

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: P1442025

Luminaire Tested: ABB-C1-835-X-U-A-GM

Issue Date: 4/23/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1442025  
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-C1-835-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: -

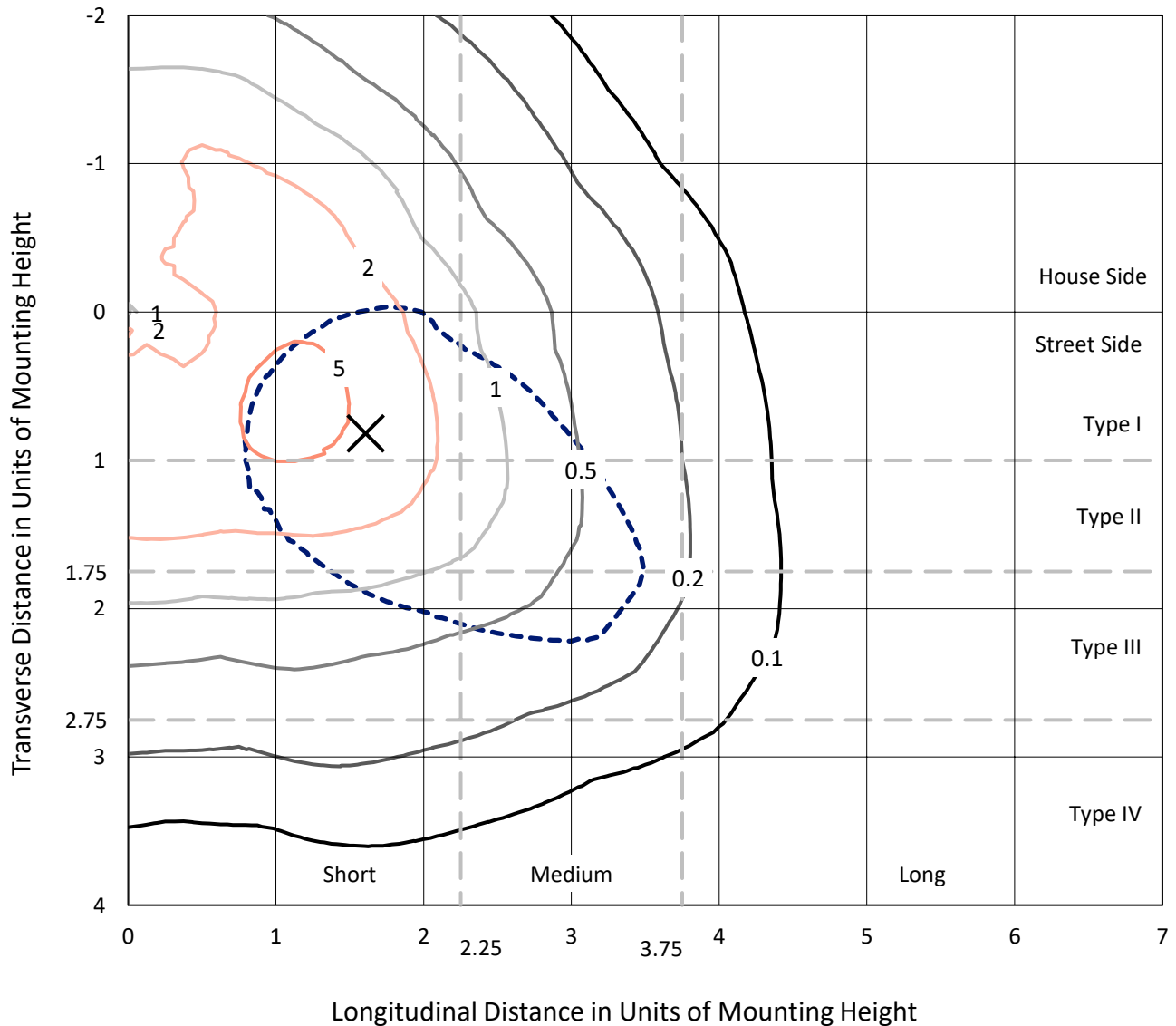
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 456.4 lumens  
Efficiency: N/A  
Efficacy: 42.7 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

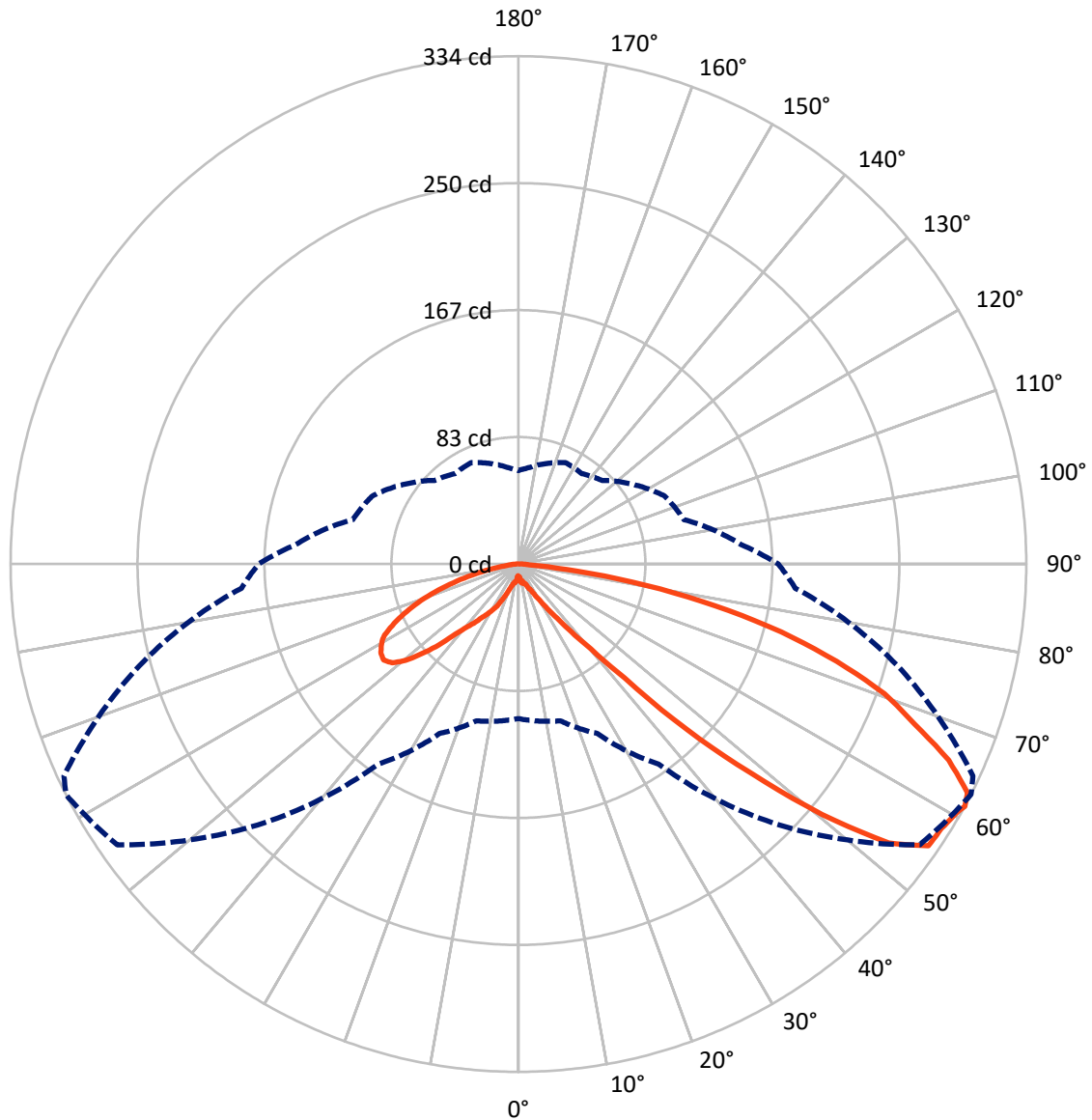
× Max cd  
 - - - 1/2 Max cd



Based on 3 foot mounting height. Maximum calculated value = 7.6 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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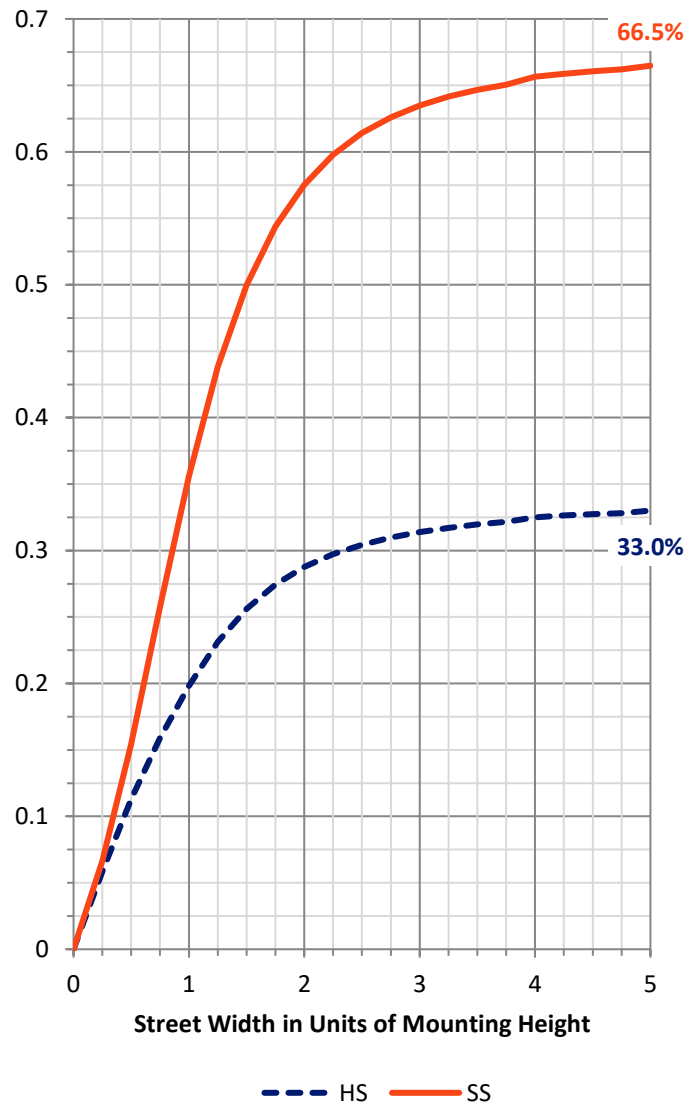
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	151.7	0.0	151.7
	% Fixture	33.2	0.0	33.2
<b>Street Side</b>	Lumens	304.7	0.0	304.7
	% Fixture	66.8	0.0	66.8
<b>Total</b>	Lumens	456.4	0.0	456.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1.1	0.2
10°-20°	4.5	1.0
20°-30°	11.4	2.5
30°-40°	26.0	5.7
40°-50°	67.6	14.8
50°-60°	129.2	28.3
60°-70°	130.4	28.6
70°-80°	75.5	16.6
80°-90°	10.6	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°	456.4	100.0
0°-180°	456.4	100.0



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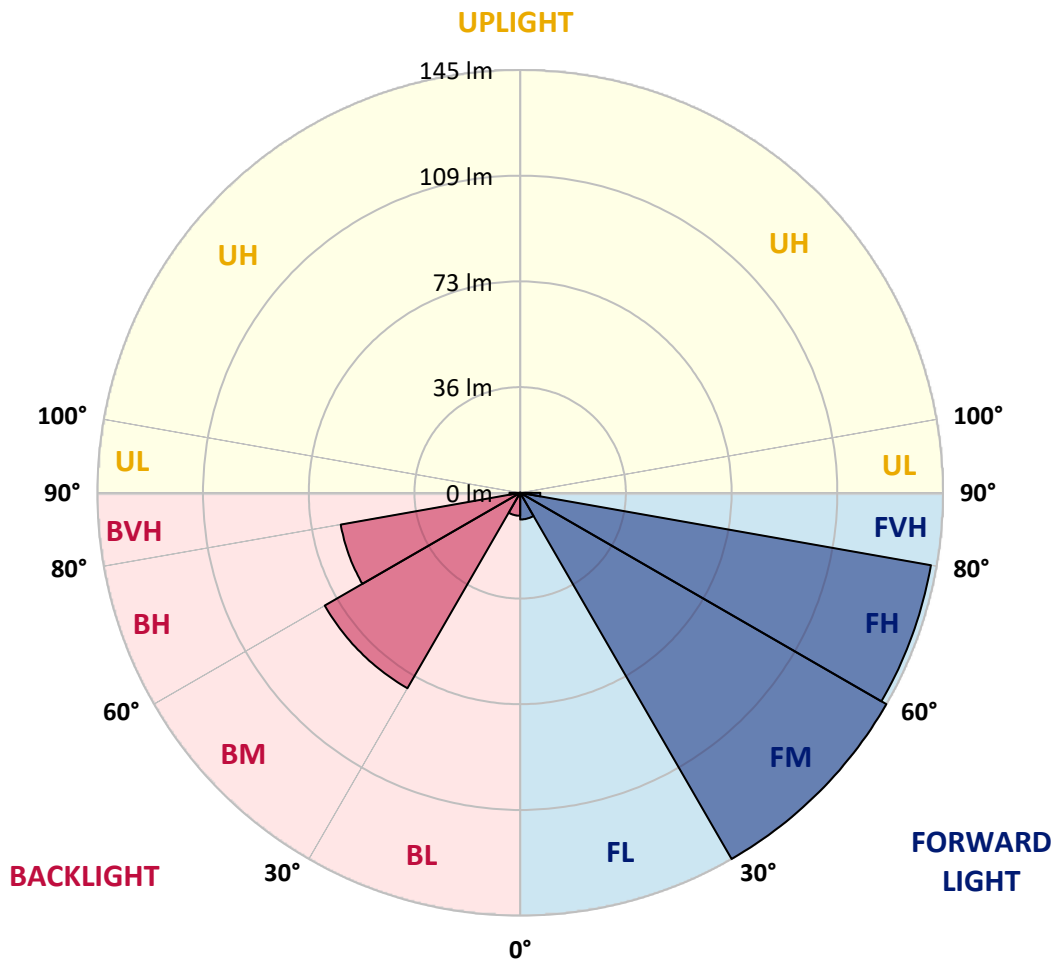
CATALOG NUMBER: ABB-C1-835-X-U-A-GM

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	9.2	2.0			
FM (30°-60°)	145.3	31.8			
FH (60°-80°)	143.3	31.4			G0/660
FVH (80°-90°)	6.9	1.5			G0/10
BL (0°-30°)	7.9	1.7	B0/110		
BM (30°-60°)	77.5	17.0	B0/220		
BH (60°-80°)	62.6	13.7	B0/110		G0/110
BVH (80°-90°)	3.7	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°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
2.5°	13.6	14.5	12.8	12.8	11.9	11.1	10.2	9.4	9.4	8.5	8.5
5°	17.9	17.1	15.4	12.8	11.9	10.2	9.4	8.5	8.5	8.5	7.7
7.5°	19.6	17.9	17.9	15.4	13.6	13.6	13.6	11.9	11.1	10.2	10.2
10°	18.8	18.8	18.8	17.1	16.2	15.4	13.6	12.8	11.9	11.1	11.9
12.5°	17.1	17.1	19.6	18.8	16.2	15.4	13.6	11.1	11.1	11.1	10.2
15°	17.9	18.8	21.3	21.3	19.6	16.2	14.5	12.8	12.8	11.9	11.1
17.5°	22.2	22.2	22.2	22.2	22.2	18.8	14.5	13.6	12.8	12.8	12.8
20°	25.6	25.6	24.7	24.7	24.7	19.6	16.2	14.5	14.5	14.5	13.6
22.5°	30.7	29.9	31.6	28.1	26.4	21.3	17.9	17.1	17.1	16.2	15.4
25°	37.5	39.2	34.1	29.9	28.1	23.0	19.6	18.8	18.8	19.6	17.9
27.5°	46.1	46.1	38.4	34.1	30.7	25.6	23.9	23.0	22.2	23.0	22.2
30°	50.3	51.2	44.4	37.5	34.1	30.7	28.1	27.3	27.3	28.1	26.4
32.5°	55.4	56.3	48.6	41.8	37.5	35.8	35.8	35.0	34.1	33.3	30.7
35°	60.6	61.4	55.4	46.1	43.5	43.5	44.4	43.5	42.6	40.1	36.7
37.5°	65.7	66.5	60.6	52.0	48.6	52.0	55.4	56.3	54.6	50.3	44.4
40°	69.1	71.7	65.7	57.2	56.3	63.1	70.8	73.4	71.7	64.0	52.9
42.5°	74.2	76.8	73.4	64.8	65.7	79.3	97.2	102.4	99.8	86.2	68.2
45°	86.2	87.9	87.0	81.0	83.6	112.6	148.4	155.2	150.1	122.8	93.0
47.5°	93.8	93.8	96.4	91.3	100.7	147.6	194.5	204.7	199.6	158.7	117.7
50°	104.1	104.1	110.0	109.2	125.4	189.4	245.7	258.5	254.2	202.2	145.9
52.5°	107.5	110.0	116.9	120.3	145.9	218.4	291.7	304.5	301.1	232.9	167.2
55°	109.2	111.7	118.6	124.5	157.8	238.0	319.9	326.7	323.3	255.0	177.4
57.5°	108.3	110.9	116.0	123.7	159.5	244.8	319.9	327.6	324.1	261.9	180.8
60°	104.9	105.8	109.2	122.8	160.4	244.0	319.9	331.0	328.4	260.2	183.4
61°	101.5	103.2	106.6	122.8	160.4	242.3	321.6	333.5	329.3	257.6	182.5
62.5°	97.2	98.9	101.5	122.0	157.8	236.3	319.9	331.0	326.7	251.6	177.4
65°	88.7	88.7	89.6	117.7	147.6	218.4	302.0	310.5	302.8	234.6	164.6
67.5°	76.8	75.9	78.5	110.9	136.5	197.9	275.5	280.6	275.5	212.4	151.0
70°	63.1	63.1	66.5	100.7	123.7	173.2	249.1	255.0	249.9	186.0	137.3
72.5°	50.3	48.6	54.6	85.3	107.5	146.7	215.0	218.4	215.0	157.8	117.7
75°	36.7	34.1	43.5	69.1	87.9	116.0	174.0	178.3	172.3	123.7	95.5
77.5°	24.7	22.2	30.7	48.6	64.0	83.6	129.7	132.2	126.2	88.7	69.9
80°	14.5	13.6	19.6	28.1	38.4	52.0	81.9	85.3	79.3	55.4	42.6
82.5°	9.4	8.5	10.2	11.1	13.6	23.0	36.7	38.4	33.3	21.3	17.1
85°	6.0	5.1	5.1	4.3	5.1	5.1	5.1	6.8	6.0	5.1	4.3
87.5°	4.3	4.3	3.4	3.4	3.4	3.4	4.3	4.3	4.3	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1442025

CATALOG NUMBER: ABB-C1-835-X-U-A-GM

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
2.5°	7.7	7.7	7.7	7.7	7.7	8.5	7.7	8.5	8.5	8.5	8.5
5°	7.7	7.7	8.5	8.5	9.4	9.4	9.4	9.4	8.5	8.5	7.7
7.5°	10.2	10.2	10.2	11.1	11.9	11.1	10.2	11.1	11.1	10.2	10.2
10°	11.1	11.1	11.1	11.9	13.6	13.6	12.8	12.8	12.8	11.1	11.1
12.5°	11.1	11.1	11.9	11.9	12.8	15.4	14.5	15.4	14.5	12.8	12.8
15°	11.9	11.9	12.8	12.8	15.4	17.1	16.2	16.2	15.4	12.8	12.8
17.5°	13.6	13.6	14.5	14.5	17.1	18.8	19.6	17.1	16.2	13.6	13.6
20°	13.6	14.5	17.1	17.1	19.6	20.5	22.2	19.6	17.1	15.4	15.4
22.5°	15.4	15.4	17.9	21.3	23.0	23.0	23.9	20.5	17.9	16.2	16.2
25°	17.9	17.9	21.3	25.6	26.4	24.7	25.6	22.2	18.8	16.2	16.2
27.5°	21.3	23.0	26.4	31.6	29.0	27.3	26.4	23.9	19.6	17.9	17.1
30°	27.3	26.4	30.7	35.0	33.3	29.9	29.0	25.6	20.5	17.9	17.9
32.5°	32.4	32.4	35.8	39.2	37.5	33.3	31.6	27.3	22.2	18.8	18.8
35°	38.4	39.2	40.9	43.5	40.9	35.8	34.1	29.9	23.9	20.5	20.5
37.5°	45.2	46.1	46.9	49.5	45.2	40.1	37.5	32.4	26.4	23.0	23.9
40°	52.9	54.6	54.6	54.6	50.3	44.4	41.8	35.8	30.7	28.1	29.0
42.5°	67.4	68.2	66.5	63.1	57.2	50.3	48.6	43.5	37.5	34.1	36.7
45°	88.7	87.0	83.6	75.9	68.2	59.7	57.2	52.0	46.1	42.6	45.2
47.5°	109.2	104.1	98.9	87.9	78.5	69.1	65.7	62.3	55.4	51.2	53.7
50°	135.6	123.7	113.4	99.8	87.9	78.5	73.4	70.8	63.1	58.9	58.9
52.5°	154.4	136.5	121.1	108.3	93.8	82.7	77.6	75.9	68.2	63.1	62.3
55°	161.2	142.5	123.7	111.7	96.4	83.6	78.5	76.8	69.9	64.8	64.0
57.5°	165.5	145.0	120.3	110.9	94.7	81.9	75.9	75.9	69.9	64.8	64.0
60°	170.6	147.6	115.2	107.5	92.1	79.3	74.2	74.2	69.1	64.0	63.1
61°	170.6	146.7	112.6	105.8	91.3	77.6	72.5	73.4	68.2	63.1	61.4
62.5°	168.0	144.2	107.5	102.4	87.9	75.1	70.8	71.7	66.5	61.4	60.6
65°	159.5	137.3	99.8	93.0	80.2	68.2	65.7	66.5	62.3	57.2	56.3
67.5°	148.4	128.0	89.6	81.9	70.8	61.4	59.7	59.7	57.2	52.0	51.2
70°	132.2	115.2	78.5	69.9	61.4	53.7	52.9	53.7	50.3	46.9	45.2
72.5°	111.7	98.1	66.5	56.3	50.3	45.2	46.1	45.2	43.5	40.1	38.4
75°	87.0	78.5	52.9	42.6	38.4	36.7	36.7	36.7	35.0	33.3	31.6
77.5°	60.6	55.4	36.7	29.9	27.3	27.3	27.3	26.4	26.4	24.7	23.0
80°	34.1	31.6	20.5	17.9	17.1	17.9	17.9	16.2	17.1	17.1	15.4
82.5°	11.1	11.1	9.4	9.4	9.4	9.4	8.5	7.7	9.4	10.2	8.5
85°	3.4	4.3	4.3	5.1	5.1	4.3	4.3	4.3	5.1	6.0	5.1
87.5°	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4	4.3	4.3
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: SP1-2509-539-7

Test Date: 04/15/2026

Luminaire Tested: Luxscape Bollard

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

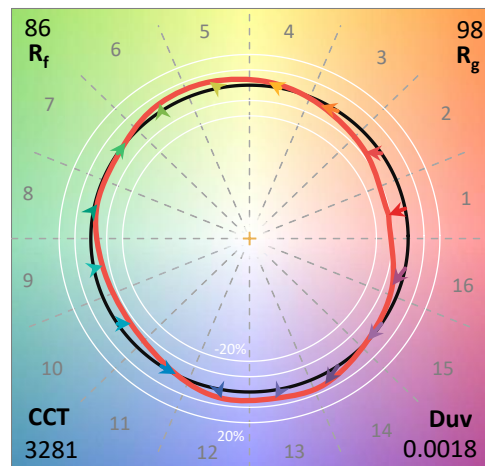
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2509-539-7  
 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-C1-835-LED-XX-Dx-S-GM-SPECULAR REFLECTOR

**Spectral Parameters**

CCT (K): 3281  
 CIE u': 0.2408  
 CIE v': 0.5181  
 Duv: 0.0018  
 CIE x: 0.4204  
 CIE y: 0.4020  
 CIE z: 0.1776  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 581  
 Purity: 46.84629  
 Rf: 85.8  
 Rg: 97.6

CRI (Ra):	83.9		
R1:	82.0	R9:	9.4
R2:	89.5	R10:	76.7
R3:	96.9	R11:	85.1
R4:	84.3	R12:	73.1
R5:	82.6	R13:	83.6
R6:	87.7	R14:	98.3
R7:	85.4	R15:	74.0
R8:	62.6		



**Test Conditions**

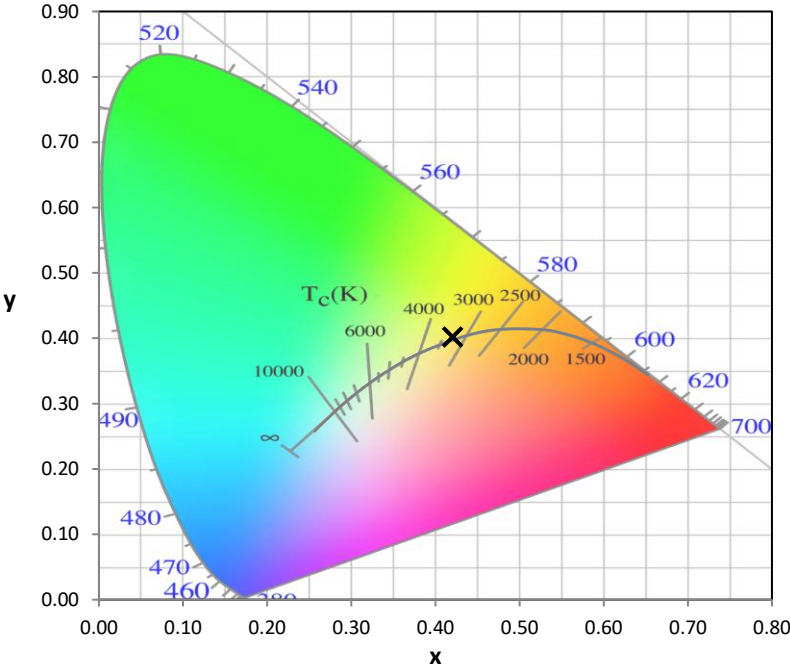
Stabilization Time: 31M  
 Operation Time: 1H 31M  
 Sphere Temperature (°C): 25.1

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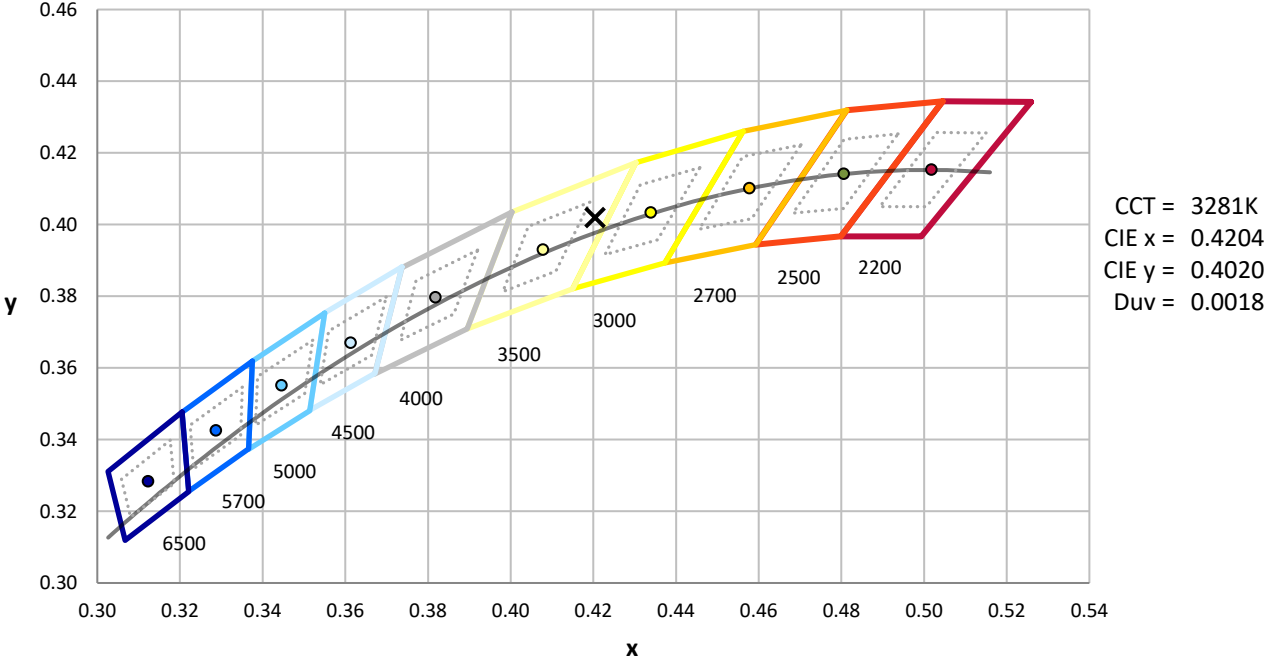
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



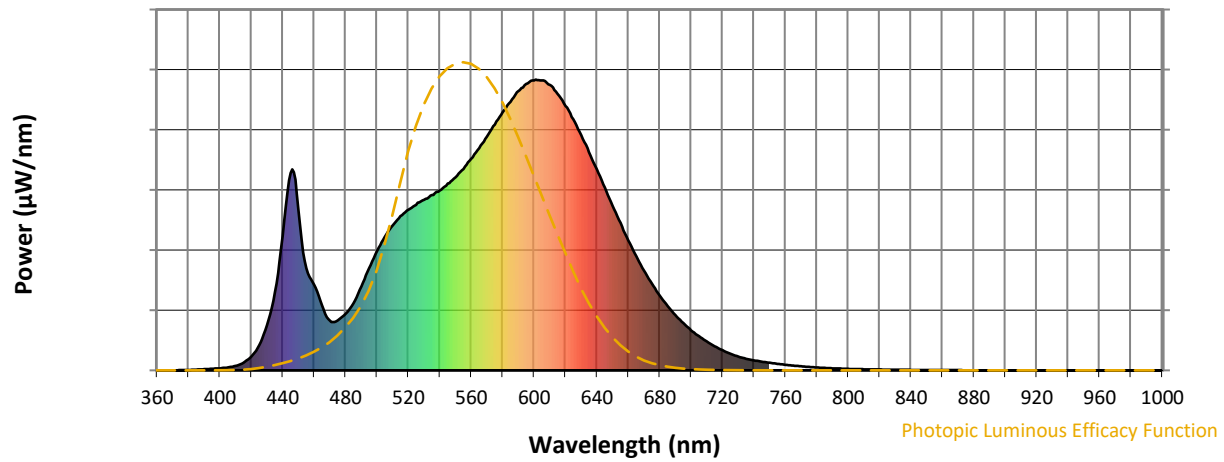
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

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**Photopic Flux vs. Wavelength**

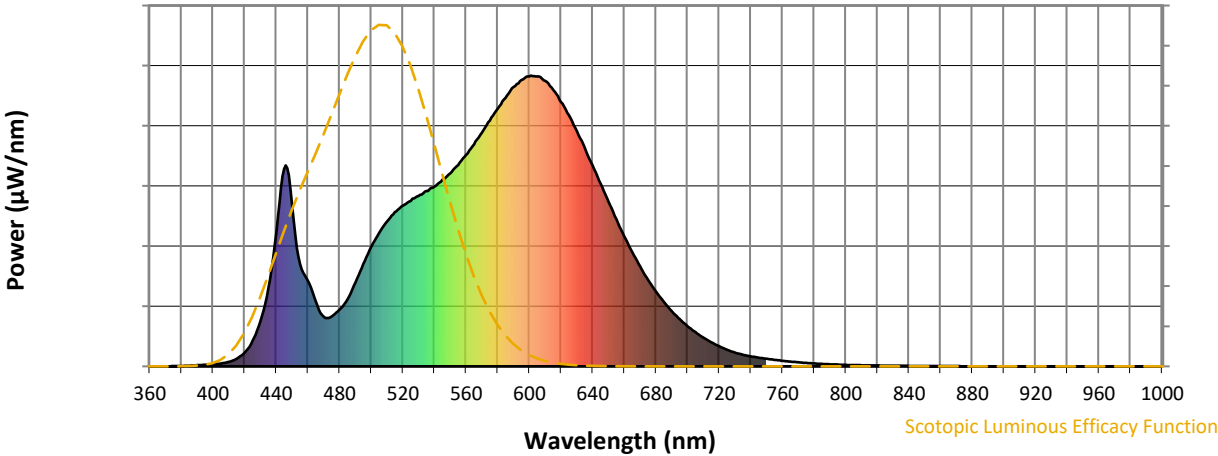


**Photopic Lumens: NR**

$\lambda$ (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	288	NR	620	909	NR	750	26	NR	880	0	NR
365	0	NR	495	351	NR	625	864	NR	755	22	NR	885	0	NR
370	0	NR	500	411	NR	630	809	NR	760	19	NR	890	0	NR
375	1	NR	505	459	NR	635	750	NR	765	16	NR	895	0	NR
380	2	NR	510	498	NR	640	691	NR	770	14	NR	900	0	NR
385	3	NR	515	530	NR	645	629	NR	775	12	NR	905	0	NR
390	4	NR	520	553	NR	650	566	NR	780	10	NR	910	0	NR
395	5	NR	525	569	NR	655	507	NR	785	8	NR	915	0	NR
400	7	NR	530	586	NR	660	447	NR	790	7	NR	920	0	NR
405	10	NR	535	603	NR	665	393	NR	795	6	NR	925	0	NR
410	16	NR	540	619	NR	670	343	NR	800	5	NR	930	0	NR
415	27	NR	545	642	NR	675	298	NR	805	4	NR	935	0	NR
420	48	NR	550	663	NR	680	257	NR	810	4	NR	940	0	NR
425	87	NR	555	692	NR	685	221	NR	815	3	NR	945	0	NR
430	155	NR	560	728	NR	690	190	NR	820	3	NR	950	0	NR
435	270	NR	565	763	NR	695	163	NR	825	2	NR	955	0	NR
440	462	NR	570	804	NR	700	138	NR	830	2	NR	960	0	NR
445	679	NR	575	845	NR	705	117	NR	835	2	NR	965	0	NR
450	553	NR	580	886	NR	710	99	NR	840	2	NR	970	0	NR
455	351	NR	585	924	NR	715	82	NR	845	1	NR	975	0	NR
460	295	NR	590	960	NR	720	69	NR	850	1	NR	980	0	NR
465	223	NR	595	985	NR	725	57	NR	855	1	NR	985	0	NR
470	170	NR	600	997	NR	730	47	NR	860	1	NR	990	0	NR
475	171	NR	605	997	NR	735	40	NR	865	1	NR	995	0	NR
480	195	NR	610	982	NR	740	34	NR	870	1	NR	1000	0	NR
485	230	NR	615	951	NR	745	30	NR	875	1	NR			

REPORT NUMBER: SP1-2509-539-7

Scotopic Flux vs. Wavelength

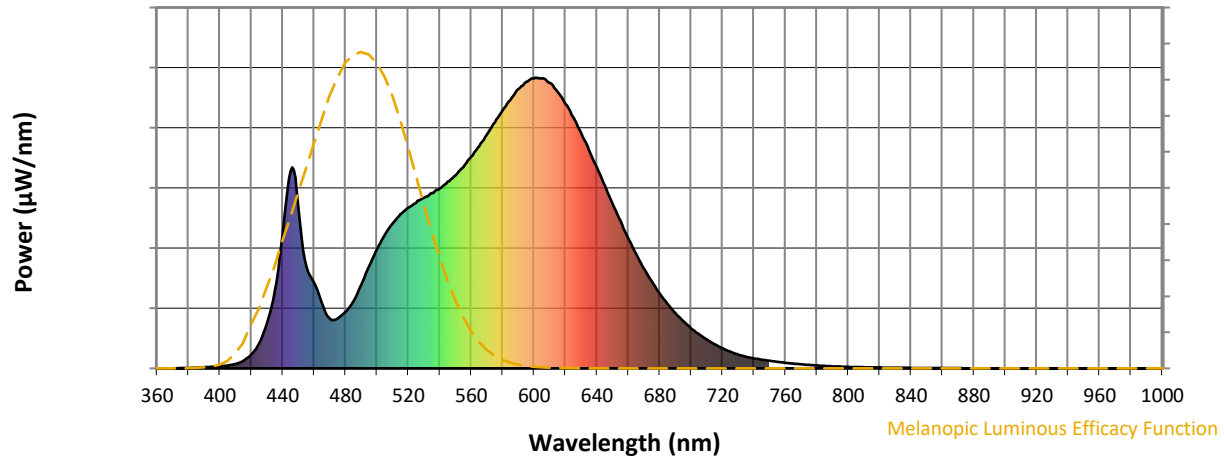


Scotopic Lumens: NR S/P: 1.44

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	288	NR	620	909	NR	750	26	NR	880	0	NR
365	0	NR	495	351	NR	625	864	NR	755	22	NR	885	0	NR
370	0	NR	500	411	NR	630	809	NR	760	19	NR	890	0	NR
375	1	NR	505	459	NR	635	750	NR	765	16	NR	895	0	NR
380	2	NR	510	498	NR	640	691	NR	770	14	NR	900	0	NR
385	3	NR	515	530	NR	645	629	NR	775	12	NR	905	0	NR
390	4	NR	520	553	NR	650	566	NR	780	10	NR	910	0	NR
395	5	NR	525	569	NR	655	507	NR	785	8	NR	915	0	NR
400	7	NR	530	586	NR	660	447	NR	790	7	NR	920	0	NR
405	10	NR	535	603	NR	665	393	NR	795	6	NR	925	0	NR
410	16	NR	540	619	NR	670	343	NR	800	5	NR	930	0	NR
415	27	NR	545	642	NR	675	298	NR	805	4	NR	935	0	NR
420	48	NR	550	663	NR	680	257	NR	810	4	NR	940	0	NR
425	87	NR	555	692	NR	685	221	NR	815	3	NR	945	0	NR
430	155	NR	560	728	NR	690	190	NR	820	3	NR	950	0	NR
435	270	NR	565	763	NR	695	163	NR	825	2	NR	955	0	NR
440	462	NR	570	804	NR	700	138	NR	830	2	NR	960	0	NR
445	679	NR	575	845	NR	705	117	NR	835	2	NR	965	0	NR
450	553	NR	580	886	NR	710	99	NR	840	2	NR	970	0	NR
455	351	NR	585	924	NR	715	82	NR	845	1	NR	975	0	NR
460	295	NR	590	960	NR	720	69	NR	850	1	NR	980	0	NR
465	223	NR	595	985	NR	725	57	NR	855	1	NR	985	0	NR
470	170	NR	600	997	NR	730	47	NR	860	1	NR	990	0	NR
475	171	NR	605	997	NR	735	40	NR	865	1	NR	995	0	NR
480	195	NR	610	982	NR	740	34	NR	870	1	NR	1000	0	NR
485	230	NR	615	951	NR	745	30	NR	875	1	NR			

REPORT NUMBER: SP1-2509-539-7

Melanopic Flux vs. Wavelength



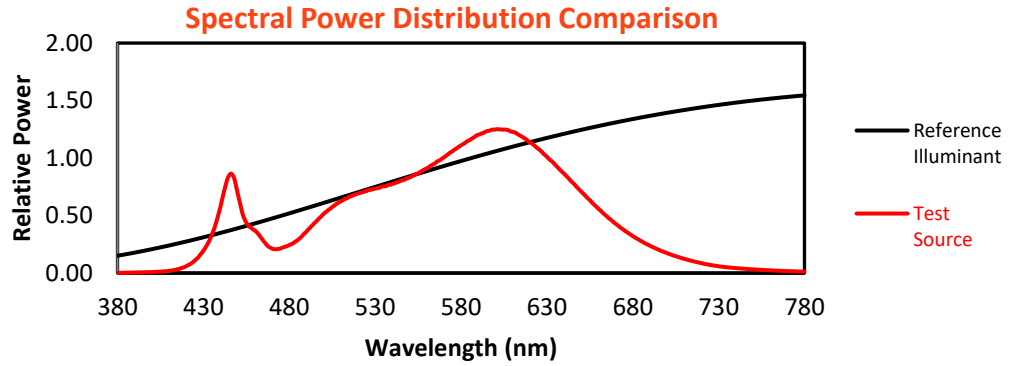
Melanopic Lumens: NR

M/P: 2.79

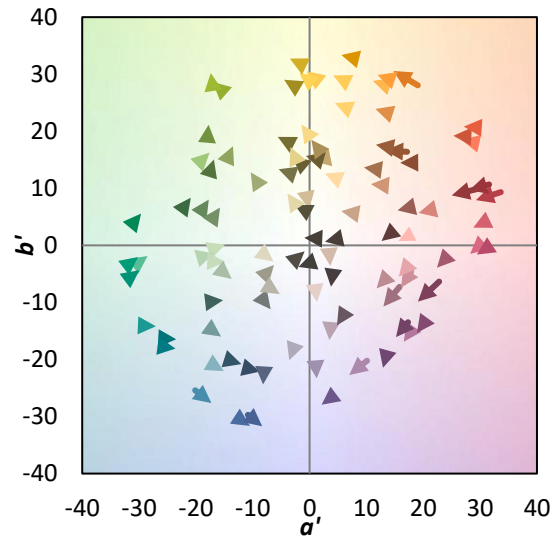
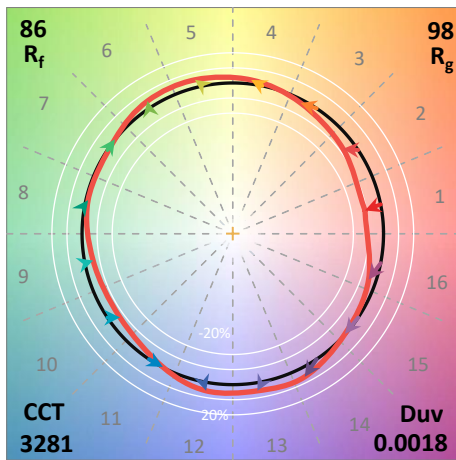
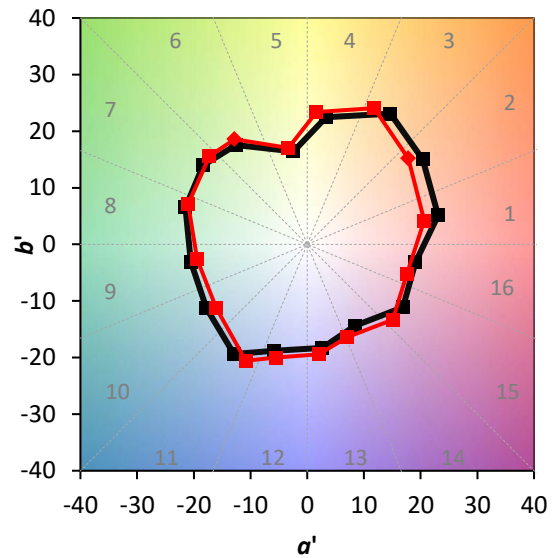
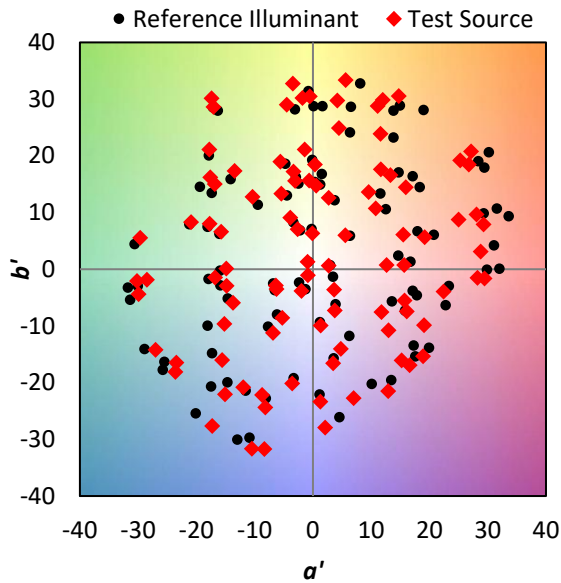
λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	288	NR	620	909	NR	750	26	NR	880	0	NR
365	0	NR	495	351	NR	625	864	NR	755	22	NR	885	0	NR
370	0	NR	500	411	NR	630	809	NR	760	19	NR	890	0	NR
375	1	NR	505	459	NR	635	750	NR	765	16	NR	895	0	NR
380	2	NR	510	498	NR	640	691	NR	770	14	NR	900	0	NR
385	3	NR	515	530	NR	645	629	NR	775	12	NR	905	0	NR
390	4	NR	520	553	NR	650	566	NR	780	10	NR	910	0	NR
395	5	NR	525	569	NR	655	507	NR	785	8	NR	915	0	NR
400	7	NR	530	586	NR	660	447	NR	790	7	NR	920	0	NR
405	10	NR	535	603	NR	665	393	NR	795	6	NR	925	0	NR
410	16	NR	540	619	NR	670	343	NR	800	5	NR	930	0	NR
415	27	NR	545	642	NR	675	298	NR	805	4	NR	935	0	NR
420	48	NR	550	663	NR	680	257	NR	810	4	NR	940	0	NR
425	87	NR	555	692	NR	685	221	NR	815	3	NR	945	0	NR
430	155	NR	560	728	NR	690	190	NR	820	3	NR	950	0	NR
435	270	NR	565	763	NR	695	163	NR	825	2	NR	955	0	NR
440	462	NR	570	804	NR	700	138	NR	830	2	NR	960	0	NR
445	679	NR	575	845	NR	705	117	NR	835	2	NR	965	0	NR
450	553	NR	580	886	NR	710	99	NR	840	2	NR	970	0	NR
455	351	NR	585	924	NR	715	82	NR	845	1	NR	975	0	NR
460	295	NR	590	960	NR	720	69	NR	850	1	NR	980	0	NR
465	223	NR	595	985	NR	725	57	NR	855	1	NR	985	0	NR
470	170	NR	600	997	NR	730	47	NR	860	1	NR	990	0	NR
475	171	NR	605	997	NR	735	40	NR	865	1	NR	995	0	NR
480	195	NR	610	982	NR	740	34	NR	870	1	NR	1000	0	NR
485	230	NR	615	951	NR	745	30	NR	875	1	NR			

**Summary**

$R_f = 85.8$   
 $R_g = 97.6$   
 $CIE R_a = 83.9$   
 $R_9 = 9.4$

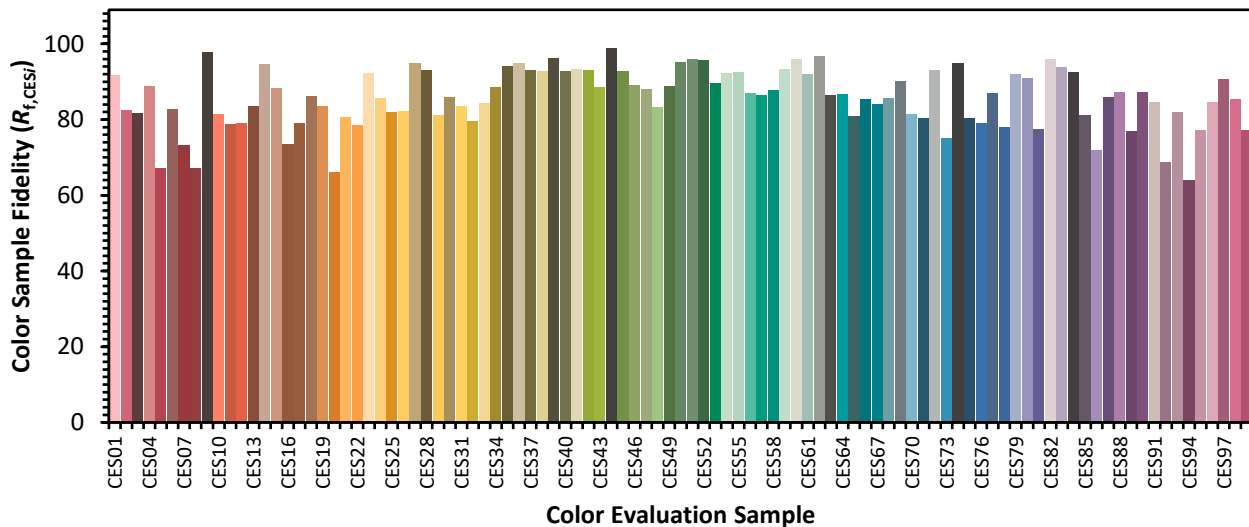


**Color Vector Graphics**

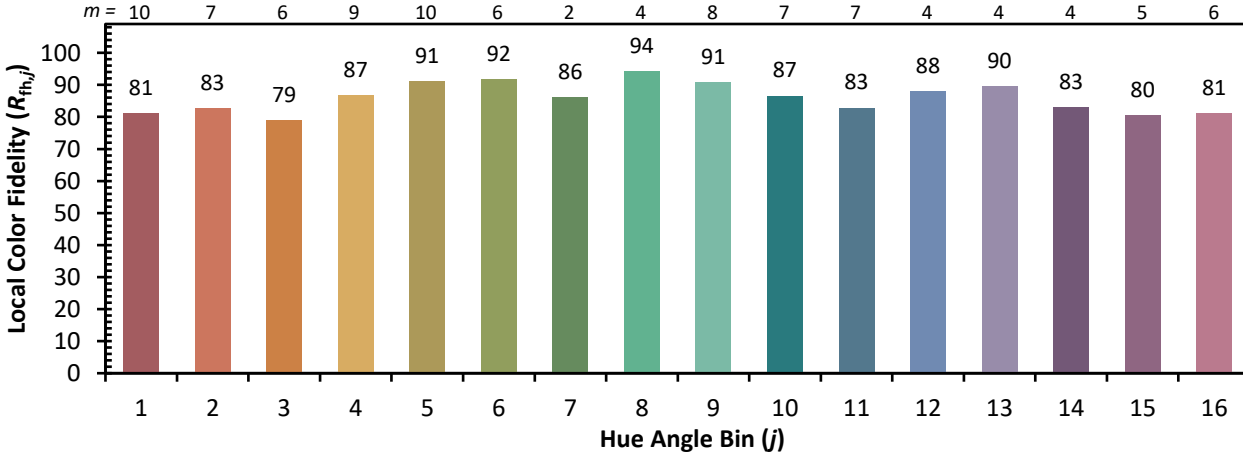
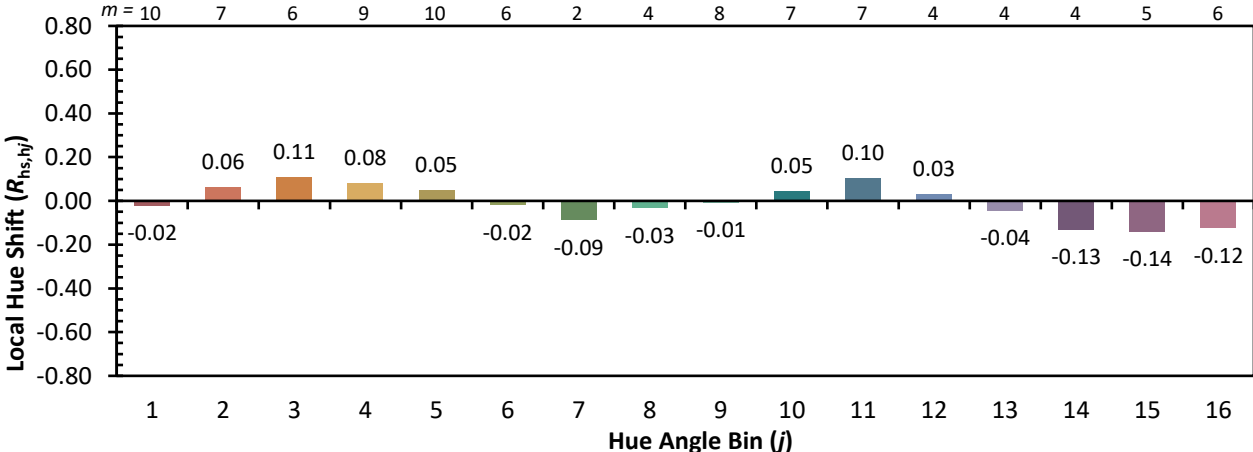
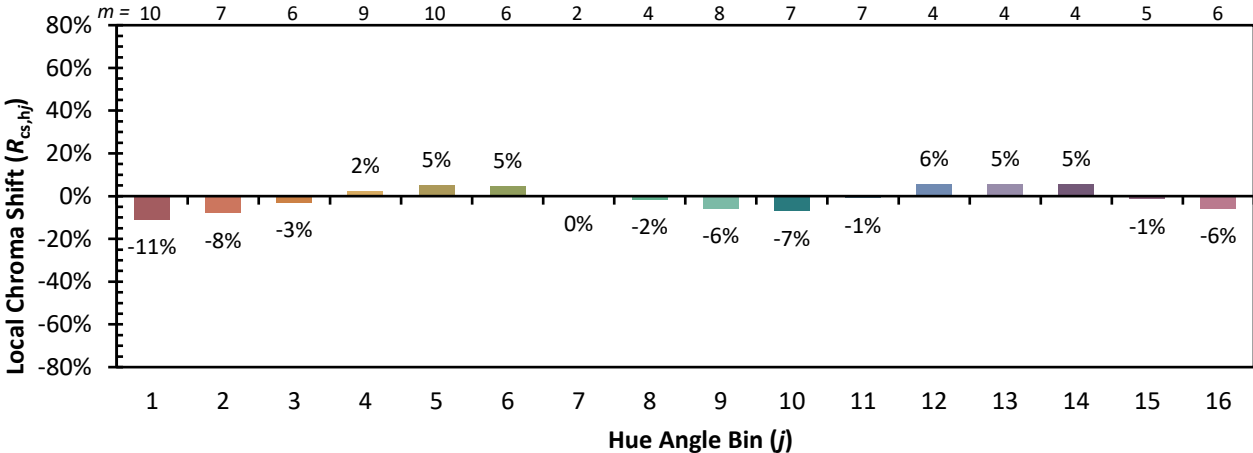


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

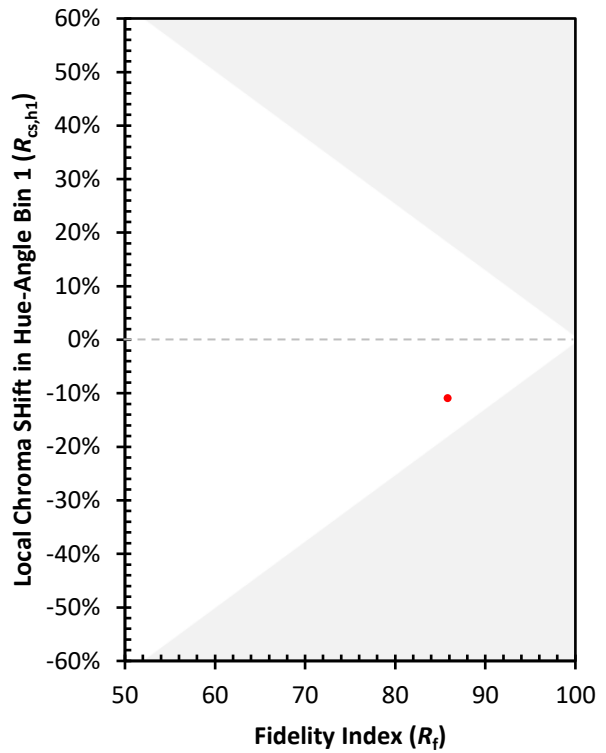
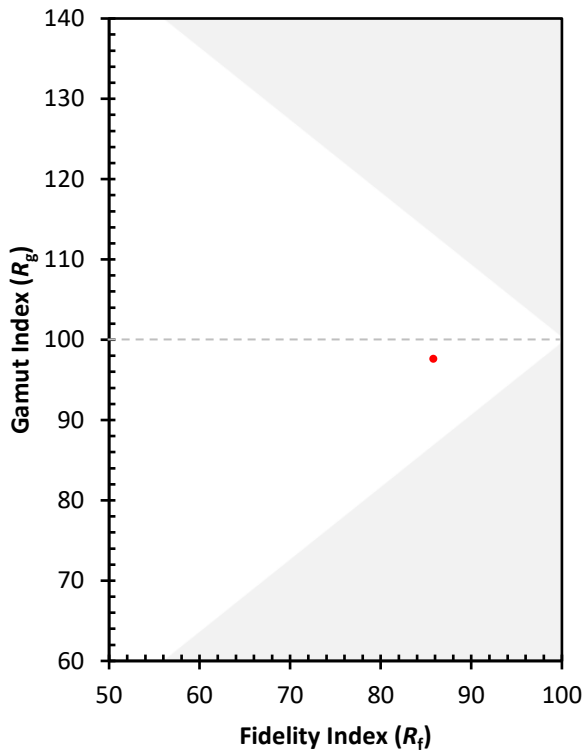
CES01 = 86	CES26 = 82	CES51 = 96	CES76 = 79
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 93	CES53 = 90	CES78 = 78
CES04 = 70	CES29 = 81	CES54 = 92	CES79 = 92
CES05 = 49	CES30 = 86	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 77
CES07 = 42	CES32 = 80	CES57 = 86	CES82 = 96
CES08 = 40	CES33 = 84	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 89	CES59 = 93	CES84 = 93
CES10 = 75	CES35 = 94	CES60 = 96	CES85 = 81
CES11 = 58	CES36 = 95	CES61 = 92	CES86 = 72
CES12 = 64	CES37 = 93	CES62 = 97	CES87 = 86
CES13 = 43	CES38 = 93	CES63 = 87	CES88 = 87
CES14 = 74	CES39 = 96	CES64 = 87	CES89 = 77
CES15 = 71	CES40 = 93	CES65 = 81	CES90 = 87
CES16 = 47	CES41 = 93	CES66 = 85	CES91 = 85
CES17 = 50	CES42 = 93	CES67 = 84	CES92 = 69
CES18 = 56	CES43 = 89	CES68 = 86	CES93 = 82
CES19 = 72	CES44 = 99	CES69 = 90	CES94 = 64
CES20 = 66	CES45 = 93	CES70 = 81	CES95 = 77
CES21 = 86	CES46 = 89	CES71 = 80	CES96 = 85
CES22 = 79	CES47 = 88	CES72 = 93	CES97 = 91
CES23 = 92	CES48 = 83	CES73 = 75	CES98 = 85
CES24 = 91	CES49 = 89	CES74 = 95	CES99 = 77
CES25 = 72	CES50 = 95	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)