

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: P1357575

Luminaire Tested: 8ASL4-5HE-2-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357575
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: 8ASL4-5HE-2-R63-UNV
Description: 8FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 2 ROW
Light Source: -
Ballast/Driver: -

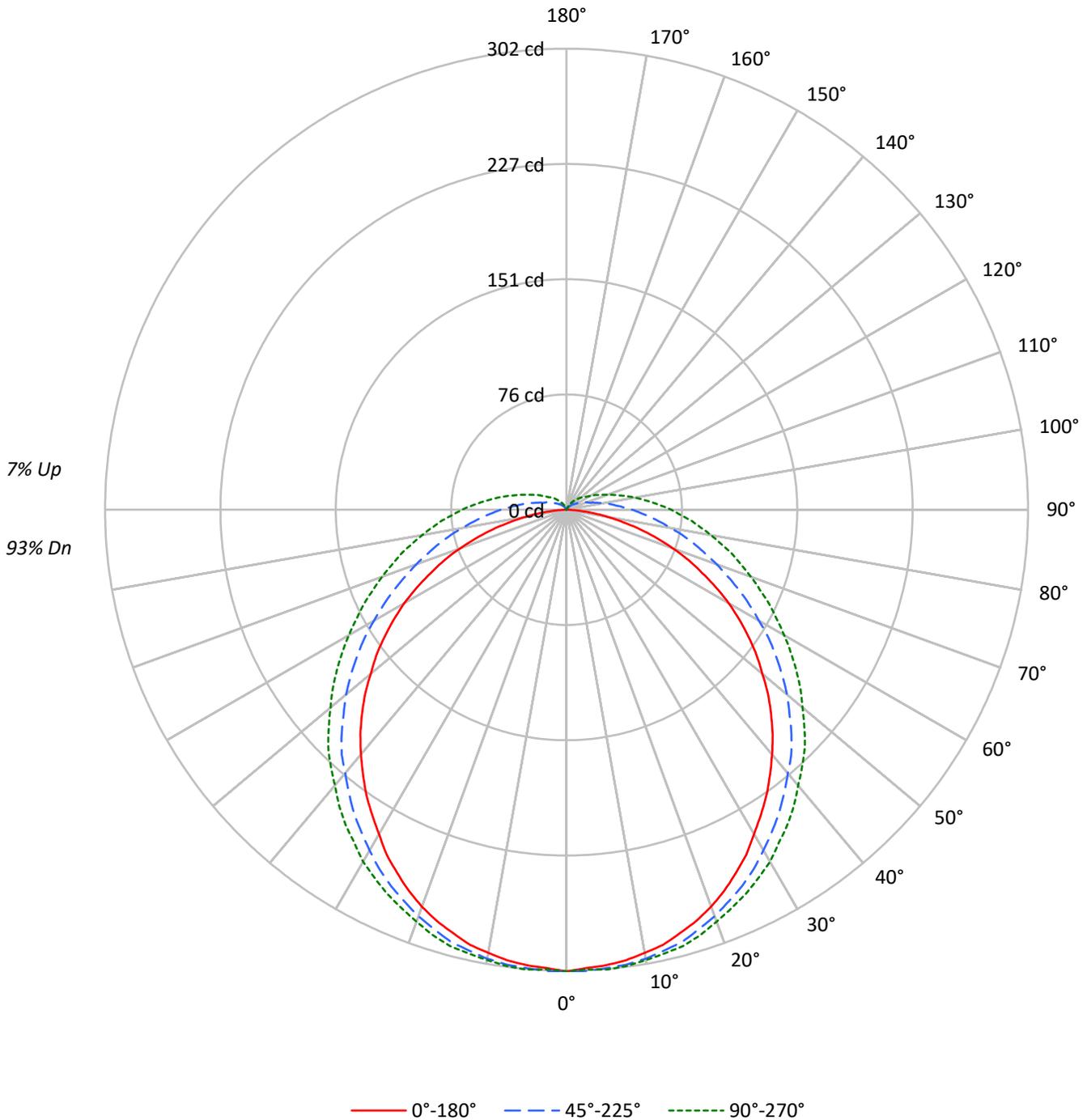
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1038.1 lumens
Efficiency: N/A
Efficacy: 44.9 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): 23.1
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

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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	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	76	76	76	76	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°	1224	1224	1224
5°	1215	1200	1196
10°	1209	1179	1167
15°	1199	1156	1143
20°	1186	1126	1110
25°	1165	1096	1082
30°	1138	1063	1054
35°	1117	1032	1021
40°	1093	998	987
45°	1069	969	962
50°	1037	930	925
55°	1008	888	895
60°	971	842	864
65°	912	799	839
70°	848	758	817
75°	751	728	810
80°	599	702	807
85°	384	705	831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1069 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.7	2.8
10°-20°	82.4	7.9
20°-30°	124.9	12.0
30°-40°	151.1	14.6
40°-50°	159.2	15.3
50°-60°	148.6	14.3
60°-70°	122.7	11.8
70°-80°	89.0	8.6
80°-90°	56.3	5.4
90°-100°	33.6	3.2
100°-110°	19.3	1.9
110°-120°	10.9	1.1
120°-130°	6.3	0.6
130°-140°	3.4	0.3
140°-150°	1.5	0.1
150°-160°	0.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	236.0	22.7
0°-40°	387.0	37.3
0°-60°	694.9	66.9
0°-90°	962.9	92.8
90°-120°	63.8	6.1
90°-150°	74.9	7.2
90°-180°	75.0	7.2
0°-180°	1038.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	302	302	302	302	302	
5°	300	302	301	301	302	28
15°	287	291	293	294	296	81
25°	262	266	272	276	278	121
35°	228	234	242	249	252	143
45°	189	197	208	217	221	146
55°	146	154	167	179	184	130
65°	98	108	125	140	146	97
75°	50	64	86	105	112	53
85°	10	30	55	74	82	12
90°	0	18	43	61	68	0
95°	0	11	32	49	56	0
105°	0	4	18	31	36	0
115°	0	2	10	19	23	0
125°	0	1	7	12	14	0
135°	0	0	4	8	10	0
145°	0	0	2	5	6	0
155°	0	0	0	1	2	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357575
 CATALOG NUMBER: 8ASL4-5HE-2-R63-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	302.4	302.4	302.4	302.4	302.4
2.5°	300.5	303.3	302.4	301.4	301.4
5°	299.5	302.4	301.4	301.4	302.4
7.5°	297.6	300.5	300.5	300.5	301.4
10°	294.8	298.6	298.6	298.6	299.5
12.5°	291.9	294.8	295.7	296.7	297.6
15°	287.1	290.9	292.9	293.8	295.7
17.5°	282.4	285.2	288.1	290.9	291.9
20°	276.7	280.5	283.3	286.2	287.1
22.5°	270.0	273.8	277.6	280.5	282.4
25°	262.4	266.2	271.9	275.7	277.6
27.5°	254.8	258.6	265.3	270.0	271.9
30°	245.3	251.0	257.7	263.4	266.2
32.5°	236.8	242.5	250.1	256.7	258.6
35°	228.2	233.9	242.5	249.1	252.0
37.5°	218.7	225.3	233.9	241.5	244.4
40°	209.2	215.8	225.3	233.9	235.8
42.5°	199.7	206.3	217.7	225.3	228.2
45°	189.2	196.8	208.2	216.8	220.6
47.5°	178.8	186.4	197.8	207.3	211.1
50°	167.3	175.9	188.3	197.8	201.6
52.5°	156.9	165.4	177.8	188.3	193.0
55°	145.5	154.0	167.3	178.8	183.5
57.5°	134.1	142.6	156.9	169.2	174.0
60°	122.7	131.2	145.5	159.7	164.5
62.5°	110.3	119.8	135.0	149.3	155.0
65°	97.9	108.4	124.6	139.8	146.4
67.5°	86.5	97.0	114.1	131.2	136.9
70°	74.2	85.6	104.6	121.7	128.4
72.5°	61.8	74.2	95.1	113.1	119.8
75°	50.4	63.7	86.5	104.6	112.2
77.5°	38.0	54.2	78.0	97.0	103.6
80°	27.6	44.7	69.4	89.4	96.0
82.5°	18.1	36.1	61.8	81.8	88.4
85°	9.5	29.5	55.1	74.2	81.8
87.5°	2.9	22.8	48.5	67.5	74.2
90°	0.0	18.1	42.8	60.9	68.5
92.5°	0.0	14.3	37.1	55.1	61.8
95°	0.0	11.4	32.3	49.4	56.1
97.5°	0.0	9.5	28.5	44.7	50.4
100°	0.0	7.6	24.7	39.9	45.6
102.5°	0.0	5.7	20.9	35.2	40.9
105°	0.0	3.8	18.1	31.4	36.1
107.5°	0.0	2.9	15.2	27.6	32.3
110°	0.0	2.9	14.3	23.8	28.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	1.9	12.4	21.9	25.7
115°	0.0	1.9	10.5	19.0	22.8
117.5°	0.0	1.9	9.5	17.1	20.9
120°	0.0	1.9	8.6	15.2	18.1
122.5°	0.0	1.0	7.6	13.3	16.2
125°	0.0	1.0	6.7	12.4	14.3
127.5°	0.0	1.0	5.7	11.4	13.3
130°	0.0	1.0	5.7	10.5	12.4
132.5°	0.0	0.0	4.8	9.5	11.4
135°	0.0	0.0	3.8	7.6	9.5
137.5°	0.0	0.0	3.8	6.7	8.6
140°	0.0	0.0	2.9	6.7	7.6
142.5°	0.0	0.0	1.9	5.7	6.7
145°	0.0	0.0	1.9	4.8	5.7
147.5°	0.0	0.0	1.0	3.8	4.8
150°	0.0	0.0	1.0	2.9	3.8
152.5°	0.0	0.0	0.0	1.9	2.9
155°	0.0	0.0	0.0	1.0	1.9
157.5°	0.0	0.0	0.0	0.0	1.0
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	10.03	11.56	10.50	12.02	12.51	12.13	13.66	12.60	14.12	14.61
	3H	11.53	12.93	12.02	13.40	13.93	14.60	16.00	15.09	16.47	17.00
	4H	12.01	13.34	12.52	13.82	14.37	15.83	17.15	16.33	17.64	18.19
	6H	12.28	13.52	12.80	14.02	14.58	17.12	18.36	17.64	18.86	19.42
	8H	12.34	13.52	12.87	14.05	14.61	17.81	18.99	18.34	19.52	20.08
	12H	12.35	13.49	12.89	14.01	14.60	18.57	19.71	19.11	20.23	20.83
4H	2H	10.92	12.24	11.42	12.73	13.28	12.56	13.89	13.06	14.37	14.92
	3H	12.66	13.79	13.18	14.32	14.89	15.26	16.39	15.78	16.92	17.49
	4H	13.27	14.30	13.81	14.84	15.44	16.66	17.70	17.20	18.24	18.84
	6H	13.67	14.58	14.23	15.15	15.76	18.16	19.07	18.71	19.64	20.25
	8H	13.77	14.63	14.33	15.19	15.82	18.94	19.81	19.51	20.37	21.00
	12H	13.81	14.60	14.40	15.19	15.82	19.84	20.62	20.42	21.21	21.85
8H	4H	13.97	14.83	14.54	15.40	16.03	16.88	17.74	17.44	18.31	18.93
	6H	14.56	15.29	15.16	15.90	16.53	18.55	19.28	19.14	19.89	20.52
	8H	14.75	15.41	15.35	16.03	16.67	19.48	20.14	20.09	20.76	21.40
	12H	14.87	15.46	15.48	16.06	16.77	20.56	21.15	21.17	21.76	22.47
12H	4H	14.18	14.96	14.76	15.56	16.19	16.89	17.67	17.47	18.26	18.89
	6H	14.87	15.53	15.48	16.15	16.79	18.59	19.25	19.19	19.87	20.51
	8H	15.16	15.75	15.77	16.35	17.06	19.59	20.18	20.20	20.79	21.50

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

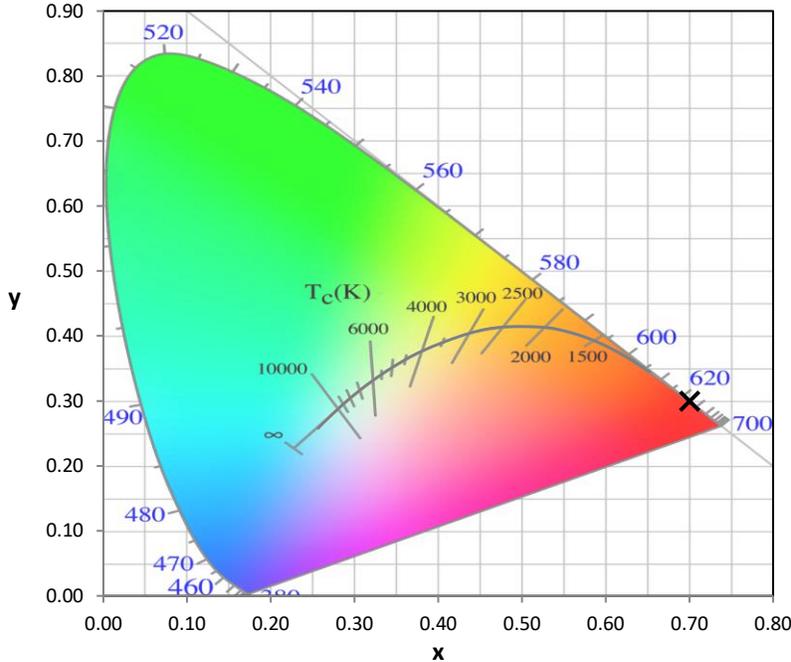
Stabilization Time: 69M
 Operation Time: 2H 9M
 Sphere Temperature (°C): 25.1

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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

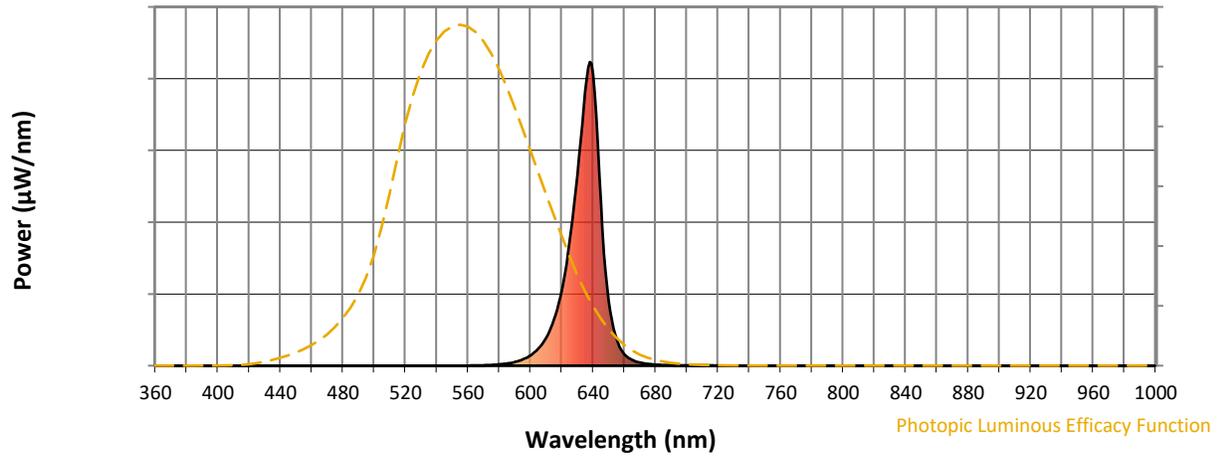


CCT = 0K
 CIE x = 0.7004
 CIE y = 0.2995
 Duv = 0.0000

Point lies outside the range

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Photopic Flux vs. Wavelength

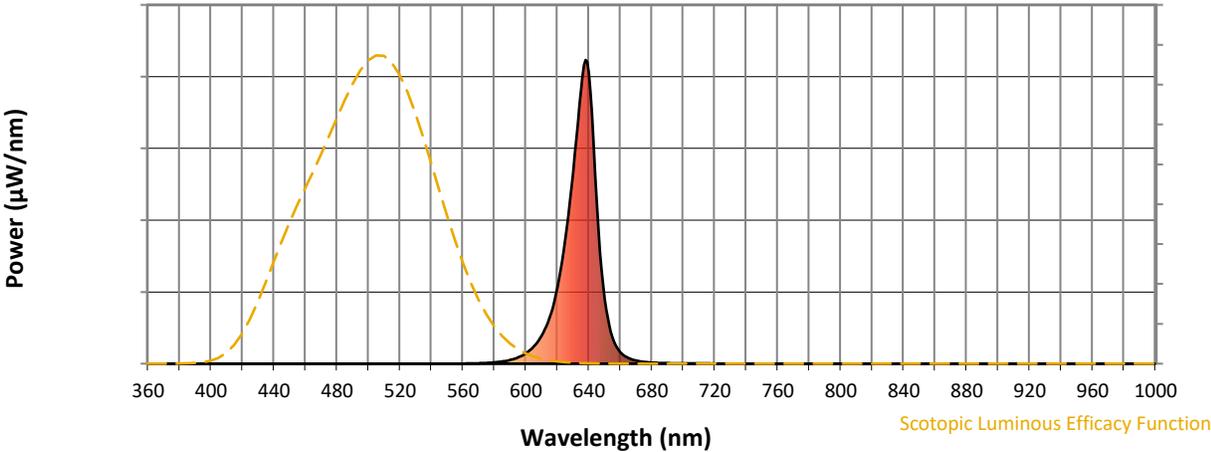


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2511-597-7

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 0.05

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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

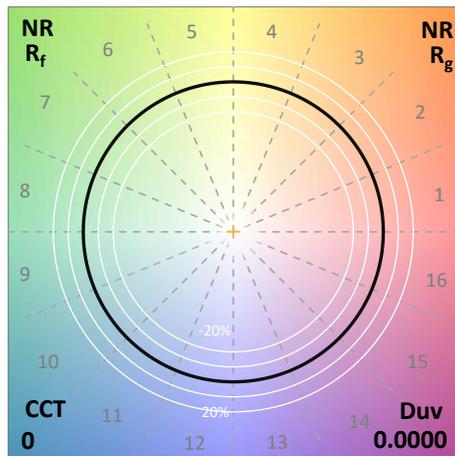
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	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

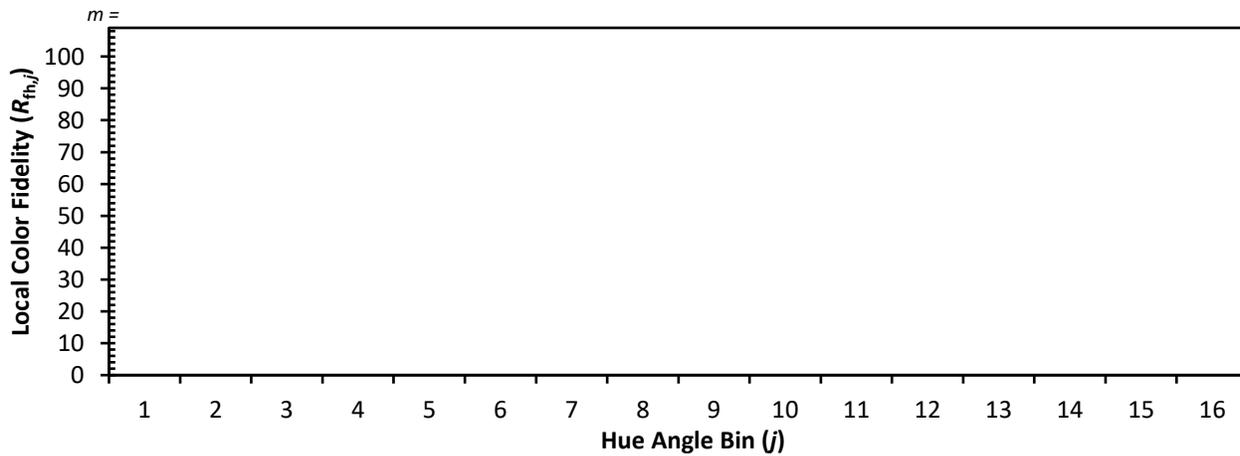


Individual Sample Fidelity Index ($R_{f,i}$)

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)