

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: STREETWORKS

Report Number: P879833

Luminaire Tested: **MEM2-HSN-VA-60-735-U-RW**

Issue Date: 10/01/2024



Test Information

Test Method: LM-79-08
Report Number: P879833
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/01/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-VA-60-735-U-RW
Description: EPIC MODERN SHORT HOUSING 60W 70CRI 3500K VISUAL COMFORT FIXTURE w/
RECTANGULAR WIDE DISTRIBUTION OPTIC
Light Source: (1) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

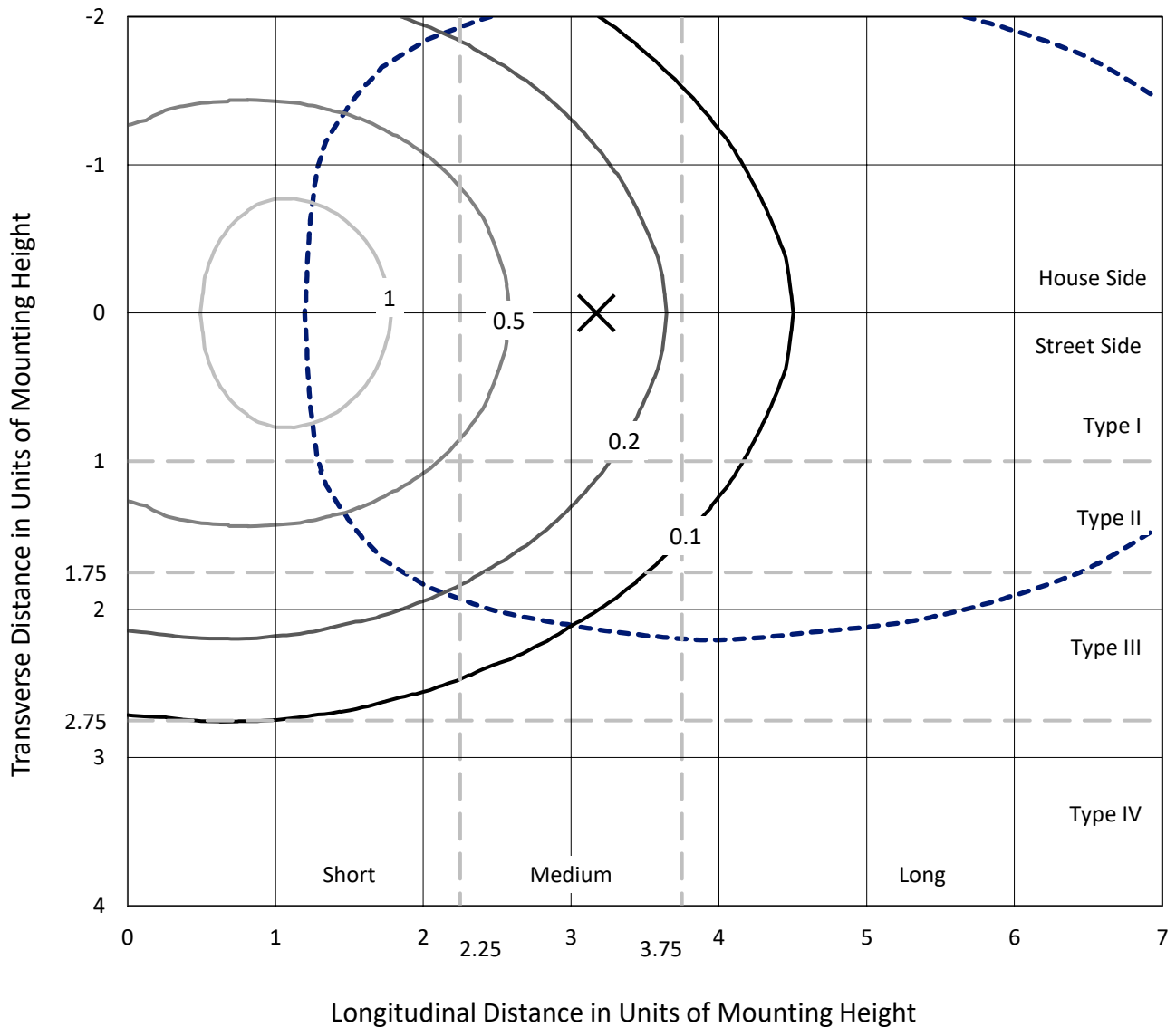
Lumens per Lamp: N/A
Luminaire Lumens: 4668.2 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 59
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 8%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

REPORT NUMBER: P879833
 CATALOG NUMBER: MEM2-HSN-VA-60-735-U-RW

Iso-Footcandle Lines of Horizontal Illumination

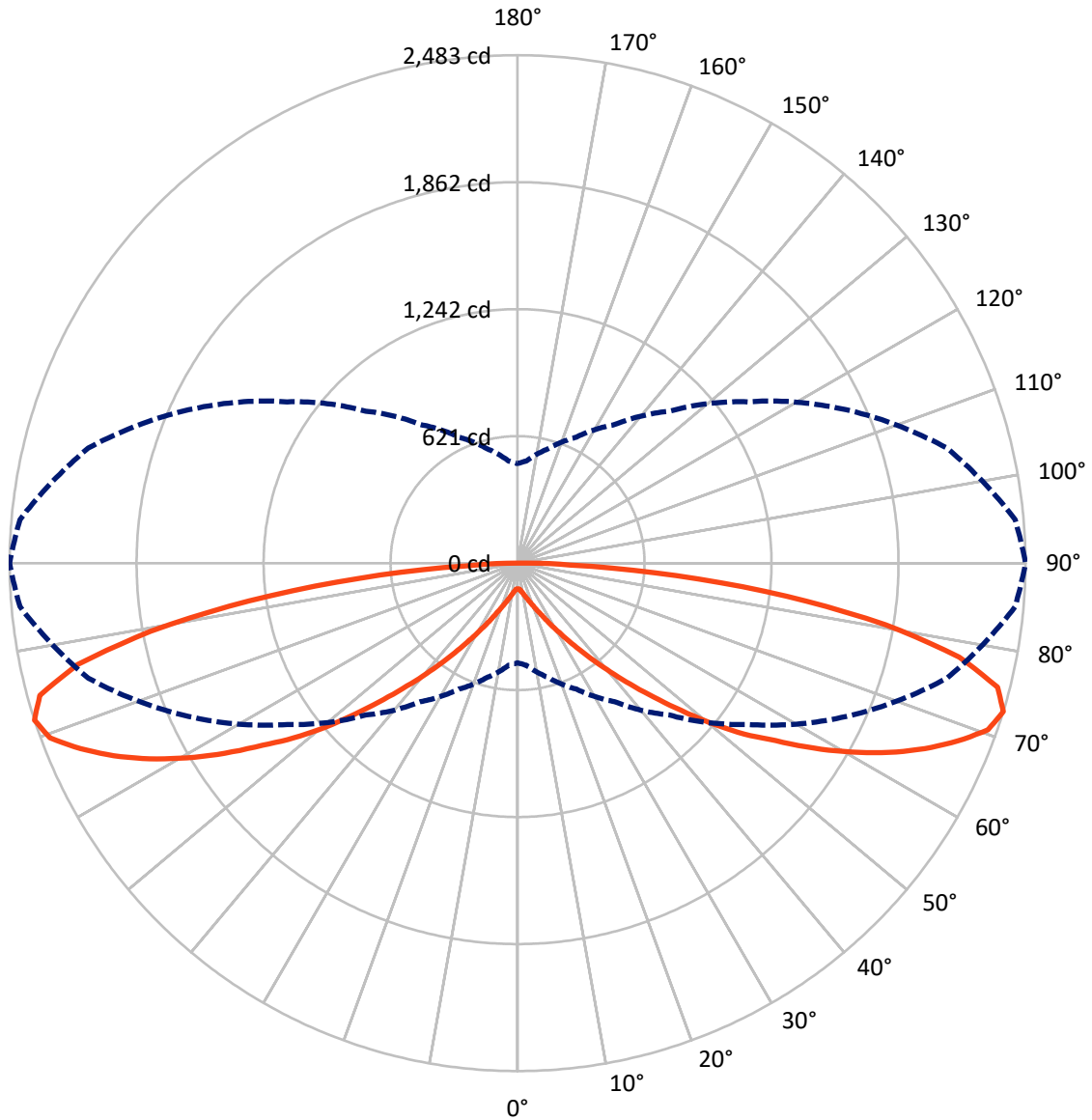
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Short - N/A

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CATALOG NUMBER: MEM2-HSN-VA-60-735-U-RW

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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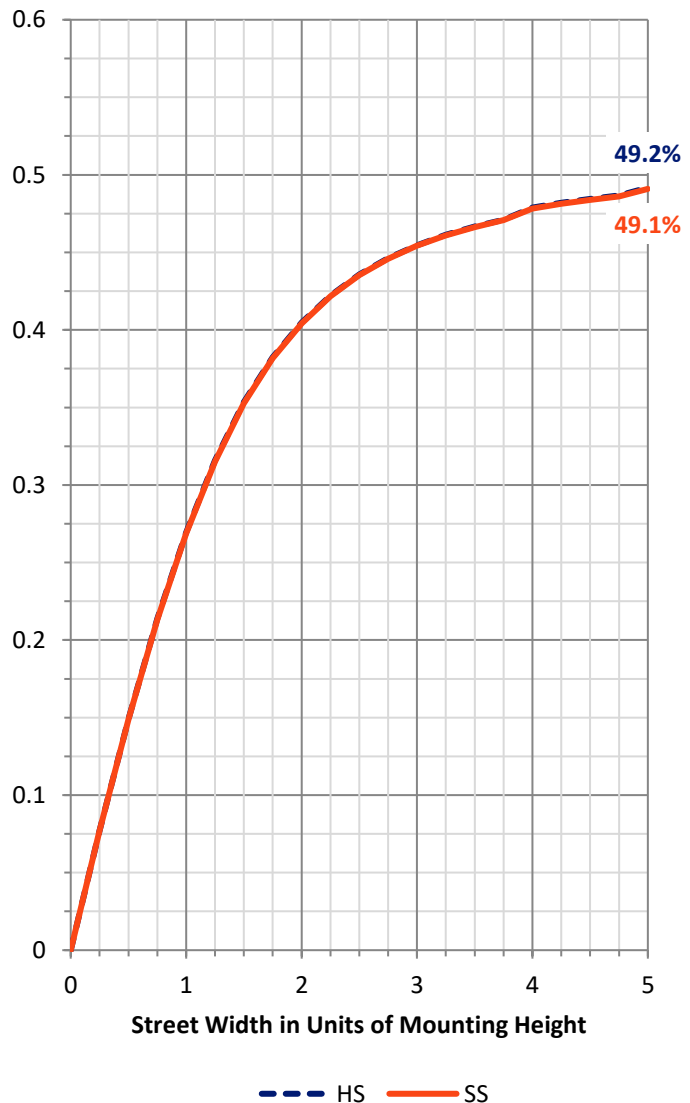
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2334.1	0.0	2334.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2334.1	0.0	2334.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	4668.2	0.0	4668.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.9	0.3
10°-20°	47.8	1.0
20°-30°	110.4	2.4
30°-40°	236.6	5.1
40°-50°	488.5	10.5
50°-60°	897.2	19.2
60°-70°	1279.2	27.4
70°-80°	1189.9	25.5
80°-90°	405.7	8.7
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°	4668.2	100.0
0°-180°	4668.2	100.0



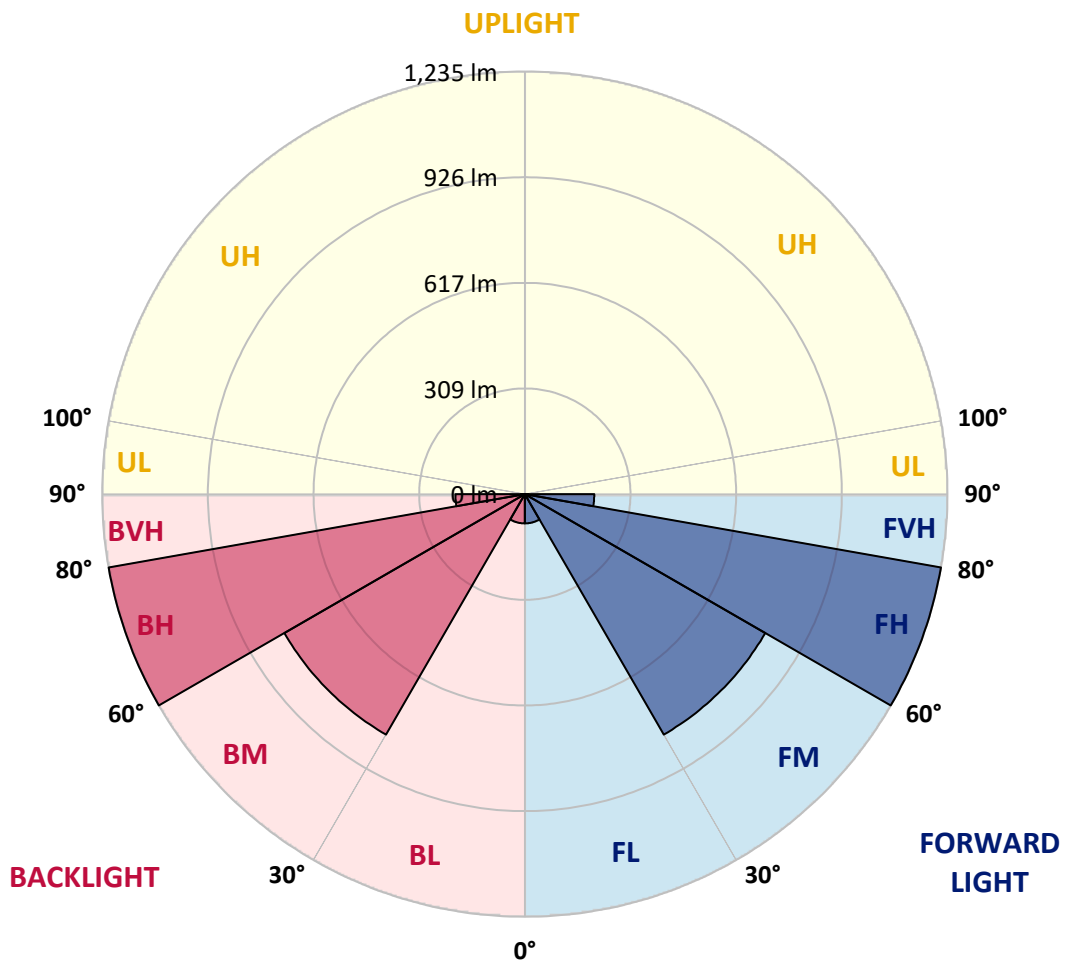
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	85.5	1.8			
FM (30°-60°)	811.1	17.4			
FH (60°-80°)	1234.6	26.4			G1/1800
FVH (80°-90°)	202.9	4.3			G2/225
BL (0°-30°)	85.5	1.8	B0/110		
BM (30°-60°)	811.1	17.4	B1/1000		
BH (60°-80°)	1234.6	26.4	B3/2500		G3/2500
BVH (80°-90°)	202.9	4.3			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	125.6	125.6	125.6	125.6	125.6	125.6	125.6	125.6	125.6	125.6	125.6
2.5°	126.2	126.2	126.2	126.2	126.8	126.8	126.8	126.8	126.8	126.8	126.8
5°	128.0	128.0	128.0	128.6	129.8	130.4	131.0	131.0	131.6	131.6	131.6
7.5°	131.0	131.0	131.6	133.3	134.5	136.3	138.1	138.7	140.5	140.5	140.5
10°	135.1	135.1	136.3	138.1	141.1	144.6	147.6	149.9	151.1	151.7	152.3
12.5°	140.5	140.5	142.2	145.2	149.9	154.1	158.8	161.8	164.8	165.9	165.9
15°	147.0	147.0	149.3	153.5	158.8	164.8	171.3	176.6	180.8	182.5	183.1
17.5°	153.5	154.1	157.1	162.4	169.5	177.2	185.5	192.6	199.1	201.5	202.7
20°	161.8	161.8	165.3	172.5	181.4	192.0	203.3	212.8	221.1	225.8	226.4
22.5°	171.3	171.9	175.4	184.3	195.6	209.2	224.0	237.1	248.9	254.8	254.2
25°	180.8	181.4	186.7	197.4	211.6	230.5	249.5	266.7	282.7	289.8	289.8
27.5°	192.0	192.6	199.1	211.6	230.5	254.2	279.1	304.0	320.0	330.7	334.3
30°	205.6	206.2	213.9	229.9	251.9	281.5	314.7	346.7	368.0	383.4	384.0
32.5°	220.5	221.7	231.1	249.5	278.0	315.3	356.8	396.5	426.1	445.7	445.1
35°	240.6	241.8	254.8	275.6	310.0	354.4	404.8	458.7	493.1	515.6	518.0
37.5°	261.4	263.7	278.5	305.8	347.3	400.6	464.0	524.5	575.5	596.2	602.1
40°	285.7	288.0	306.4	339.6	387.6	455.7	534.0	608.1	666.7	695.2	699.3
42.5°	313.5	317.7	339.0	377.5	438.0	516.8	608.1	699.3	773.4	810.7	808.4
45°	353.2	356.8	384.0	427.3	495.5	586.1	697.0	811.3	891.3	934.6	934.0
47.5°	391.1	395.9	428.5	483.0	561.8	667.3	797.7	928.1	1019.9	1068.0	1076.3
50°	430.3	436.8	478.3	539.3	632.9	762.1	908.5	1048.4	1159.8	1219.1	1233.3
52.5°	496.6	502.6	546.4	610.4	710.6	853.4	1021.7	1178.8	1302.1	1364.9	1388.0
55°	541.7	551.2	606.9	686.9	800.7	951.8	1136.7	1318.1	1457.3	1519.0	1532.0
57.5°	556.5	566.6	633.5	732.5	873.6	1055.5	1257.0	1451.4	1602.5	1686.1	1706.8
60°	557.1	569.5	641.8	749.1	909.1	1128.4	1364.3	1594.8	1766.1	1858.0	1875.7
62.5°	576.1	590.3	667.3	767.5	926.9	1162.2	1437.2	1716.3	1926.1	2019.2	2038.7
65°	597.4	614.0	695.8	807.2	967.2	1198.3	1483.4	1804.0	2070.1	2178.6	2188.1
67.5°	575.5	589.7	675.6	791.2	957.7	1205.4	1516.0	1858.5	2156.7	2313.7	2321.4
70°	539.3	554.1	635.9	741.4	905.0	1151.5	1478.7	1858.5	2207.6	2405.0	2440.5
72.5°	486.6	501.4	579.0	679.8	826.7	1050.2	1374.9	1773.2	2172.7	2441.7	2483.2
75°	422.0	435.6	507.3	599.2	727.8	929.9	1224.4	1610.8	2036.3	2373.6	2423.3
77.5°	352.0	364.5	425.5	499.6	608.7	788.2	1040.7	1390.4	1798.1	2143.6	2208.2
80°	276.8	289.2	336.0	394.1	481.8	619.3	828.5	1118.3	1471.0	1760.2	1823.6
82.5°	207.4	213.4	246.5	288.6	344.9	446.9	600.9	826.7	1090.5	1297.9	1326.3
85°	130.4	135.7	158.2	187.3	221.1	274.4	370.4	506.1	659.0	775.8	777.6
87.5°	40.3	46.8	53.9	71.1	81.2	97.8	117.3	165.3	217.5	274.4	257.8
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: SP1-2407-176-4

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-735-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-735-U-WQ

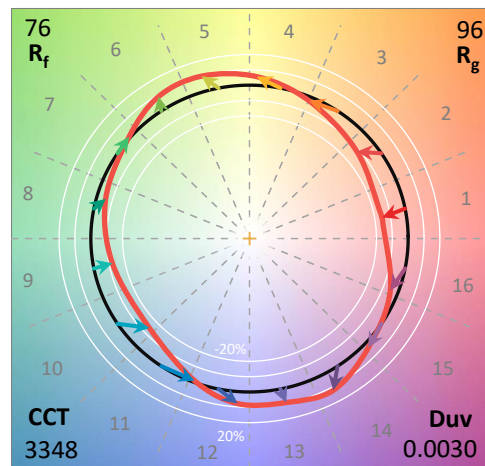
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-176-4
 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-30-735-U-WQ**
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K): 3348
 CIE u': 0.2384
 CIE v': 0.5184
 Duv: 0.0030
 CIE x: 0.4177
 CIE y: 0.4036
 CIE z: 0.1787
 Peak Wavelength (nm): 593
 Dominant Wavelength (nm): 580
 Purity: 46.5223
 Rf: 75.8
 Rg: 95.8

CRI (Ra):	73.4		
R1:	70.8	R9:	-19.2
R2:	79.9	R10:	52.5
R3:	87.6	R11:	68.0
R4:	72.6	R12:	42.6
R5:	69.3	R13:	72.0
R6:	71.3	R14:	92.6
R7:	82.1	R15:	63.8
R8:	53.3		



Test Conditions

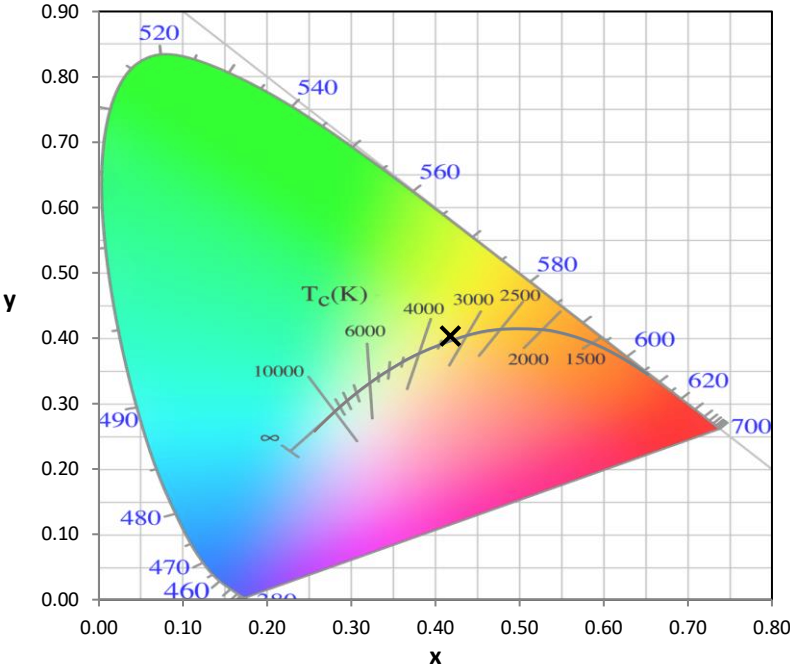
Stabilization Time: 30M
 Operation Time: 1H 30M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-4

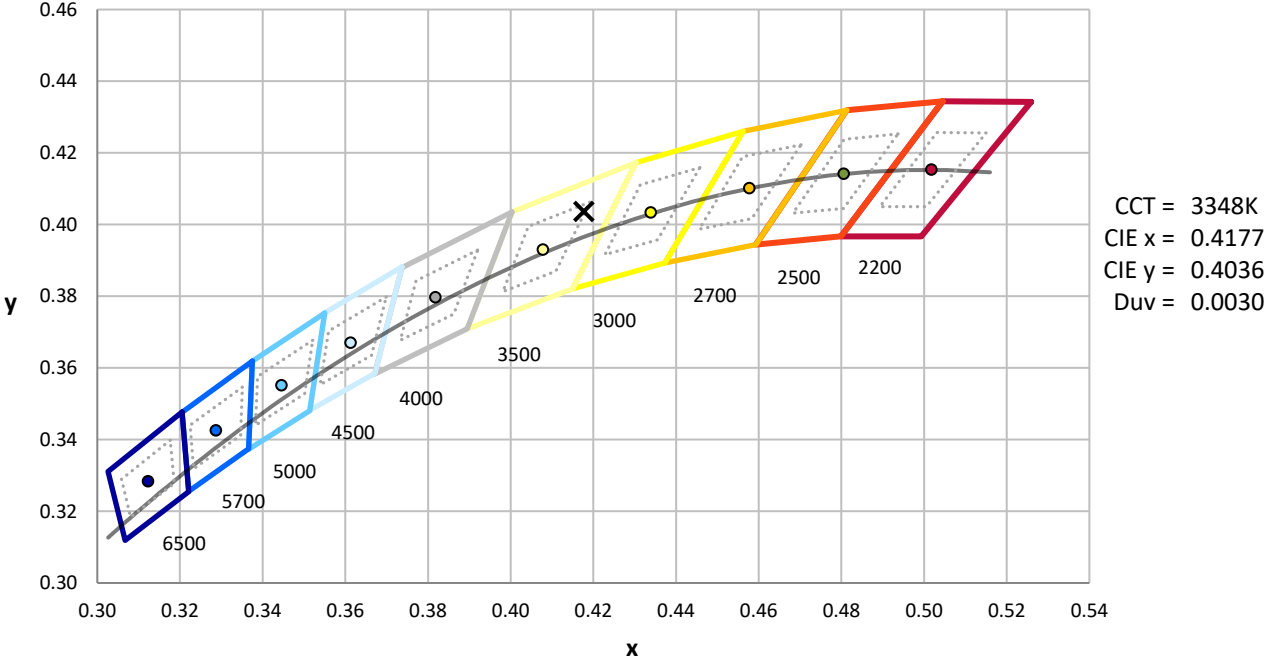
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



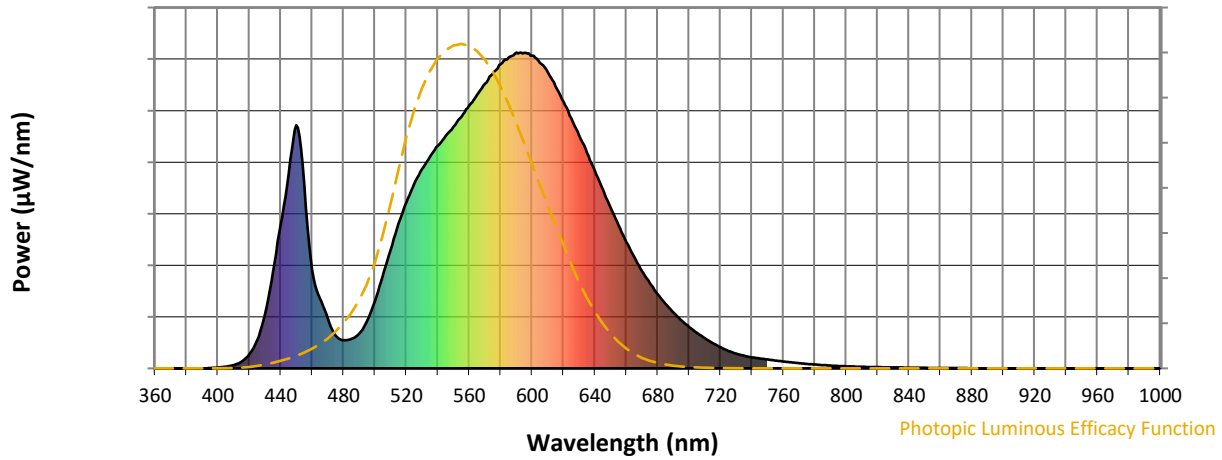
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

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Photopic Flux vs. Wavelength

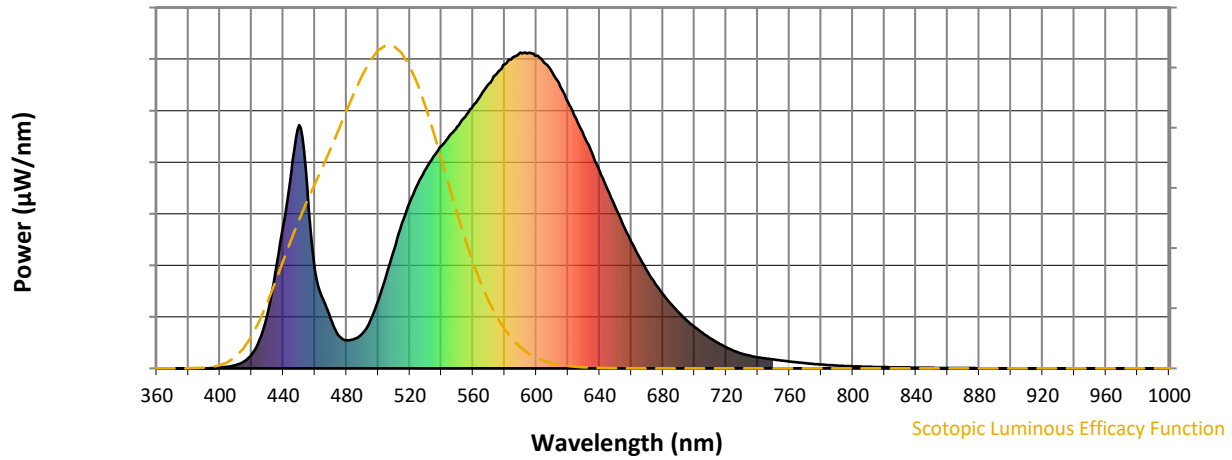


Photopic Lumens: NR

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



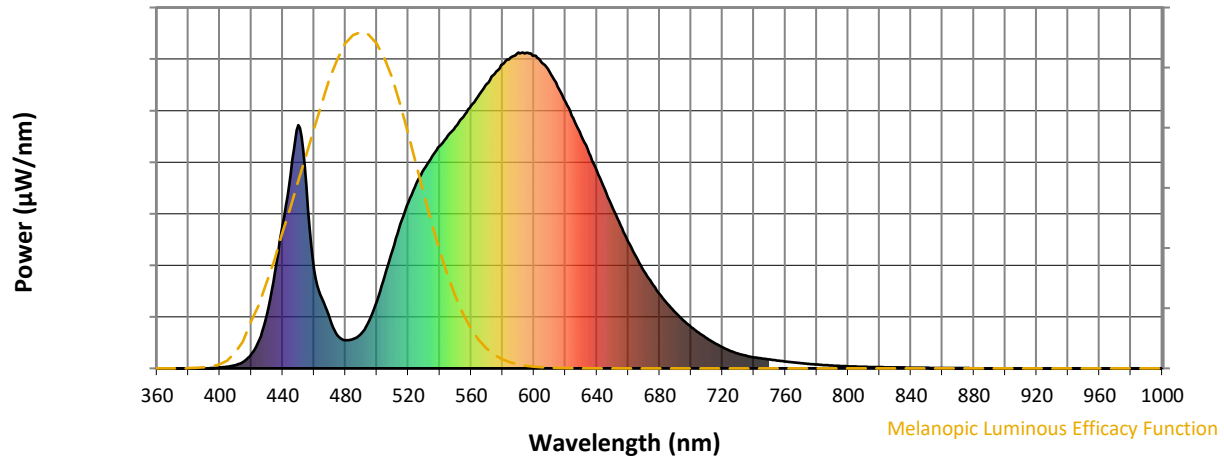
Scotopic Lumens: NR

S/P: 1.31

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



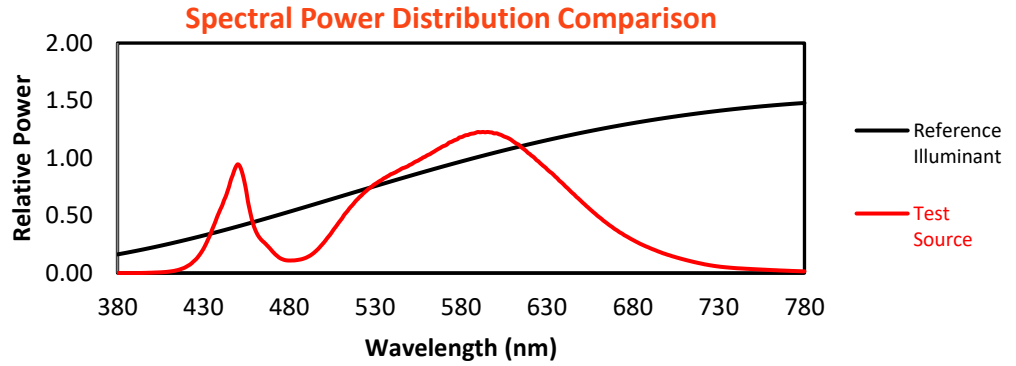
Melanopic Lumens: NR

M/P: 2.4

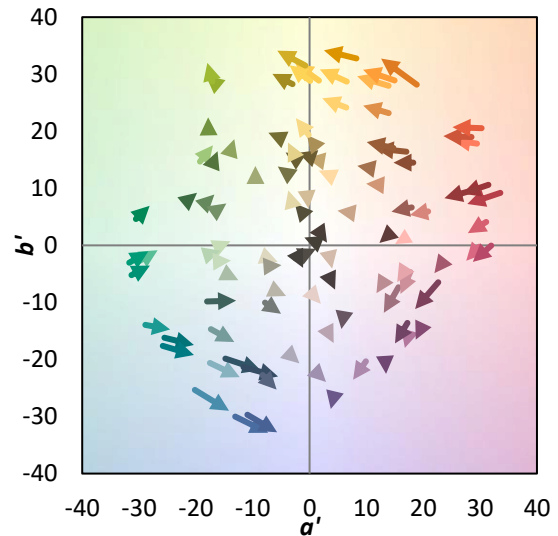
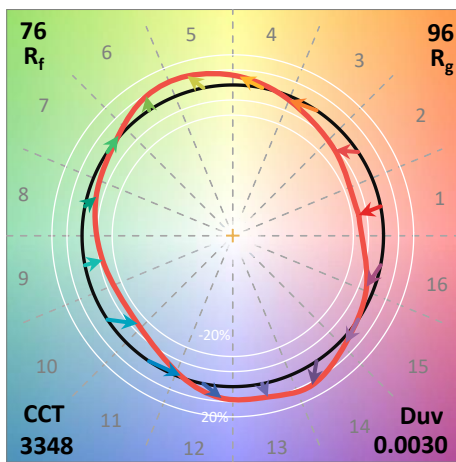
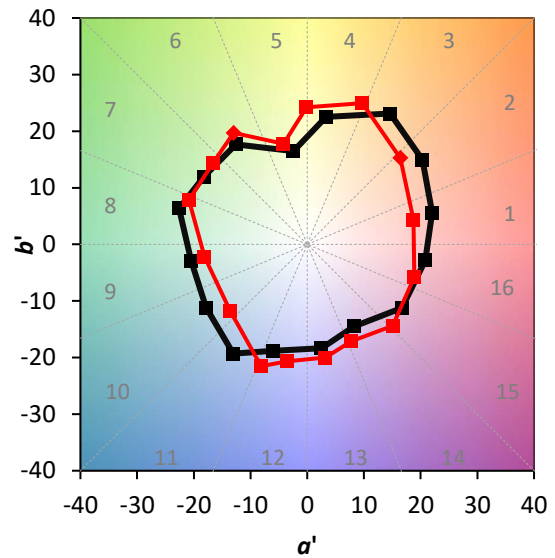
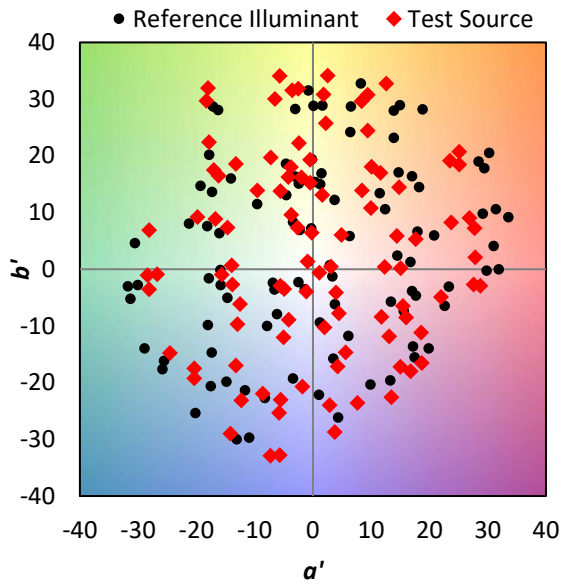
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

Summary

$R_f = 75.8$
 $R_g = 95.8$
 $CIE R_a = 73.4$
 $R_9 = -19.2$

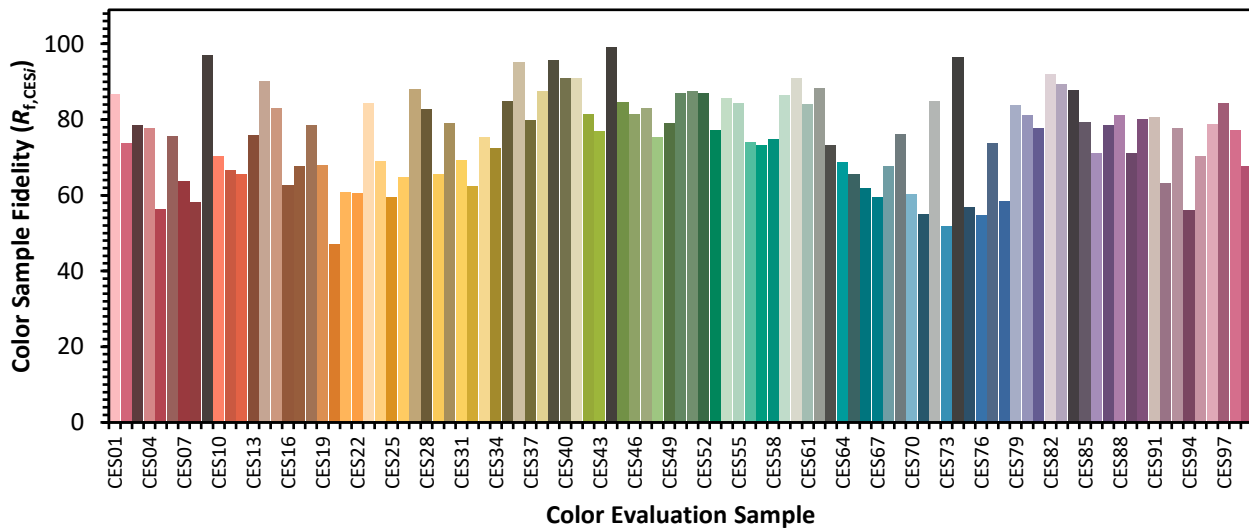


Color Vector Graphics

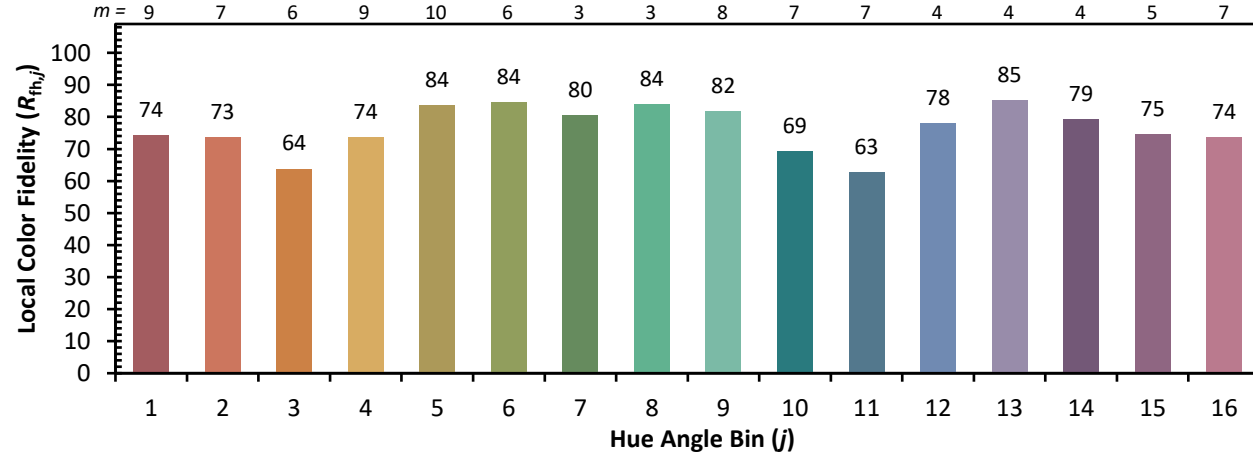
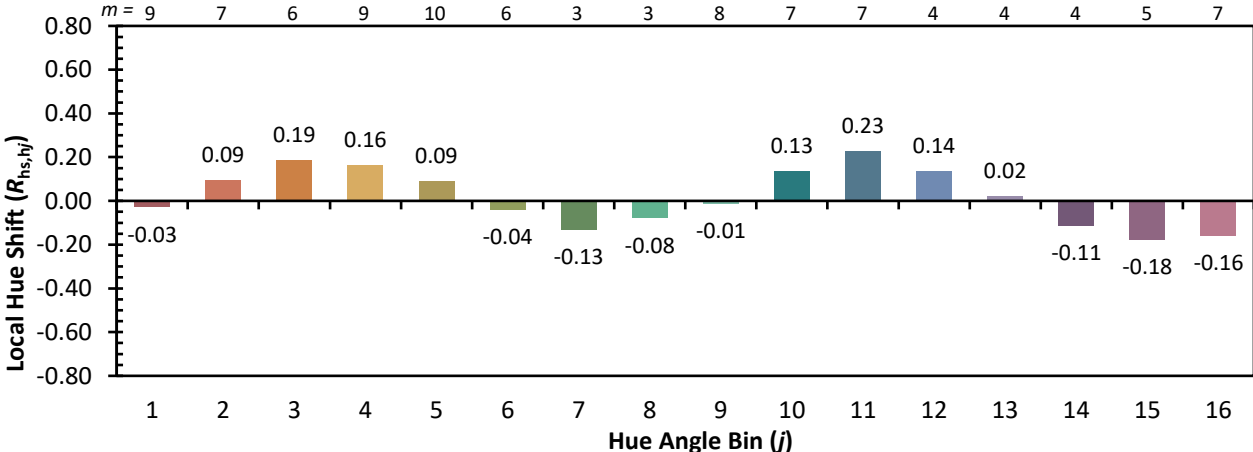
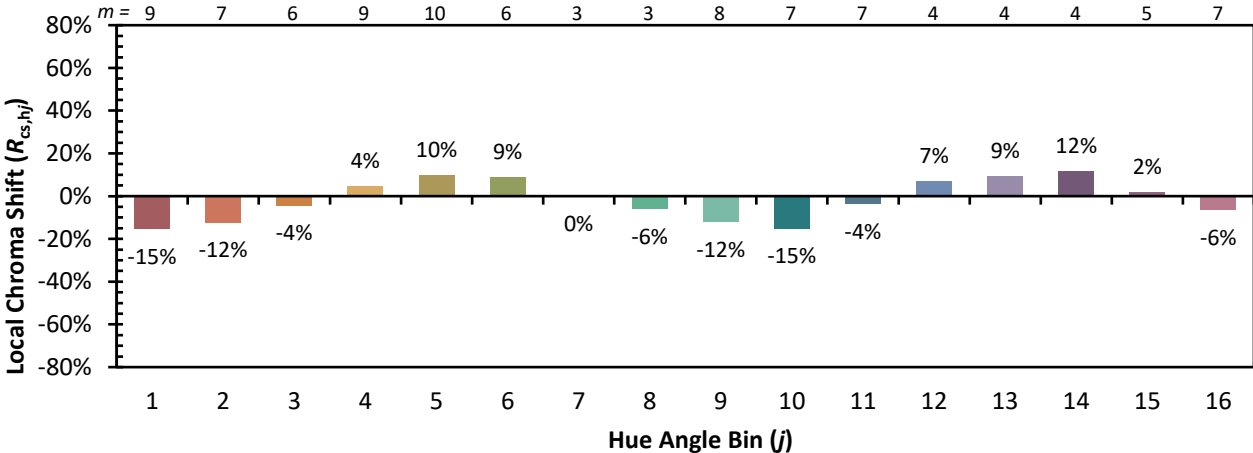


Individual Sample Fidelity Index ($R_{f,i}$)

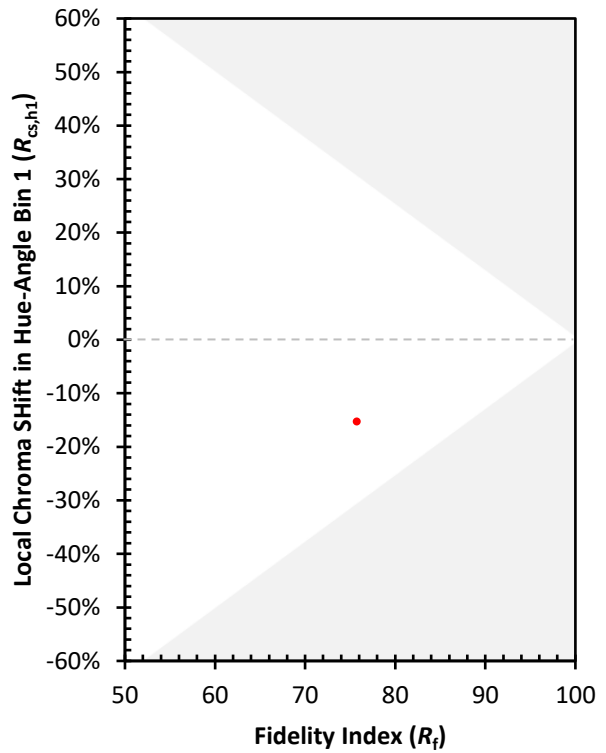
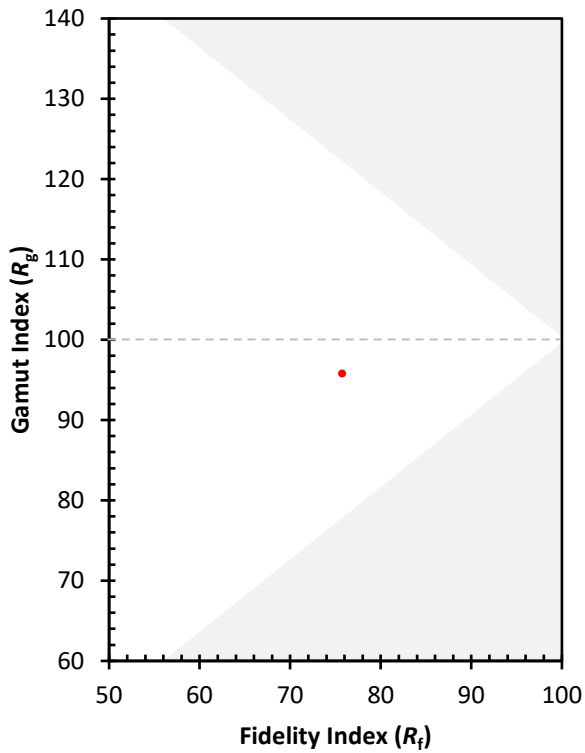
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 75	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 85	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 95	CES61 = 84	CES86 = 71
CES12 = 64	CES37 = 80	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 88	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 71
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 80
CES16 = 47	CES41 = 91	CES66 = 62	CES91 = 81
CES17 = 50	CES42 = 81	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 77	CES68 = 68	CES93 = 78
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 85	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 82	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 83	CES72 = 85	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 77
CES24 = 91	CES49 = 79	CES74 = 96	CES99 = 68
CES25 = 72	CES50 = 87	CES75 = 57	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)