

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: P1357560

Luminaire Tested: 8ASL4-5-1-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357560
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: 8ASL4-5-1-R63-UNV
Description: 8FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

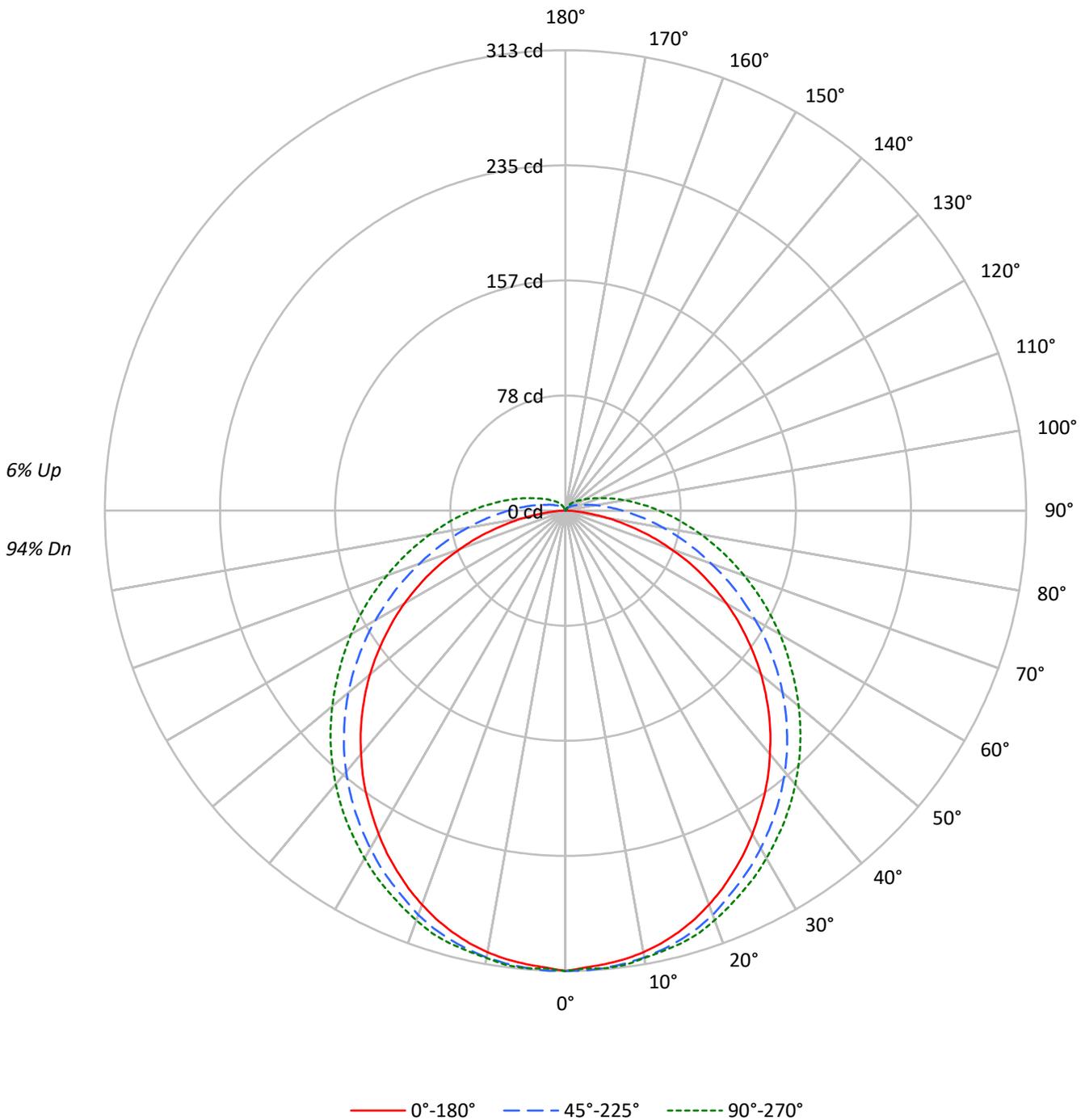
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1048.0 lumens
Efficiency: N/A
Efficacy: 42.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 24.9
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

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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	0
RCR																					
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	96	96	96	94
1	106	100	95	91	102	97	93	89	92	88	85	87	84	81	82	80	78	78	78	78	75
2	95	86	79	73	92	84	77	71	79	74	69	75	70	66	71	67	64	64	64	64	61
3	87	76	67	60	84	73	65	59	69	63	57	66	60	55	62	58	54	54	54	54	51
4	79	67	57	50	76	65	56	50	62	54	48	58	52	47	56	50	46	46	46	46	43
5	73	59	50	43	70	58	49	43	55	47	42	52	46	41	50	44	40	40	40	40	37
6	67	53	44	38	65	52	43	37	50	42	36	47	41	35	45	39	35	35	35	35	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	31	31	31	29
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1267	1267	1267
5°	1256	1242	1235
10°	1250	1218	1203
15°	1239	1192	1177
20°	1222	1162	1146
25°	1201	1127	1112
30°	1178	1094	1081
35°	1154	1061	1049
40°	1129	1027	1017
45°	1105	990	984
50°	1076	952	949
55°	1040	908	914
60°	1000	863	883
65°	950	815	853
70°	869	765	823
75°	765	721	800
80°	623	683	786
85°	388	661	791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1105 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	2.8
10°-20°	85.1	8.1
20°-30°	128.7	12.3
30°-40°	155.5	14.8
40°-50°	163.5	15.6
50°-60°	152.3	14.5
60°-70°	125.1	11.9
70°-80°	88.8	8.5
80°-90°	53.6	5.1
90°-100°	30.0	2.9
100°-110°	16.6	1.6
110°-120°	9.3	0.9
120°-130°	5.4	0.5
130°-140°	2.9	0.3
140°-150°	1.3	0.1
150°-160°	0.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	243.4	23.2
0°-40°	398.9	38.1
0°-60°	714.7	68.2
0°-90°	982.2	93.7
90°-120°	55.9	5.3
90°-150°	65.5	6.2
90°-180°	66.0	6.3
0°-180°	1048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	310	312	312	312	312	29
15°	297	301	302	304	304	84
25°	270	276	279	283	285	125
35°	236	242	249	256	259	147
45°	196	202	213	222	226	151
55°	150	159	171	182	187	134
65°	102	111	127	142	149	101
75°	51	64	86	103	111	55
85°	10	28	52	71	78	12
90°	0	16	39	57	63	0
95°	0	10	28	45	51	0
105°	0	4	15	27	32	0
115°	0	2	9	16	20	0
125°	0	1	6	11	12	0
135°	0	0	4	7	8	0
145°	0	0	1	4	5	0
155°	0	0	0	1	1	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357560
 CATALOG NUMBER: 8ASL4-5-1-R63-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	313.0	313.0	313.0	313.0	313.0
2.5°	310.9	313.7	313.0	311.6	311.6
5°	309.5	312.3	312.0	311.6	312.3
7.5°	307.7	310.6	310.6	310.9	311.6
10°	304.9	308.4	308.4	308.4	308.8
12.5°	301.3	304.9	305.6	305.9	306.7
15°	296.7	300.6	302.1	303.5	304.5
17.5°	291.4	295.3	297.8	299.6	301.3
20°	285.1	289.3	292.5	294.6	296.4
22.5°	278.3	282.6	285.8	288.9	291.1
25°	270.5	275.5	279.4	283.3	285.4
27.5°	262.7	267.7	272.7	277.3	279.7
30°	253.9	259.6	265.2	270.5	273.0
32.5°	244.7	250.7	257.4	263.1	265.9
35°	235.8	241.9	249.3	255.7	258.9
37.5°	226.3	232.3	240.8	247.9	251.1
40°	216.0	222.7	231.9	239.4	242.9
42.5°	206.1	212.8	222.7	230.9	234.4
45°	195.5	202.5	212.8	221.7	225.6
47.5°	184.5	191.9	202.9	212.1	216.4
50°	173.5	181.3	192.6	202.5	206.8
52.5°	161.8	170.0	182.0	192.6	197.2
55°	150.1	158.6	171.0	182.4	187.3
57.5°	138.5	147.0	160.4	172.4	177.8
60°	126.4	135.3	149.1	162.2	168.2
62.5°	114.0	123.2	137.7	151.9	158.3
65°	102.0	111.2	127.1	142.0	148.7
67.5°	89.2	99.1	116.1	131.7	138.8
70°	76.1	87.5	105.5	122.2	129.2
72.5°	64.4	76.1	95.6	112.6	120.0
75°	51.3	64.4	85.7	103.4	110.8
77.5°	40.0	54.2	76.5	94.5	102.0
80°	28.7	44.3	67.6	86.0	93.5
82.5°	18.4	35.4	59.5	78.3	85.3
85°	9.6	27.6	51.7	70.8	77.9
87.5°	2.8	21.2	44.6	63.4	70.5
90°	0.0	16.3	38.6	56.7	63.4
92.5°	0.0	12.4	33.3	50.6	57.4
95°	0.0	9.6	28.3	44.6	51.0
97.5°	0.0	7.4	24.4	39.3	45.7
100°	0.0	6.0	20.9	34.7	40.7
102.5°	0.0	5.0	18.1	30.8	36.1
105°	0.0	3.5	14.9	26.9	31.9
107.5°	0.0	2.5	13.1	23.7	28.0
110°	0.0	2.1	11.7	20.5	24.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	1.8	10.3	18.4	22.0
115°	0.0	1.8	9.2	16.3	19.5
117.5°	0.0	1.4	7.8	14.5	17.4
120°	0.0	1.4	7.1	13.1	15.6
122.5°	0.0	1.1	6.4	11.7	14.2
125°	0.0	1.1	5.7	10.6	12.4
127.5°	0.0	0.7	5.0	9.6	11.3
130°	0.0	0.7	4.6	8.5	10.3
132.5°	0.0	0.4	4.2	7.8	9.2
135°	0.0	0.4	3.5	6.7	8.5
137.5°	0.0	0.0	3.2	6.0	7.4
140°	0.0	0.0	2.5	5.3	6.7
142.5°	0.4	0.0	2.1	4.6	5.7
145°	0.4	0.0	1.4	3.9	5.0
147.5°	0.4	0.4	1.1	3.2	3.9
150°	0.4	0.4	0.7	2.1	3.2
152.5°	0.4	0.4	0.4	1.4	2.1
155°	0.4	0.4	0.0	1.1	1.4
157.5°	0.4	0.4	0.0	0.4	0.7
160°	0.4	0.4	0.0	0.0	0.4
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	10.24	11.80	10.70	12.24	12.71	12.26	13.82	12.72	14.26	14.73
	3H	11.73	13.15	12.20	13.60	14.11	14.69	16.11	15.17	16.56	17.07
	4H	12.21	13.55	12.70	14.02	14.54	15.88	17.22	16.37	17.69	18.21
	6H	12.48	13.73	12.99	14.22	14.76	17.11	18.36	17.62	18.84	19.38
	8H	12.54	13.73	13.05	14.24	14.78	17.75	18.95	18.27	19.46	20.00
	12H	12.55	13.70	13.07	14.20	14.77	18.47	19.62	19.00	20.12	20.70
4H	2H	11.12	12.46	11.61	12.93	13.45	12.70	14.04	13.19	14.51	15.03
	3H	12.84	13.98	13.35	14.50	15.04	15.35	16.49	15.86	17.01	17.55
	4H	13.44	14.48	13.97	15.01	15.59	16.70	17.74	17.23	18.27	18.85
	6H	13.84	14.76	14.38	15.31	15.90	18.12	19.04	18.67	19.60	20.19
	8H	13.93	14.80	14.48	15.35	15.95	18.87	19.74	19.42	20.29	20.89
	12H	13.97	14.76	14.54	15.34	15.95	19.71	20.50	20.28	21.08	21.69
8H	4H	14.10	14.97	14.65	15.52	16.12	16.91	17.78	17.46	18.33	18.93
	6H	14.67	15.40	15.25	16.00	16.61	18.50	19.23	19.08	19.83	20.44
	8H	14.85	15.51	15.44	16.11	16.74	19.38	20.05	19.98	20.65	21.28
	12H	14.96	15.55	15.55	16.14	16.83	20.41	21.00	21.01	21.59	22.28
12H	4H	14.29	15.07	14.86	15.65	16.26	16.92	17.71	17.49	18.29	18.90
	6H	14.95	15.61	15.55	16.22	16.84	18.53	19.20	19.13	19.80	20.43
	8H	15.22	15.81	15.82	16.40	17.09	19.49	20.08	20.08	20.67	21.36

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

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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

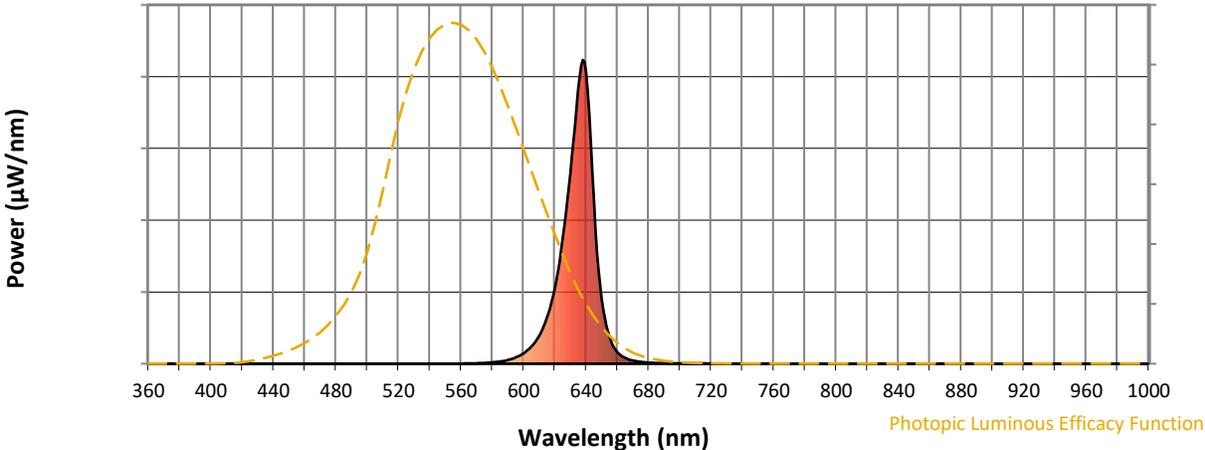


CCT = 0K
 CIE x = 0.7004
 CIE y = 0.2995
 Duv = 0.0000

Point lies outside the range

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Photopic Flux vs. Wavelength

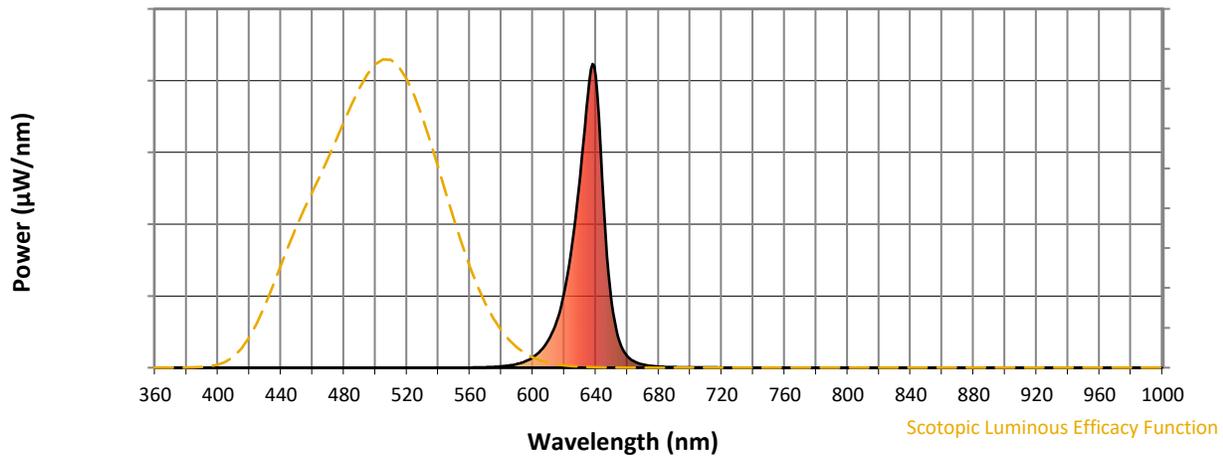


Photopic Lumens: NR

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	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			

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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			

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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 ($R_{f,i}$)

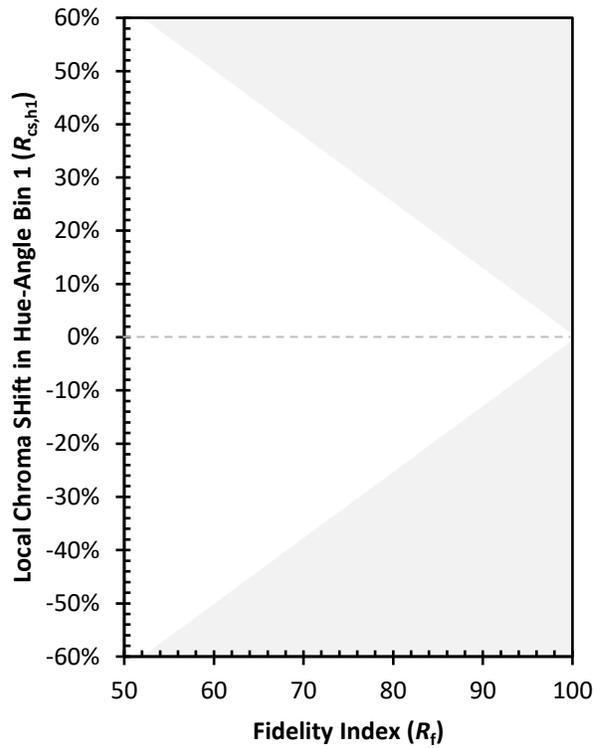
CES01 = 0	CES26 = 0	CES51 = 0	CES76 = 0
CES02 = 0	CES27 = 0	CES52 = 0	CES77 = 0
CES03 = 0	CES28 = 0	CES53 = 0	CES78 = 0
CES04 = 0	CES29 = 0	CES54 = 0	CES79 = 0
CES05 = 0	CES30 = 0	CES55 = 0	CES80 = 0
CES06 = 0	CES31 = 0	CES56 = 0	CES81 = 0
CES07 = 0	CES32 = 0	CES57 = 0	CES82 = 0
CES08 = 0	CES33 = 0	CES58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