

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P880280

Luminaire Tested: **EMM2-HSN-VA1-830-U-WT4**

Issue Date: 10/01/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P880280  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/01/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-VA1-830-U-WT4  
Description: EPIC MODERN SHORT HOUSING 1W 80CRI 3000K VISUAL COMFORT FIXTURE w/  
DRIVE LANE TYPE IV DISTRIBUTION OPTIC  
Light Source: (1) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

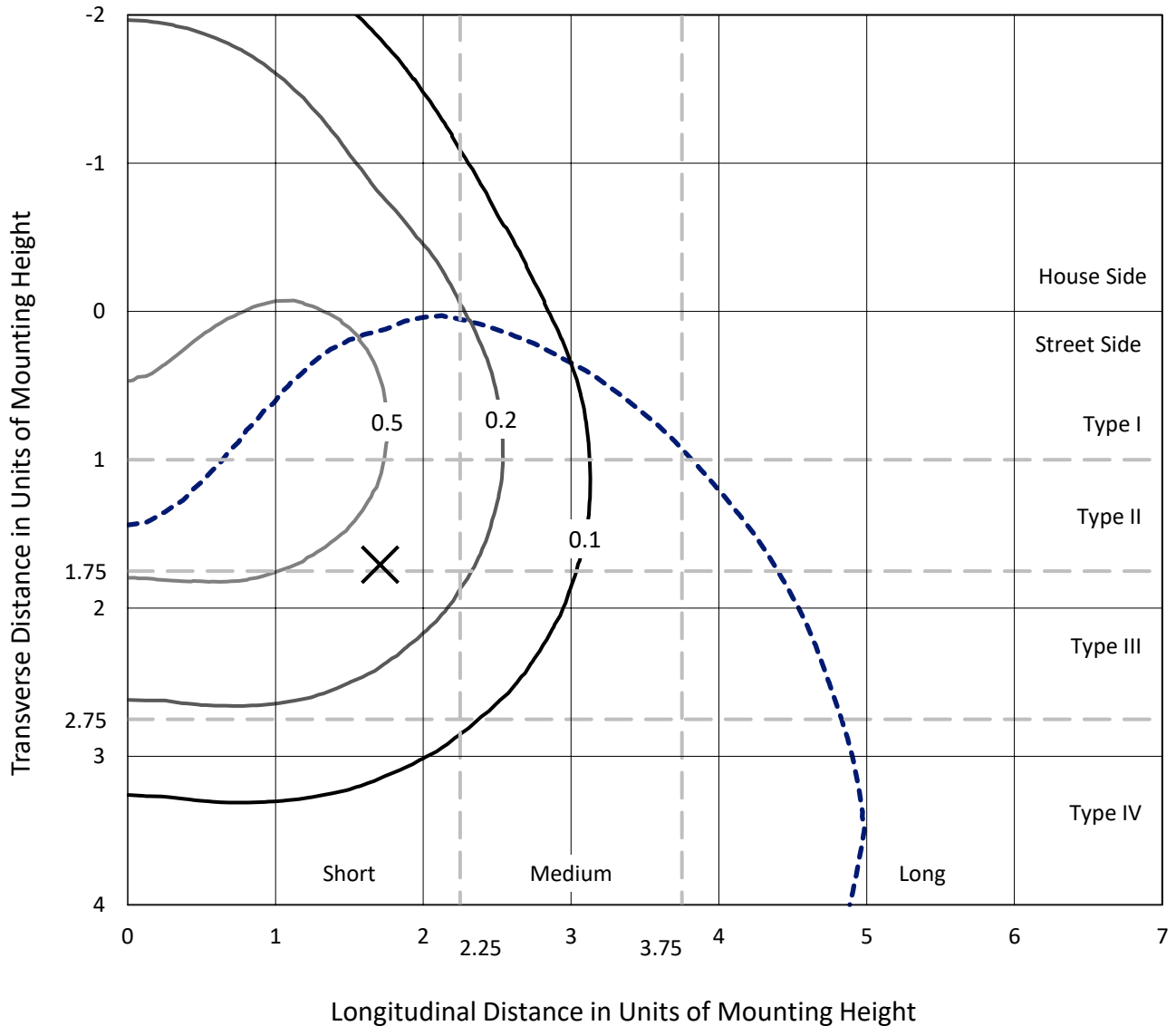
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2796.7 lumens  
Efficiency: N/A  
Efficacy: 99.9 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 28  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 11%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P880280  
 CATALOG NUMBER: EMM2-HSN-VA1-830-U-WT4

### Iso-Footcandle Lines of Horizontal Illumination

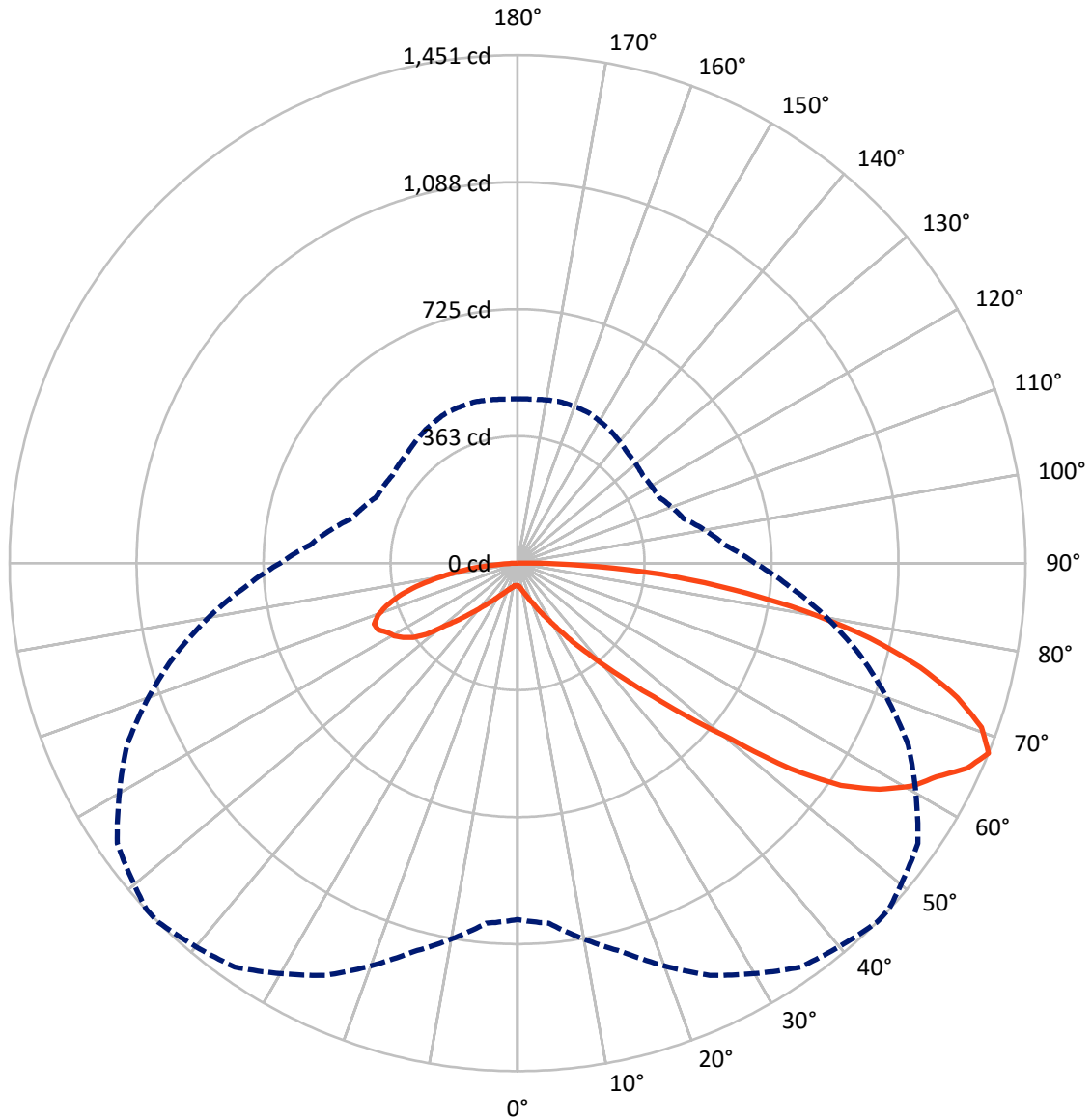
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical



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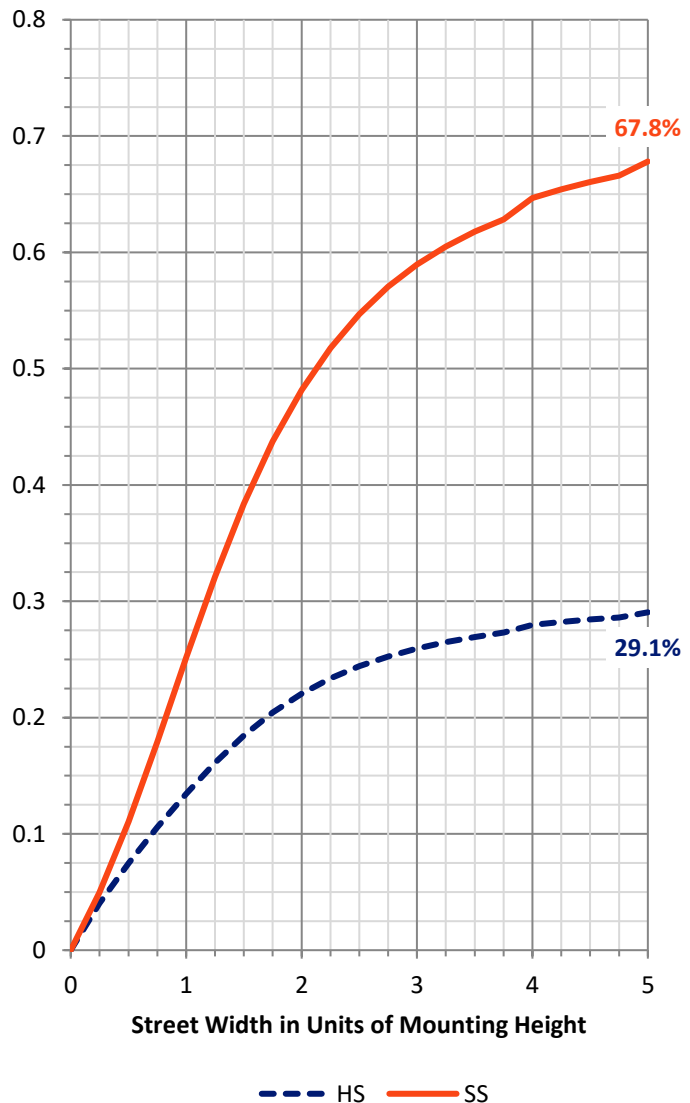
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	828.9	0.0	828.9
	% Fixture	29.6	0.0	29.6
<b>Street Side</b>	Lumens	1967.9	0.0	1967.9
	% Fixture	70.4	0.0	70.4
<b>Total</b>	Lumens	2796.7	0.0	2796.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	6.6	0.2
10°-20°	24.9	0.9
20°-30°	58.6	2.1
30°-40°	128.5	4.6
40°-50°	279.9	10.0
50°-60°	575.0	20.6
60°-70°	810.1	29.0
70°-80°	687.8	24.6
80°-90°	225.4	8.1
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°	2796.7	100.0
0°-180°	2796.7	100.0



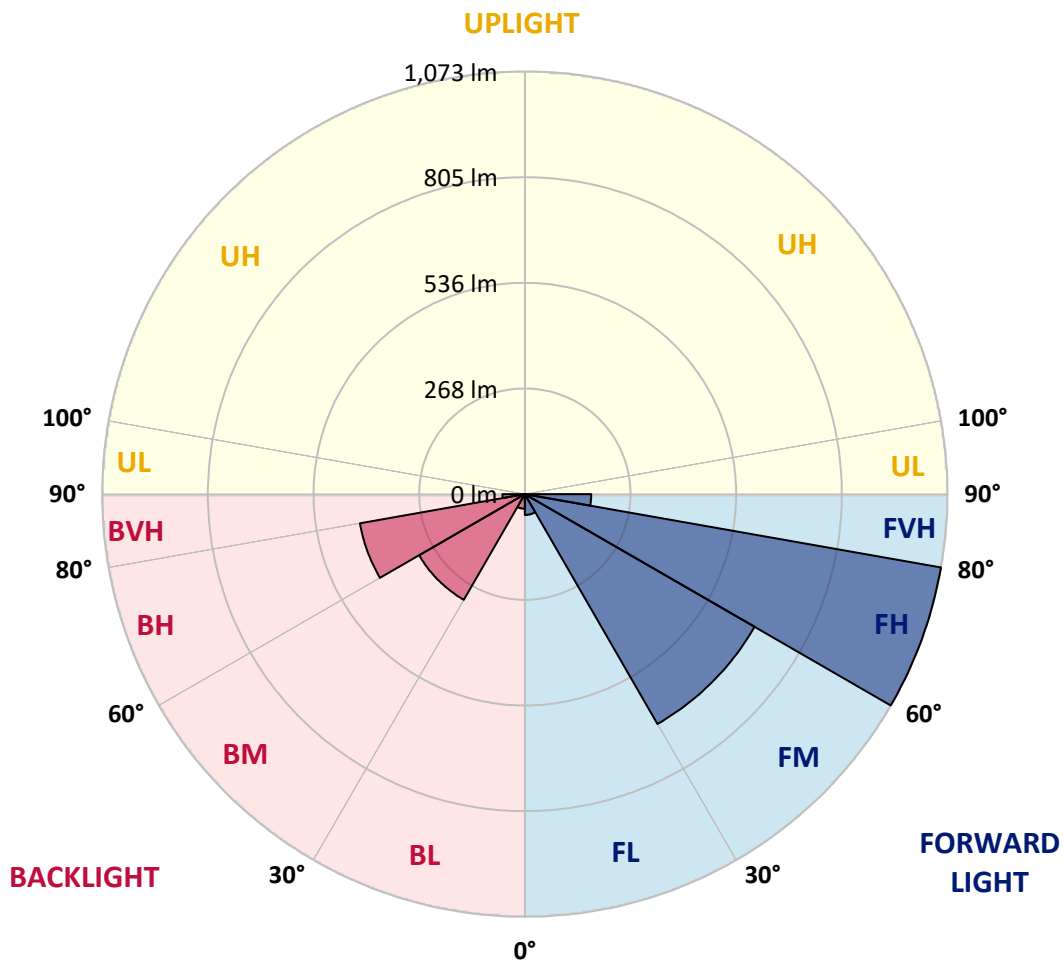
REPORT NUMBER: P880280  
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	52.9	1.9			
FM (30°-60°)	673.6	24.1			
FH (60°-80°)	1072.8	38.4			G1/1800
FVH (80°-90°)	168.5	6.0			G2/225
BL (0°-30°)	37.2	1.3	B0/110		
BM (30°-60°)	309.8	11.1	B1/1000		
BH (60°-80°)	425.0	15.2	B1/500		G1/500
BVH (80°-90°)	56.8	2.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





REPORT NUMBER: P880280

CATALOG NUMBER: EMM2-HSN-VA1-830-U-WT4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	66.6	66.3	66.6	66.6	66.6	66.3	66.3	66.3	66.0	65.7	65.4
5°	70.6	70.6	70.6	70.3	70.3	69.7	69.7	69.4	68.9	68.3	67.7
7.5°	76.0	75.7	75.7	75.4	75.2	74.6	74.3	74.0	72.9	72.0	70.9
10°	82.6	82.6	82.3	81.7	81.7	80.3	80.6	80.0	78.6	76.9	74.9
12.5°	90.6	90.6	90.0	90.0	89.4	88.3	88.0	87.2	85.7	82.9	80.6
15°	99.4	99.4	100.0	99.4	98.9	97.4	97.4	96.3	93.2	90.9	87.4
17.5°	110.6	109.2	110.0	109.7	109.7	108.9	108.0	106.6	104.0	100.0	95.7
20°	122.0	122.3	121.4	122.3	122.6	121.4	121.4	119.7	116.0	111.2	104.3
22.5°	136.3	136.3	134.6	136.9	138.3	137.4	137.2	133.7	129.2	122.6	115.7
25°	151.2	150.6	153.4	154.0	157.2	156.9	156.6	153.4	146.6	138.6	128.0
27.5°	168.0	168.9	174.3	175.7	178.9	178.6	178.3	174.9	167.4	156.6	142.9
30°	188.9	190.0	195.2	200.0	205.5	206.0	205.5	202.6	191.7	177.4	162.0
32.5°	213.2	216.3	221.5	229.7	236.6	239.7	240.3	235.2	222.9	204.0	183.7
35°	246.3	243.7	250.9	264.6	276.0	282.3	282.0	275.2	261.7	237.7	208.9
37.5°	278.9	278.0	289.2	307.2	322.6	327.8	329.2	324.6	307.5	275.7	241.7
40°	312.9	320.0	332.9	353.8	376.6	387.5	388.3	381.8	358.3	322.6	277.7
42.5°	357.2	364.3	380.6	406.3	439.5	457.5	458.6	451.2	422.9	376.6	321.2
45°	413.2	417.2	434.3	473.5	516.1	544.9	553.2	544.1	509.2	444.9	375.2
47.5°	473.5	473.5	501.5	553.2	617.5	655.5	661.8	653.5	601.5	524.1	435.5
50°	540.6	540.9	585.5	659.5	740.7	788.1	792.9	772.9	710.1	604.6	496.9
52.5°	610.4	617.8	682.9	794.9	903.8	976.4	981.3	958.1	874.4	720.1	562.4
55°	706.4	718.1	812.7	950.1	1063.3	1120.4	1120.7	1093.0	992.4	832.1	640.6
57.5°	839.5	844.1	932.4	1072.7	1179.6	1218.7	1215.9	1175.3	1059.3	894.7	704.9
60°	949.5	960.1	1032.1	1162.4	1266.7	1293.6	1290.4	1236.7	1105.0	931.3	735.8
62.5°	1021.8	1027.0	1101.6	1226.7	1320.4	1343.0	1339.6	1289.6	1161.0	995.0	787.2
65°	1039.3	1047.8	1142.4	1269.6	1360.4	1411.3	1409.0	1382.2	1250.1	1042.1	811.5
67.5°	1018.1	1032.4	1148.4	1299.0	1408.4	1450.7	1449.6	1395.6	1231.0	1011.8	780.9
70°	975.0	987.3	1131.3	1295.9	1394.4	1405.9	1397.0	1335.3	1174.7	961.5	735.2
72.5°	907.0	927.8	1068.4	1224.1	1306.4	1313.9	1310.7	1235.3	1090.1	875.0	666.1
75°	817.8	843.2	970.7	1096.7	1175.0	1187.9	1181.9	1115.8	969.0	766.7	580.4
77.5°	704.9	719.2	816.4	936.1	1026.1	1028.4	1025.0	951.3	816.1	642.1	488.3
80°	555.5	564.1	648.4	748.1	822.7	831.8	828.7	778.9	648.1	508.1	380.9
82.5°	411.5	405.8	462.3	544.1	618.1	618.6	623.8	568.6	485.2	368.6	272.6
85°	236.9	239.2	288.3	344.0	388.9	414.9	414.6	388.0	312.0	234.6	166.3
87.5°	66.0	71.2	102.3	148.9	169.2	184.0	178.6	161.2	130.3	73.7	42.3
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: P880280

CATALOG NUMBER: EMM2-HSN-VA1-830-U-WT4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	65.4	65.2	64.9	64.6	64.0	64.0	63.7	64.0	64.0	64.0	64.0
5°	67.2	66.9	66.0	65.4	64.6	64.0	63.7	63.7	63.7	63.7	63.7
7.5°	70.0	69.7	68.3	67.2	66.0	65.4	64.9	64.6	64.3	64.0	64.3
10°	74.3	73.2	71.7	70.0	68.3	67.4	66.6	66.3	66.0	65.7	65.7
12.5°	79.2	78.3	75.7	73.4	71.7	70.3	69.2	68.6	68.3	68.0	68.0
15°	85.7	84.0	80.6	77.7	75.2	73.4	72.3	71.7	71.4	71.2	71.2
17.5°	93.2	90.9	86.3	82.6	79.7	77.4	76.0	75.2	74.6	74.9	75.2
20°	101.7	98.0	92.9	88.3	84.6	82.0	80.6	79.4	78.9	79.2	79.4
22.5°	111.7	107.7	100.3	94.9	90.3	87.2	85.7	84.9	84.3	84.0	83.4
25°	123.2	118.0	109.4	102.0	96.6	93.4	91.7	91.2	90.6	90.0	90.0
27.5°	136.9	130.9	119.2	111.2	104.6	101.4	99.4	98.6	98.6	97.7	97.7
30°	152.9	144.9	130.6	120.0	113.4	109.4	107.2	106.9	106.3	107.2	107.2
32.5°	172.0	161.2	143.7	131.4	124.0	120.3	118.0	117.4	116.6	117.2	118.9
35°	196.0	182.0	161.2	146.6	137.4	133.7	130.9	130.6	129.2	130.6	128.3
37.5°	222.9	207.5	179.7	162.6	152.6	148.3	146.3	145.4	145.2	145.2	143.4
40°	255.7	237.2	203.5	182.3	170.9	165.7	163.7	163.4	162.9	164.9	162.9
42.5°	296.3	268.0	228.0	204.0	192.3	186.9	184.6	183.7	185.2	186.0	185.7
45°	341.5	310.9	259.5	231.7	218.3	212.9	209.7	208.9	209.5	209.5	212.3
47.5°	393.5	357.5	295.5	262.0	249.7	243.2	241.2	238.3	236.9	236.3	241.2
50°	447.8	402.9	332.3	294.9	283.7	278.6	279.2	273.5	271.5	269.2	268.6
52.5°	502.3	451.5	374.3	340.6	327.8	330.3	329.2	323.2	311.5	308.6	301.7
55°	567.8	506.3	414.6	374.3	363.2	365.2	369.8	369.8	367.2	360.9	355.5
57.5°	623.2	551.8	444.9	394.6	384.9	390.0	399.2	406.0	412.0	416.6	416.3
60°	654.1	579.8	464.6	410.0	398.6	408.6	422.3	434.1	446.9	460.3	459.8
62.5°	696.7	618.9	499.8	437.5	417.8	420.9	436.6	456.9	468.6	479.8	482.9
65°	707.8	626.1	512.9	456.9	440.9	441.5	452.1	468.6	478.6	481.5	483.2
67.5°	677.8	594.6	491.2	445.5	436.9	444.9	462.1	475.2	476.6	469.8	469.2
70°	632.6	556.1	456.9	418.6	413.2	425.5	448.1	463.8	460.3	446.3	445.5
72.5°	568.9	497.8	410.9	383.2	377.8	393.2	413.2	429.8	424.6	414.0	413.2
75°	492.3	425.8	355.2	334.6	334.3	351.2	368.6	378.6	378.3	370.9	368.6
77.5°	409.2	355.2	292.6	274.0	280.9	296.9	309.8	317.2	314.6	312.0	311.2
80°	320.3	272.3	225.7	214.6	225.2	230.6	244.3	243.7	245.2	239.7	243.7
82.5°	228.0	196.3	161.7	156.9	158.3	169.2	176.6	175.7	172.0	168.0	166.3
85°	138.3	120.9	103.7	96.9	101.7	100.9	105.4	101.7	99.4	97.4	99.2
87.5°	38.3	33.1	31.7	22.9	28.3	22.3	23.4	16.3	14.3	17.1	14.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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



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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-7

Test Date: 09/27/2024

Luminaire Tested: MEM2-HTN-VA-30-830-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-830-U-WQ

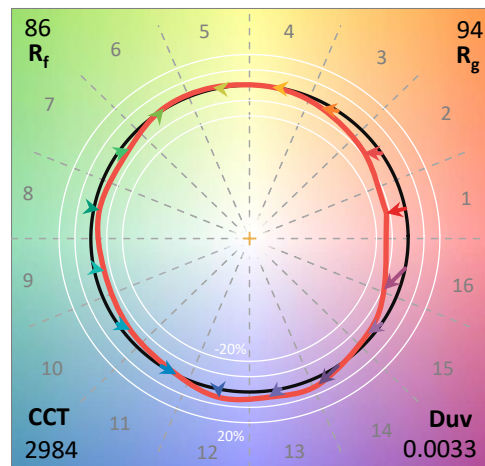
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-176-7  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 09/27/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-VA-30-830-U-WQ**  
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

**Spectral Parameters**

CCT (K): 2984  
 CIE u': 0.2500  
 CIE v': 0.5264  
 Duv: 0.0033  
 CIE x: 0.4431  
 CIE y: 0.4147  
 CIE z: 0.1422  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 581  
 Purity: 57.4798  
 Rf: 85.8  
 Rg: 94.1

CRI (Ra):	81.8		
R1:	79.4	R9:	-1.1
R2:	89.9	R10:	78.4
R3:	96.6	R11:	80.8
R4:	80.6	R12:	72.8
R5:	80.1	R13:	81.7
R6:	88.9	R14:	98.5
R7:	82.6	R15:	70.2
R8:	56.0		



**Test Conditions**

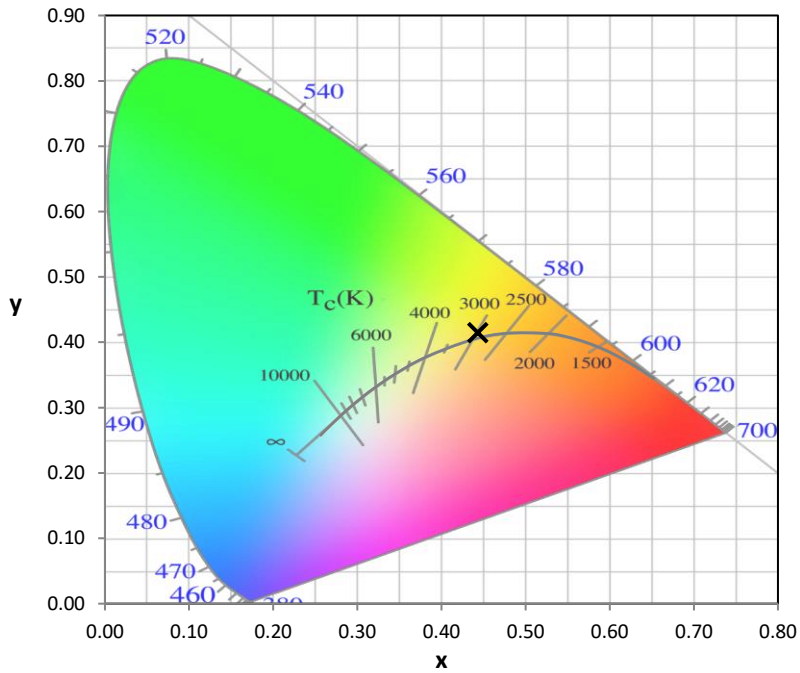
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 25.2

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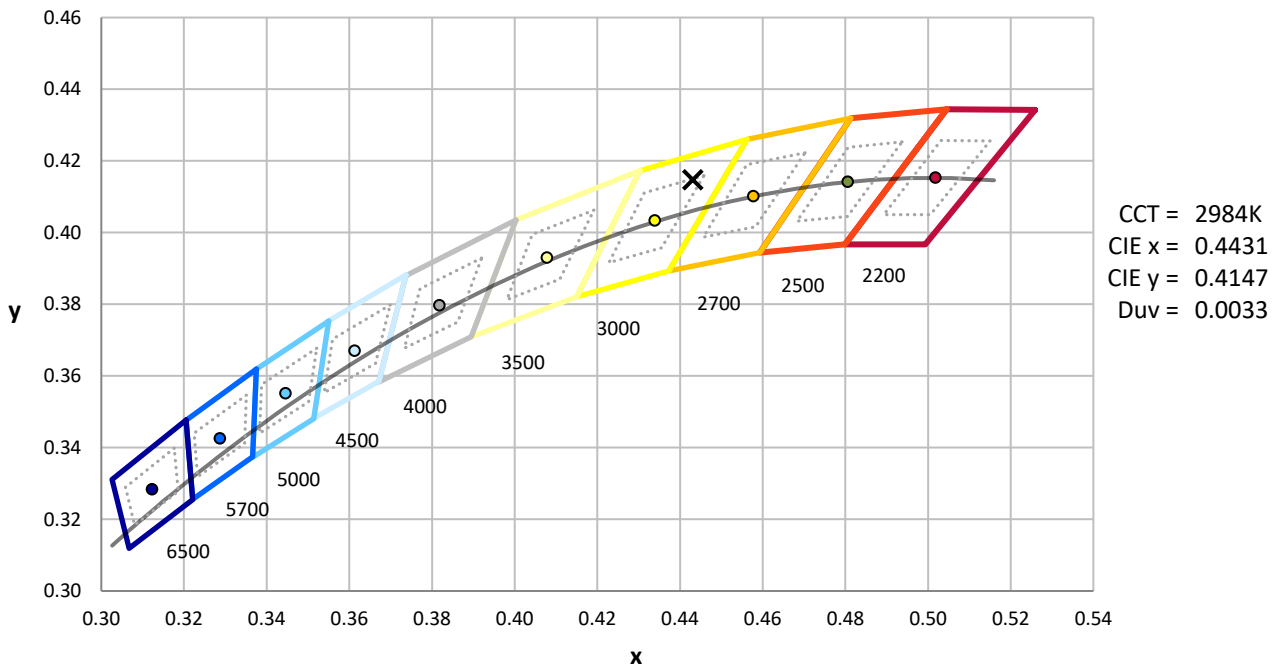
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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**CIE 1931 Chromaticity Diagram**



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

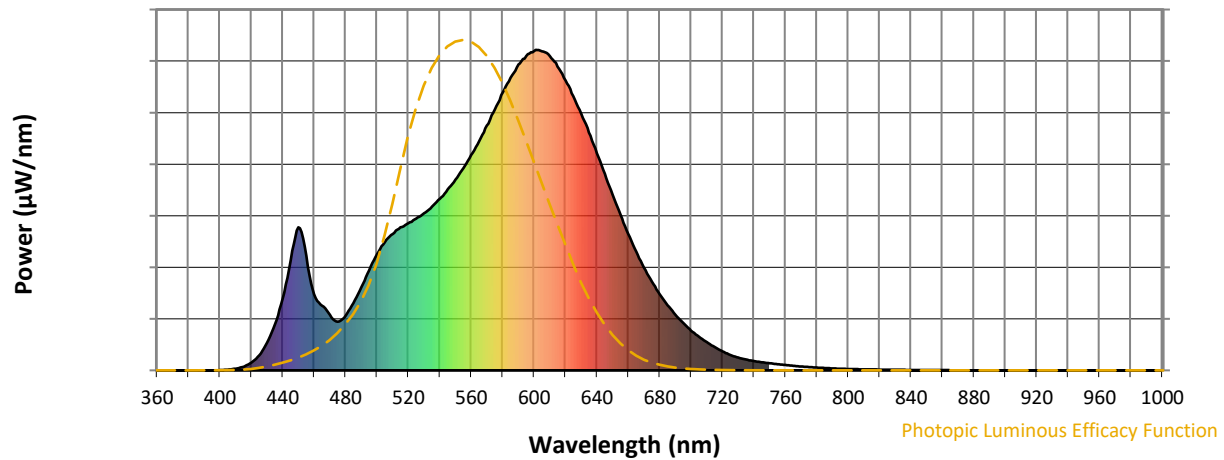


CCT = 2984K  
 CIE x = 0.4431  
 CIE y = 0.4147  
 Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

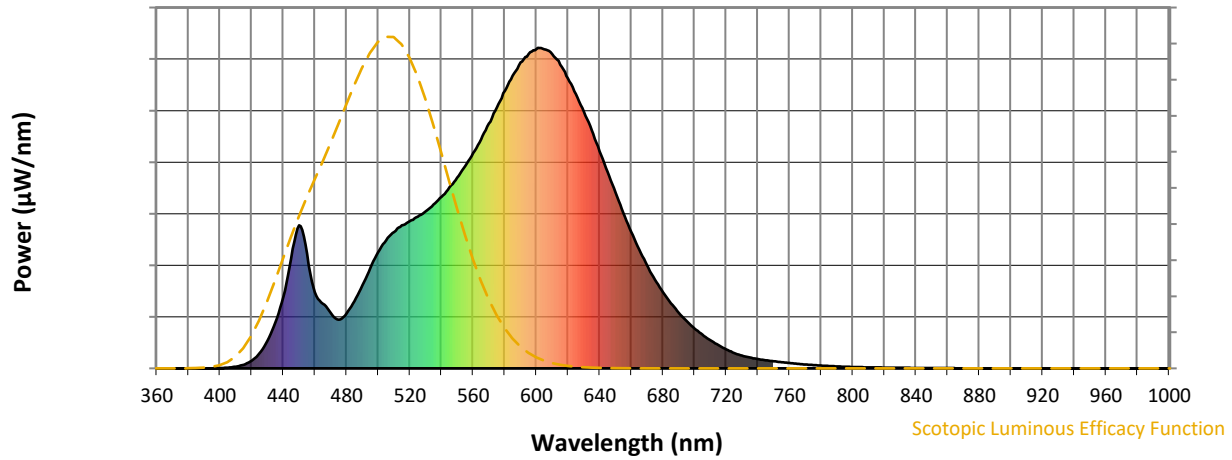


**Photopic Lumens: NR**

$\lambda$ (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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

**Scotopic Flux vs. Wavelength**



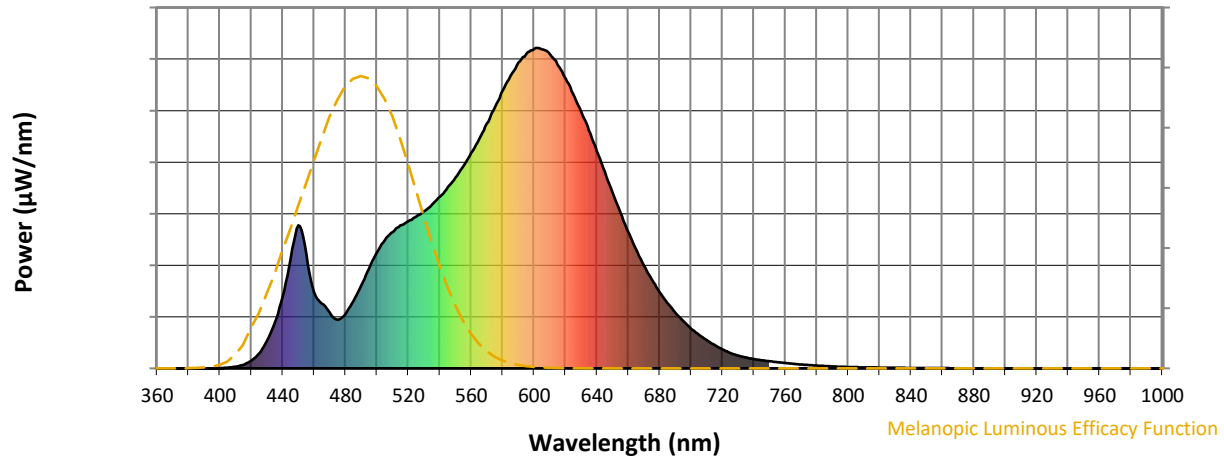
**Scotopic Lumens: NR**

**S/P: 1.32**

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

**Melanopic Flux vs. Wavelength**



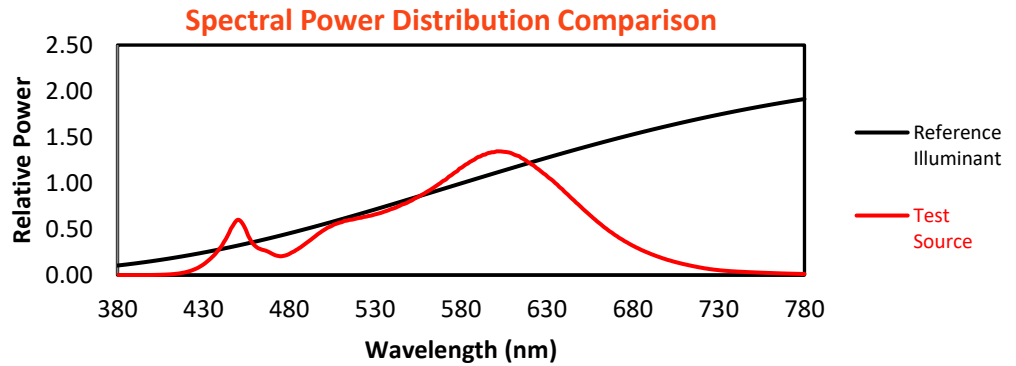
**Melanopic Lumens: NR**

**M/P: 2.51**

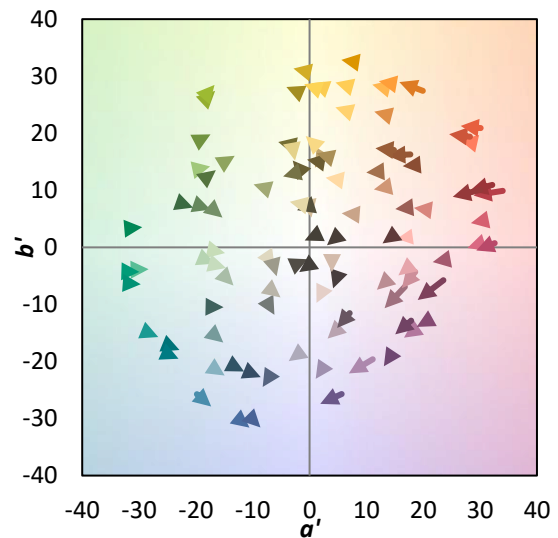
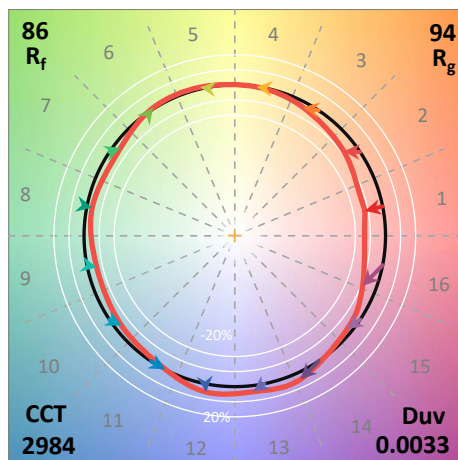
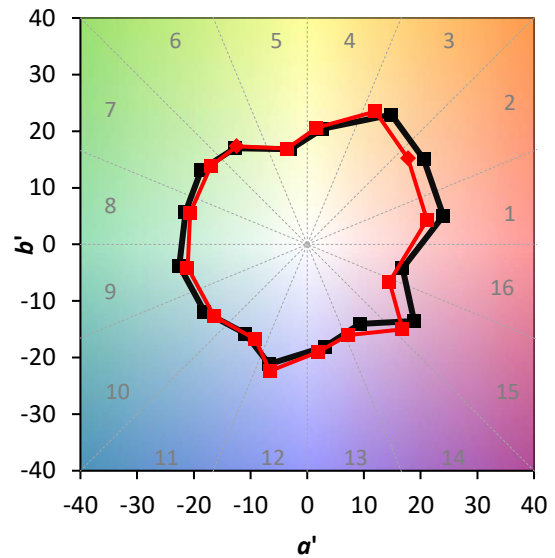
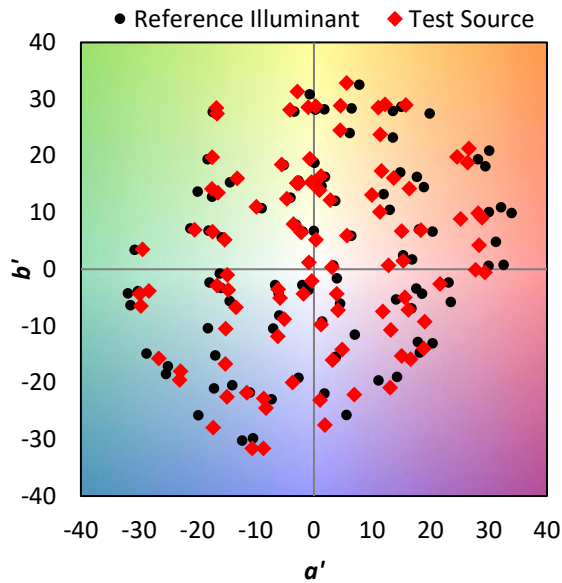
$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

**Summary**

$R_f = 85.8$   
 $R_g = 94.1$   
 $CIE R_a = 81.8$   
 $R_g = -1.1$



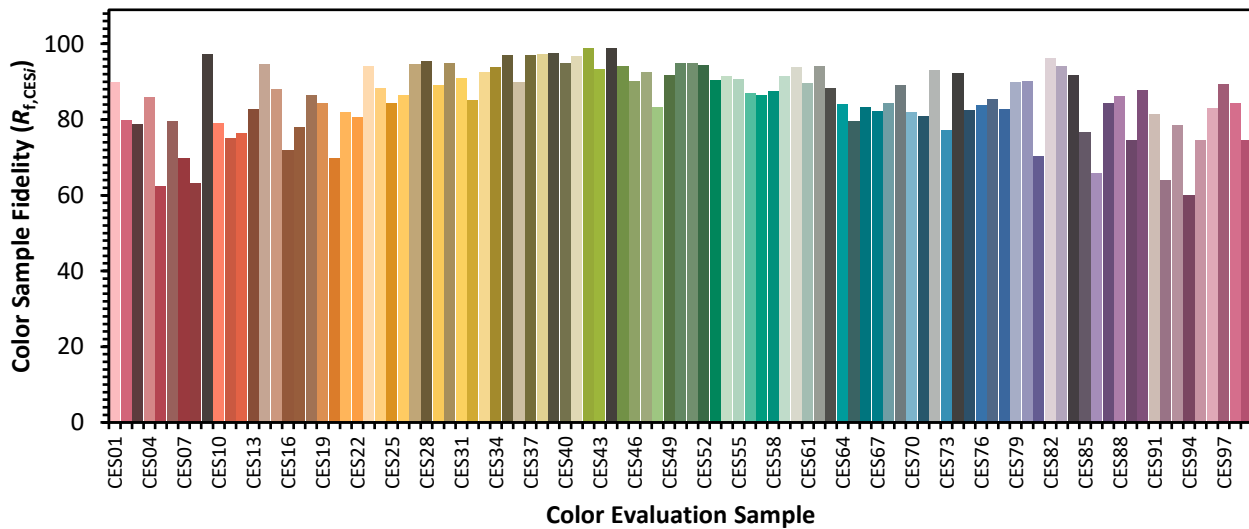
**Color Vector Graphics**



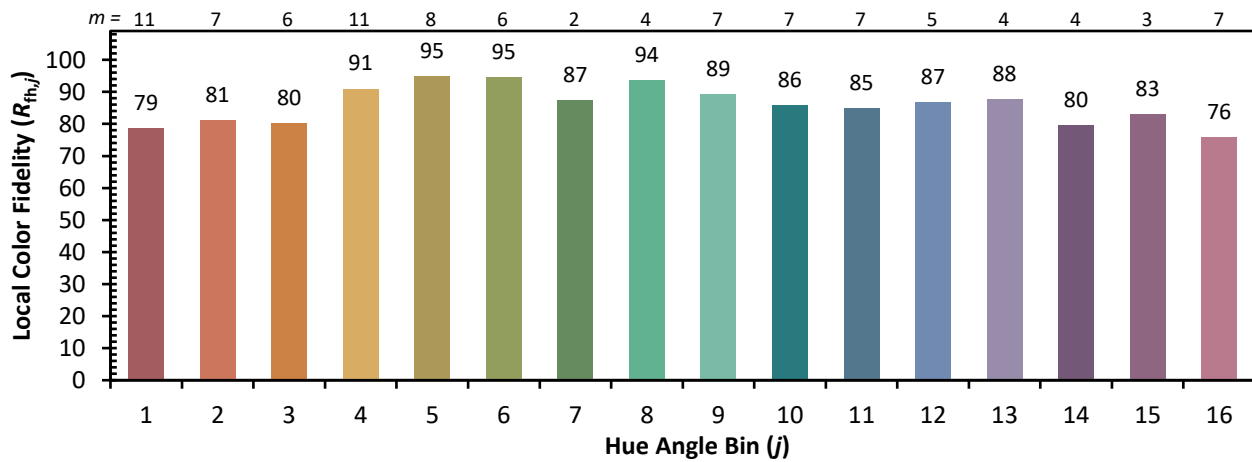
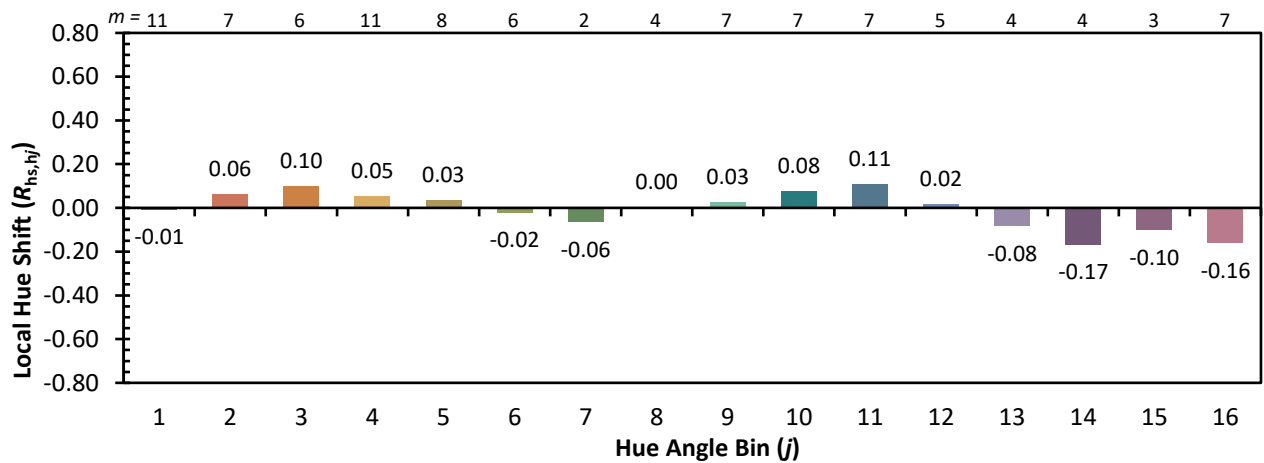
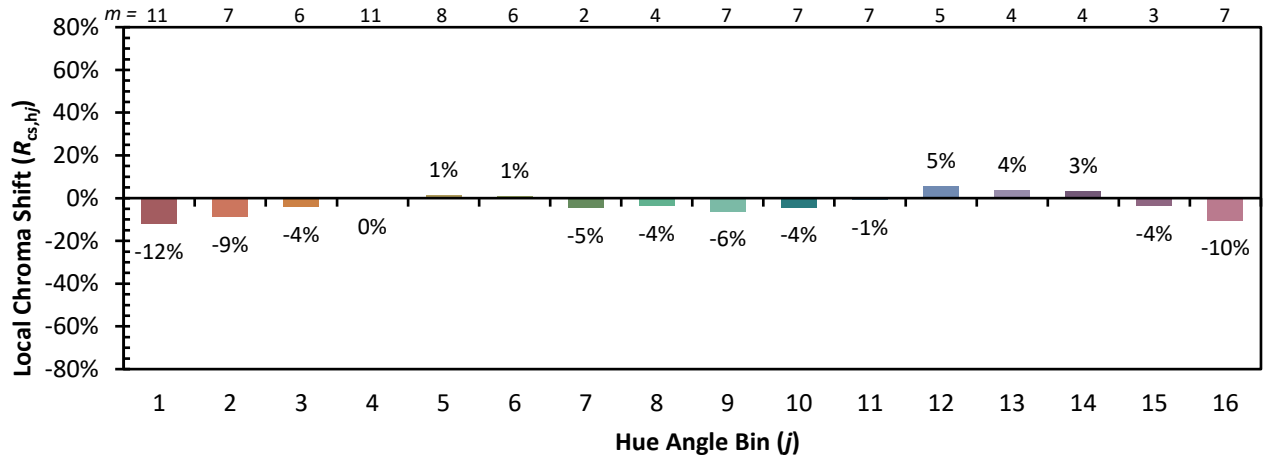


Individual Sample Fidelity Index ( $R_{f,i}$ )

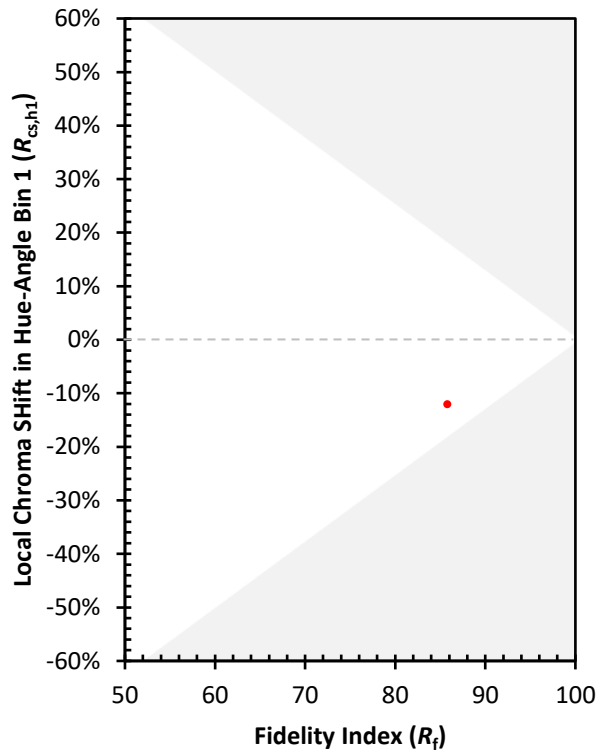
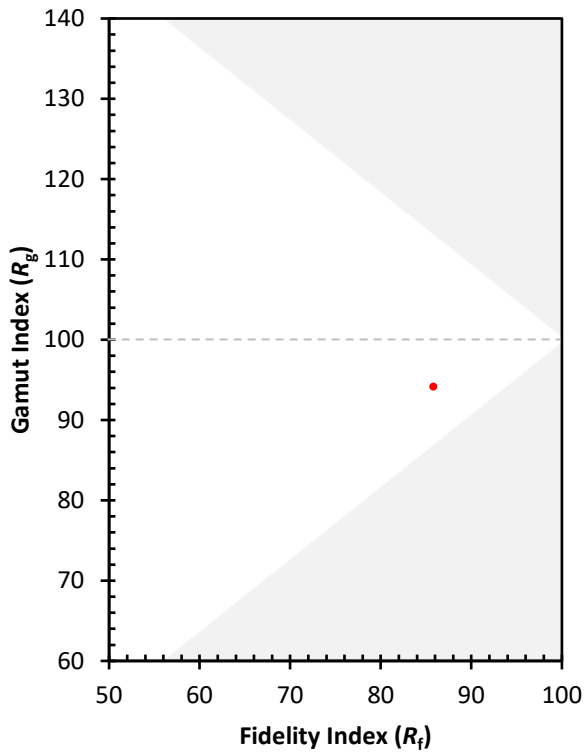
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 94	CES85 = 77
CES11 = 59	CES36 = 90	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 97	CES62 = 94	CES87 = 84
CES13 = 43	CES38 = 97	CES63 = 88	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 84	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 83	CES91 = 81
CES17 = 50	CES42 = 99	CES67 = 82	CES92 = 64
CES18 = 56	CES43 = 93	CES68 = 84	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 60
CES20 = 67	CES45 = 94	CES70 = 82	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 81	CES96 = 83
CES22 = 79	CES47 = 93	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 83	CES73 = 77	CES98 = 84
CES24 = 91	CES49 = 92	CES74 = 92	CES99 = 75
CES25 = 72	CES50 = 95	CES75 = 83	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)