600	282	NR	730	12	NR	860	0	NR	990	0	NR
475	325	NR	605	276	NR	735	10	NR	865	0	NR	995	0	NR
480	256	NR	610	287	NR	740	9	NR	870	0	NR	1000	0	NR
485	250	NR	615	284	NR	745	7	NR	875	0	NR			

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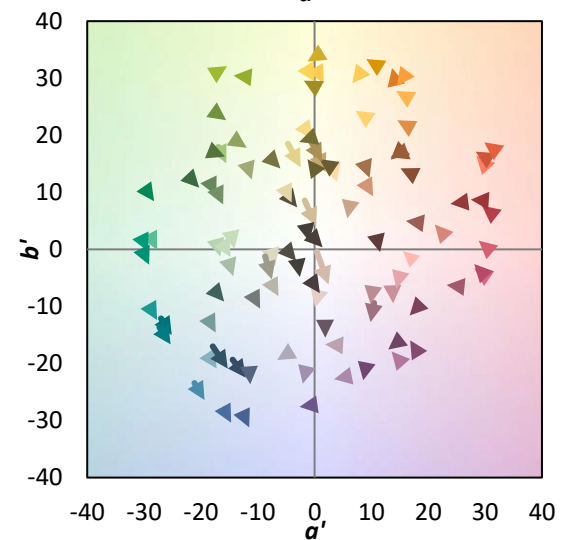
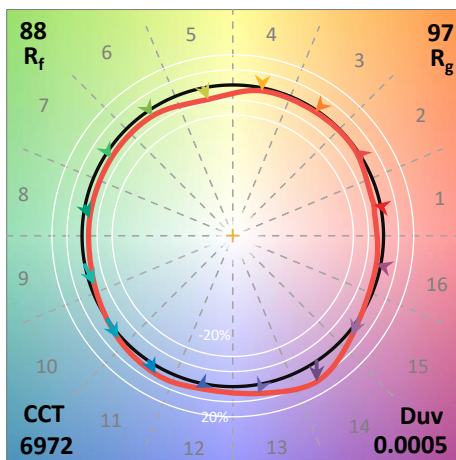
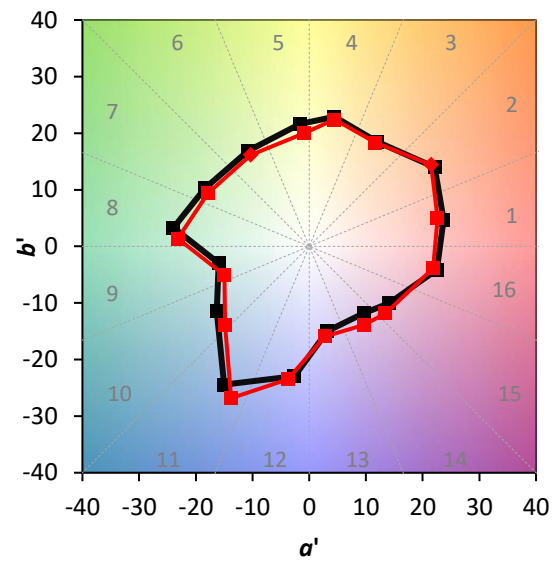
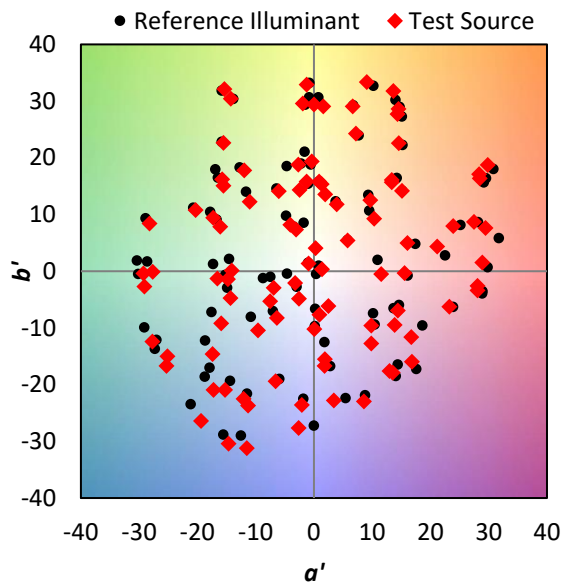
TM-30-18

Summary

$R_f = 88.2$
 $R_g = 97.1$
 $CIE R_a = 94.3$
 $R_9 = 82.6$

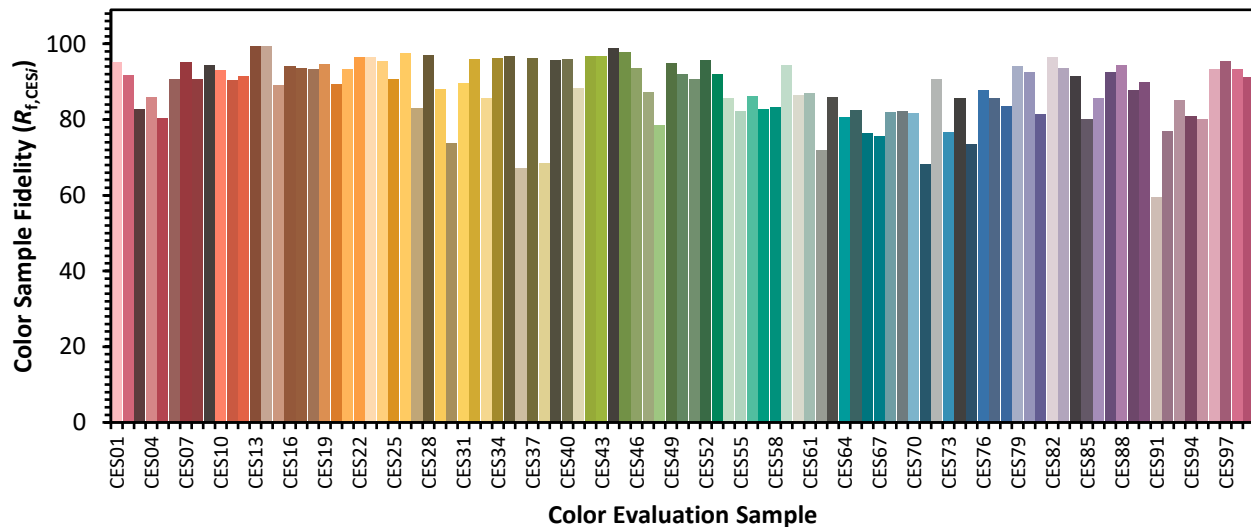


Color Vector Graphics

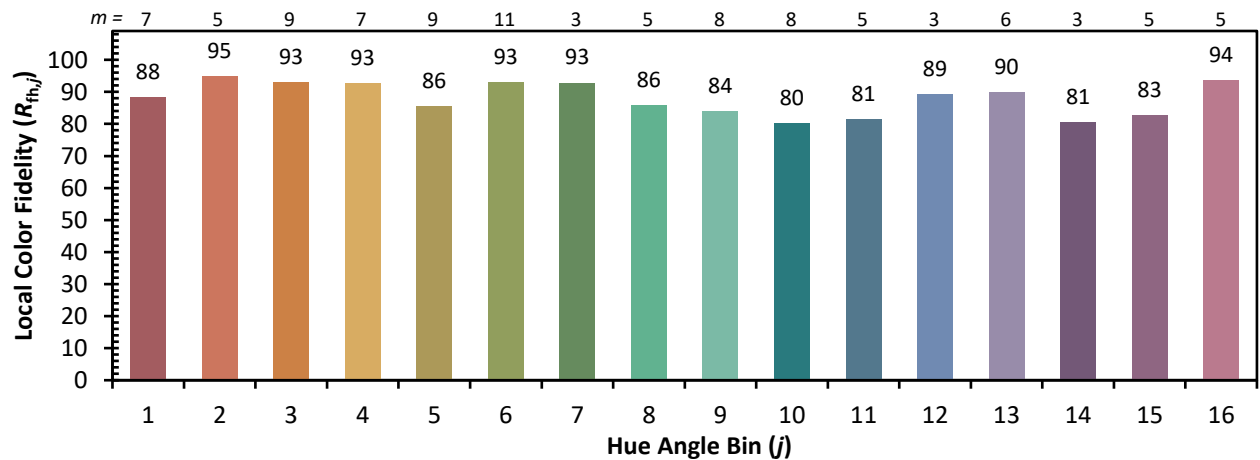


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 97	CES51 = 91	CES76 = 88
CES02 = 60	CES27 = 83	CES52 = 96	CES77 = 86
CES03 = 31	CES28 = 97	CES53 = 92	CES78 = 83
CES04 = 68	CES29 = 88	CES54 = 86	CES79 = 94
CES05 = 47	CES30 = 74	CES55 = 82	CES80 = 93
CES06 = 49	CES31 = 90	CES56 = 86	CES81 = 81
CES07 = 40	CES32 = 96	CES57 = 83	CES82 = 96
CES08 = 39	CES33 = 86	CES58 = 83	CES83 = 94
CES09 = 29	CES34 = 96	CES59 = 94	CES84 = 91
CES10 = 72	CES35 = 97	CES60 = 87	CES85 = 80
CES11 = 55	CES36 = 67	CES61 = 87	CES86 = 86
CES12 = 61	CES37 = 96	CES62 = 72	CES87 = 93
CES13 = 42	CES38 = 68	CES63 = 86	CES88 = 94
CES14 = 74	CES39 = 96	CES64 = 81	CES89 = 88
CES15 = 71	CES40 = 96	CES65 = 83	CES90 = 90
CES16 = 46	CES41 = 88	CES66 = 76	CES91 = 60
CES17 = 48	CES42 = 97	CES67 = 76	CES92 = 77
CES18 = 55	CES43 = 97	CES68 = 82	CES93 = 85
CES19 = 69	CES44 = 99	CES69 = 82	CES94 = 81
CES20 = 64	CES45 = 98	CES70 = 82	CES95 = 80
CES21 = 84	CES46 = 93	CES71 = 68	CES96 = 93
CES22 = 76	CES47 = 87	CES72 = 91	CES97 = 95
CES23 = 91	CES48 = 79	CES73 = 77	CES98 = 93
CES24 = 89	CES49 = 95	CES74 = 86	CES99 = 91
CES25 = 69	CES50 = 92	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)