

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: P1356909

Luminaire Tested: 2ASL4-25VHE-3-R63-UNV

Issue Date: 2/17/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1356909  
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: 2ASL4-25VHE-3-R63-UNV  
Description: 2FT 2500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 3 ROW  
Light Source: -  
Ballast/Driver: -

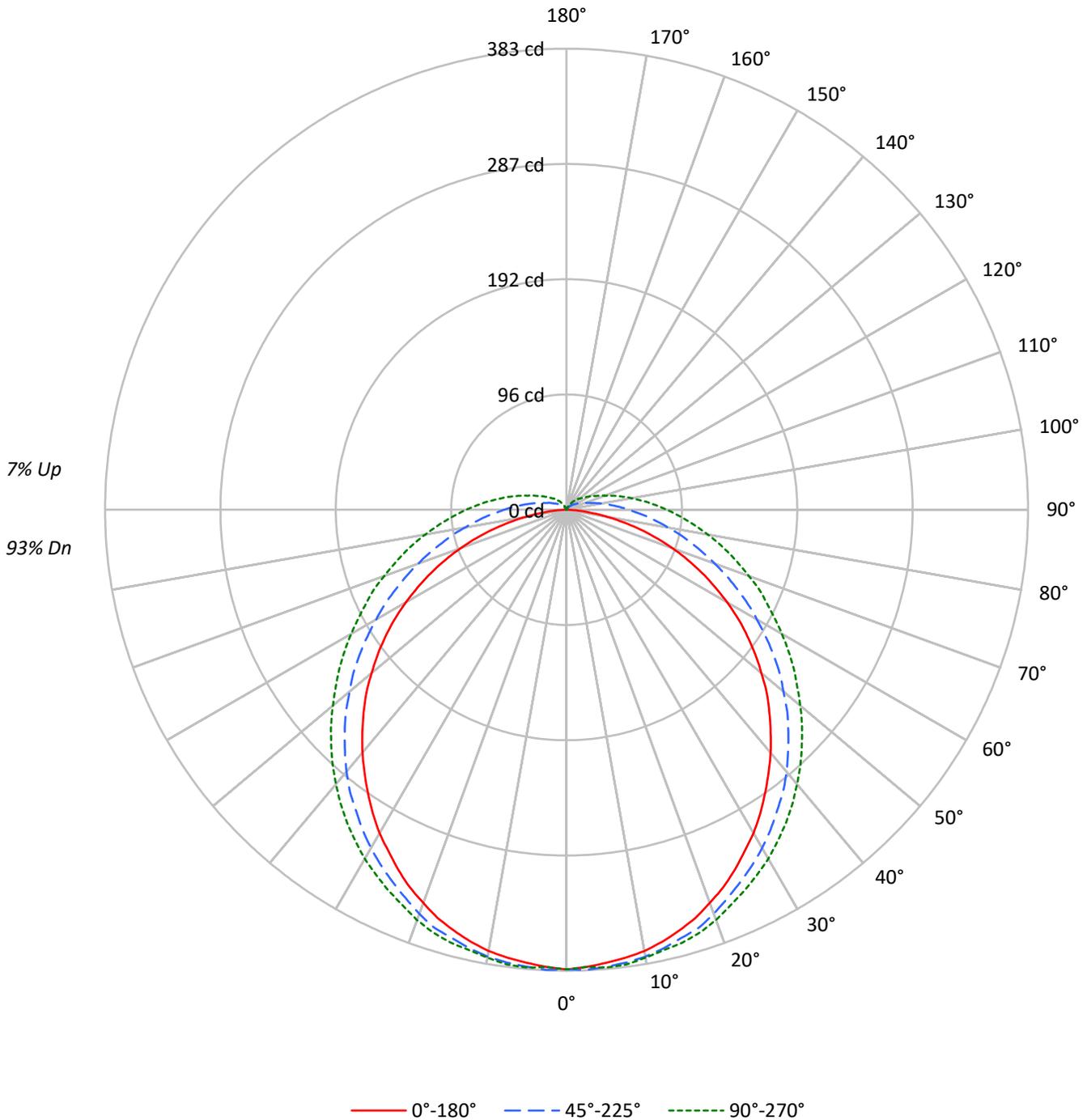
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1298.0 lumens  
Efficiency: N/A  
Efficacy: 40.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1.98' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 31.7  
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: P1356909  
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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	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°	6229	6229	6229
5°	6159	6102	6087
10°	6110	5974	5932
15°	6028	5819	5801
20°	5922	5669	5654
25°	5802	5484	5487
30°	5674	5322	5345
35°	5519	5142	5189
40°	5375	4974	5022
45°	5219	4774	4856
50°	5042	4560	4683
55°	4850	4354	4528
60°	4605	4115	4370
65°	4295	3886	4237
70°	3905	3656	4135
75°	3346	3438	4065
80°	2525	3268	4037
85°	1391	3198	4095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5219 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.2	2.8
10°-20°	103.9	8.0
20°-30°	157.1	12.1
30°-40°	190.3	14.7
40°-50°	199.8	15.4
50°-60°	186.5	14.4
60°-70°	154.1	11.9
70°-80°	111.0	8.5
80°-90°	68.9	5.3
90°-100°	40.4	3.1
100°-110°	23.1	1.8
110°-120°	13.1	1.0
120°-130°	7.5	0.6
130°-140°	4.0	0.3
140°-150°	1.7	0.1
150°-160°	0.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	297.3	22.9
0°-40°	487.6	37.6
0°-60°	873.9	67.3
0°-90°	1207.9	93.1
90°-120°	76.6	5.9
90°-150°	89.8	6.9
90°-180°	90.0	6.9
0°-180°	1298.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	378	381	381	381	382	36
15°	362	367	368	371	372	102
25°	330	336	341	346	349	152
35°	287	295	305	314	318	180
45°	238	247	260	271	276	184
55°	183	194	210	225	230	164
65°	124	136	156	176	183	123
75°	64	79	107	130	140	67
85°	12	36	68	91	100	15
90°	0	21	52	74	83	1
95°	0	14	39	60	68	0
105°	0	5	21	37	44	0
115°	0	2	13	23	27	0
125°	0	2	8	15	18	0
135°	0	0	5	10	12	0
145°	0	0	2	6	6	0
155°	0	0	0	2	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: P1356909

CATALOG NUMBER: 2ASL4-25VHE-3-R63-UNV

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	381.8	381.8	381.8	381.8	381.8
2.5°	380.2	382.6	382.6	380.2	380.2
5°	377.8	381.0	381.0	381.0	381.8
7.5°	375.4	379.4	379.4	379.4	381.0
10°	372.2	376.2	377.0	377.0	377.8
12.5°	367.5	372.2	373.0	373.8	374.6
15°	361.9	366.7	368.3	370.6	372.2
17.5°	355.6	361.1	364.3	366.7	368.3
20°	347.6	353.2	357.2	360.3	362.7
22.5°	339.7	344.5	349.2	353.2	355.6
25°	330.2	335.7	341.3	346.0	349.2
27.5°	319.9	326.2	333.3	338.9	342.1
30°	310.3	316.7	324.6	331.8	334.9
32.5°	299.2	306.4	315.1	322.2	326.2
35°	287.3	295.2	304.8	313.5	317.5
37.5°	275.4	283.3	295.2	304.0	307.9
40°	263.5	271.4	284.1	293.7	297.6
42.5°	250.8	258.7	272.2	282.5	287.3
45°	238.1	246.8	260.3	271.4	276.2
47.5°	225.4	234.1	248.4	260.3	265.1
50°	211.1	220.6	234.9	248.4	253.2
52.5°	197.6	207.2	223.0	236.5	241.3
55°	183.3	193.7	209.5	224.6	230.2
57.5°	169.1	179.4	196.0	211.9	218.3
60°	154.0	165.1	182.5	199.2	206.4
62.5°	138.9	150.8	169.8	187.3	194.5
65°	123.8	135.7	156.4	176.2	183.3
67.5°	108.7	121.4	143.7	164.3	173.0
70°	93.7	107.1	131.0	152.4	161.1
72.5°	78.6	92.9	119.1	141.3	150.0
75°	63.5	79.4	107.1	130.2	139.7
77.5°	48.4	66.7	96.8	119.8	129.4
80°	34.9	55.6	85.7	109.5	119.1
82.5°	22.2	44.4	76.2	100.0	109.5
85°	11.9	35.7	67.5	91.3	100.0
87.5°	4.0	27.8	58.7	82.5	91.3
90°	0.0	21.4	51.6	73.8	83.3
92.5°	0.0	16.7	45.2	66.7	75.4
95°	0.0	13.5	38.9	59.5	68.3
97.5°	0.0	11.1	34.1	53.2	61.1
100°	0.0	8.7	29.4	47.6	54.8
102.5°	0.0	7.1	25.4	42.1	49.2
105°	0.0	4.8	21.4	37.3	43.7
107.5°	0.0	4.0	18.3	33.3	38.9
110°	0.0	3.2	16.7	28.6	34.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	2.4	15.1	25.4	31.0
115°	0.0	2.4	12.7	23.0	27.0
117.5°	0.0	2.4	11.1	20.6	24.6
120°	0.0	1.6	10.3	18.3	22.2
122.5°	0.0	1.6	8.7	16.7	19.8
125°	0.0	1.6	7.9	15.1	17.5
127.5°	0.0	0.8	7.1	13.5	15.9
130°	0.0	0.8	6.3	11.9	14.3
132.5°	0.0	0.8	5.6	11.1	13.5
135°	0.0	0.0	4.8	9.5	11.9
137.5°	0.0	0.0	4.0	8.7	10.3
140°	0.0	0.0	3.2	7.1	9.5
142.5°	0.0	0.0	2.4	6.3	7.9
145°	0.0	0.0	2.4	5.6	6.3
147.5°	0.0	0.0	1.6	4.0	5.6
150°	0.0	0.0	0.8	3.2	4.0
152.5°	0.0	0.0	0.0	2.4	3.2
155°	0.0	0.0	0.0	1.6	2.4
157.5°	0.0	0.0	0.0	0.0	0.8
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	15.66	17.20	16.13	17.65	18.14	17.60	19.14	18.07	19.60	20.08
	3H	17.16	18.56	17.64	19.03	19.55	20.03	21.43	20.51	21.90	22.42
	4H	17.64	18.97	18.14	19.45	19.99	21.19	22.53	21.70	23.01	23.55
	6H	17.91	19.15	18.43	19.65	20.20	22.40	23.64	22.91	24.13	24.69
	8H	17.97	19.15	18.49	19.67	20.23	23.01	24.20	23.54	24.72	25.28
	12H	17.98	19.12	18.51	19.63	20.22	23.66	24.80	24.19	25.31	25.90
4H	2H	16.52	17.85	17.02	18.33	18.87	18.04	19.37	18.54	19.85	20.39
	3H	18.25	19.39	18.77	19.91	20.48	20.69	21.83	21.21	22.35	22.91
	4H	18.86	19.90	19.39	20.43	21.03	22.03	23.07	22.57	23.61	24.20
	6H	19.26	20.18	19.81	20.74	21.34	23.43	24.35	23.98	24.91	25.51
	8H	19.35	20.22	19.91	20.78	21.40	24.14	25.01	24.70	25.57	26.19
	12H	19.40	20.18	19.98	20.77	21.40	24.92	25.70	25.50	26.29	26.92
8H	4H	19.52	20.39	20.08	20.95	21.57	22.25	23.11	22.81	23.68	24.30
	6H	20.10	20.83	20.69	21.44	22.06	23.82	24.55	24.41	25.15	25.78
	8H	20.28	20.94	20.89	21.56	22.20	24.67	25.33	25.28	25.95	26.59
	12H	20.40	20.99	21.00	21.59	22.30	25.63	26.22	26.24	26.83	27.53
12H	4H	19.71	20.49	20.29	21.08	21.70	22.26	23.04	22.84	23.63	24.26
	6H	20.38	21.04	20.99	21.66	22.30	23.86	24.52	24.46	25.13	25.77
	8H	20.66	21.25	21.27	21.85	22.56	24.78	25.37	25.39	25.98	26.68

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

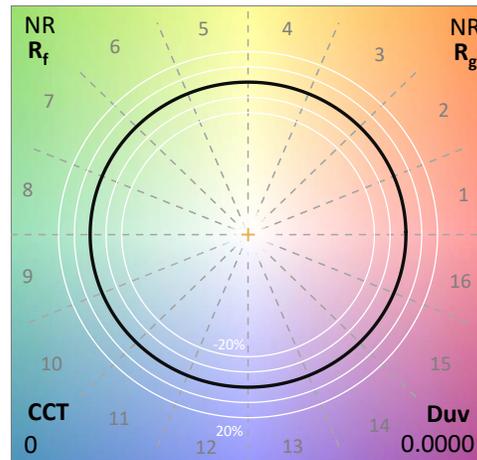
**Test Information**

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

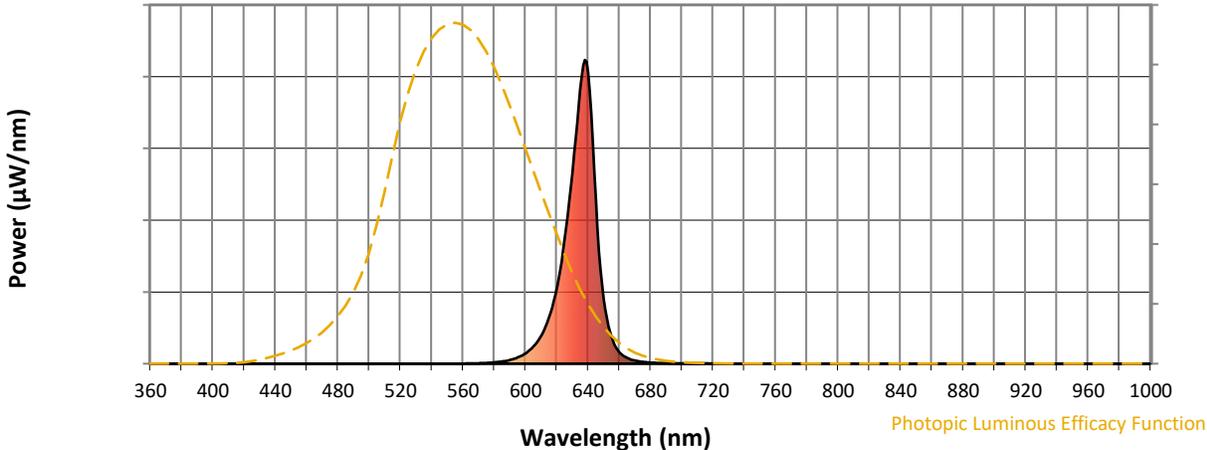


CCT = 0K  
 CIE x = 0.7004  
 CIE y = 0.2995  
 Duv = 0.0000

Point lies outside the range

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**Photopic Flux vs. Wavelength**

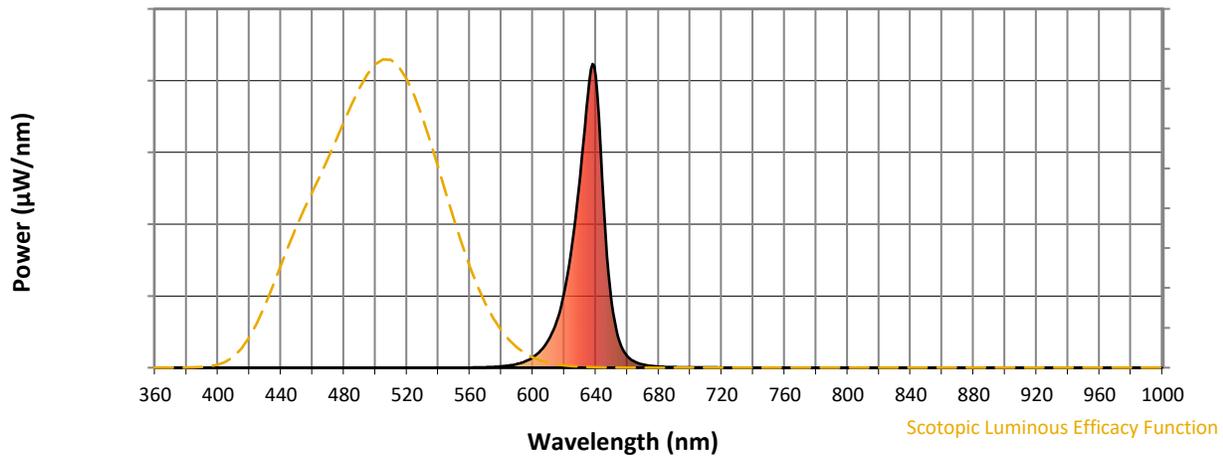


**Photopic Lumens: NR**

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

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 0.05**

$\lambda$ (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			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 0.02**

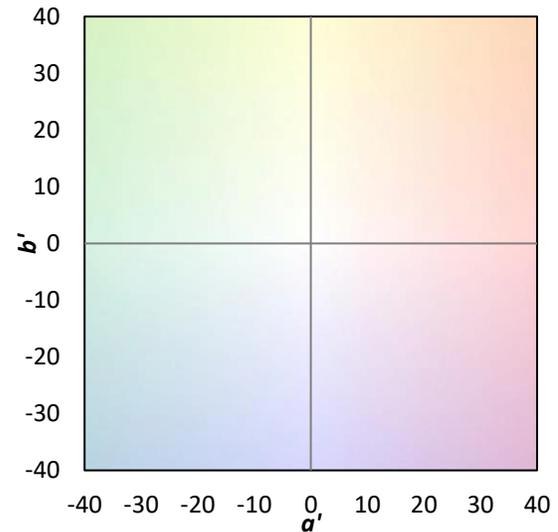
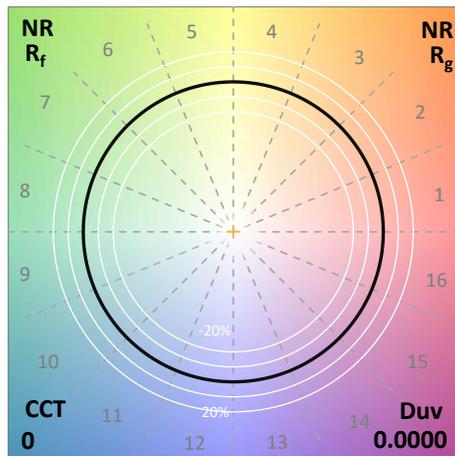
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	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)