

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: P1357068

Luminaire Tested: 3ASL4-35VHE-3-R63-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357068
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: 3ASL4-35VHE-3-R63-UNV
Description: 3FT 3500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND R63 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

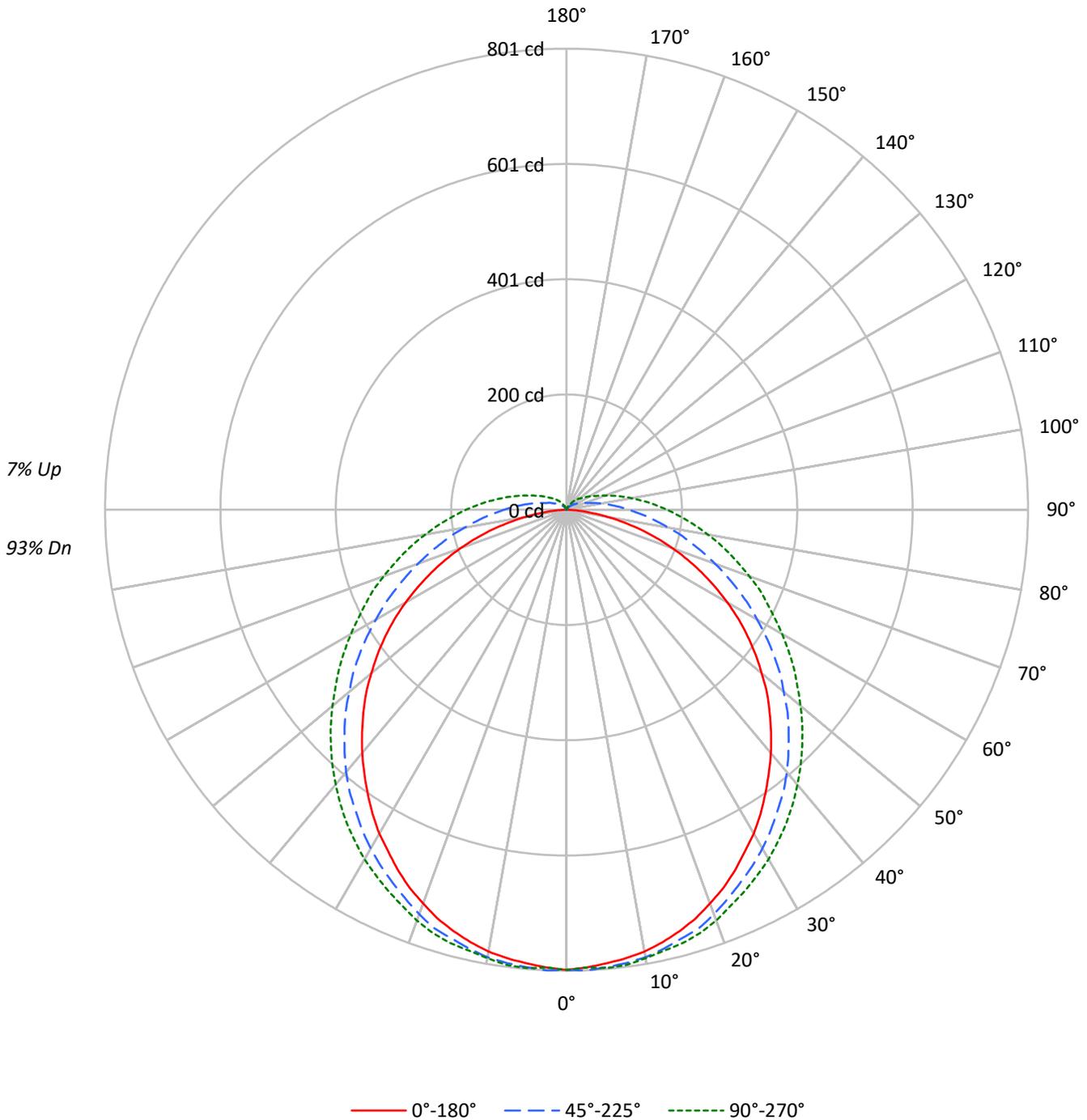
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2718.0 lumens
Efficiency: N/A
Efficacy: 38.7 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): 70.2
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: P1357068
CATALOG NUMBER: 3ASL4-35VHE-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°	8665	8665	8665
5°	8581	8497	8467
10°	8527	8328	8253
15°	8426	8119	8071
20°	8291	7919	7866
25°	8136	7668	7634
30°	7972	7450	7436
35°	7770	7205	7218
40°	7585	6980	6986
45°	7385	6708	6755
50°	7157	6416	6515
55°	6910	6138	6298
60°	6590	5812	6078
65°	6187	5499	5895
70°	5670	5188	5753
75°	4927	4902	5655
80°	3808	4681	5613
85°	2213	4614	5696

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7385 cd/sqm



TEST NUMBER: P1357068
 CATALOG NUMBER: 3ASL4-35VHE-3-R63-UNV

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	2.8
10°-20°	217.6	8.0
20°-30°	329.1	12.1
30°-40°	398.4	14.7
40°-50°	418.5	15.4
50°-60°	390.4	14.4
60°-70°	322.7	11.9
70°-80°	232.3	8.5
80°-90°	144.4	5.3
90°-100°	84.6	3.1
100°-110°	48.4	1.8
110°-120°	27.3	1.0
120°-130°	15.7	0.6
130°-140°	8.5	0.3
140°-150°	3.6	0.1
150°-160°	0.7	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	622.5	22.9
0°-40°	1021.0	37.6
0°-60°	1829.9	67.3
0°-90°	2529.3	93.1
90°-120°	160.3	5.9
90°-150°	188.1	6.9
90°-180°	189.0	7.0
0°-180°	2718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	791	798	798	798	799	75
15°	758	768	771	776	780	214
25°	691	703	715	725	731	318
35°	602	618	638	656	665	377
45°	499	517	545	568	578	385
55°	384	406	439	470	482	343
65°	259	284	327	369	384	257
75°	133	166	224	273	292	141
85°	25	75	141	191	209	30
90°	0	45	108	155	174	1
95°	0	28	81	125	143	0
105°	0	10	45	78	91	0
115°	0	5	27	48	56	0
125°	0	3	17	32	37	0
135°	0	0	10	20	25	0
145°	0	0	5	12	13	0
155°	0	0	0	3	5	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.4	799.4	799.4	799.4	799.4
2.5°	796.1	801.1	801.1	796.1	796.1
5°	791.1	797.7	797.7	797.7	799.4
7.5°	786.1	794.4	794.4	794.4	797.7
10°	779.5	787.8	789.4	789.4	791.1
12.5°	769.5	779.5	781.1	782.8	784.4
15°	757.9	767.8	771.1	776.1	779.5
17.5°	744.6	756.2	762.8	767.8	771.1
20°	727.9	739.6	747.9	754.5	759.5
22.5°	711.3	721.3	731.3	739.6	744.6
25°	691.4	703.0	714.6	724.6	731.3
27.5°	669.8	683.1	698.0	709.7	716.3
30°	649.8	663.1	679.7	694.7	701.3
32.5°	626.6	641.5	659.8	674.8	683.1
35°	601.6	618.2	638.2	656.5	664.8
37.5°	576.7	593.3	618.2	636.5	644.8
40°	551.8	568.4	595.0	614.9	623.2
42.5°	525.2	541.8	570.1	591.7	601.6
45°	498.6	516.9	545.1	568.4	578.4
47.5°	472.0	490.3	520.2	545.1	555.1
50°	442.1	462.0	491.9	520.2	530.2
52.5°	413.8	433.8	467.0	495.3	505.2
55°	383.9	405.5	438.8	470.3	482.0
57.5°	354.0	375.6	410.5	443.7	457.0
60°	322.4	345.7	382.2	417.2	432.1
62.5°	290.8	315.8	355.7	392.2	407.2
65°	259.3	284.2	327.4	369.0	383.9
67.5°	227.7	254.3	300.8	344.0	362.3
70°	196.1	224.4	274.2	319.1	337.4
72.5°	164.5	194.4	249.3	295.8	314.1
75°	133.0	166.2	224.4	272.6	292.5
77.5°	101.4	139.6	202.8	251.0	270.9
80°	73.1	116.3	179.5	229.3	249.3
82.5°	46.5	93.1	159.5	209.4	229.3
85°	24.9	74.8	141.3	191.1	209.4
87.5°	8.3	58.2	123.0	172.8	191.1
90°	0.0	44.9	108.0	154.6	174.5
92.5°	0.0	34.9	94.7	139.6	157.9
95°	0.0	28.3	81.4	124.6	142.9
97.5°	0.0	23.3	71.5	111.4	128.0
100°	0.0	18.3	61.5	99.7	114.7
102.5°	0.0	15.0	53.2	88.1	103.0
105°	0.0	10.0	44.9	78.1	91.4
107.5°	0.0	8.3	38.2	69.8	81.4
110°	0.0	6.6	34.9	59.8	71.5



TEST NUMBER: P1357068
 CATALOG NUMBER: 3ASL4-35VHE-3-R63-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	5.0	31.6	53.2	64.8
115°	0.0	5.0	26.6	48.2	56.5
117.5°	0.0	5.0	23.3	43.2	51.5
120°	0.0	3.3	21.6	38.2	46.5
122.5°	0.0	3.3	18.3	34.9	41.5
125°	0.0	3.3	16.6	31.6	36.6
127.5°	0.0	1.7	15.0	28.3	33.2
130°	0.0	1.7	13.3	24.9	29.9
132.5°	0.0	1.7	11.6	23.3	28.3
135°	0.0	0.0	10.0	19.9	24.9
137.5°	0.0	0.0	8.3	18.3	21.6
140°	0.0	0.0	6.6	15.0	19.9
142.5°	0.0	0.0	5.0	13.3	16.6
145°	0.0	0.0	5.0	11.6	13.3
147.5°	0.0	0.0	3.3	8.3	11.6
150°	0.0	0.0	1.7	6.6	8.3
152.5°	0.0	0.0	0.0	5.0	6.6
155°	0.0	0.0	0.0	3.3	5.0
157.5°	0.0	0.0	0.0	0.0	1.7
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	16.82	18.36	17.29	18.82	19.30	18.82	20.36	19.29	20.82	21.30
	3H	18.32	19.73	18.80	20.19	20.72	21.27	22.68	21.75	23.14	23.67
	4H	18.80	20.13	19.31	20.62	21.15	22.46	23.79	22.96	24.27	24.81
	6H	19.08	20.32	19.59	20.81	21.37	23.70	24.94	24.21	25.43	25.99
	8H	19.13	20.32	19.66	20.84	21.40	24.33	25.52	24.86	26.04	26.60
	12H	19.14	20.28	19.68	20.80	21.39	25.02	26.16	25.55	26.67	27.26
4H	2H	17.70	19.03	18.20	19.51	20.05	19.26	20.59	19.76	21.07	21.61
	3H	19.43	20.57	19.95	21.09	21.65	21.93	23.07	22.45	23.59	24.16
	4H	20.04	21.07	20.57	21.61	22.20	23.29	24.33	23.83	24.87	25.46
	6H	20.43	21.35	20.99	21.91	22.52	24.72	25.64	25.28	26.20	26.81
	8H	20.53	21.39	21.09	21.95	22.57	25.46	26.32	26.02	26.89	27.50
	12H	20.57	21.36	21.16	21.95	22.57	26.27	27.06	26.85	27.65	28.27
8H	4H	20.71	21.57	21.27	22.14	22.76	23.51	24.37	24.07	24.94	25.56
	6H	21.29	22.02	21.88	22.63	23.25	25.11	25.84	25.70	26.44	27.07
	8H	21.47	22.13	22.08	22.75	23.38	25.99	26.65	26.59	27.26	27.90
	12H	21.59	22.18	22.19	22.78	23.48	26.99	27.58	27.59	28.18	28.88
12H	4H	20.90	21.68	21.48	22.28	22.90	23.52	24.30	24.10	24.89	25.52
	6H	21.58	22.24	22.18	22.86	23.49	25.15	25.81	25.75	26.42	27.06
	8H	21.86	22.45	22.46	23.05	23.76	26.10	26.69	26.70	27.29	27.99

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

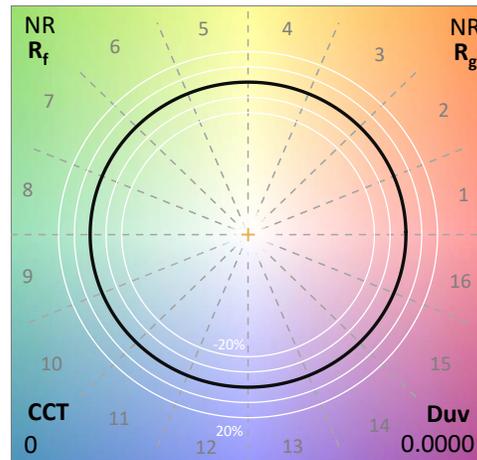
Test Information

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



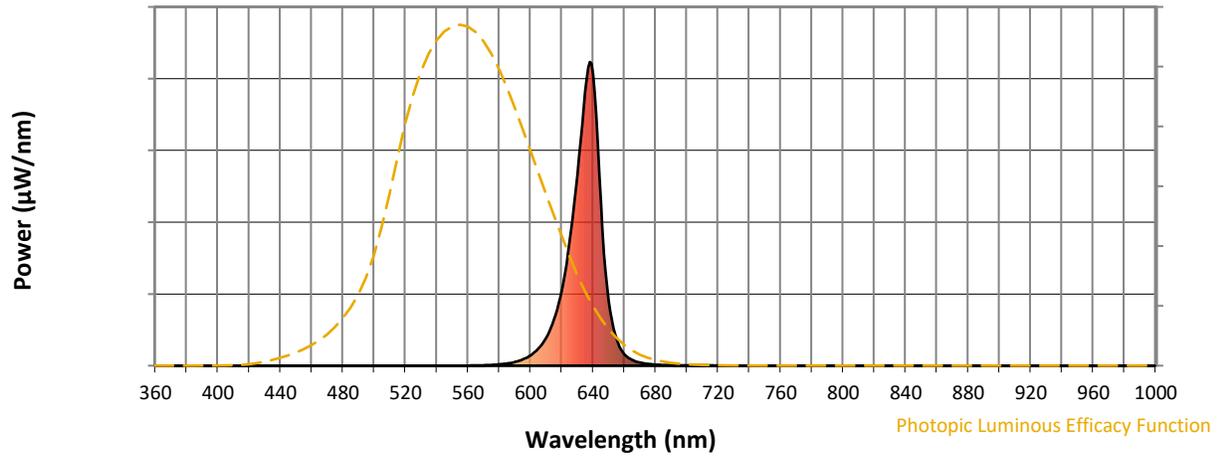
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies outside the range

REPORT NUMBER: SP1-2511-597-7

Photopic Flux vs. Wavelength

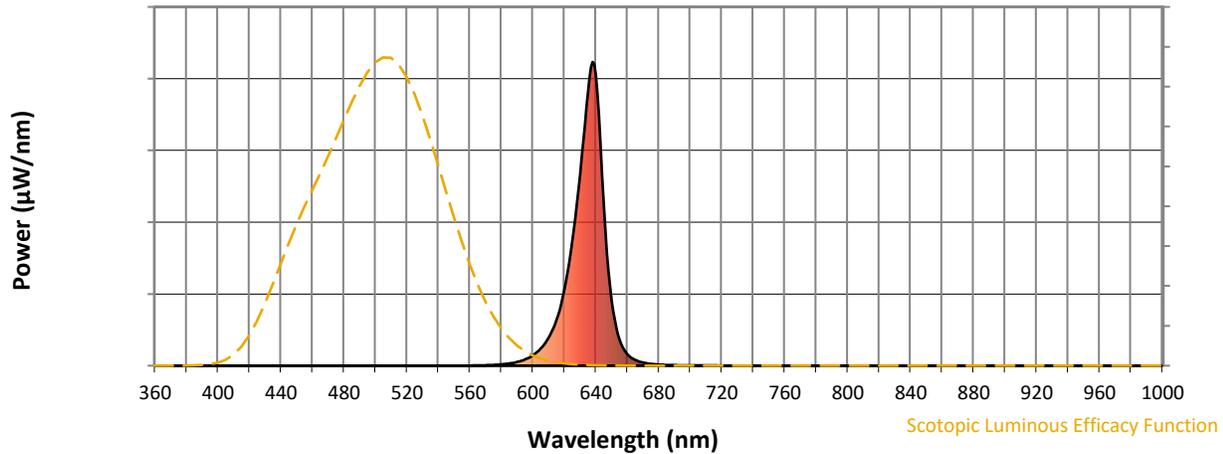


Photopic Lumens: NR

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

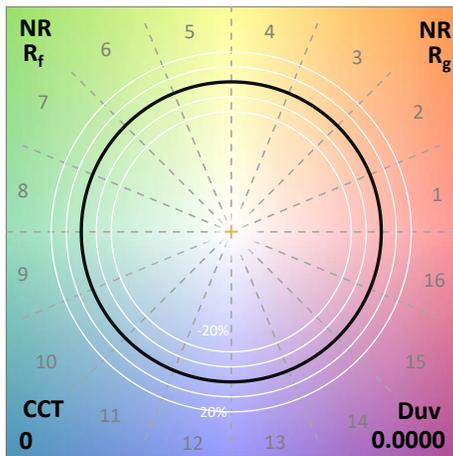
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	248	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	409	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630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