

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: INVUE

Report Number: P1442021

Luminaire Tested: ABB-C1-827-X-U-A-GM

Issue Date: 4/23/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1442021  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-539-34)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/24/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: INVUE  
Catalog Number: ABB-C1-827-X-U-A-GM  
Description: ARBOR OUTDOOR ARCHITECTURAL BOLLARD LUMINAIRE  
ASYMMETRIC OPTIC, GRAPHITE METALLIC PAINTED FINISH  
Light Source: 2200K CCT, 80 CRI LEDS  
Ballast/Driver: -

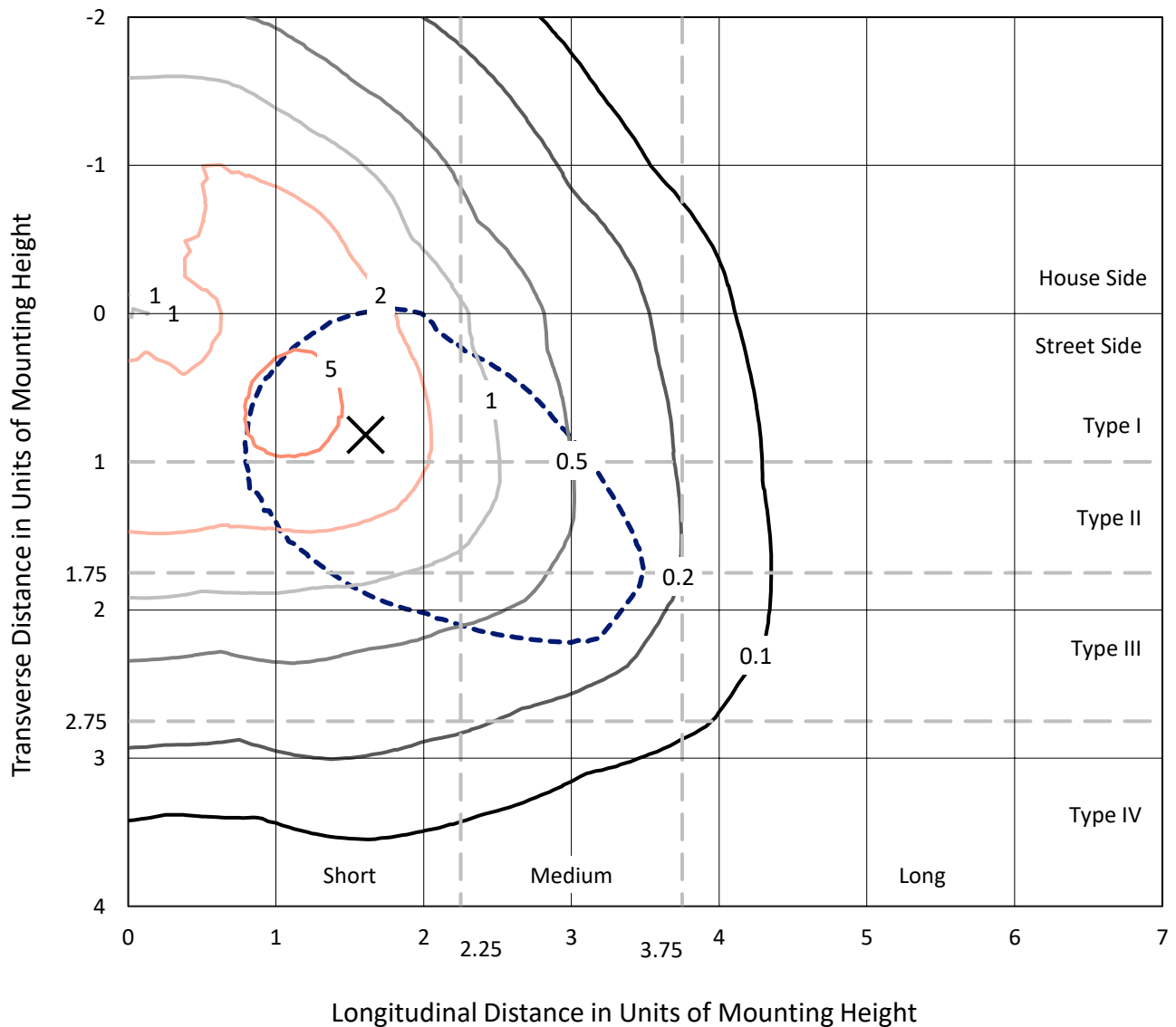
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 424.8 lumens  
Efficiency: N/A  
Efficacy: 39.7 lumens/watt  
Luminous Opening: Circular (Dia: 0.4' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G0  
  
Input Watts (W): 10.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9841  
Total Harmonic Distortion (THDi): 0.0966211  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 3 HR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT

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### Iso-Footcandle Lines of Horizontal Illumination

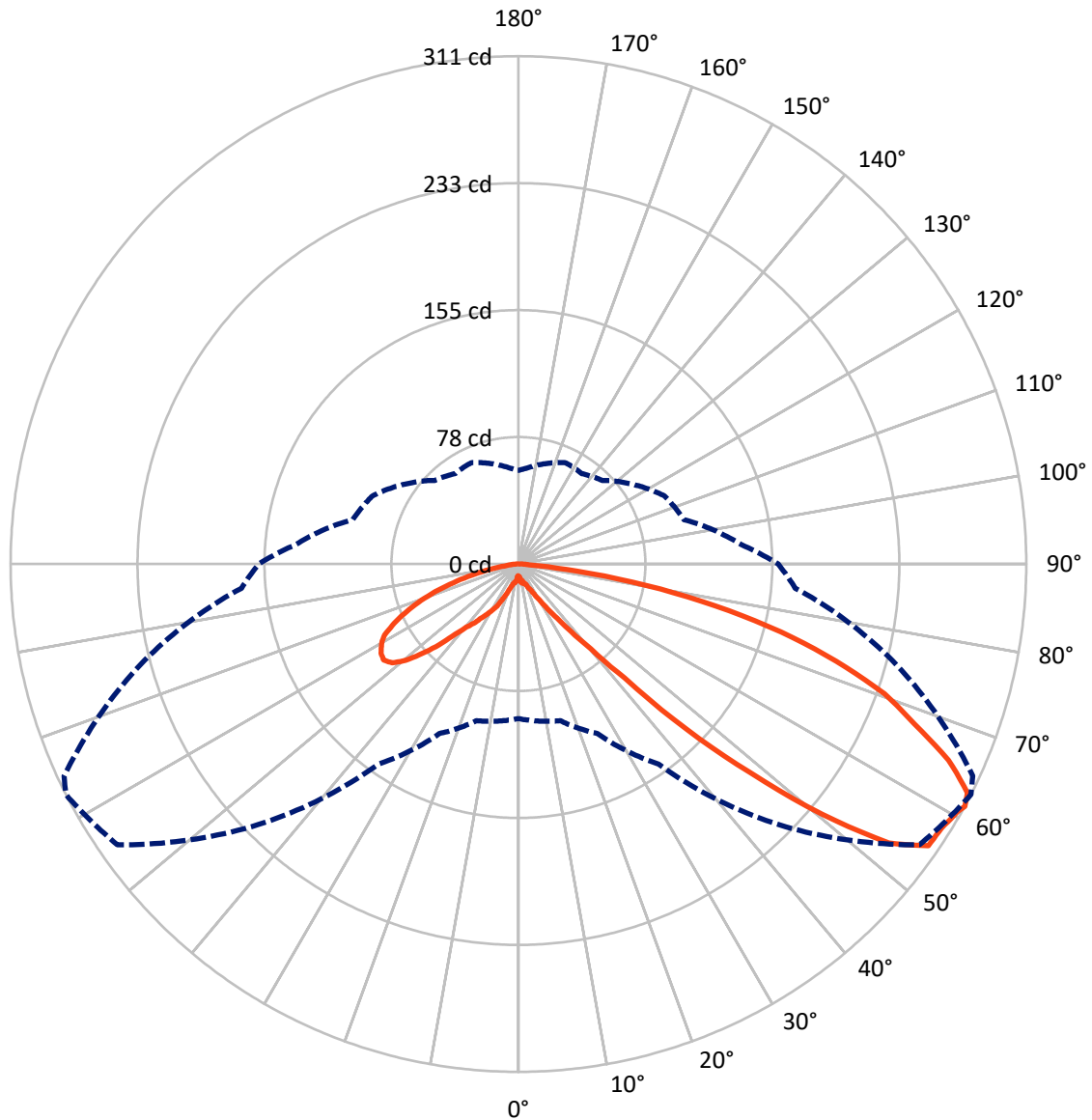
× Max cd  
 - - - 1/2 Max cd



Based on 3 foot mounting height. Maximum calculated value = 7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral      - - - Horizontal Cone Through 61-Deg Vertical

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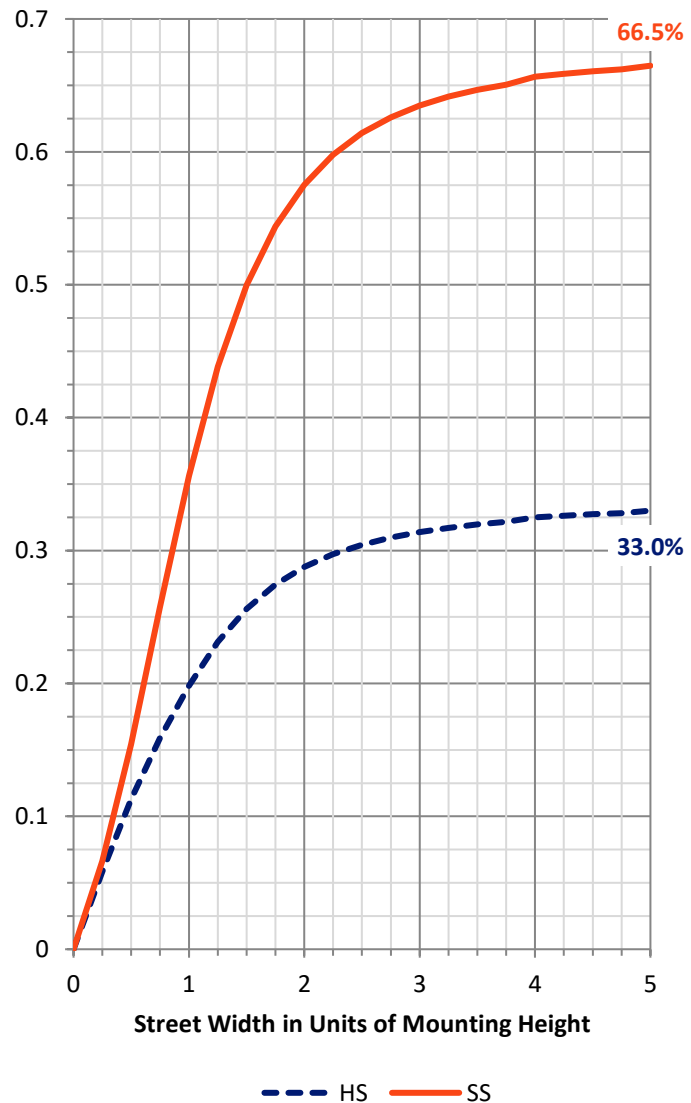
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	141.2	0.0	141.2
	% Fixture	33.2	0.0	33.2
<b>Street Side</b>	Lumens	283.6	0.0	283.6
	% Fixture	66.8	0.0	66.8
<b>Total</b>	Lumens	424.8	0.0	424.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1.0	0.2
10°-20°	4.2	1.0
20°-30°	10.6	2.5
30°-40°	24.2	5.7
40°-50°	62.9	14.8
50°-60°	120.3	28.3
60°-70°	121.4	28.6
70°-80°	70.3	16.6
80°-90°	9.9	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	424.8	100.0
0°-180°	424.8	100.0



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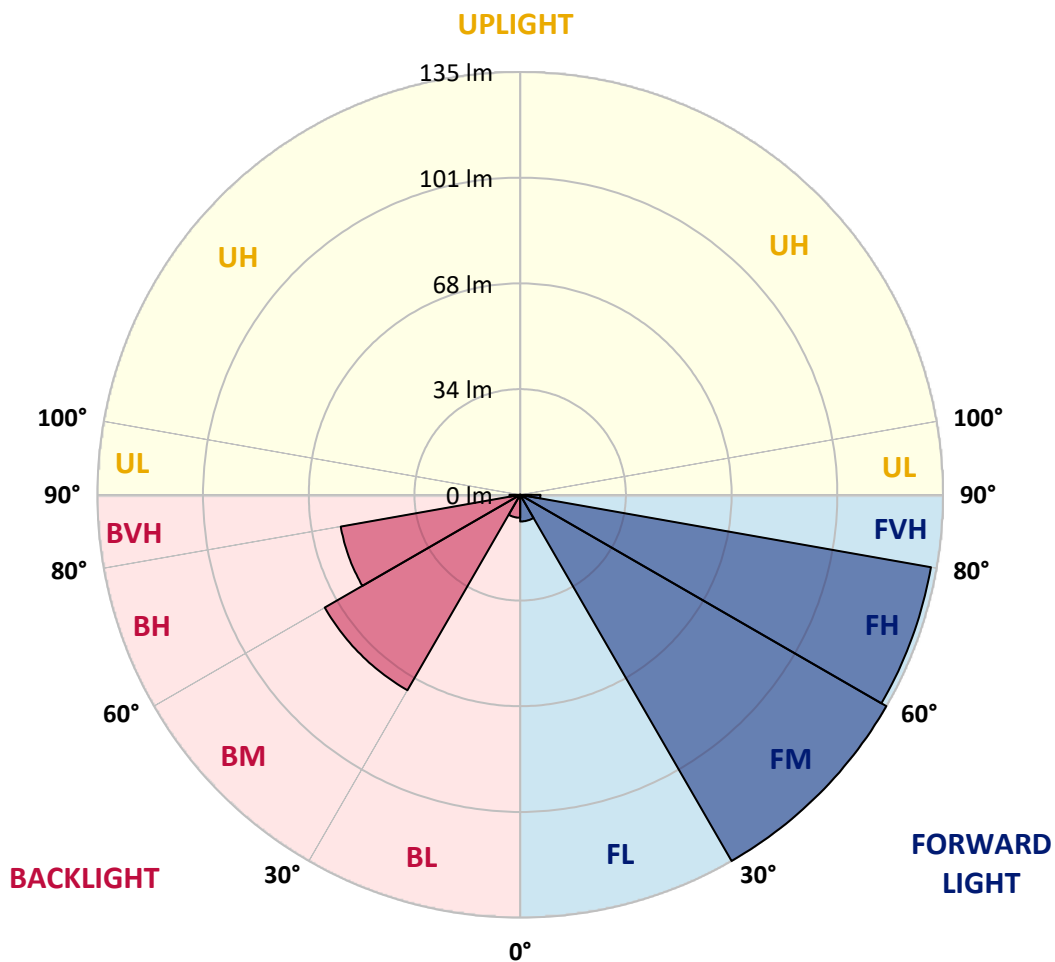
CATALOG NUMBER: ABB-C1-827-X-U-A-GM

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	8.5	2.0			
FM	(30°-60°)	135.2	31.8			
FH	(60°-80°)	133.4	31.4			G0/660
FVH	(80°-90°)	6.5	1.5			G0/10
BL	(0°-30°)	7.3	1.7	B0/110		
BM	(30°-60°)	72.2	17.0	B0/220		
BH	(60°-80°)	58.3	13.7	B0/110		G0/110
BVH	(80°-90°)	3.4	0.8			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G0**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	12.7	13.5	11.9	11.9	11.1	10.3	9.5	8.7	8.7	7.9	7.9
5°	16.7	15.9	14.3	11.9	11.1	9.5	8.7	7.9	7.9	7.9	7.1
7.5°	18.3	16.7	16.7	14.3	12.7	12.7	12.7	11.1	10.3	9.5	9.5
10°	17.5	17.5	17.5	15.9	15.1	14.3	12.7	11.9	11.1	10.3	11.1
12.5°	15.9	15.9	18.3	17.5	15.1	14.3	12.7	10.3	10.3	10.3	9.5
15°	16.7	17.5	19.8	19.8	18.3	15.1	13.5	11.9	11.9	11.1	10.3
17.5°	20.6	20.6	20.6	20.6	20.6	17.5	13.5	12.7	11.9	11.9	11.9
20°	23.8	23.8	23.0	23.0	23.0	18.3	15.1	13.5	13.5	13.5	12.7
22.5°	28.6	27.8	29.4	26.2	24.6	19.8	16.7	15.9	15.9	15.1	14.3
25°	34.9	36.5	31.8	27.8	26.2	21.4	18.3	17.5	17.5	18.3	16.7
27.5°	42.9	42.9	35.7	31.8	28.6	23.8	22.2	21.4	20.6	21.4	20.6
30°	46.8	47.6	41.3	34.9	31.8	28.6	26.2	25.4	25.4	26.2	24.6
32.5°	51.6	52.4	45.3	38.9	34.9	33.3	33.3	32.6	31.8	31.0	28.6
35°	56.4	57.2	51.6	42.9	40.5	40.5	41.3	40.5	39.7	37.3	34.1
37.5°	61.1	61.9	56.4	48.4	45.3	48.4	51.6	52.4	50.8	46.8	41.3
40°	64.3	66.7	61.1	53.2	52.4	58.8	65.9	68.3	66.7	59.6	49.2
42.5°	69.1	71.5	68.3	60.3	61.1	73.8	90.5	95.3	92.9	80.2	63.5
45°	80.2	81.8	81.0	75.4	77.8	104.8	138.2	144.5	139.7	114.3	86.5
47.5°	87.3	87.3	89.7	85.0	93.7	137.4	181.0	190.6	185.8	147.7	109.6
50°	96.9	96.9	102.4	101.6	116.7	176.3	228.7	240.6	236.6	188.2	135.8
52.5°	100.0	102.4	108.8	112.0	135.8	203.3	271.5	283.5	280.3	216.8	155.6
55°	101.6	104.0	110.4	115.9	146.9	221.5	297.8	304.1	300.9	237.4	165.2
57.5°	100.8	103.2	108.0	115.1	148.5	227.9	297.8	304.9	301.7	243.8	168.3
60°	97.7	98.5	101.6	114.3	149.3	227.1	297.8	308.1	305.7	242.2	170.7
61°	94.5	96.1	99.2	114.3	149.3	225.5	299.3	310.5	306.5	239.8	169.9
62.5°	90.5	92.1	94.5	113.5	146.9	219.9	297.8	308.1	304.1	234.2	165.2
65°	82.6	82.6	83.4	109.6	137.4	203.3	281.1	289.0	281.9	218.4	153.2
67.5°	71.5	70.7	73.0	103.2	127.0	184.2	256.5	261.2	256.5	197.7	140.5
70°	58.8	58.8	61.9	93.7	115.1	161.2	231.8	237.4	232.6	173.1	127.8
72.5°	46.8	45.3	50.8	79.4	100.0	136.6	200.1	203.3	200.1	146.9	109.6
75°	34.1	31.8	40.5	64.3	81.8	108.0	162.0	165.9	160.4	115.1	88.9
77.5°	23.0	20.6	28.6	45.3	59.6	77.8	120.7	123.1	117.5	82.6	65.1
80°	13.5	12.7	18.3	26.2	35.7	48.4	76.2	79.4	73.8	51.6	39.7
82.5°	8.7	7.9	9.5	10.3	12.7	21.4	34.1	35.7	31.0	19.8	15.9
85°	5.6	4.8	4.8	4.0	4.8	4.8	4.8	6.4	5.6	4.8	4.0
87.5°	4.0	4.0	3.2	3.2	3.2	3.2	4.0	4.0	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: ABB-C1-827-X-U-A-GM

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	7.1	7.1	7.1	7.1	7.1	7.9	7.1	7.9	7.9	7.9	7.9
5°	7.1	7.1	7.9	7.9	8.7	8.7	8.7	8.7	7.9	7.9	7.1
7.5°	9.5	9.5	9.5	10.3	11.1	10.3	9.5	10.3	10.3	9.5	9.5
10°	10.3	10.3	10.3	11.1	12.7	12.7	11.9	11.9	11.9	10.3	10.3
12.5°	10.3	10.3	11.1	11.1	11.9	14.3	13.5	14.3	13.5	11.9	11.9
15°	11.1	11.1	11.9	11.9	14.3	15.9	15.1	15.1	14.3	11.9	11.9
17.5°	12.7	12.7	13.5	13.5	15.9	17.5	18.3	15.9	15.1	12.7	12.7
20°	12.7	13.5	15.9	15.9	18.3	19.1	20.6	18.3	15.9	14.3	14.3
22.5°	14.3	14.3	16.7	19.8	21.4	21.4	22.2	19.1	16.7	15.1	15.1
25°	16.7	16.7	19.8	23.8	24.6	23.0	23.8	20.6	17.5	15.1	15.1
27.5°	19.8	21.4	24.6	29.4	27.0	25.4	24.6	22.2	18.3	16.7	15.9
30°	25.4	24.6	28.6	32.6	31.0	27.8	27.0	23.8	19.1	16.7	16.7
32.5°	30.2	30.2	33.3	36.5	34.9	31.0	29.4	25.4	20.6	17.5	17.5
35°	35.7	36.5	38.1	40.5	38.1	33.3	31.8	27.8	22.2	19.1	19.1
37.5°	42.1	42.9	43.7	46.1	42.1	37.3	34.9	30.2	24.6	21.4	22.2
40°	49.2	50.8	50.8	50.8	46.8	41.3	38.9	33.3	28.6	26.2	27.0
42.5°	62.7	63.5	61.9	58.8	53.2	46.8	45.3	40.5	34.9	31.8	34.1
45°	82.6	81.0	77.8	70.7	63.5	55.6	53.2	48.4	42.9	39.7	42.1
47.5°	101.6	96.9	92.1	81.8	73.0	64.3	61.1	58.0	51.6	47.6	50.0
50°	126.2	115.1	105.6	92.9	81.8	73.0	68.3	65.9	58.8	54.8	54.8
52.5°	143.7	127.0	112.7	100.8	87.3	77.0	72.3	70.7	63.5	58.8	58.0
55°	150.1	132.6	115.1	104.0	89.7	77.8	73.0	71.5	65.1	60.3	59.6
57.5°	154.0	135.0	112.0	103.2	88.1	76.2	70.7	70.7	65.1	60.3	59.6
60°	158.8	137.4	107.2	100.0	85.8	73.8	69.1	69.1	64.3	59.6	58.8
61°	158.8	136.6	104.8	98.5	85.0	72.3	67.5	68.3	63.5	58.8	57.2
62.5°	156.4	134.2	100.0	95.3	81.8	69.9	65.9	66.7	61.9	57.2	56.4
65°	148.5	127.8	92.9	86.5	74.6	63.5	61.1	61.9	58.0	53.2	52.4
67.5°	138.2	119.1	83.4	76.2	65.9	57.2	55.6	55.6	53.2	48.4	47.6
70°	123.1	107.2	73.0	65.1	57.2	50.0	49.2	50.0	46.8	43.7	42.1
72.5°	104.0	91.3	61.9	52.4	46.8	42.1	42.9	42.1	40.5	37.3	35.7
75°	81.0	73.0	49.2	39.7	35.7	34.1	34.1	34.1	32.6	31.0	29.4
77.5°	56.4	51.6	34.1	27.8	25.4	25.4	25.4	24.6	24.6	23.0	21.4
80°	31.8	29.4	19.1	16.7	15.9	16.7	16.7	15.1	15.9	15.9	14.3
82.5°	10.3	10.3	8.7	8.7	8.7	8.7	7.9	7.1	8.7	9.5	7.9
85°	3.2	4.0	4.0	4.8	4.8	4.0	4.0	4.0	4.8	5.6	4.8
87.5°	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Invue

Report Number: SP1-2509-539-6

Test Date: 04/15/2026

Luminaire Tested: Luxscape Bollard

Data in this report applies to families of products including ;Luxscape

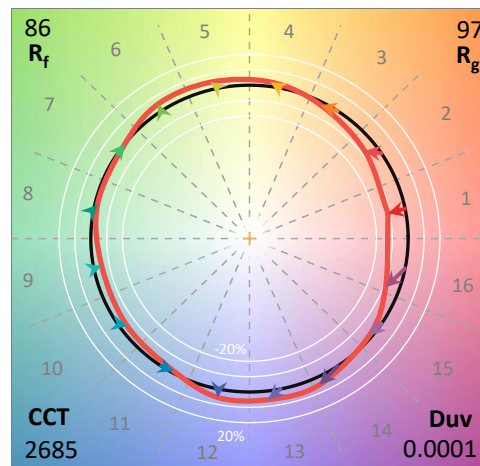
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2509-539-6  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 04/15/2026  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Invue  
 Catalog Number: **Luxscape Bollard**  
 Description: ARB-C1-827-LED-XX-Dx-S-GM-SPECULAR REFLECTOR

**Spectral Parameters**

CCT (K): 2685  
 CIE u': 0.2631  
 CIE v': 0.5278  
 Duv: 0.0001  
 CIE x: 0.4613  
 CIE y: 0.4112  
 CIE z: 0.1276  
 Peak Wavelength (nm): 607  
 Dominant Wavelength (nm): 584  
 Purity: 61.87869  
 Rf: 85.8  
 Rg: 97.1

CRI (Ra):	83.3		
R1:	82.0	R9:	7.2
R2:	92.1	R10:	83.2
R3:	95.4	R11:	84.1
R4:	82.6	R12:	80.9
R5:	82.9	R13:	84.4
R6:	92.4	R14:	98.1
R7:	81.6	R15:	73.2
R8:	57.2		



**Test Conditions**

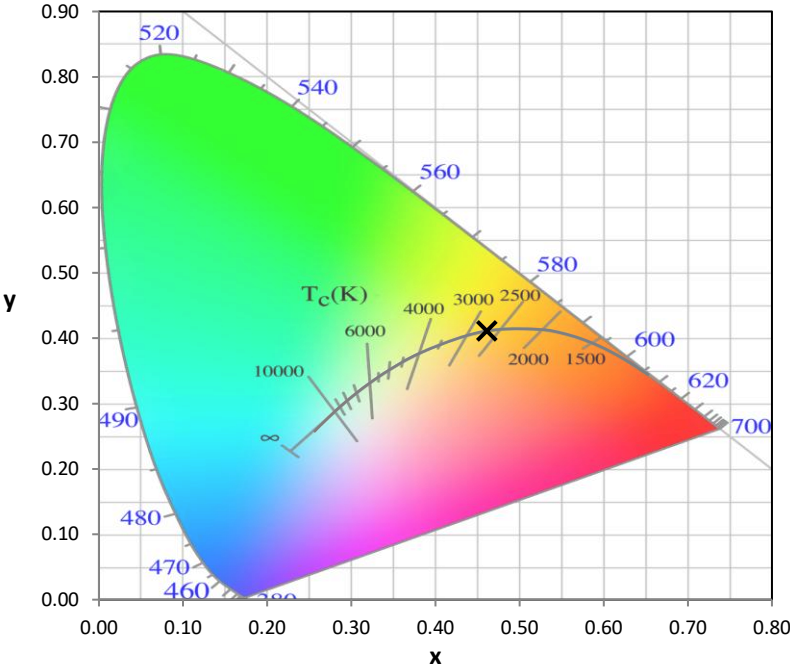
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 25.1

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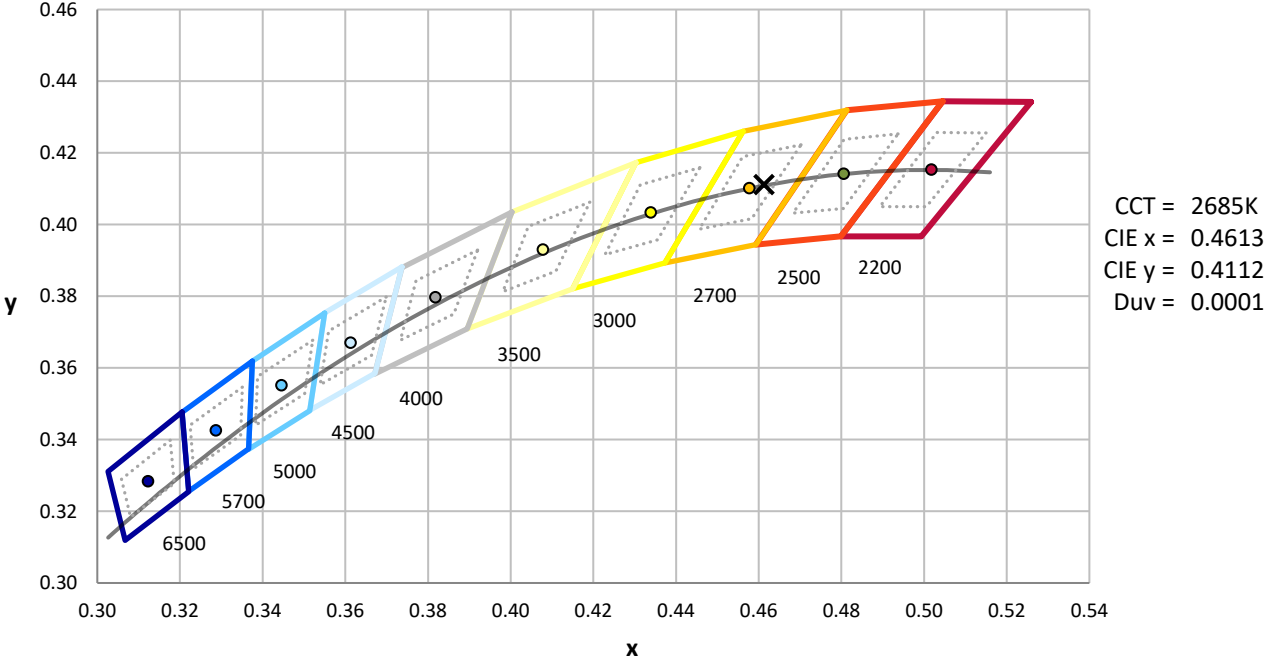
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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



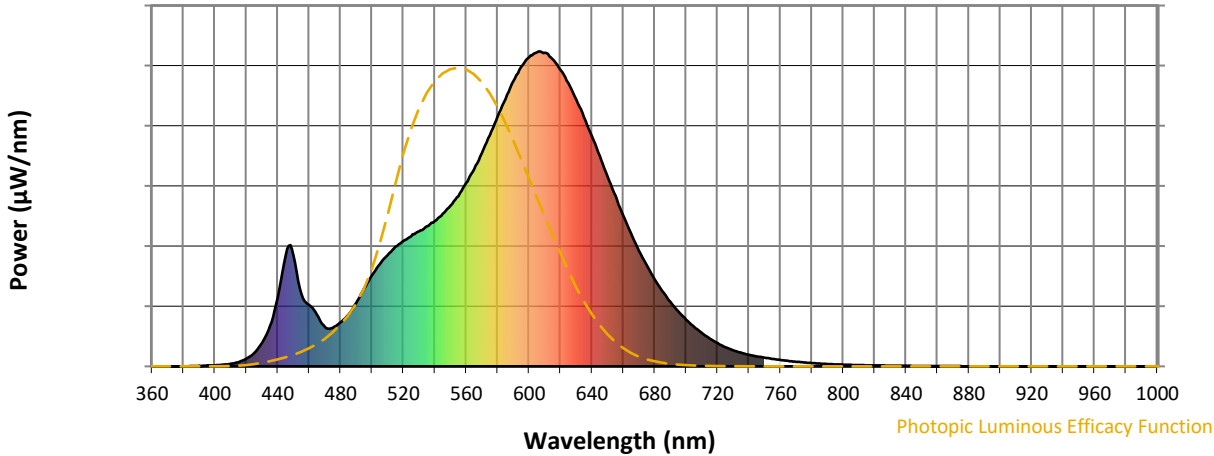
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2700K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

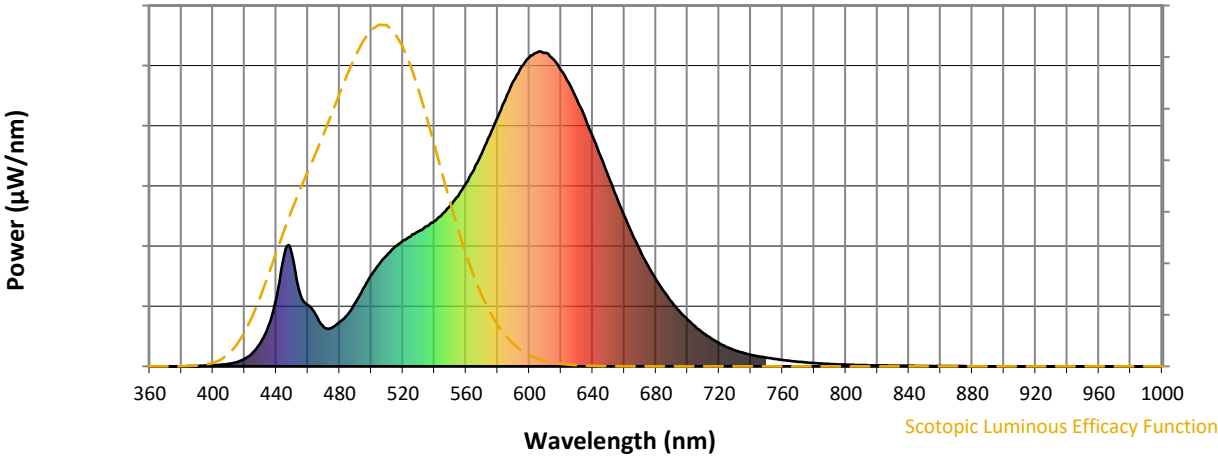


**Photopic Lumens: NR**

$\lambda$ (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	202	NR	620	941	NR	750	28	NR	880	0	NR
365	0	NR	495	247	NR	625	900	NR	755	24	NR	885	0	NR
370	0	NR	500	290	NR	630	847	NR	760	20	NR	890	0	NR
375	0	NR	505	324	NR	635	791	NR	765	17	NR	895	0	NR
380	0	NR	510	354	NR	640	730	NR	770	15	NR	900	0	NR
385	1	NR	515	380	NR	645	668	NR	775	13	NR	905	0	NR
390	2	NR	520	398	NR	650	602	NR	780	11	NR	910	0	NR
395	3	NR	525	413	NR	655	541	NR	785	9	NR	915	0	NR
400	3	NR	530	428	NR	660	478	NR	790	8	NR	920	0	NR
405	5	NR	535	445	NR	665	421	NR	795	6	NR	925	0	NR
410	8	NR	540	461	NR	670	367	NR	800	5	NR	930	0	NR
415	14	NR	545	485	NR	675	320	NR	805	5	NR	935	0	NR
420	24	NR	550	510	NR	680	277	NR	810	4	NR	940	0	NR
425	43	NR	555	541	NR	685	238	NR	815	3	NR	945	0	NR
430	74	NR	560	582	NR	690	205	NR	820	3	NR	950	0	NR
435	128	NR	565	626	NR	695	175	NR	825	3	NR	955	0	NR
440	218	NR	570	677	NR	700	148	NR	830	2	NR	960	0	NR
445	352	NR	575	734	NR	705	126	NR	835	2	NR	965	0	NR
450	354	NR	580	793	NR	710	106	NR	840	2	NR	970	0	NR
455	230	NR	585	849	NR	715	89	NR	845	1	NR	975	0	NR
460	195	NR	590	907	NR	720	74	NR	850	1	NR	980	0	NR
465	164	NR	595	951	NR	725	61	NR	855	1	NR	985	0	NR
470	125	NR	600	981	NR	730	51	NR	860	1	NR	990	0	NR
475	122	NR	605	997	NR	735	43	NR	865	1	NR	995	0	NR
480	140	NR	610	996	NR	740	37	NR	870	1	NR	1000	0	NR
485	164	NR	615	976	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2509-539-6

Scotopic Flux vs. Wavelength



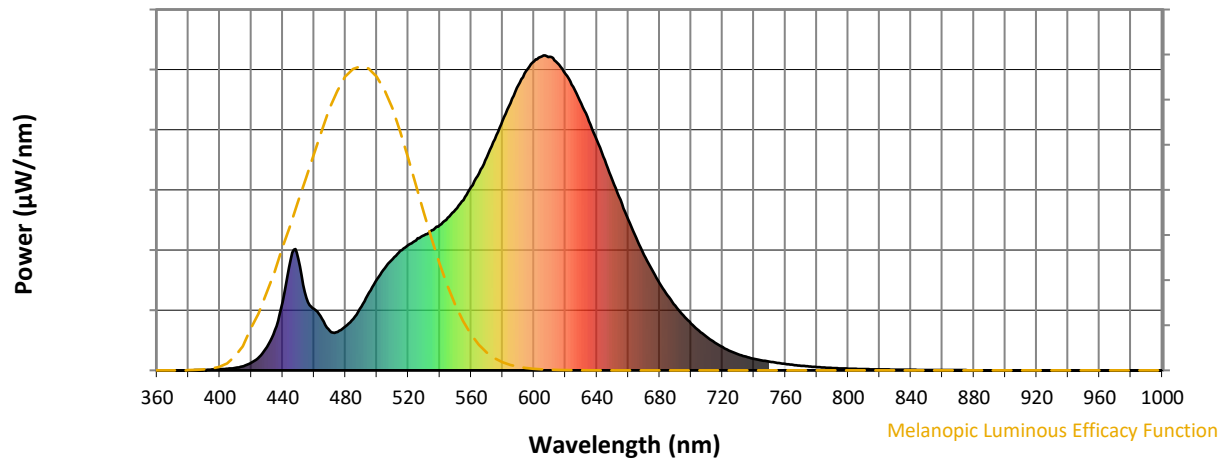
Scotopic Lumens: NR

S/P: 1.22

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	202	NR	620	941	NR	750	28	NR	880	0	NR
365	0	NR	495	247	NR	625	900	NR	755	24	NR	885	0	NR
370	0	NR	500	290	NR	630	847	NR	760	20	NR	890	0	NR
375	0	NR	505	324	NR	635	791	NR	765	17	NR	895	0	NR
380	0	NR	510	354	NR	640	730	NR	770	15	NR	900	0	NR
385	1	NR	515	380	NR	645	668	NR	775	13	NR	905	0	NR
390	2	NR	520	398	NR	650	602	NR	780	11	NR	910	0	NR
395	3	NR	525	413	NR	655	541	NR	785	9	NR	915	0	NR
400	3	NR	530	428	NR	660	478	NR	790	8	NR	920	0	NR
405	5	NR	535	445	NR	665	421	NR	795	6	NR	925	0	NR
410	8	NR	540	461	NR	670	367	NR	800	5	NR	930	0	NR
415	14	NR	545	485	NR	675	320	NR	805	5	NR	935	0	NR
420	24	NR	550	510	NR	680	277	NR	810	4	NR	940	0	NR
425	43	NR	555	541	NR	685	238	NR	815	3	NR	945	0	NR
430	74	NR	560	582	NR	690	205	NR	820	3	NR	950	0	NR
435	128	NR	565	626	NR	695	175	NR	825	3	NR	955	0	NR
440	218	NR	570	677	NR	700	148	NR	830	2	NR	960	0	NR
445	352	NR	575	734	NR	705	126	NR	835	2	NR	965	0	NR
450	354	NR	580	793	NR	710	106	NR	840	2	NR	970	0	NR
455	230	NR	585	849	NR	715	89	NR	845	1	NR	975	0	NR
460	195	NR	590	907	NR	720	74	NR	850	1	NR	980	0	NR
465	164	NR	595	951	NR	725	61	NR	855	1	NR	985	0	NR
470	125	NR	600	981	NR	730	51	NR	860	1	NR	990	0	NR
475	122	NR	605	997	NR	735	43	NR	865	1	NR	995	0	NR
480	140	NR	610	996	NR	740	37	NR	870	1	NR	1000	0	NR
485	164	NR	615	976	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2509-539-6

**Melanopic Flux vs. Wavelength**



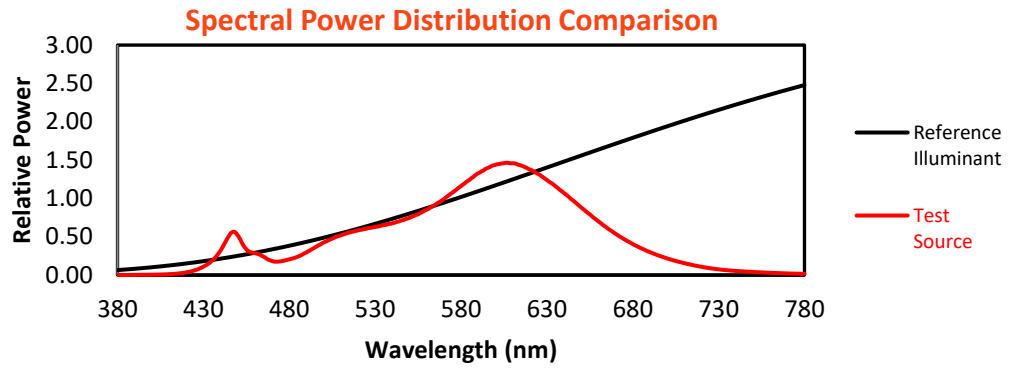
**Melanopic Lumens: NR**

**M/P: 2.26**

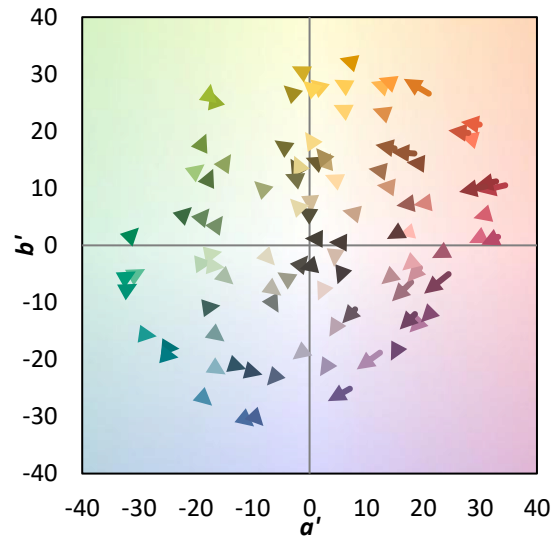
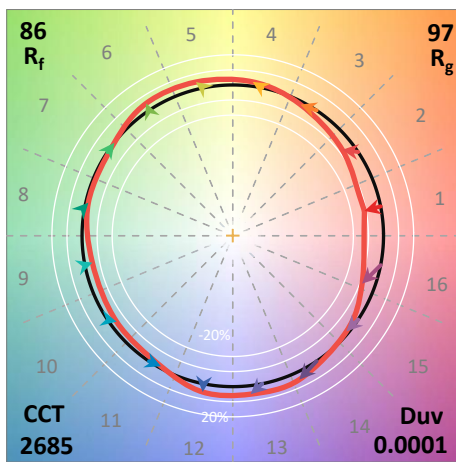
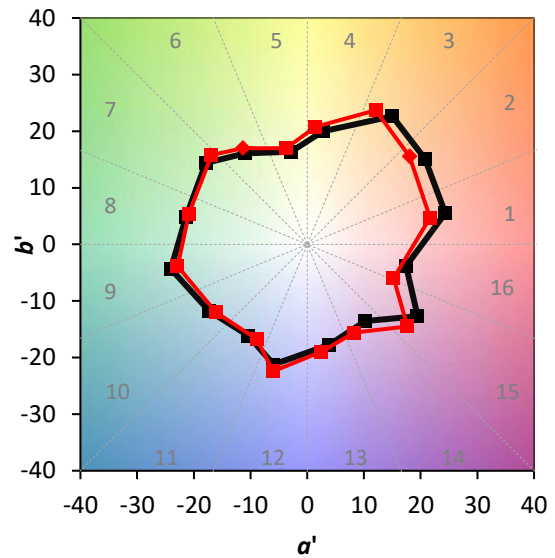
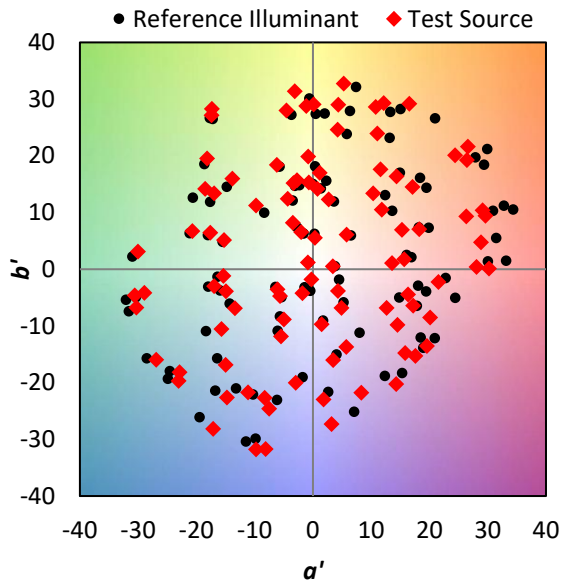
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	202	NR	620	941	NR	750	28	NR	880	0	NR
365	0	NR	495	247	NR	625	900	NR	755	24	NR	885	0	NR
370	0	NR	500	290	NR	630	847	NR	760	20	NR	890	0	NR
375	0	NR	505	324	NR	635	791	NR	765	17	NR	895	0	NR
380	0	NR	510	354	NR	640	730	NR	770	15	NR	900	0	NR
385	1	NR	515	380	NR	645	668	NR	775	13	NR	905	0	NR
390	2	NR	520	398	NR	650	602	NR	780	11	NR	910	0	NR
395	3	NR	525	413	NR	655	541	NR	785	9	NR	915	0	NR
400	3	NR	530	428	NR	660	478	NR	790	8	NR	920	0	NR
405	5	NR	535	445	NR	665	421	NR	795	6	NR	925	0	NR
410	8	NR	540	461	NR	670	367	NR	800	5	NR	930	0	NR
415	14	NR	545	485	NR	675	320	NR	805	5	NR	935	0	NR
420	24	NR	550	510	NR	680	277	NR	810	4	NR	940	0	NR
425	43	NR	555	541	NR	685	238	NR	815	3	NR	945	0	NR
430	74	NR	560	582	NR	690	205	NR	820	3	NR	950	0	NR
435	128	NR	565	626	NR	695	175	NR	825	3	NR	955	0	NR
440	218	NR	570	677	NR	700	148	NR	830	2	NR	960	0	NR
445	352	NR	575	734	NR	705	126	NR	835	2	NR	965	0	NR
450	354	NR	580	793	NR	710	106	NR	840	2	NR	970	0	NR
455	230	NR	585	849	NR	715	89	NR	845	1	NR	975	0	NR
460	195	NR	590	907	NR	720	74	NR	850	1	NR	980	0	NR
465	164	NR	595	951	NR	725	61	NR	855	1	NR	985	0	NR
470	125	NR	600	981	NR	730	51	NR	860	1	NR	990	0	NR
475	122	NR	605	997	NR	735	43	NR	865	1	NR	995	0	NR
480	140	NR	610	996	NR	740	37	NR	870	1	NR	1000	0	NR
485	164	NR	615	976	NR	745	32	NR	875	1	NR			

**Summary**

$R_f = 85.8$   
 $R_g = 97.1$   
 $CIE R_a = 83.3$   
 $R_9 = 7.2$

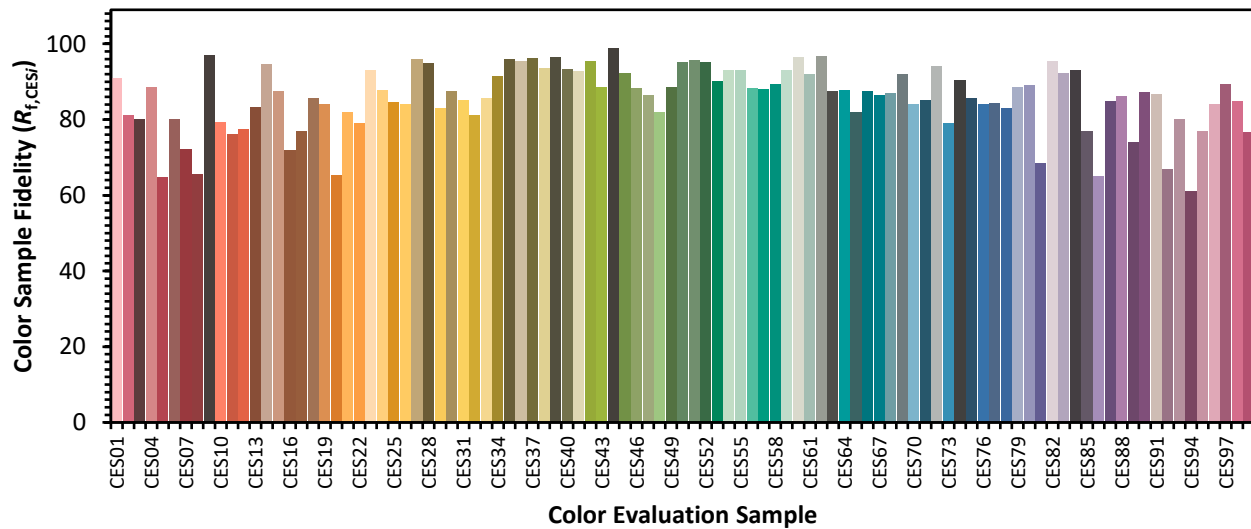


**Color Vector Graphics**

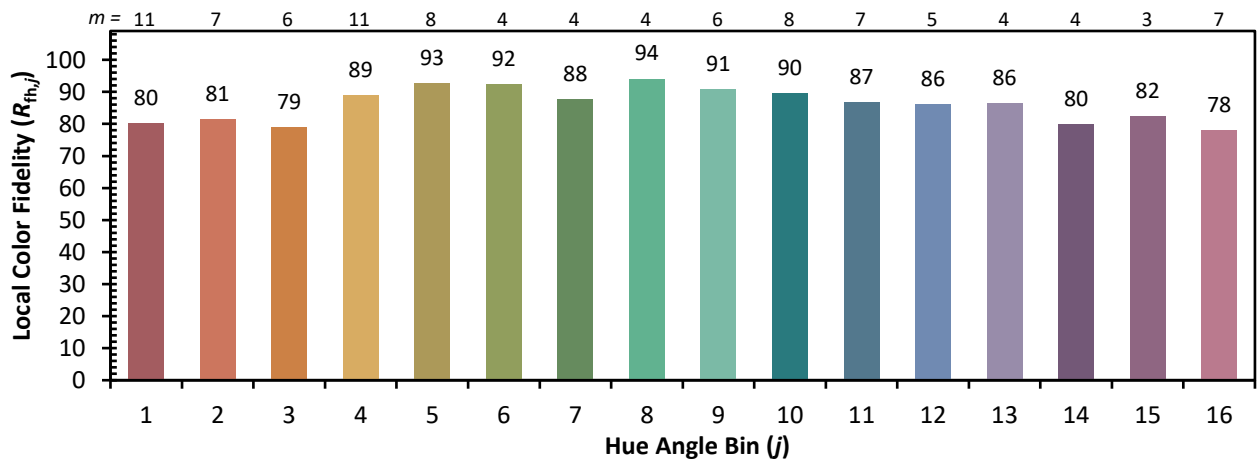
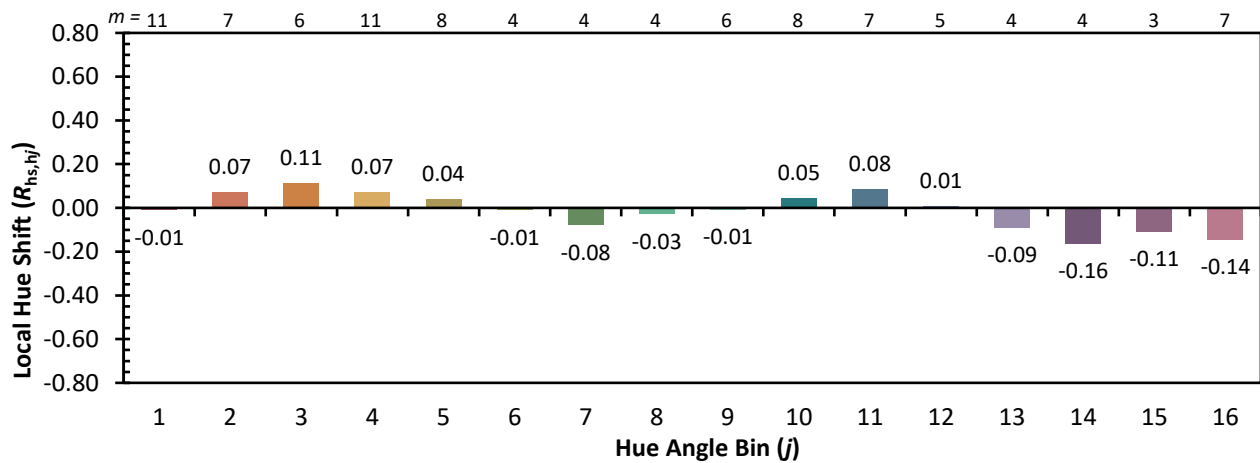
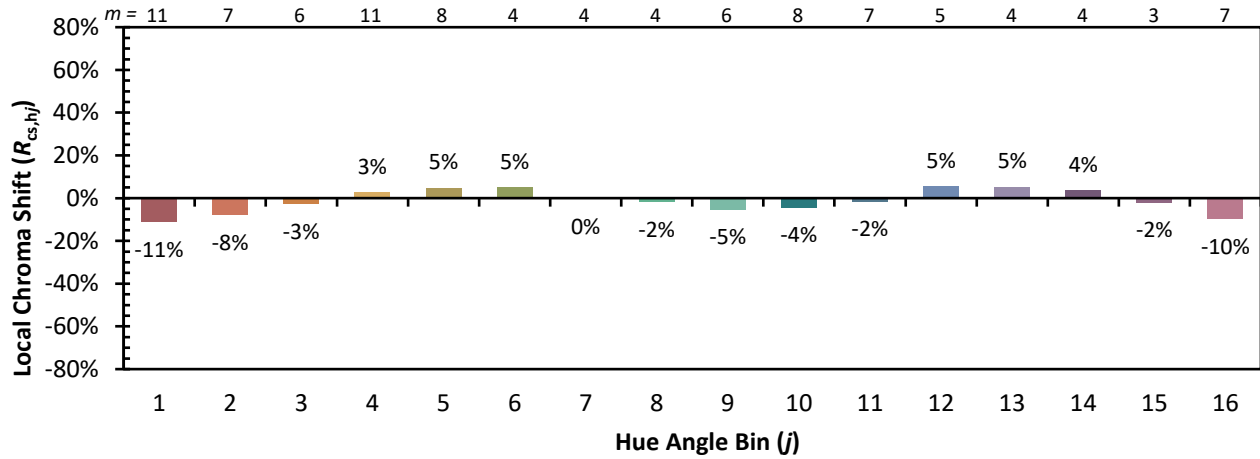


Individual Sample Fidelity Index ( $R_{f,i}$ )

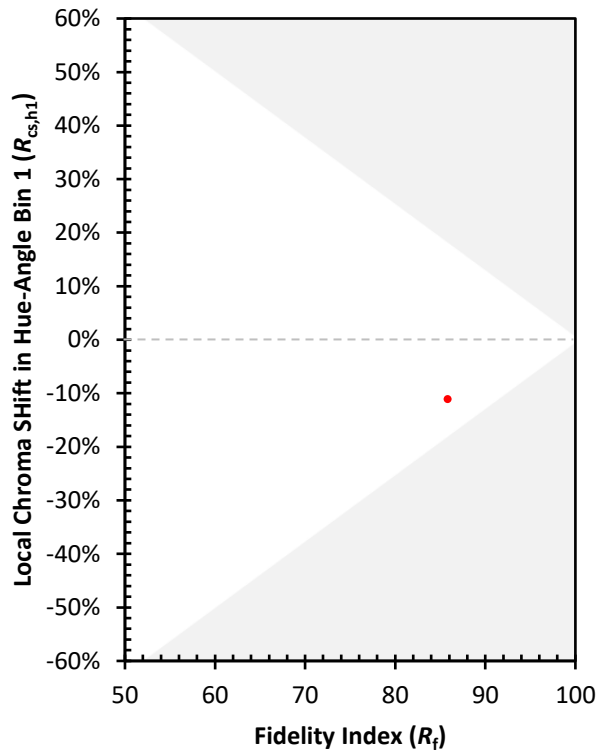
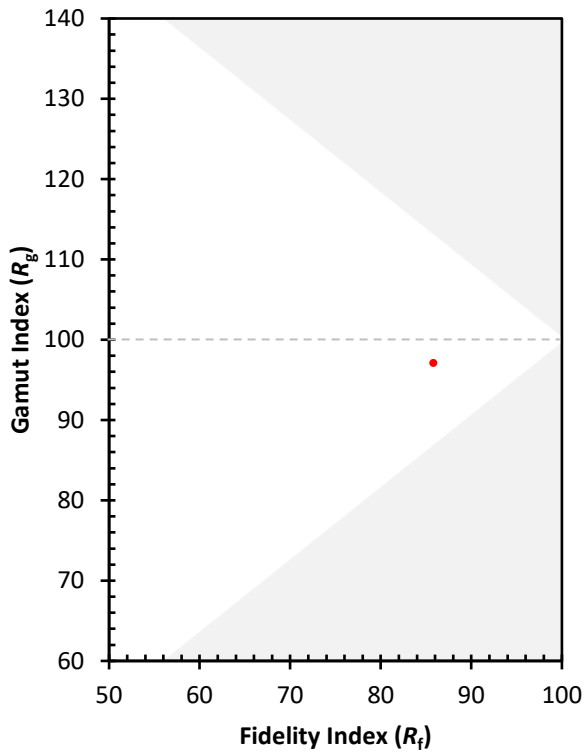
CES01 = 86	CES26 = 84	CES51 = 96	CES76 = 84
CES02 = 64	CES27 = 96	CES52 = 95	CES77 = 84
CES03 = 32	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 71	CES29 = 83	CES54 = 93	CES79 = 89
CES05 = 51	CES30 = 87	CES55 = 93	CES80 = 89
CES06 = 52	CES31 = 85	CES56 = 88	CES81 = 69
CES07 = 43	CES32 = 81	CES57 = 88	CES82 = 95
CES08 = 42	CES33 = 86	CES58 = 89	CES83 = 92
CES09 = 29	CES34 = 91	CES59 = 93	CES84 = 93
CES10 = 77	CES35 = 96	CES60 = 97	CES85 = 77
CES11 = 60	CES36 = 95	CES61 = 92	CES86 = 65
CES12 = 66	CES37 = 96	CES62 = 97	CES87 = 85
CES13 = 44	CES38 = 94	CES63 = 87	CES88 = 86
CES14 = 74	CES39 = 96	CES64 = 88	CES89 = 74
CES15 = 72	CES40 = 93	CES65 = 82	CES90 = 87
CES16 = 48	CES41 = 93	CES66 = 87	CES91 = 87
CES17 = 50	CES42 = 95	CES67 = 86	CES92 = 67
CES18 = 57	CES43 = 89	CES68 = 87	CES93 = 80
CES19 = 73	CES44 = 99	CES69 = 92	CES94 = 61
CES20 = 67	CES45 = 92	CES70 = 84	CES95 = 77
CES21 = 87	CES46 = 88	CES71 = 85	CES96 = 84
CES22 = 79	CES47 = 86	CES72 = 94	CES97 = 89
CES23 = 92	CES48 = 82	CES73 = 79	CES98 = 85
CES24 = 91	CES49 = 89	CES74 = 90	CES99 = 77
CES25 = 72	CES50 = 95	CES75 = 86	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)