

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: P1357431

Luminaire Tested: 8ASL4-10HE-2-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357431
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: 8ASL4-10HE-2-R63-UNV
Description: 8FT 1000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 2 ROW
Light Source: -
Ballast/Driver: -

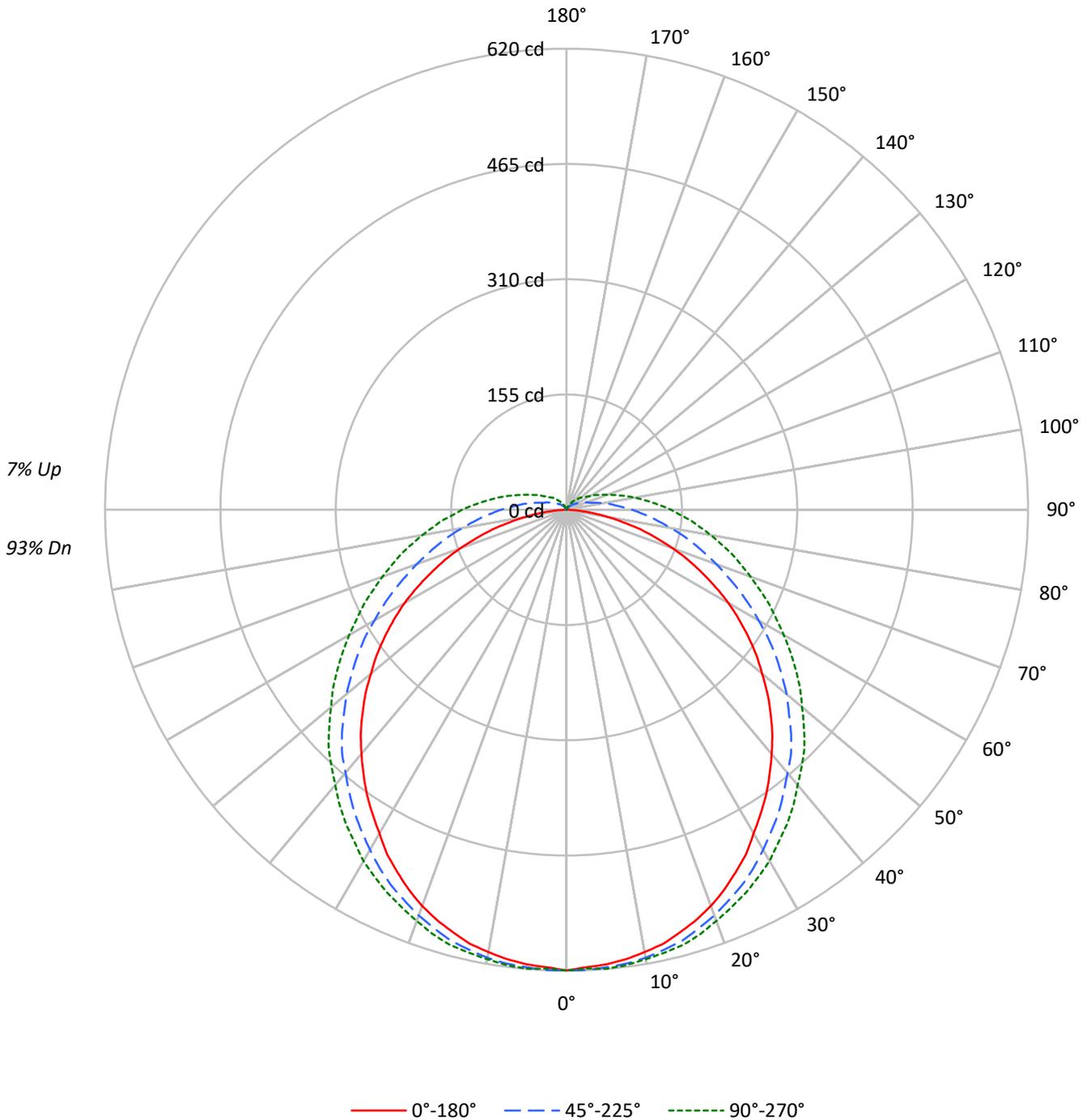
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2127.0 lumens
Efficiency: N/A
Efficacy: 43.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 49.1
Input Voltage (V): NR
Input Current (A_{in}): 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: P1357431
CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P1357431
 CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

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	95	95	95	95	95	95	93
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°	2508	2508	2508
5°	2490	2459	2450
10°	2476	2416	2390
15°	2457	2368	2342
20°	2430	2307	2275
25°	2387	2247	2217
30°	2332	2178	2160
35°	2289	2114	2093
40°	2240	2045	2022
45°	2190	1985	1971
50°	2126	1906	1895
55°	2065	1821	1834
60°	1989	1725	1770
65°	1870	1636	1720
70°	1736	1553	1674
75°	1540	1491	1659
80°	1226	1437	1654
85°	788	1445	1702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2190 cd/sqm



TEST NUMBER: P1357431
 CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	2.8
10°-20°	168.9	7.9
20°-30°	255.9	12.0
30°-40°	309.5	14.6
40°-50°	326.3	15.3
50°-60°	304.6	14.3
60°-70°	251.5	11.8
70°-80°	182.4	8.6
80°-90°	115.3	5.4
90°-100°	68.8	3.2
100°-110°	39.4	1.9
110°-120°	22.4	1.1
120°-130°	12.8	0.6
130°-140°	6.9	0.3
140°-150°	3.0	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	483.6	22.7
0°-40°	793.1	37.3
0°-60°	1424.0	66.9
0°-90°	1973.1	92.8
90°-120°	130.6	6.1
90°-150°	153.3	7.2
90°-180°	154.0	7.2
0°-180°	2127.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	614	620	618	618	620	58
15°	588	596	600	602	606	166
25°	538	546	557	565	569	248
35°	468	479	497	510	516	292
45°	388	403	427	444	452	299
55°	298	316	343	366	376	266
65°	201	222	255	286	300	199
75°	103	130	177	214	230	109
85°	20	60	113	152	168	24
90°	0	37	88	125	140	1
95°	0	23	66	101	115	0
105°	0	8	37	64	74	0
115°	0	4	21	39	47	0
125°	0	2	14	25	29	0
135°	0	0	8	16	20	0
145°	0	0	4	10	12	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: P1357431
 CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	619.6	619.6	619.6	619.6	619.6
2.5°	615.7	621.5	619.6	617.6	617.6
5°	613.7	619.6	617.6	617.6	619.6
7.5°	609.8	615.7	615.7	615.7	617.6
10°	604.0	611.8	611.8	611.8	613.7
12.5°	598.1	604.0	605.9	607.9	609.8
15°	588.4	596.2	600.1	602.0	605.9
17.5°	578.7	584.5	590.3	596.2	598.1
20°	567.0	574.8	580.6	586.5	588.4
22.5°	553.3	561.1	568.9	574.8	578.7
25°	537.7	545.5	557.2	565.0	568.9
27.5°	522.2	529.9	543.6	553.3	557.2
30°	502.7	514.4	528.0	539.7	545.5
32.5°	485.1	496.8	512.4	526.1	529.9
35°	467.6	479.3	496.8	510.5	516.3
37.5°	448.1	461.8	479.3	494.9	500.7
40°	428.6	442.3	461.8	479.3	483.2
42.5°	409.2	422.8	446.2	461.8	467.6
45°	387.7	403.3	426.7	444.2	452.0
47.5°	366.3	381.9	405.3	424.7	432.5
50°	342.9	360.4	385.8	405.3	413.0
52.5°	321.5	339.0	364.3	385.8	395.5
55°	298.1	315.6	342.9	366.3	376.0
57.5°	274.7	292.3	321.5	346.8	356.5
60°	251.3	268.9	298.1	327.3	337.1
62.5°	226.0	245.5	276.7	305.9	317.6
65°	200.7	222.1	255.2	286.4	300.0
67.5°	177.3	198.7	233.8	268.9	280.6
70°	152.0	175.4	214.3	249.4	263.0
72.5°	126.6	152.0	194.8	231.9	245.5
75°	103.3	130.5	177.3	214.3	229.9
77.5°	77.9	111.1	159.8	198.7	212.4
80°	56.5	91.6	142.2	183.1	196.8
82.5°	37.0	74.0	126.6	167.6	181.2
85°	19.5	60.4	113.0	152.0	167.6
87.5°	5.8	46.8	99.4	138.3	152.0
90°	0.0	37.0	87.7	124.7	140.3
92.5°	0.0	29.2	76.0	113.0	126.6
95°	0.0	23.4	66.2	101.3	115.0
97.5°	0.0	19.5	58.5	91.6	103.3
100°	0.0	15.6	50.7	81.8	93.5
102.5°	0.0	11.7	42.9	72.1	83.8
105°	0.0	7.8	37.0	64.3	74.0
107.5°	0.0	5.8	31.2	56.5	66.2
110°	0.0	5.8	29.2	48.7	58.5



TEST NUMBER: P1357431
 CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	3.9	25.3	44.8	52.6
115°	0.0	3.9	21.4	39.0	46.8
117.5°	0.0	3.9	19.5	35.1	42.9
120°	0.0	3.9	17.5	31.2	37.0
122.5°	0.0	1.9	15.6	27.3	33.1
125°	0.0	1.9	13.6	25.3	29.2
127.5°	0.0	1.9	11.7	23.4	27.3
130°	0.0	1.9	11.7	21.4	25.3
132.5°	0.0	0.0	9.7	19.5	23.4
135°	0.0	0.0	7.8	15.6	19.5
137.5°	0.0	0.0	7.8	13.6	17.5
140°	0.0	0.0	5.8	13.6	15.6
142.5°	0.0	0.0	3.9	11.7	13.6
145°	0.0	0.0	3.9	9.7	11.7
147.5°	0.0	0.0	1.9	7.8	9.7
150°	0.0	0.0	1.9	5.8	7.8
152.5°	0.0	0.0	0.0	3.9	5.8
155°	0.0	0.0	0.0	1.9	3.9
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



TEST NUMBER: P1357431
 CATALOG NUMBER: 8ASL4-10HE-2-R63-UNV

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	12.52	14.06	12.99	14.52	15.01	14.62	16.16	15.10	16.62	17.11
	3H	14.02	15.42	14.51	15.89	16.42	17.09	18.49	17.58	18.96	19.49
	4H	14.50	15.83	15.01	16.32	16.86	18.32	19.65	18.83	20.14	20.68
	6H	14.78	16.01	15.30	16.51	17.08	19.62	20.86	20.14	21.36	21.92
	8H	14.83	16.02	15.36	16.54	17.11	20.30	21.49	20.83	22.01	22.58
	12H	14.85	15.98	15.38	16.50	17.10	21.07	22.20	21.61	22.72	23.32
4H	2H	13.41	14.74	13.92	15.22	15.77	15.05	16.38	15.56	16.87	17.41
	3H	15.15	16.28	15.67	16.81	17.38	17.75	18.88	18.27	19.41	19.98
	4H	15.76	16.80	16.30	17.34	17.94	19.15	20.19	19.69	20.73	21.33
	6H	16.16	17.08	16.72	17.64	18.26	20.65	21.56	21.21	22.13	22.74
	8H	16.26	17.12	16.82	17.69	18.31	21.44	22.30	22.00	22.87	23.49
	12H	16.31	17.09	16.89	17.68	18.31	22.33	23.11	22.92	23.71	24.34
8H	4H	16.46	17.33	17.03	17.89	18.52	19.37	20.23	19.94	20.80	21.42
	6H	17.05	17.78	17.65	18.39	19.02	21.04	21.77	21.64	22.38	23.01
	8H	17.24	17.90	17.85	18.52	19.16	21.97	22.63	22.58	23.25	23.90
	12H	17.36	17.95	17.97	18.56	19.27	23.05	23.64	23.66	24.25	24.96
12H	4H	16.67	17.45	17.26	18.05	18.68	19.38	20.16	19.97	20.76	21.39
	6H	17.36	18.02	17.97	18.64	19.29	21.08	21.74	21.69	22.36	23.00
	8H	17.65	18.24	18.26	18.85	19.56	22.08	22.67	22.69	23.28	23.99

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

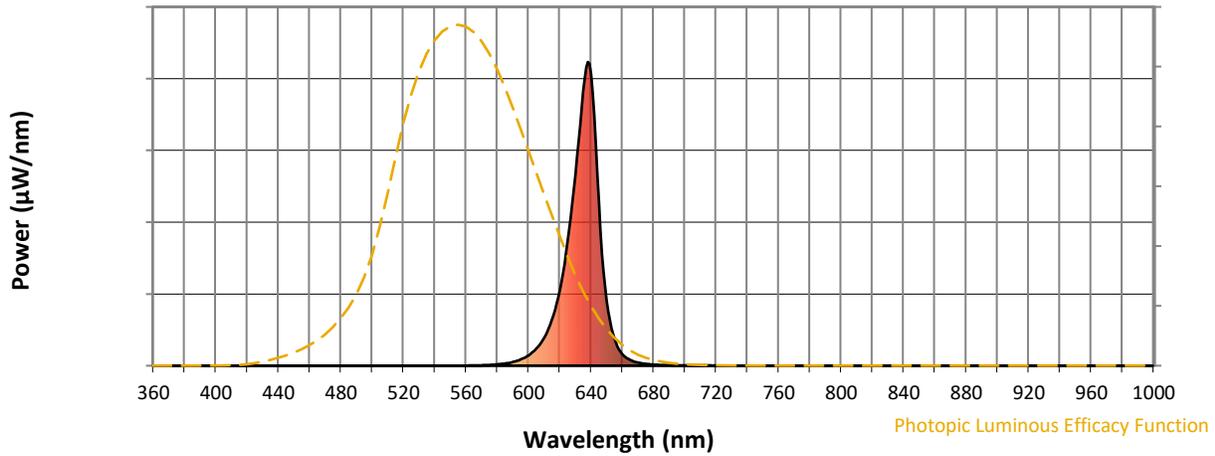


CCT = 0K
 CIE x = 0.7004
 CIE y = 0.2995
 Duv = 0.0000

Point lies outside the range

REPORT NUMBER: SP1-2511-597-7

Photopic Flux vs. Wavelength

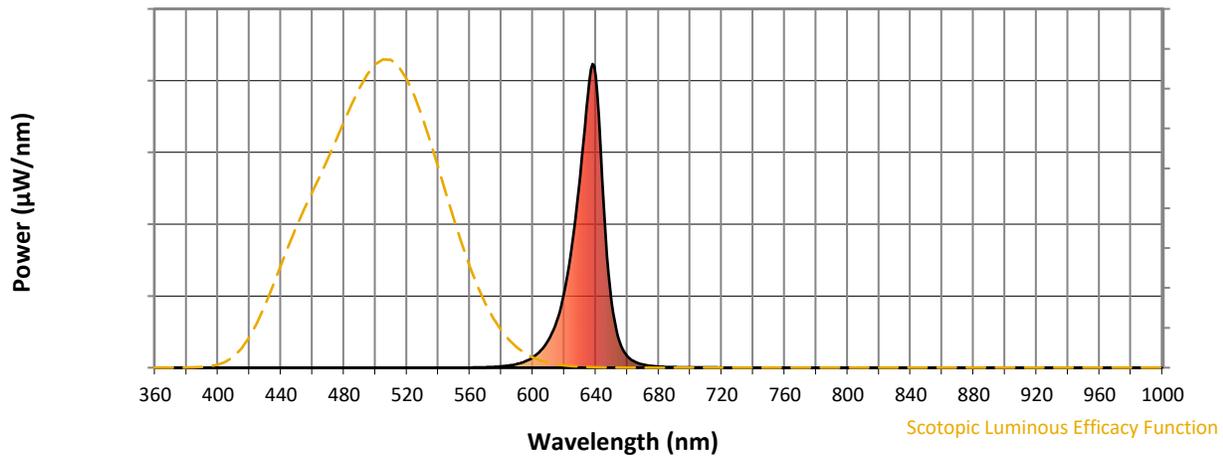


Photopic Lumens: NR

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	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



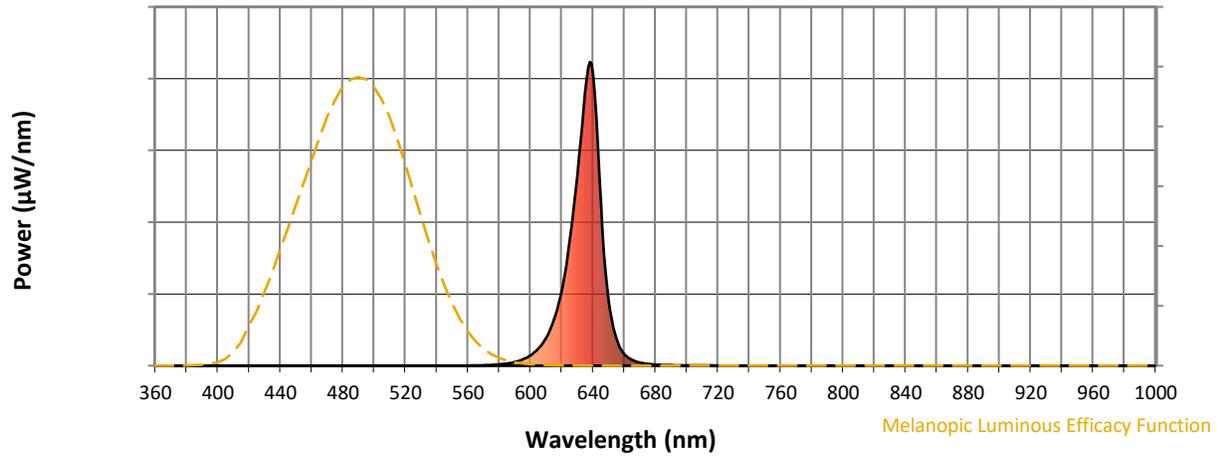
Scotopic Lumens: NR

S/P: 0.05

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	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 [^] /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	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)