

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: P880260

Luminaire Tested: **EMM2-HSN-VA5-730-U-WT4**

Issue Date: 10/01/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P880260  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/01/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-VA5-730-U-WT4  
Description: EPIC MODERN SHORT HOUSING 5W 70CRI 3000K VISUAL COMFORT FIXTURE w/  
DRIVE LANE TYPE IV DISTRIBUTION OPTIC  
Light Source: (1) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

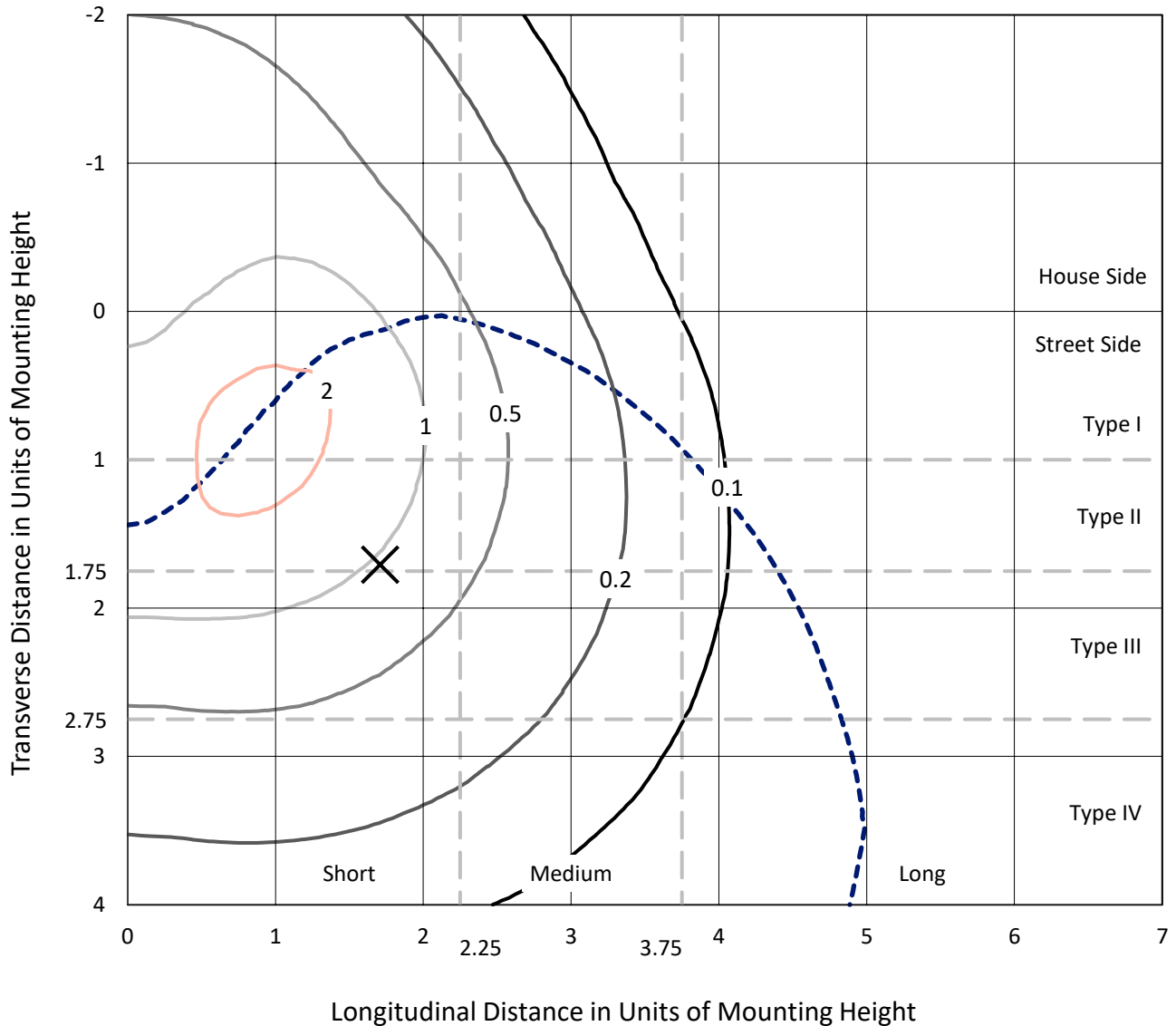
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7297.2 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 78  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: EMM2-HSN-VA5-730-U-WT4

### Iso-Footcandle Lines of Horizontal Illumination

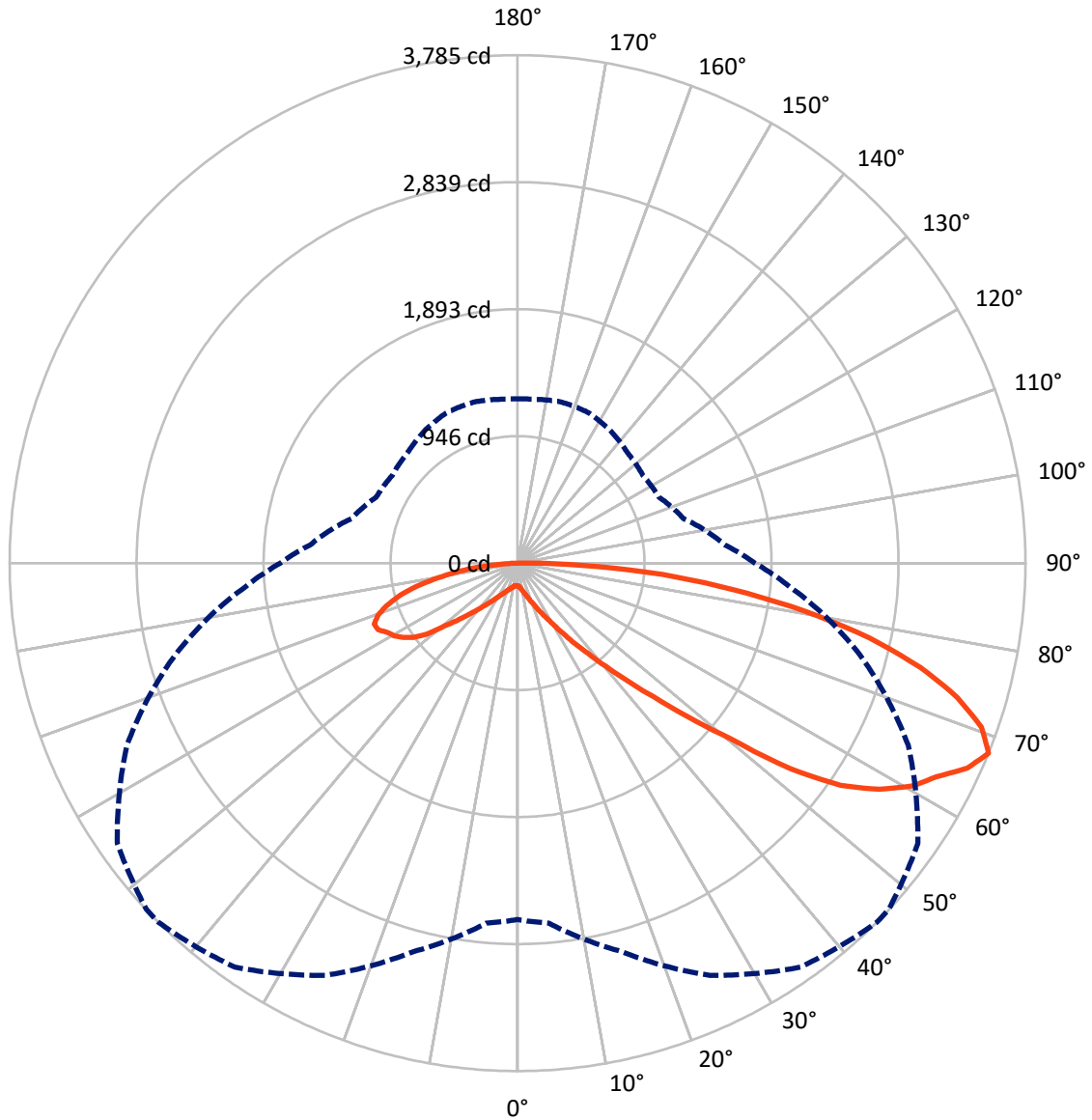
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.5 fc  
 Type IV - Short - N/A

REPORT NUMBER: P880260  
CATALOG NUMBER: EMM2-HSN-VA5-730-U-WT4

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: EMM2-HSN-VA5-730-U-WT4

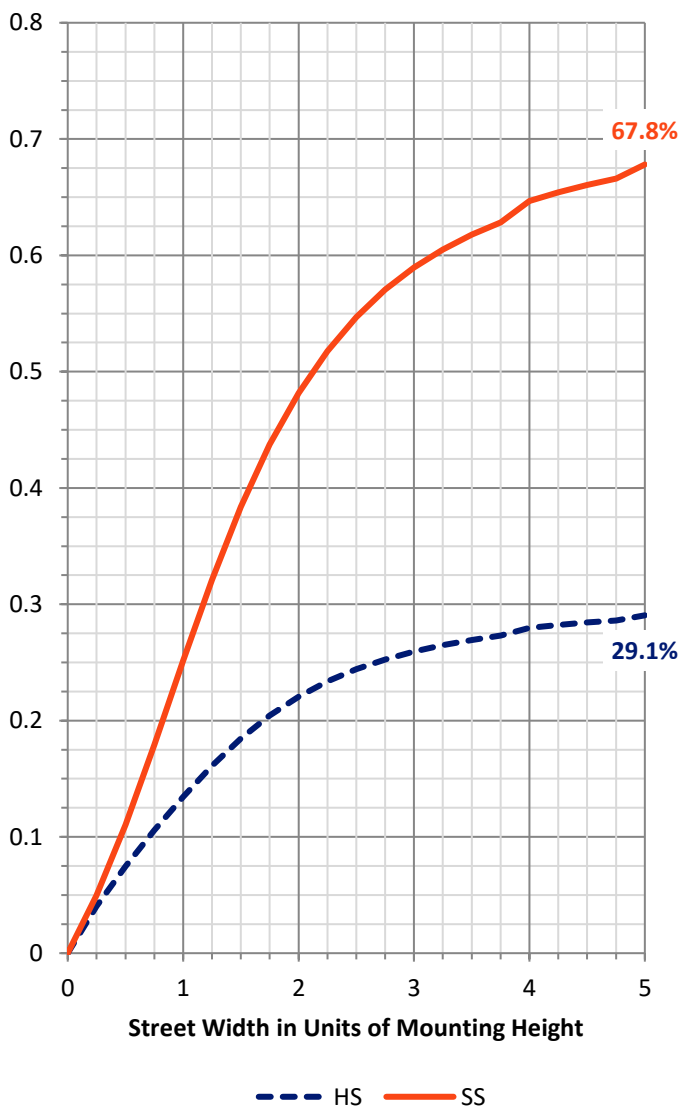
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2162.6	0.0	2162.6
	% Fixture	29.6	0.0	29.6
<b>Street Side</b>	Lumens	5134.6	0.0	5134.6
	% Fixture	70.4	0.0	70.4
<b>Total</b>	Lumens	7297.2	0.0	7297.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	17.3	0.2
10°-20°	64.9	0.9
20°-30°	152.9	2.1
30°-40°	335.4	4.6
40°-50°	730.2	10.0
50°-60°	1500.3	20.6
60°-70°	2113.7	29.0
70°-80°	1794.5	24.6
80°-90°	588.1	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°	7297.2	100.0
0°-180°	7297.2	100.0



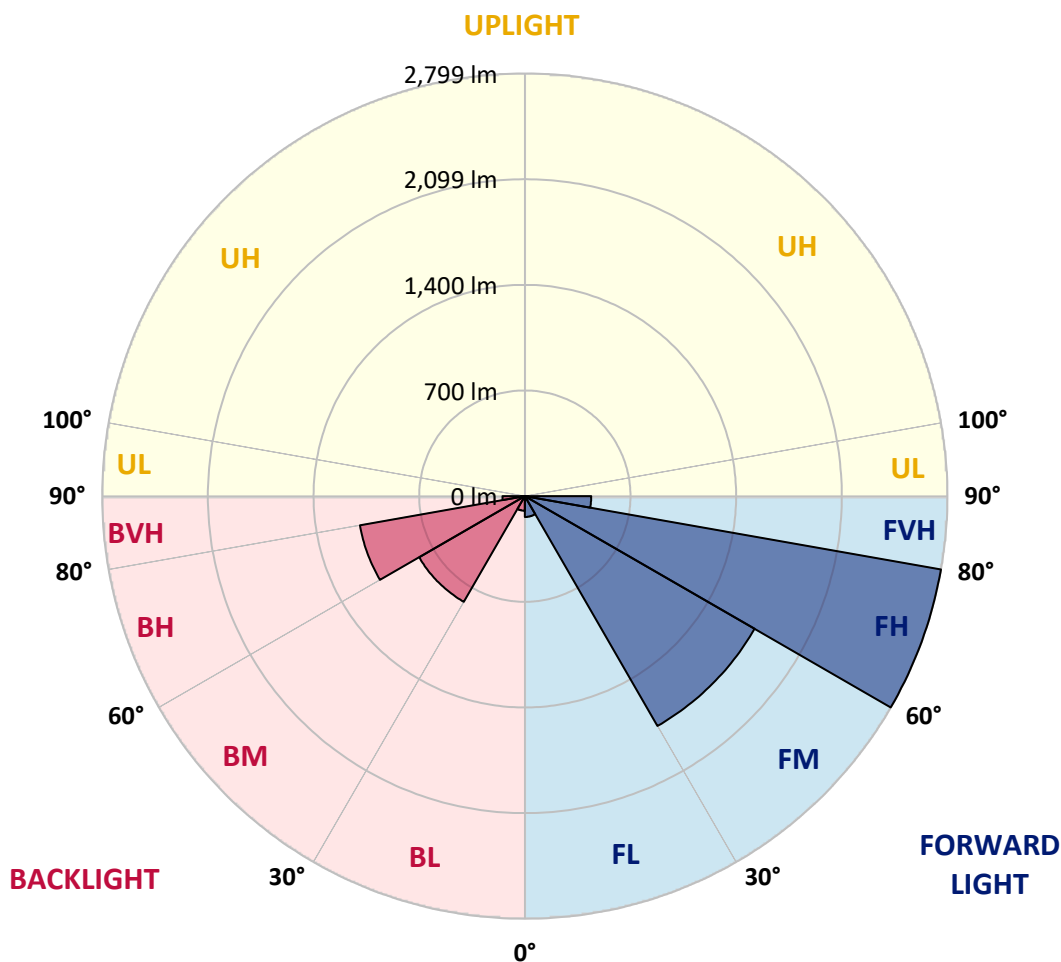
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 CATALOG NUMBER: EMM2-HSN-VA5-730-U-WT4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	138.1	1.9			
FM (30°-60°)	1757.5	24.1			
FH (60°-80°)	2799.2	38.4			G2/5000
FVH (80°-90°)	439.8	6.0			G3/500
BL (0°-30°)	97.1	1.3	B0/110		
BM (30°-60°)	808.3	11.1	B1/1000		
BH (60°-80°)	1108.9	15.2	B3/2500		G3/2500
BVH (80°-90°)	148.3	2.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5
2.5°	173.7	173.0	173.7	173.7	173.7	173.0	173.0	173.0	172.2	171.5	170.7
5°	184.2	184.2	184.2	183.4	183.4	181.9	181.9	181.2	179.7	178.2	176.7
7.5°	198.3	197.6	197.6	196.8	196.1	194.6	193.8	193.1	190.1	187.9	184.9
10°	215.5	215.5	214.7	213.2	213.2	209.5	210.2	208.8	205.0	200.6	195.3
12.5°	236.3	236.3	234.9	234.9	233.4	230.4	229.6	227.4	223.7	216.2	210.2
15°	259.5	259.5	260.9	259.5	258.0	254.2	254.2	251.3	243.1	237.1	228.1
17.5°	288.5	284.8	287.0	286.3	286.3	284.1	281.8	278.1	271.4	260.9	249.8
20°	318.4	319.1	316.9	319.1	319.8	316.9	316.9	312.4	302.7	290.0	272.1
22.5°	355.6	355.6	351.2	357.1	360.9	358.6	357.9	348.9	337.0	319.8	302.0
25°	394.4	392.9	400.4	401.9	410.1	409.3	408.6	400.4	382.5	361.6	334.0
27.5°	438.4	440.6	454.8	458.5	466.7	466.0	465.2	456.3	436.9	408.6	372.8
30°	492.8	495.8	509.2	521.9	536.1	537.6	536.1	528.6	500.3	463.0	422.7
32.5°	556.2	564.4	577.8	599.4	617.3	625.5	627.0	613.6	581.5	532.3	479.4
35°	642.7	636.0	654.6	690.4	720.2	736.6	735.9	718.0	682.9	620.3	545.0
37.5°	727.7	725.4	754.5	801.5	841.7	855.2	858.9	847.0	802.2	719.5	630.7
40°	816.4	835.0	868.6	923.0	982.7	1011.0	1013.2	996.1	934.9	841.7	724.7
42.5°	932.0	950.6	993.1	1060.2	1146.7	1193.6	1196.6	1177.2	1103.4	982.7	838.0
45°	1078.1	1088.5	1133.3	1235.4	1346.5	1421.8	1443.4	1419.6	1328.6	1160.8	978.9
47.5°	1235.4	1235.4	1308.5	1443.4	1611.2	1710.3	1726.7	1705.1	1569.4	1367.4	1136.2
50°	1410.6	1411.4	1527.7	1720.8	1932.5	2056.3	2068.9	2016.7	1852.7	1577.6	1296.5
52.5°	1592.5	1611.9	1781.9	2074.2	2358.2	2547.6	2560.3	2499.9	2281.4	1878.8	1467.3
55°	1843.0	1873.6	2120.4	2479.0	2774.2	2923.4	2924.1	2851.8	2589.3	2171.1	1671.6
57.5°	2190.5	2202.4	2432.8	2798.8	3077.7	3179.8	3172.4	3066.5	2763.8	2334.4	1839.3
60°	2477.5	2505.1	2693.0	3033.0	3305.1	3375.2	3367.0	3226.8	2883.1	2429.8	1919.8
62.5°	2666.1	2679.6	2874.1	3200.7	3445.2	3504.1	3495.2	3364.7	3029.2	2596.1	2054.0
65°	2711.6	2734.0	2980.8	3312.5	3549.6	3682.3	3676.4	3606.3	3261.8	2719.1	2117.4
67.5°	2656.4	2693.7	2996.4	3389.3	3674.9	3785.2	3782.2	3641.3	3211.9	2640.0	2037.6
70°	2543.9	2575.9	2951.7	3381.1	3638.4	3668.2	3645.1	3484.0	3065.0	2508.8	1918.3
72.5°	2366.4	2420.8	2787.7	3194.0	3408.7	3428.1	3419.9	3223.1	2844.3	2282.9	1737.9
75°	2133.8	2200.2	2532.7	2861.5	3065.8	3099.3	3083.7	2911.4	2528.2	2000.3	1514.2
77.5°	1839.3	1876.6	2130.1	2442.5	2677.3	2683.3	2674.3	2482.0	2129.3	1675.3	1274.2
80°	1449.4	1471.7	1691.7	1951.9	2146.5	2170.3	2162.1	2032.4	1690.9	1325.6	993.8
82.5°	1073.6	1058.7	1206.3	1419.6	1612.7	1614.1	1627.6	1483.7	1266.0	961.8	711.3
85°	618.1	624.0	752.3	897.7	1014.7	1082.6	1081.8	1012.5	814.2	612.1	433.9
87.5°	172.2	185.6	266.9	388.4	441.4	480.1	466.0	420.5	340.0	192.4	110.3
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: P880260

CATALOG NUMBER: EMM2-HSN-VA5-730-U-WT4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5
2.5°	170.7	170.0	169.2	168.5	167.0	167.0	166.3	167.0	167.0	167.0	167.0
5°	175.2	174.5	172.2	170.7	168.5	167.0	166.3	166.3	166.3	166.3	166.3
7.5°	182.7	181.9	178.2	175.2	172.2	170.7	169.2	168.5	167.8	167.0	167.8
10°	193.8	190.9	187.1	182.7	178.2	176.0	173.7	173.0	172.2	171.5	171.5
12.5°	206.5	204.3	197.6	191.6	187.1	183.4	180.4	178.9	178.2	177.4	177.4
15°	223.7	219.2	210.2	202.8	196.1	191.6	188.6	187.1	186.4	185.6	185.6
17.5°	243.1	237.1	225.2	215.5	208.0	202.0	198.3	196.1	194.6	195.3	196.1
20°	265.4	255.7	242.3	230.4	220.7	214.0	210.2	207.3	205.8	206.5	207.3
22.5°	291.5	281.1	261.7	247.5	235.6	227.4	223.7	221.4	219.9	219.2	217.7
25°	321.3	307.9	285.6	266.2	252.0	243.8	239.3	237.8	236.3	234.9	234.9
27.5°	357.1	341.5	310.9	290.0	272.9	264.7	259.5	257.2	257.2	255.0	255.0
30°	398.9	378.0	340.7	313.1	296.0	285.6	279.6	278.8	277.3	279.6	279.6
32.5°	448.8	420.5	375.0	343.0	323.6	313.9	307.9	306.4	304.2	305.7	310.2
35°	511.5	474.9	420.5	382.5	358.6	348.9	341.5	340.7	337.0	340.7	334.8
37.5°	581.5	541.3	469.0	424.2	398.1	386.9	381.7	379.5	378.7	378.7	374.3
40°	667.3	618.8	530.8	475.7	445.8	432.4	427.2	426.5	425.0	430.2	425.0
42.5°	773.1	699.3	595.0	532.3	501.8	487.6	481.6	479.4	483.1	485.4	484.6
45°	890.9	811.2	677.0	604.7	569.6	555.4	547.2	545.0	546.5	546.5	554.0
47.5°	1026.6	932.7	770.9	683.7	651.6	634.5	629.3	621.8	618.1	616.6	629.3
50°	1168.3	1051.2	867.1	769.4	740.3	726.9	728.4	713.5	708.3	702.3	700.8
52.5°	1310.7	1178.0	976.7	888.7	855.2	861.9	858.9	843.2	812.7	805.2	787.3
55°	1481.4	1321.1	1081.8	976.7	947.6	952.8	964.8	964.8	958.0	941.6	927.5
57.5°	1626.1	1439.7	1160.8	1029.6	1004.3	1017.7	1041.6	1059.4	1075.1	1087.0	1086.3
60°	1706.6	1512.7	1212.3	1069.9	1040.1	1066.2	1101.9	1132.5	1166.1	1201.1	1199.6
62.5°	1817.7	1614.9	1304.0	1141.5	1090.0	1098.2	1139.2	1192.2	1222.7	1251.8	1260.0
65°	1846.8	1633.5	1338.3	1192.2	1150.4	1151.9	1179.5	1222.7	1248.8	1256.3	1260.7
67.5°	1768.5	1551.5	1281.6	1162.3	1140.0	1160.8	1205.6	1239.9	1243.6	1225.7	1224.2
70°	1650.7	1450.9	1192.2	1092.3	1078.1	1110.1	1169.0	1210.0	1201.1	1164.6	1162.3
72.5°	1484.4	1298.8	1072.1	999.8	985.6	1025.9	1078.1	1121.3	1107.9	1080.3	1078.1
75°	1284.6	1110.9	926.7	873.1	872.3	916.3	961.8	987.9	987.1	967.7	961.8
77.5°	1067.6	926.7	763.5	715.0	732.9	774.6	808.2	827.6	820.9	814.2	811.9
80°	835.8	710.5	589.0	559.9	587.5	601.7	637.5	636.0	639.7	625.5	636.0
82.5°	595.0	512.2	422.0	409.3	413.0	441.4	460.8	458.5	448.8	438.4	433.9
85°	360.9	315.4	270.6	252.7	265.4	263.2	275.1	265.4	259.5	254.2	258.7
87.5°	99.9	86.5	82.8	59.6	73.8	58.2	61.1	42.5	37.3	44.7	38.8
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

Streetworks

Report Number: SP1-2407-176-3

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-730-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-730-U-WQ

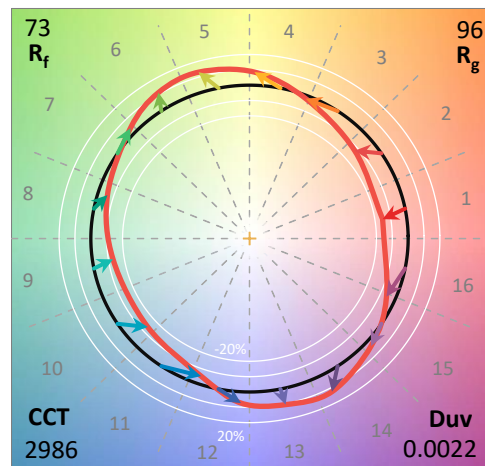
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-176-3  
 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-30-730-U-WQ**  
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

**Spectral Parameters**

CCT (K): 2986  
 CIE u': 0.2503  
 CIE v': 0.5248  
 Duv: 0.0022  
 CIE x: 0.4413  
 CIE y: 0.4112  
 CIE z: 0.1476  
 Peak Wavelength (nm): 596  
 Dominant Wavelength (nm): 582  
 Purity: 55.87534  
 Rf: 73.2  
 Rg: 95.9

CRI (Ra):	71.3		
R1:	68.5	R9:	-25.2
R2:	79.2	R10:	51.0
R3:	88.4	R11:	63.6
R4:	69.4	R12:	39.8
R5:	66.3	R13:	69.9
R6:	70.0	R14:	92.9
R7:	80.1	R15:	61.4
R8:	48.3		



**Test Conditions**

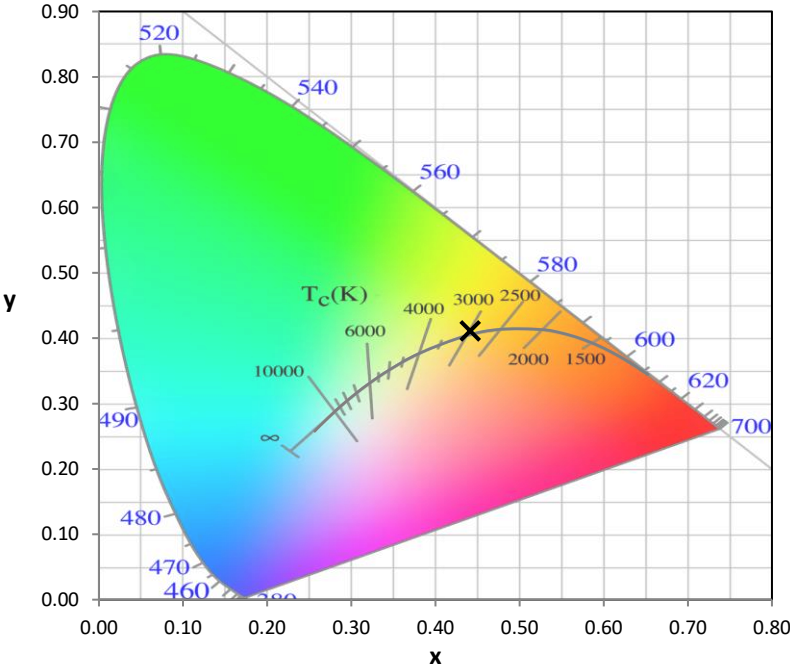
Stabilization Time: 27M  
 Operation Time: 1H 27M  
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-3

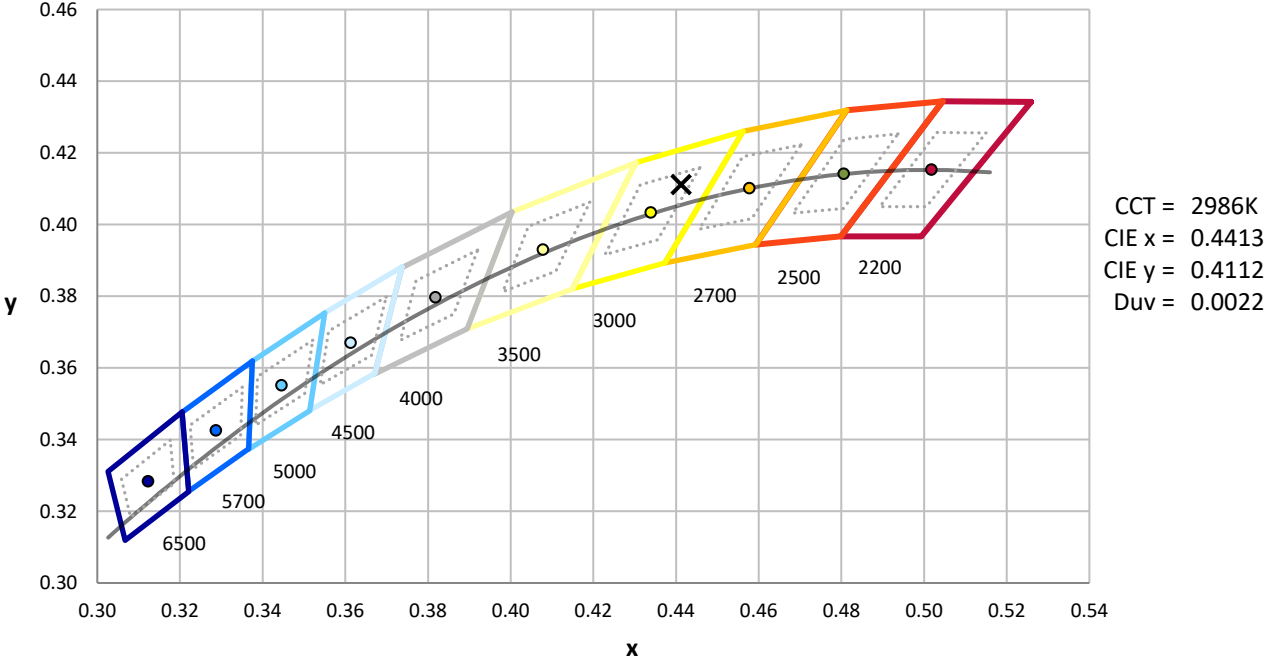
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-3

CIE 1931 Chromaticity Diagram



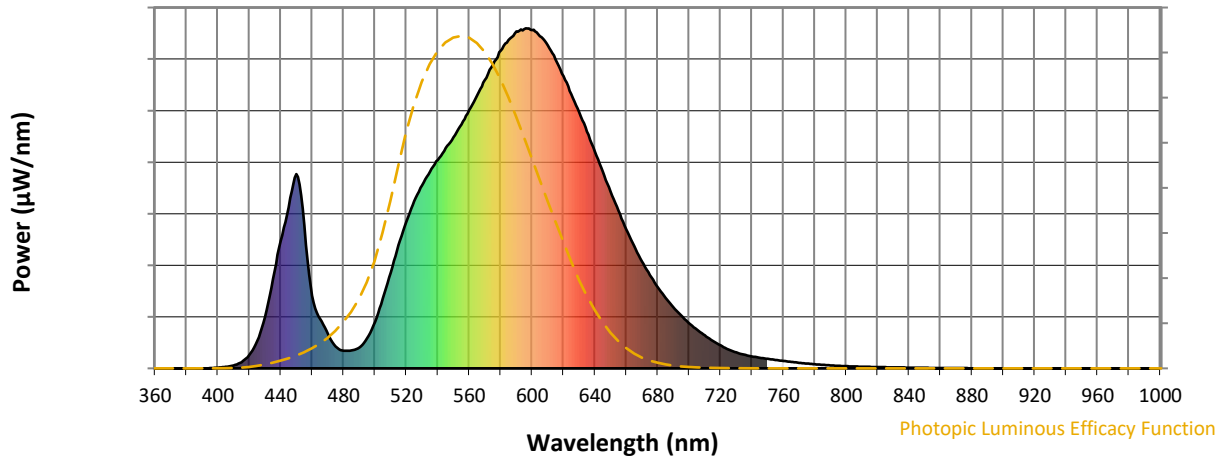
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-3

**Photopic Flux vs. Wavelength**

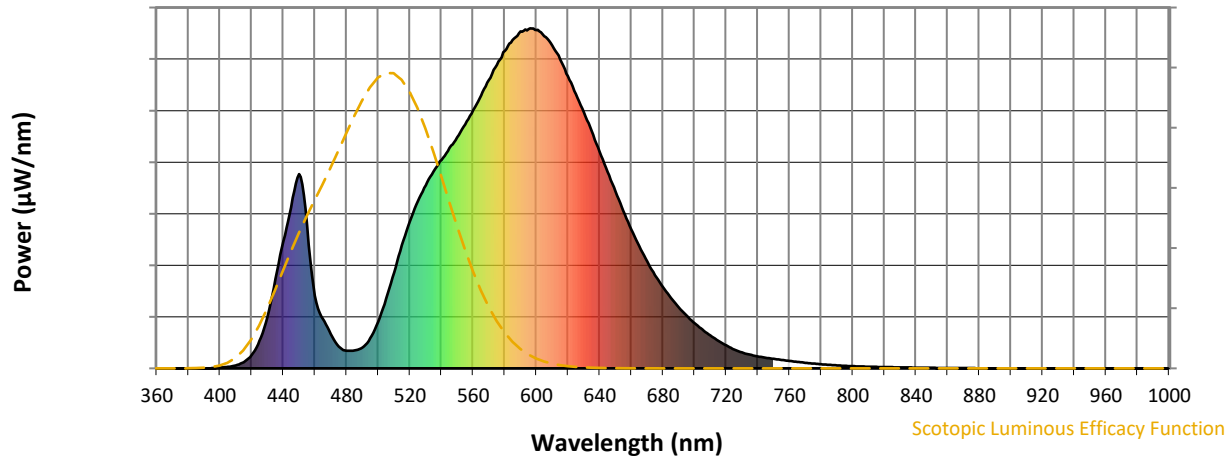


**Photopic Lumens: NR**

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

**Scotopic Flux vs. Wavelength**



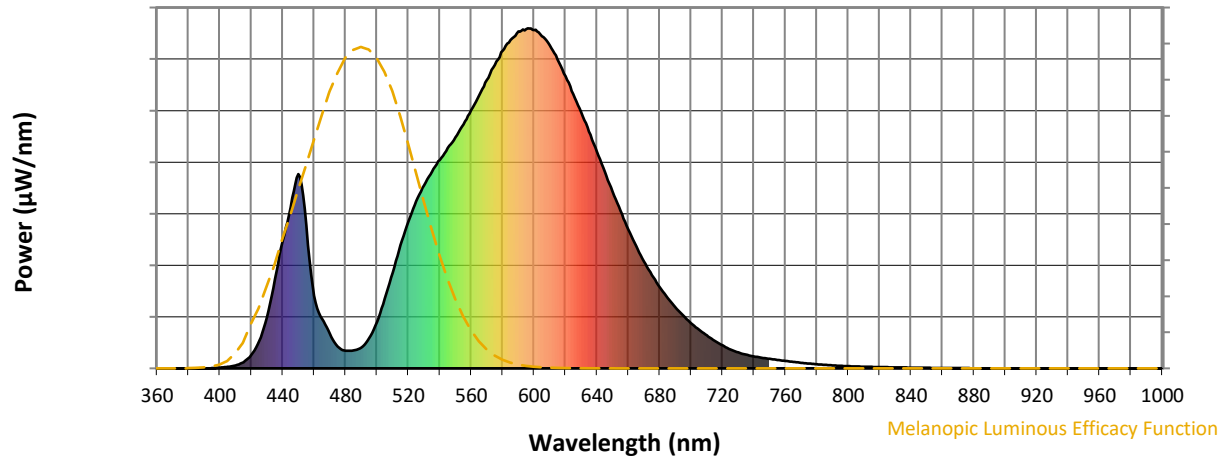
**Scotopic Lumens: NR**

**S/P: 1.15**

$\lambda$ (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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

Melanopic Flux vs. Wavelength



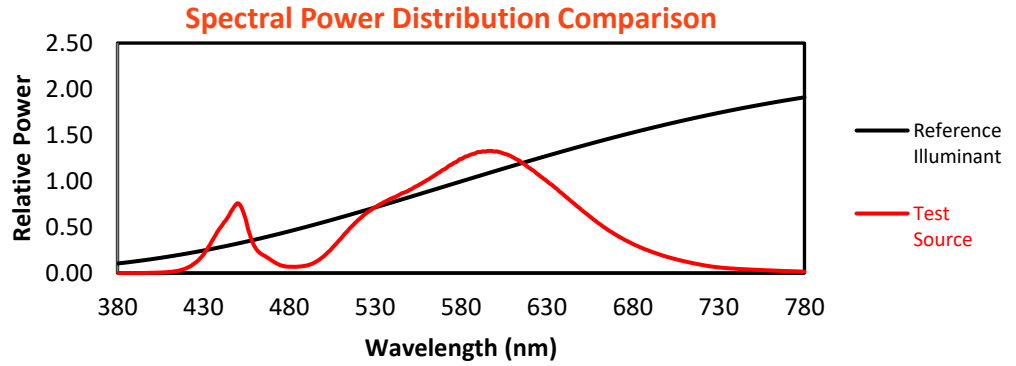
Melanopic Lumens: NR

M/P: 2.01

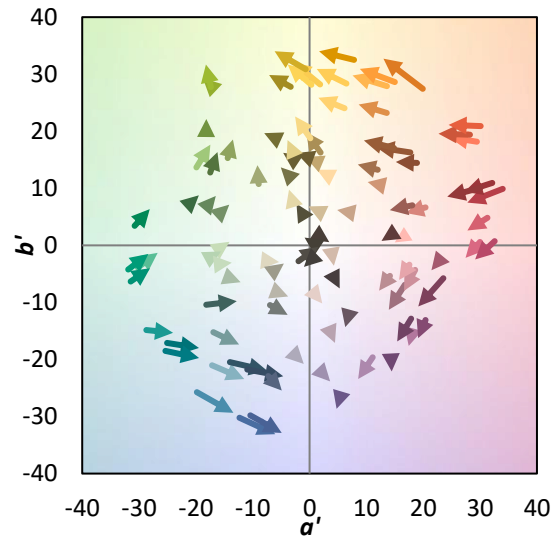
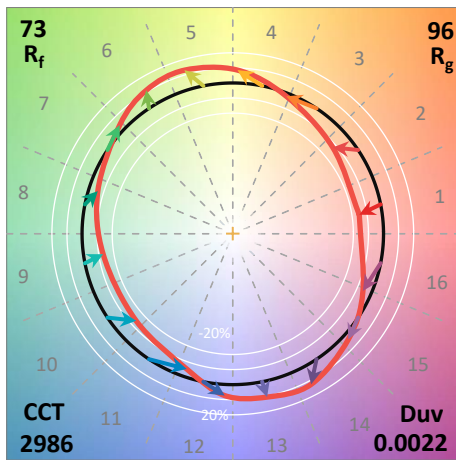
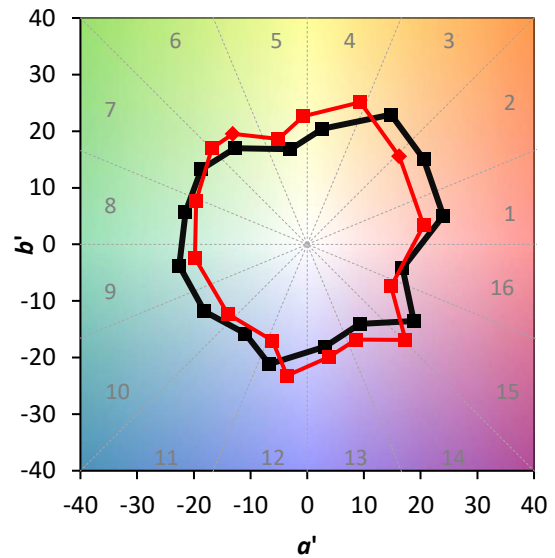
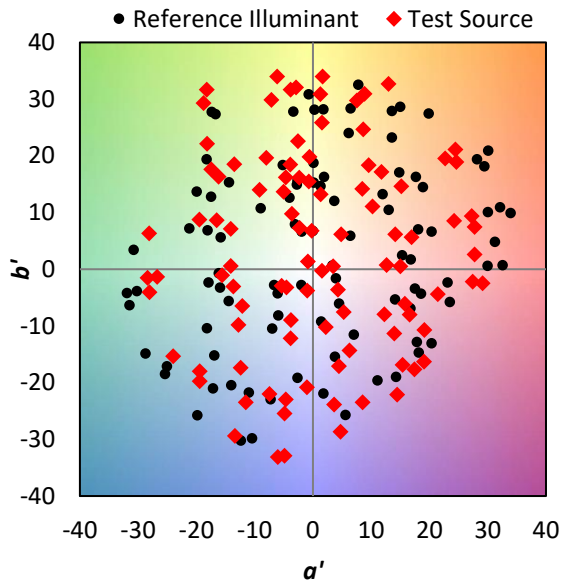
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

**Summary**

$R_f = 73.2$   
 $R_g = 95.9$   
 $CIE R_a = 71.3$   
 $R_9 = -25.2$



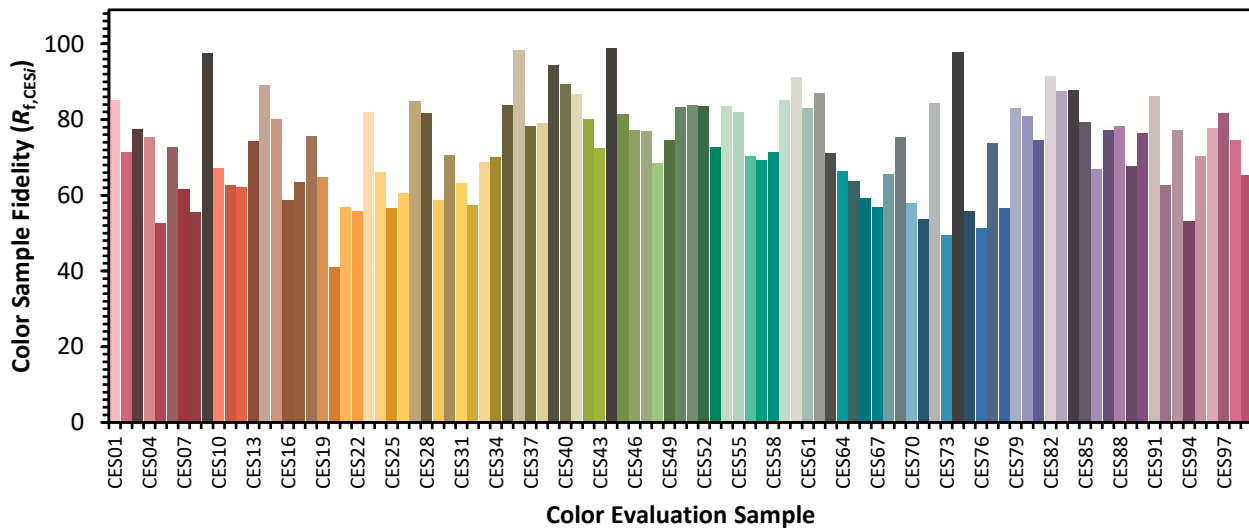
**Color Vector Graphics**



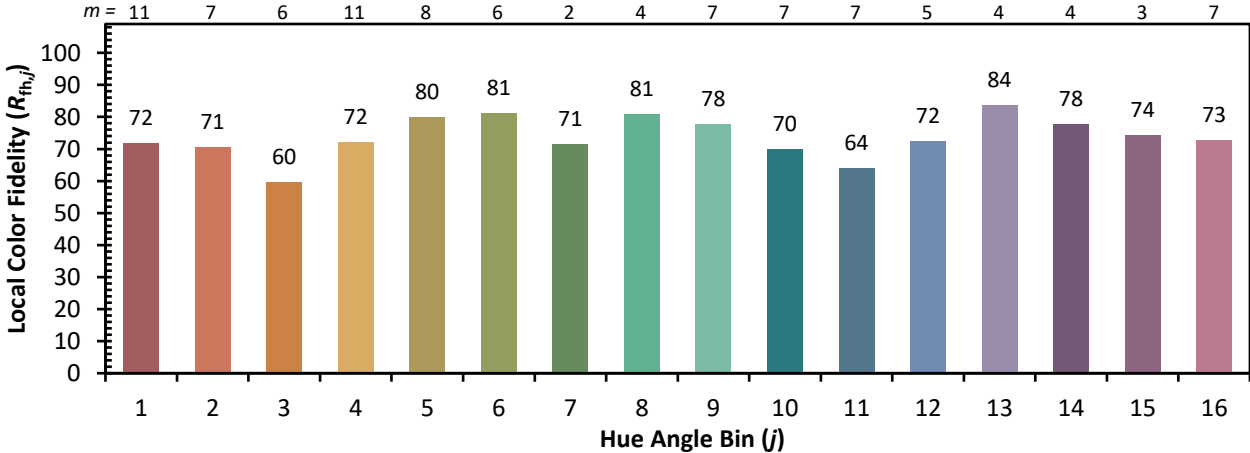
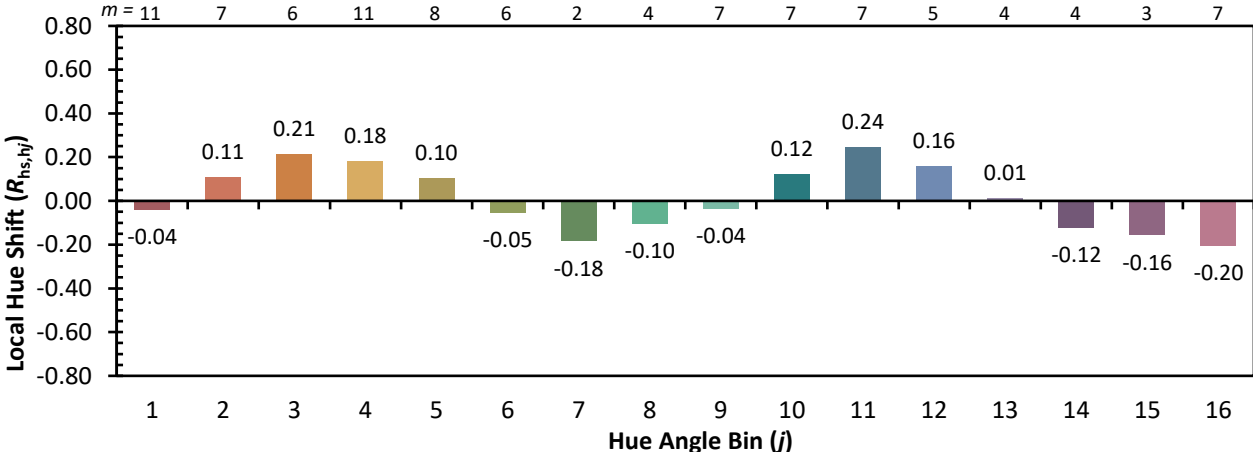
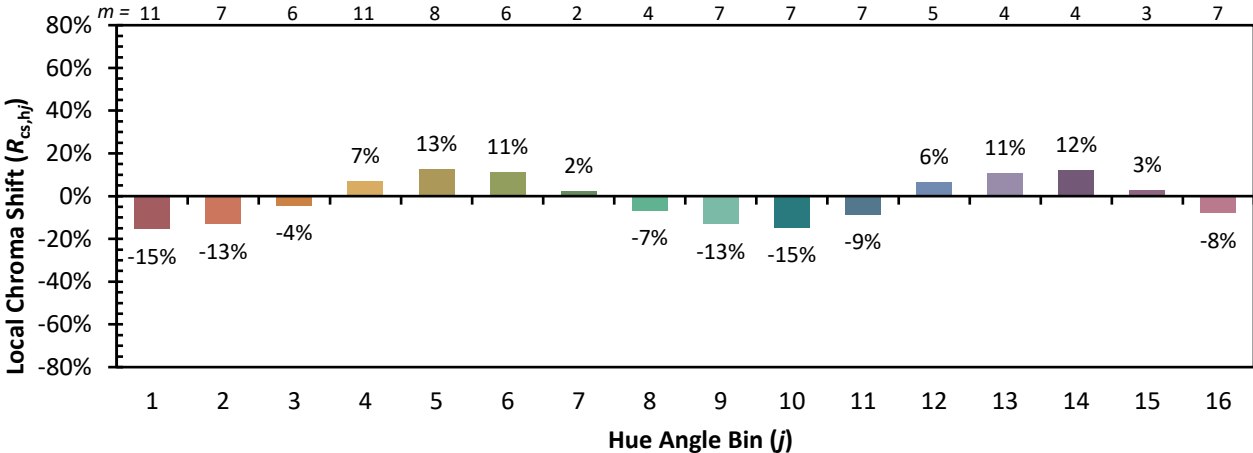


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

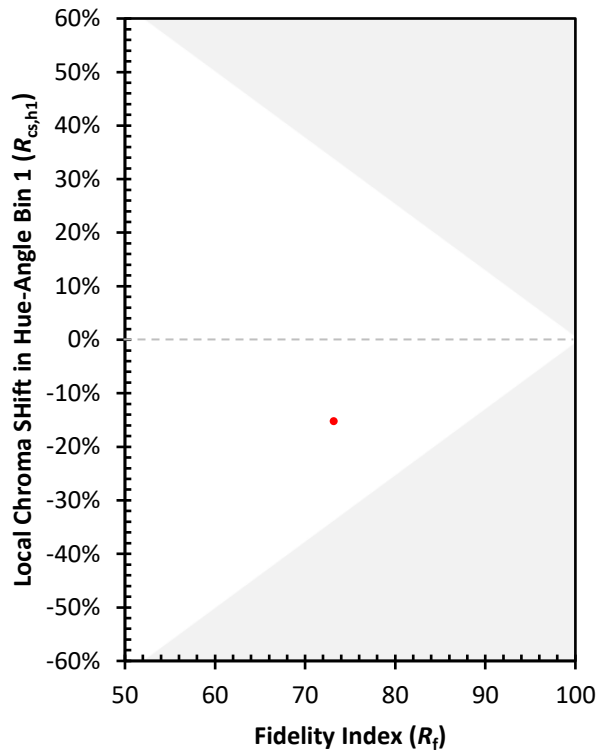
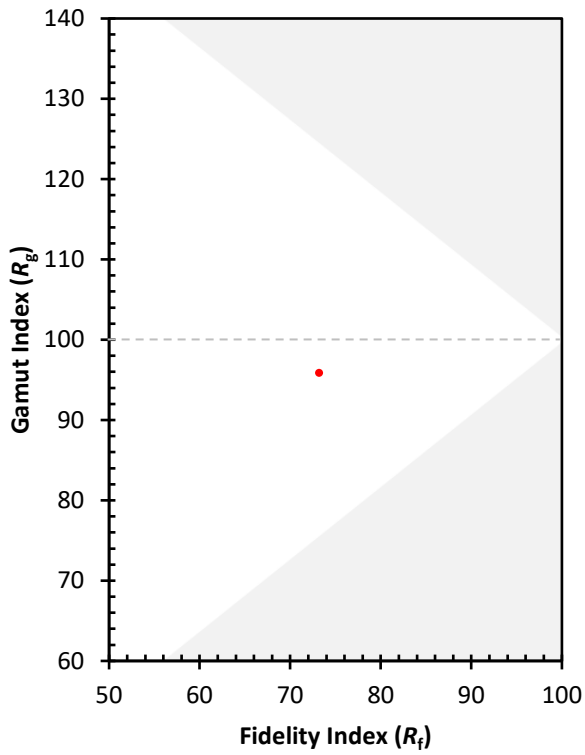
CES01 = 86	CES26 = 61	CES51 = 84	CES76 = 51
CES02 = 62	CES27 = 85	CES52 = 84	CES77 = 74
CES03 = 31	CES28 = 82	CES53 = 73	CES78 = 56
CES04 = 71	CES29 = 59	CES54 = 84	CES79 = 83
CES05 = 49	CES30 = 71	CES55 = 82	CES80 = 81
CES06 = 51	CES31 = 63	CES56 = 70	CES81 = 75
CES07 = 41	CES32 = 57	CES57 = 69	CES82 = 92
CES08 = 40	CES33 = 69	CES58 = 71	CES83 = 88
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 84	CES60 = 91	CES85 = 79
CES11 = 59	CES36 = 98	CES61 = 83	CES86 = 67
CES12 = 65	CES37 = 78	CES62 = 87	CES87 = 77
CES13 = 43	CES38 = 79	CES63 = 71	CES88 = 78
CES14 = 74	CES39 = 94	CES64 = 66	CES89 = 68
CES15 = 71	CES40 = 89	CES65 = 64	CES90 = 76
CES16 = 47	CES41 = 87	CES66 = 59	CES91 = 86
CES17 = 50	CES42 = 80	CES67 = 57	CES92 = 63
CES18 = 56	CES43 = 73	CES68 = 66	CES93 = 77
CES19 = 73	CES44 = 99	CES69 = 75	CES94 = 53
CES20 = 66	CES45 = 81	CES70 = 58	CES95 = 70
CES21 = 87	CES46 = 77	CES71 = 54	CES96 = 78
CES22 = 79	CES47 = 77	CES72 = 84	CES97 = 82
CES23 = 92	CES48 = 68	CES73 = 49	CES98 = 75
CES24 = 91	CES49 = 74	CES74 = 98	CES99 = 65
CES25 = 73	CES50 = 83	CES75 = 56	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)