

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: P1357059

Luminaire Tested: 3ASL4-30VHE-3-R63-UNV

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1357059  
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: 3ASL4-30VHE-3-R63-UNV  
Description: 3FT 3000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 3 ROW  
Light Source: -  
Ballast/Driver: -

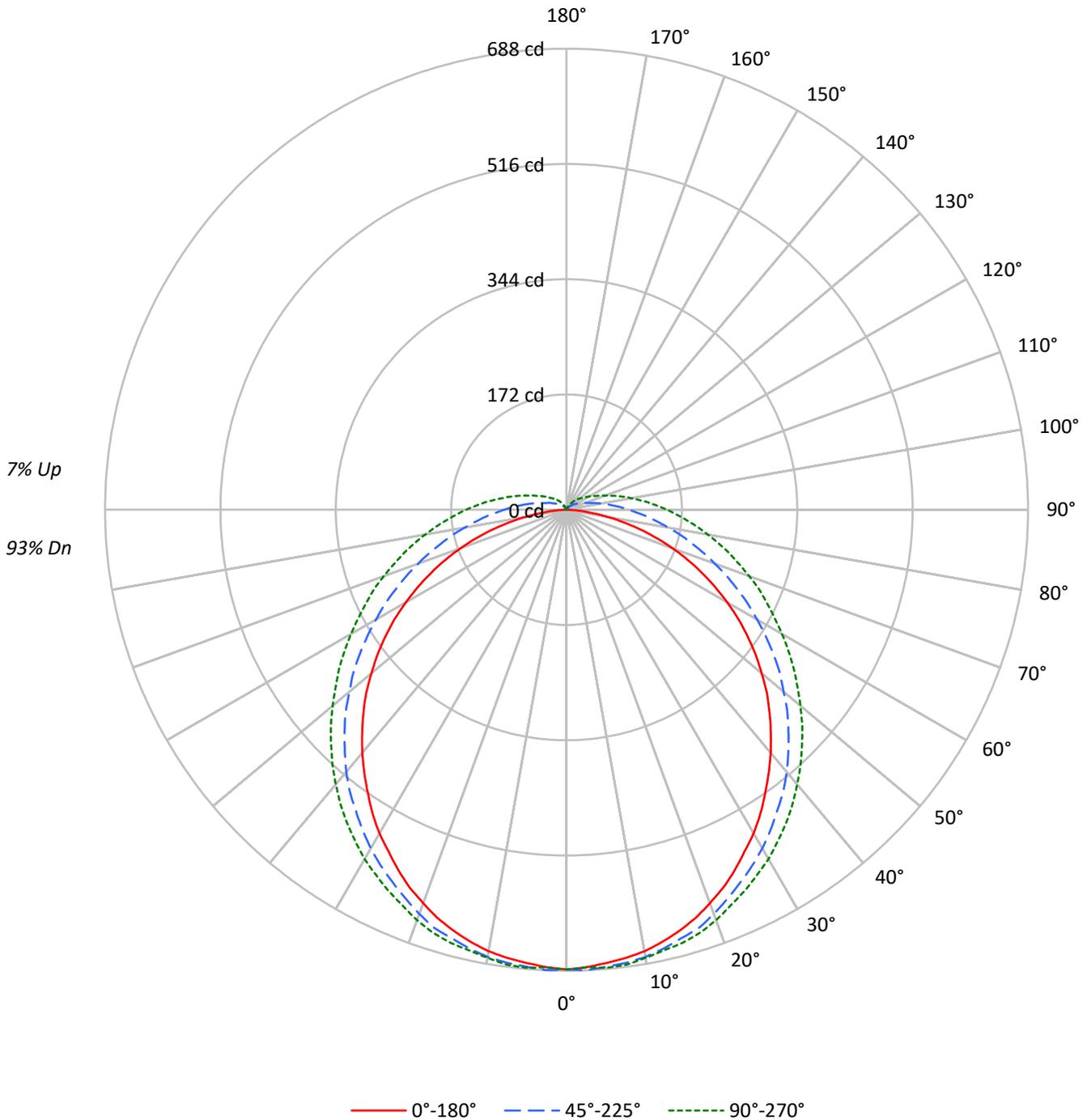
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2333.0 lumens  
Efficiency: N/A  
Efficacy: 39.9 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): 58.4  
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: P1357059  
CATALOG NUMBER: 3ASL4-30VHE-3-R63-UNV

### 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	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°	7438	7438	7438
5°	7365	7293	7268
10°	7318	7148	7083
15°	7232	6969	6927
20°	7116	6796	6752
25°	6983	6582	6552
30°	6843	6396	6383
35°	6670	6185	6195
40°	6510	5991	5997
45°	6339	5758	5798
50°	6143	5508	5592
55°	5931	5268	5405
60°	5656	4989	5217
65°	5309	4720	5060
70°	4866	4454	4938
75°	4227	4208	4854
80°	3271	4019	4818
85°	1902	3961	4888

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6339 cd/sqm



TEST NUMBER: P1357059  
 CATALOG NUMBER: 3ASL4-30VHE-3-R63-UNV

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	2.8
10°-20°	186.8	8.0
20°-30°	282.5	12.1
30°-40°	342.0	14.7
40°-50°	359.2	15.4
50°-60°	335.1	14.4
60°-70°	277.0	11.9
70°-80°	199.4	8.5
80°-90°	123.9	5.3
90°-100°	72.6	3.1
100°-110°	41.5	1.8
110°-120°	23.5	1.0
120°-130°	13.5	0.6
130°-140°	7.3	0.3
140°-150°	3.1	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	534.3	22.9
0°-40°	876.3	37.6
0°-60°	1570.7	67.3
0°-90°	2171.0	93.1
90°-120°	137.6	5.9
90°-150°	161.4	6.9
90°-180°	162.0	6.9
0°-180°	2333.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	679	685	685	685	686	65
15°	650	659	662	666	669	183
25°	593	603	613	622	628	273
35°	516	531	548	564	571	323
45°	428	444	468	488	496	330
55°	330	348	377	404	414	294
65°	222	244	281	317	330	220
75°	114	143	193	234	251	121
85°	21	64	121	164	180	26
90°	0	38	93	133	150	1
95°	0	24	70	107	123	0
105°	0	9	38	67	78	0
115°	0	4	23	41	48	0
125°	0	3	14	27	31	0
135°	0	0	9	17	21	0
145°	0	0	4	10	11	0
155°	0	0	0	3	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: P1357059

CATALOG NUMBER: 3ASL4-30VHE-3-R63-UNV

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	686.2	686.2	686.2	686.2	686.2
2.5°	683.3	687.6	687.6	683.3	683.3
5°	679.0	684.7	684.7	684.7	686.2
7.5°	674.8	681.9	681.9	681.9	684.7
10°	669.0	676.2	677.6	677.6	679.0
12.5°	660.5	669.0	670.5	671.9	673.3
15°	650.5	659.1	661.9	666.2	669.0
17.5°	639.1	649.1	654.8	659.1	661.9
20°	624.8	634.8	641.9	647.6	651.9
22.5°	610.6	619.1	627.7	634.8	639.1
25°	593.4	603.4	613.4	622.0	627.7
27.5°	574.9	586.3	599.1	609.1	614.8
30°	557.8	569.2	583.5	596.3	602.0
32.5°	537.8	550.6	566.3	579.2	586.3
35°	516.4	530.7	547.8	563.5	570.6
37.5°	495.0	509.3	530.7	546.4	553.5
40°	473.6	487.9	510.7	527.8	535.0
42.5°	450.8	465.1	489.3	507.8	516.4
45°	428.0	443.7	467.9	487.9	496.4
47.5°	405.1	420.8	446.5	467.9	476.5
50°	379.5	396.6	422.3	446.5	455.1
52.5°	355.2	372.3	400.9	425.1	433.7
55°	329.5	348.1	376.6	403.7	413.7
57.5°	303.9	322.4	352.4	380.9	392.3
60°	276.7	296.7	328.1	358.1	370.9
62.5°	249.6	271.0	305.3	336.7	349.5
65°	222.5	243.9	281.0	316.7	329.5
67.5°	195.4	218.3	258.2	295.3	311.0
70°	168.3	192.6	235.4	273.9	289.6
72.5°	141.2	166.9	214.0	253.9	269.6
75°	114.1	142.7	192.6	234.0	251.1
77.5°	87.0	119.8	174.0	215.4	232.5
80°	62.8	99.9	154.1	196.9	214.0
82.5°	39.9	79.9	136.9	179.7	196.9
85°	21.4	64.2	121.3	164.1	179.7
87.5°	7.1	49.9	105.6	148.4	164.1
90°	0.0	38.5	92.7	132.7	149.8
92.5°	0.0	30.0	81.3	119.8	135.5
95°	0.0	24.3	69.9	107.0	122.7
97.5°	0.0	20.0	61.3	95.6	109.8
100°	0.0	15.7	52.8	85.6	98.4
102.5°	0.0	12.8	45.6	75.6	88.4
105°	0.0	8.6	38.5	67.0	78.5
107.5°	0.0	7.1	32.8	59.9	69.9
110°	0.0	5.7	30.0	51.4	61.3



TEST NUMBER: P1357059  
 CATALOG NUMBER: 3ASL4-30VHE-3-R63-UNV

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	4.3	27.1	45.6	55.6
115°	0.0	4.3	22.8	41.4	48.5
117.5°	0.0	4.3	20.0	37.1	44.2
120°	0.0	2.9	18.5	32.8	39.9
122.5°	0.0	2.9	15.7	30.0	35.7
125°	0.0	2.9	14.3	27.1	31.4
127.5°	0.0	1.4	12.8	24.3	28.5
130°	0.0	1.4	11.4	21.4	25.7
132.5°	0.0	1.4	10.0	20.0	24.3
135°	0.0	0.0	8.6	17.1	21.4
137.5°	0.0	0.0	7.1	15.7	18.5
140°	0.0	0.0	5.7	12.8	17.1
142.5°	0.0	0.0	4.3	11.4	14.3
145°	0.0	0.0	4.3	10.0	11.4
147.5°	0.0	0.0	2.9	7.1	10.0
150°	0.0	0.0	1.4	5.7	7.1
152.5°	0.0	0.0	0.0	4.3	5.7
155°	0.0	0.0	0.0	2.9	4.3
157.5°	0.0	0.0	0.0	0.0	1.4
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	16.29	17.83	16.76	18.29	18.77	18.29	19.83	18.76	20.29	20.77
	3H	17.79	19.20	18.27	19.66	20.18	20.74	22.15	21.22	22.61	23.14
	4H	18.27	19.60	18.77	20.09	20.62	21.93	23.26	22.43	23.74	24.28
	6H	18.55	19.79	19.06	20.28	20.84	23.17	24.41	23.68	24.90	25.46
	8H	18.60	19.79	19.13	20.31	20.87	23.80	24.99	24.33	25.51	26.07
	12H	18.61	19.75	19.15	20.27	20.86	24.49	25.63	25.02	26.14	26.73
4H	2H	17.16	18.50	17.67	18.98	19.52	18.73	20.06	19.23	20.54	21.08
	3H	18.90	20.04	19.42	20.56	21.12	21.40	22.54	21.92	23.06	23.63
	4H	19.51	20.54	20.04	21.08	21.67	22.76	23.80	23.30	24.34	24.93
	6H	19.90	20.82	20.46	21.38	21.99	24.19	25.11	24.75	25.67	26.28
	8H	20.00	20.86	20.56	21.42	22.04	24.93	25.79	25.49	26.35	26.97
	12H	20.04	20.83	20.62	21.42	22.04	25.74	26.53	26.32	27.12	27.74
8H	4H	20.18	21.04	20.74	21.61	22.22	22.98	23.84	23.54	24.41	25.03
	6H	20.76	21.49	21.35	22.09	22.72	24.58	25.31	25.17	25.91	26.54
	8H	20.94	21.60	21.55	22.22	22.85	25.46	26.12	26.06	26.73	27.37
	12H	21.06	21.65	21.66	22.25	22.95	26.46	27.05	27.06	27.65	28.35
12H	4H	20.37	21.15	20.95	21.74	22.37	22.99	23.77	23.57	24.36	24.99
	6H	21.05	21.71	21.65	22.32	22.96	24.62	25.28	25.22	25.89	26.53
	8H	21.33	21.92	21.93	22.52	23.22	25.57	26.16	26.17	26.76	27.46

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-7

Test Date: 01/21/2026

Luminaire Tested: 4ASL-2-R630-UNV-OPL-1\_600mA

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

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2511-597-7  
 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-R630-UNV-OPL-1\_600mA**  
 Description: 2foot 4ASL LED LUMINAIRE WITH OPL LENS AND RED 630NM LEDS with 1 rows at 600mA

**Spectral Parameters**

CCT (K): 0  
 CIE u': 0.5395  
 CIE v': 0.5190  
 Duv: 0.0000  
 CIE x: 0.7004  
 CIE y: 0.2995  
 CIE z: 0.0001  
 Peak Wavelength (nm): 638  
 Dominant Wavelength (nm): 624  
 Purity: 99.9862  
 Rf: NR  
 Rg: NR

CRI (Ra): 0.0  
 R1: 0.0  
 R2: 0.0  
 R3: 0.0  
 R4: 0.0  
 R5: 0.0  
 R6: 0.0  
 R7: 0.0  
 R8: 0.0  
 R9: 0.0  
 R10: 0.0  
 R11: 0.0  
 R12: 0.0  
 R13: 0.0  
 R14: 0.0  
 R15: 0.0



**Test Conditions**

Stabilization Time: 69M  
 Operation Time: 2H 9M  
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2511-597-7

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

REPORT NUMBER: SP1-2511-597-7

CIE 1931 Chromaticity Diagram



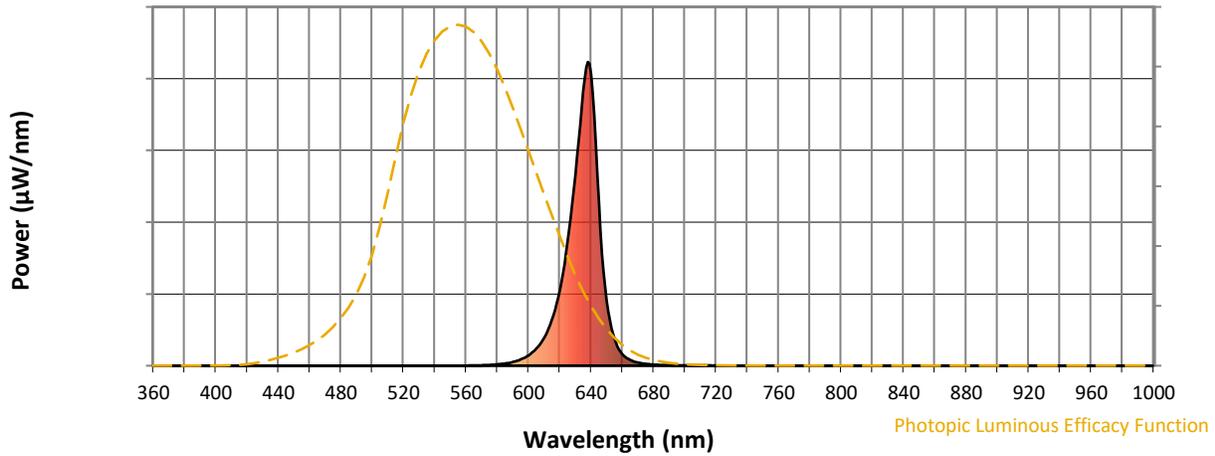
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies outside the range

REPORT NUMBER: SP1-2511-597-7

**Photopic Flux vs. Wavelength**

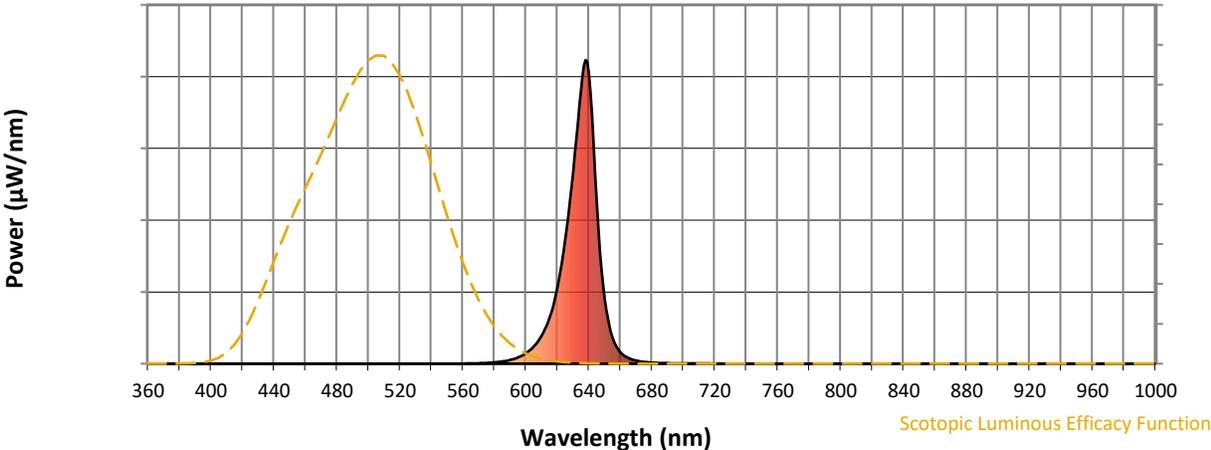


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-7

**Scotopic Flux vs. Wavelength**



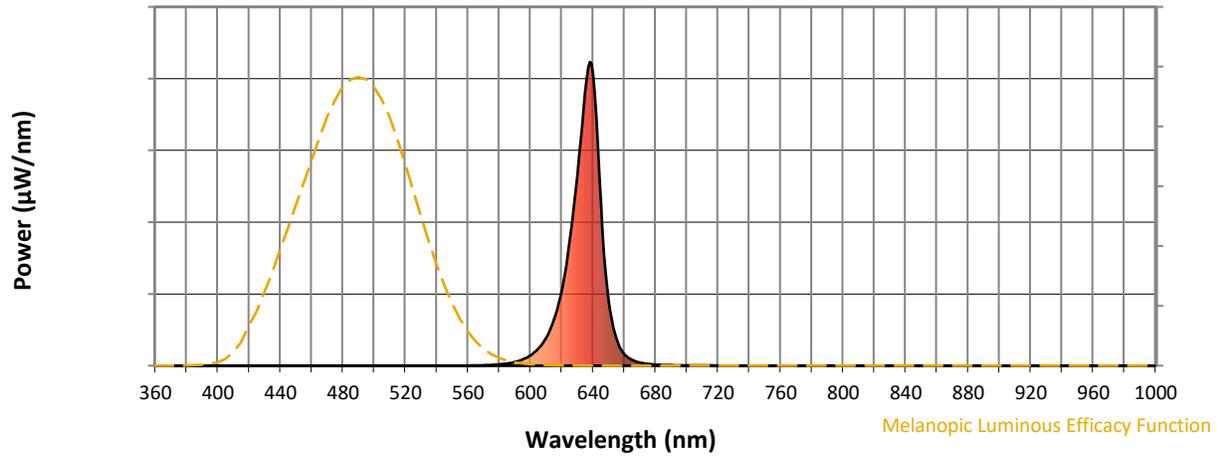
**Scotopic Lumens: NR**

**S/P: 0.05**

$\lambda$ (nm)	Power $W/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $W/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $W/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $W/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $W/\text{nm}$	Lumens $(\phi/\text{nm})$
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2511-597-7

**Melanopic Flux vs. Wavelength**



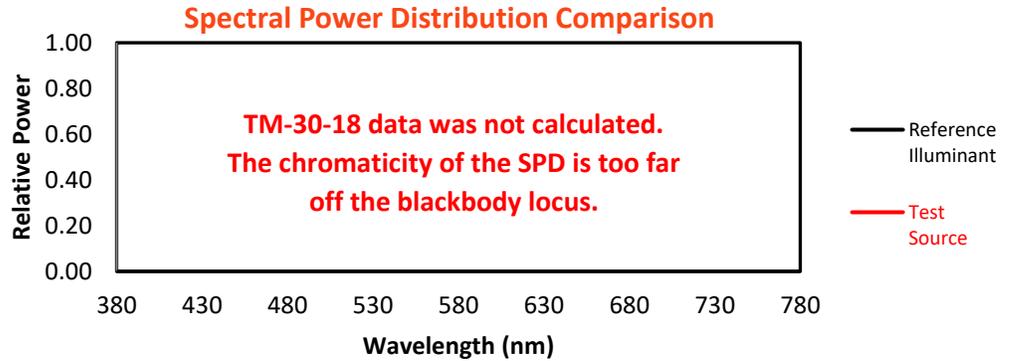
**Melanopic Lumens: NR**

**M/P: 0.02**

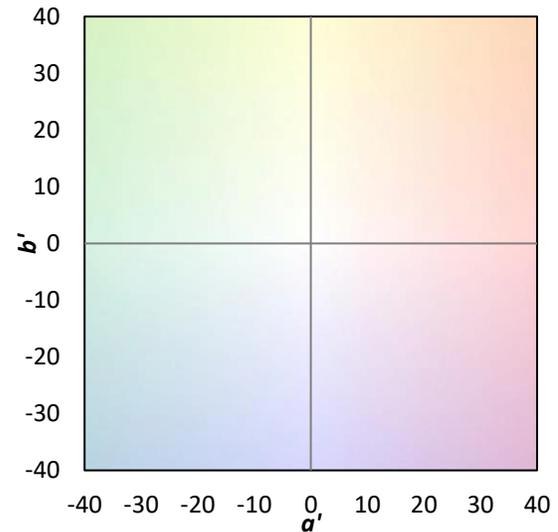
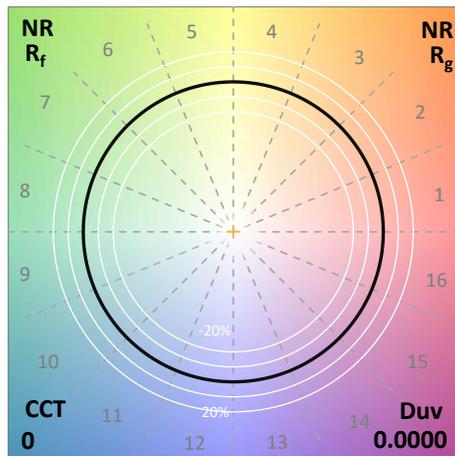
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	630	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	903	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	960	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	535	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	212	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	88	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	38	NR	790	0	NR	920	0	NR
405	0	NR	535	0	NR	665	19	NR	795	0	NR	925	0	NR
410	0	NR	540	0	NR	670	10	NR	800	0	NR	930	0	NR
415	0	NR	545	0	NR	675	6	NR	805	0	NR	935	0	NR
420	0	NR	550	0	NR	680	4	NR	810	0	NR	940	0	NR
425	0	NR	555	0	NR	685	2	NR	815	0	NR	945	0	NR
430	0	NR	560	0	NR	690	2	NR	820	0	NR	950	0	NR
435	0	NR	565	1	NR	695	1	NR	825	0	NR	955	0	NR
440	0	NR	570	2	NR	700	1	NR	830	0	NR	960	0	NR
445	0	NR	575	3	NR	705	1	NR	835	0	NR	965	0	NR
450	0	NR	580	4	NR	710	1	NR	840	0	NR	970	0	NR
455	0	NR	585	7	NR	715	1	NR	845	0	NR	975	0	NR
460	0	NR	590	12	NR	720	1	NR	850	0	NR	980	0	NR
465	0	NR	595	20	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	34	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	56	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	92	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	152	NR	745	0	NR	875	0	NR			

**Summary**

$R_f = 0$   
 $R_g = 0$   
 CIE  $R_a = 0.0$   
 $R_9 = 0.0$



**Color Vector Graphics**



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

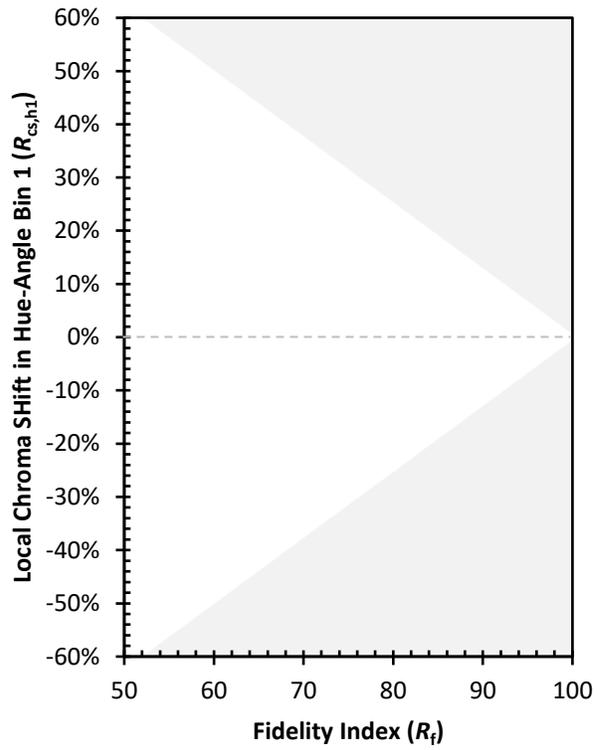
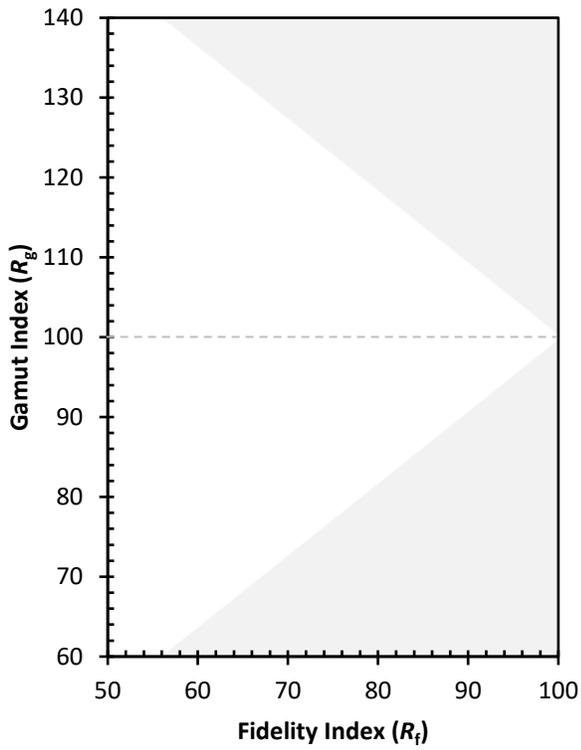
CES01 = 0	CES26 = 0	CES51 = 0	CES76 = 0
CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58 = 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)