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: P868265

Luminaire Tested: **MEM2-HSN-SA-100-750-U-5WQ**

Issue Date: 08/21/2024

Report Generated By 670245763

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P868265
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	08/21/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-SA-100-750-U-5WQ
Description:	EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 70CRI 5000K FIXTURE w/ TYPE V SQUARE WIDE DISTRIBUTION OPTIC
Light Source:	(20) 5000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14021.8 lumens
Efficiency:	N/A
Efficacy:	138.8 lumens/watt
Luminous Opening:	Rectangular (W 0.67' x L: 0.33' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B4 - U0 - G2

Input Watts (W):	101
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	9.45%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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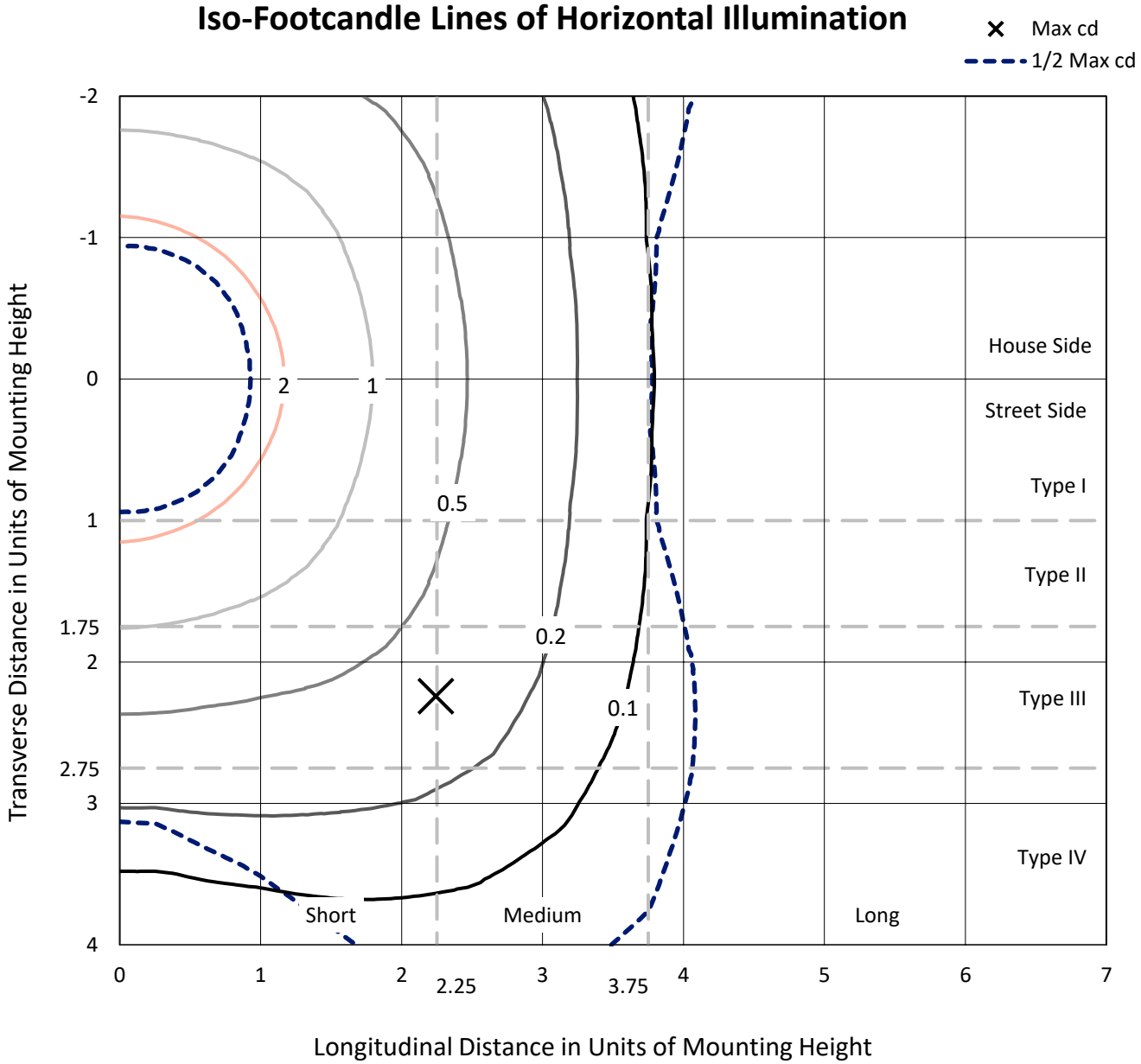
Scaled Data Report

REPORT NUMBER: P868265
CATALOG NUMBER: MEM2-HSN-SA-100-750-U-5WQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 2.5 fc
Type V - Short - N/A

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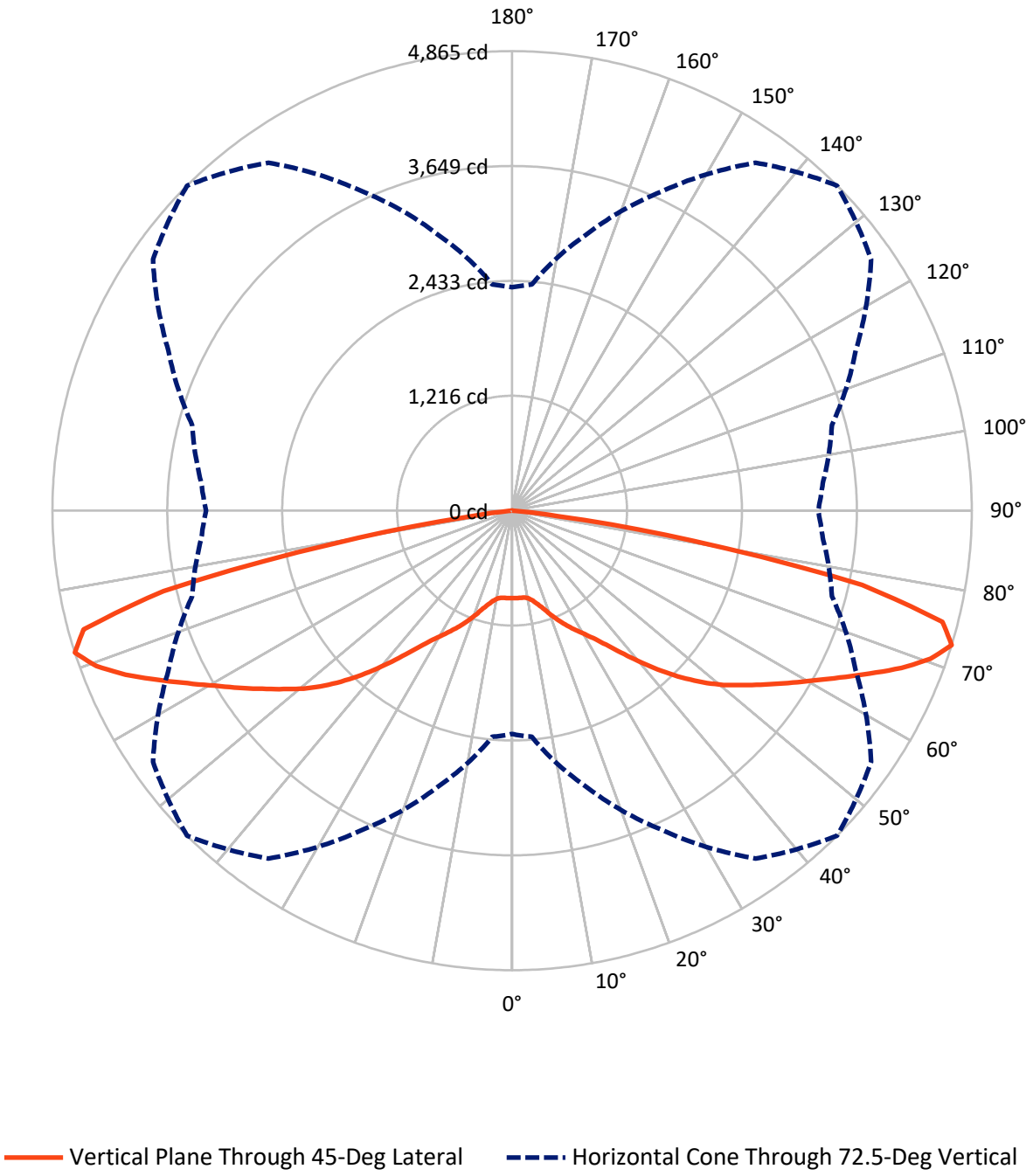
REPORT NUMBER: P868265
CATALOG NUMBER: MEM2-HSN-SA-100-750-U-5WQ

Luminous Intensity Polar Plot



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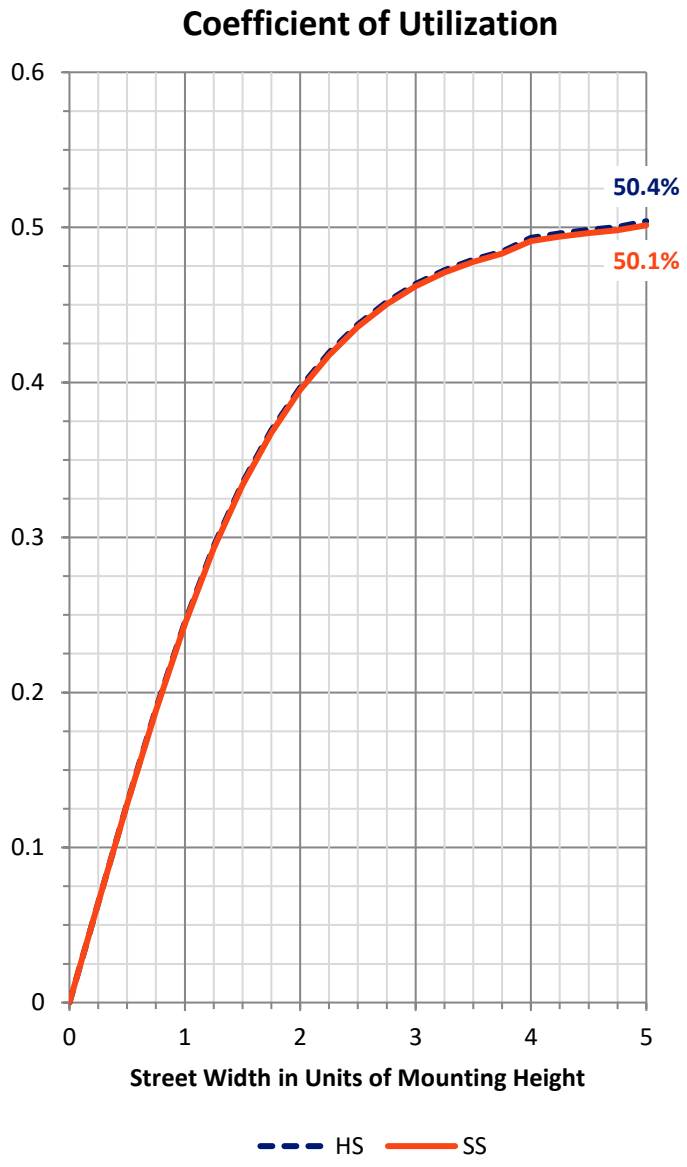
REPORT NUMBER: P868265
CATALOG NUMBER: MEM2-HSN-SA-100-750-U-5WQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7010.9	0.0	7010.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7010.9	0.0	7010.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	14021.8	0.0	14021.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	0.6
10°-20°	296.1	2.1
20°-30°	610.9	4.4
30°-40°	1124.7	8.0
40°-50°	1977.6	14.1
50°-60°	2868.1	20.5
60°-70°	3739.0	26.7
70°-80°	3108.0	22.2
80°-90°	208.7	1.5
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°	14021.8	100.0
0°-180°	14021.8	100.0



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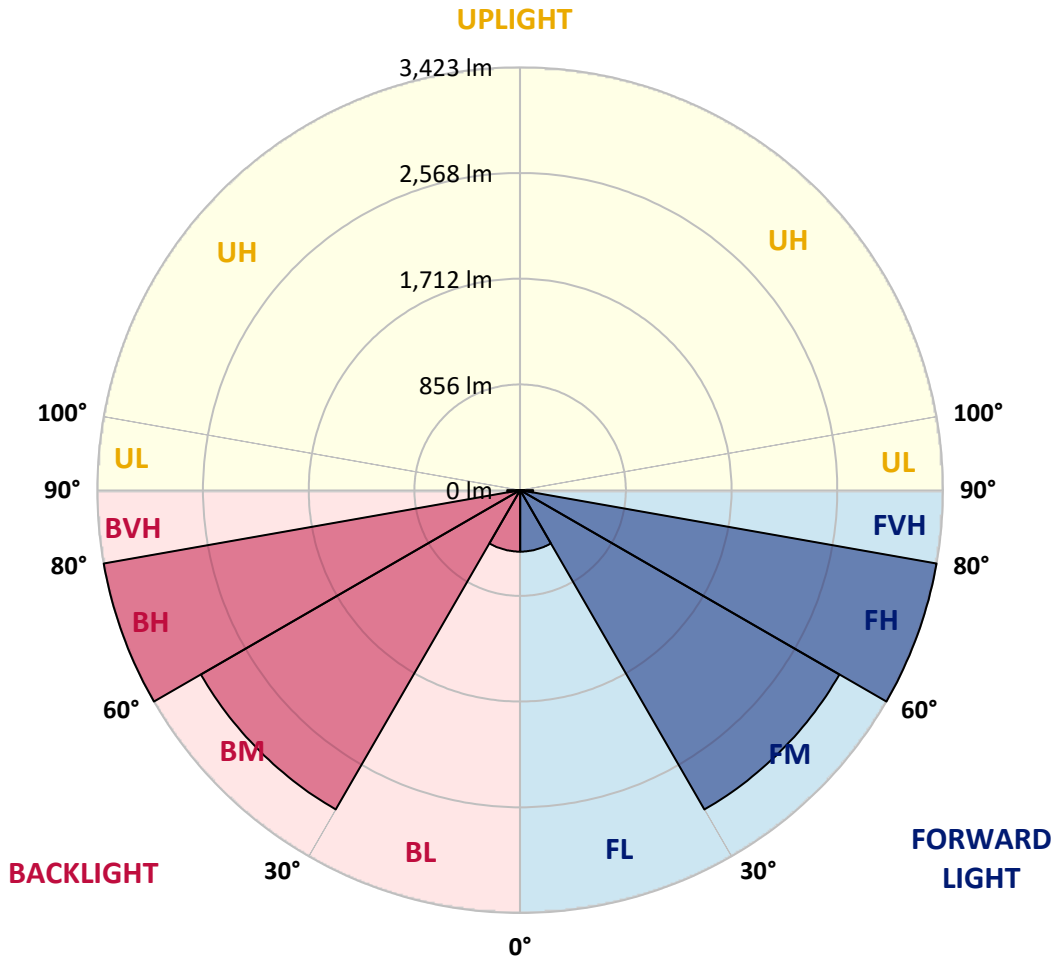
Scaled Data Report

REPORT NUMBER: P868265
CATALOG NUMBER: MEM2-HSN-SA-100-750-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	497.9	3.6			
FM	(30°-60°)	2985.2	21.3			
FH	(60°-80°)	3423.5	24.4			G2/5000
FVH	(80°-90°)	104.3	0.7			G2/225
BL	(0°-30°)	497.9	3.6	B1/500		
BM	(30°-60°)	2985.2	21.3	B3/5000		
BH	(60°-80°)	3423.5	24.4	B4/5000		G2/5000
BVH	(80°-90°)	104.3	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2
Type V Short



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REPORT NUMBER: P868265
CATALOG NUMBER: MEM2-HSN-SA-100-750-U-5WQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	925.7	925.7	925.7	925.7	925.7	925.7	925.7	925.7	925.7	925.7	925.7
2.5°	922.8	924.2	924.2	924.2	925.7	927.1	928.6	930.0	933.0	934.4	934.4
5°	927.1	925.7	924.2	927.1	927.1	927.1	928.6	930.0	930.0	930.0	931.5
7.5°	922.8	924.2	922.8	922.8	927.1	928.6	927.1	925.7	925.7	927.1	927.1
10°	938.8	937.3	935.9	935.9	940.2	941.7	940.2	938.8	938.8	941.7	941.7
12.5°	975.1	978.0	969.3	969.3	975.1	978.0	973.6	972.2	973.6	976.5	976.5
15°	1031.8	1030.3	1024.5	1018.7	1024.5	1028.9	1023.0	1020.1	1021.6	1028.9	1023.0
17.5°	1094.3	1095.7	1089.9	1084.1	1088.4	1094.3	1085.5	1078.3	1079.7	1082.6	1079.7
20°	1164.0	1162.6	1161.1	1161.1	1169.8	1177.1	1164.0	1146.6	1142.2	1139.3	1139.3
22.5°	1214.9	1219.2	1220.7	1233.8	1254.1	1261.4	1243.9	1220.7	1203.2	1194.5	1188.7
25°	1294.8	1290.4	1287.5	1302.1	1332.6	1345.7	1323.9	1291.9	1274.5	1273.0	1277.4
27.5°	1367.5	1367.5	1373.3	1387.8	1416.9	1429.9	1411.1	1379.1	1370.4	1370.4	1366.0
30°	1461.9	1457.6	1463.4	1488.1	1509.9	1518.6	1502.6	1480.8	1473.5	1473.5	1466.3
32.5°	1572.4	1573.8	1582.5	1598.5	1620.3	1621.8	1616.0	1605.8	1601.4	1597.1	1604.3
35°	1740.9	1740.9	1738.0	1749.6	1755.5	1758.4	1761.3	1756.9	1756.9	1756.9	1751.1
37.5°	1950.2	1938.6	1937.1	1926.9	1919.7	1926.9	1940.0	1954.5	1966.2	1958.9	1956.0
40°	2158.0	2152.2	2134.7	2118.8	2112.9	2115.9	2131.8	2162.4	2175.4	2175.4	2187.1
42.5°	2381.8	2370.2	2348.4	2329.5	2313.5	2317.8	2332.4	2370.2	2399.2	2412.3	2406.5
45°	2582.3	2572.2	2550.4	2532.9	2521.3	2519.8	2538.7	2563.4	2602.7	2614.3	2623.0
47.5°	2753.8	2746.5	2727.6	2710.2	2714.6	2716.0	2721.8	2743.6	2775.6	2791.6	2790.1
50°	2893.3	2887.5	2870.1	2877.3	2889.0	2900.6	2893.3	2907.8	2928.2	2935.5	2941.3
52.5°	3021.2	3012.5	3000.8	3013.9	3044.4	3067.7	3072.1	3061.9	3067.7	3072.1	3067.7
55°	3147.6	3137.4	3134.5	3157.8	3204.3	3247.9	3243.5	3214.5	3207.2	3198.5	3194.1
57.5°	3250.8	3243.5	3255.2	3294.4	3384.5	3442.6	3423.7	3356.9	3327.8	3307.5	3301.7
60°	3316.2	3314.7	3340.9	3432.4	3569.0	3650.4	3619.9	3505.1	3439.7	3420.8	3412.1
62.5°	3351.1	3352.5	3399.0	3561.8	3779.8	3890.2	3836.4	3660.6	3558.9	3540.0	3542.9
65°	3383.0	3378.7	3439.7	3670.8	4007.9	4157.6	4084.9	3848.1	3699.8	3662.1	3662.1
67.5°	3406.3	3410.6	3502.2	3779.8	4230.2	4443.9	4337.8	4047.1	3851.0	3794.3	3787.0
70°	3112.7	3154.9	3441.2	3852.4	4406.1	4696.7	4557.2	4169.2	3856.8	3695.5	3679.5
72.5°	2364.3	2403.6	3022.6	3723.1	4496.2	4865.3	4638.6	4013.7	3505.1	3300.2	3239.2
75°	1559.3	1586.9	2252.5	3252.2	4246.2	4705.4	4224.4	3457.2	2759.6	2493.7	2509.7
77.5°	694.6	783.3	1435.8	2537.3	3497.8	3787.0	3221.7	2358.5	1685.7	1427.0	1399.4
80°	290.6	318.2	542.0	1352.9	2027.2	1940.0	1371.8	790.5	502.8	390.9	377.8
82.5°	84.3	87.2	107.5	234.0	412.7	485.4	292.1	148.2	141.0	111.9	103.2
85°	5.8	5.8	8.7	14.5	20.3	33.4	37.8	43.6	49.4	42.1	42.1
87.5°	2.9	2.9	2.9	4.4	4.4	5.8	4.4	4.4	4.4	4.4	4.4
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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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-6

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-30-750-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-30-750-U-5WQ-2

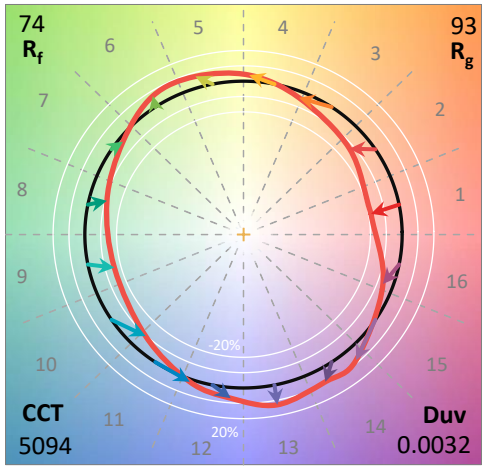
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-157-6
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/20/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-SA-30-750-U-5WQ-2**
Description:	Epic Modern Light Square 30W 5WQ Optic and Flare Trim

Spectral Parameters

CCT (K):	5094	CRI (Ra):	72.0		
CIE u':	0.2082	R1:	68.6	R9:	-39.6
CIE v':	0.4867	R2:	78.1	R10:	47.6
Duv:	0.0032	R3:	84.6	R11:	68.2
CIE x:	0.3430	R4:	71.6	R12:	41.4
CIE y:	0.3564	R5:	69.6	R13:	70.4
CIE z:	0.3006	R6:	69.4	R14:	91.4
Peak Wavelength (nm):	451	R7:	80.9	R15:	61.4
Dominant Wavelength (nm):	568	R8:	53.1		
Purity:	9.86439				
Rf:	73.7				
Rg:	93				



Test Conditions

Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2407-157-6

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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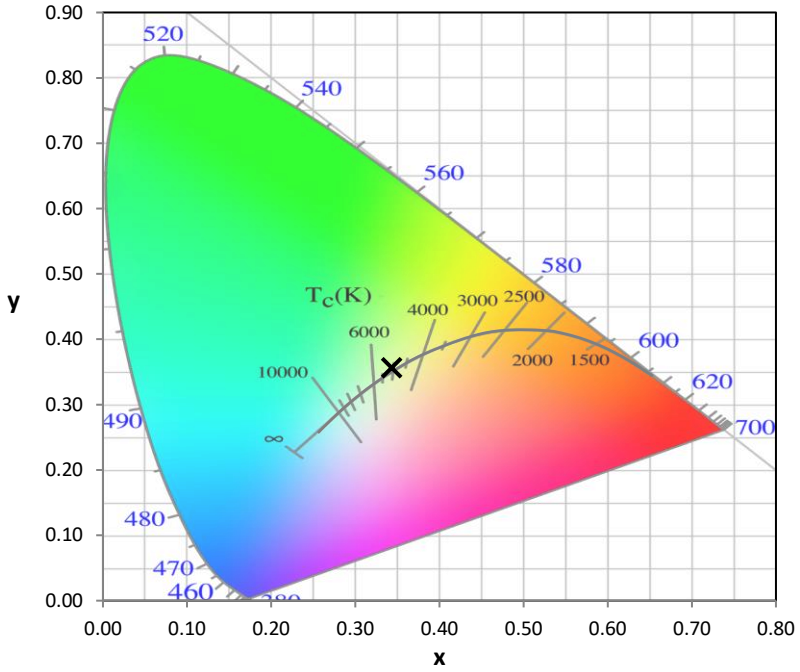
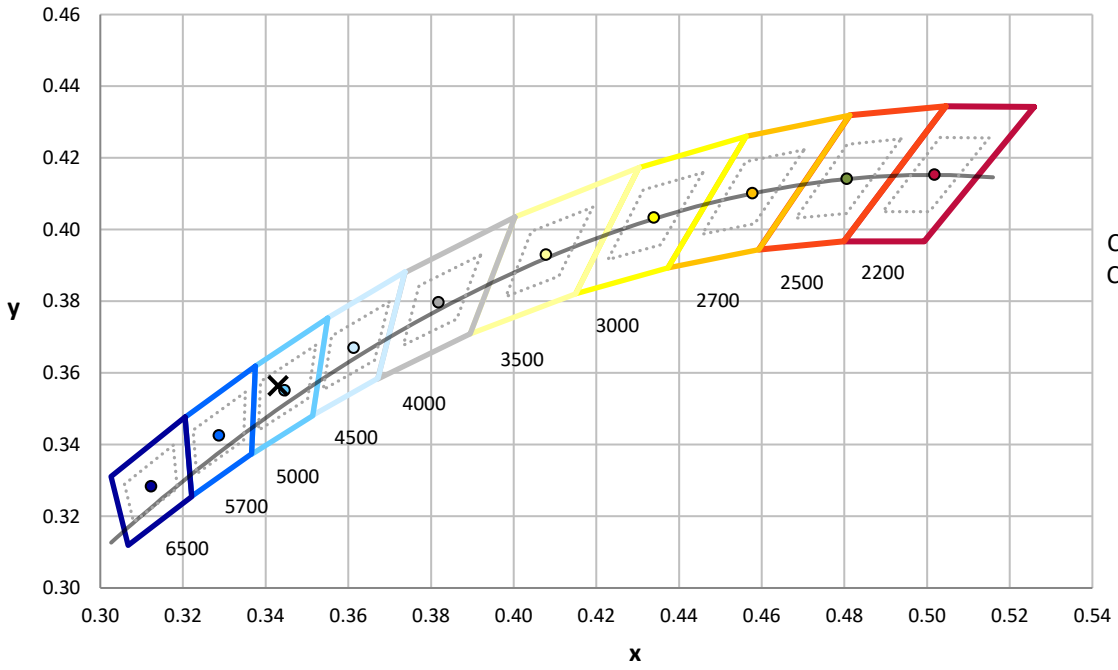
CIE 1931 Chromaticity Diagram



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



CCT = 5094K
CIE x = 0.3430
CIE y = 0.3564
Duv = 0.0032

Point lies inside the ANSI 5000K 4-step quadrangle

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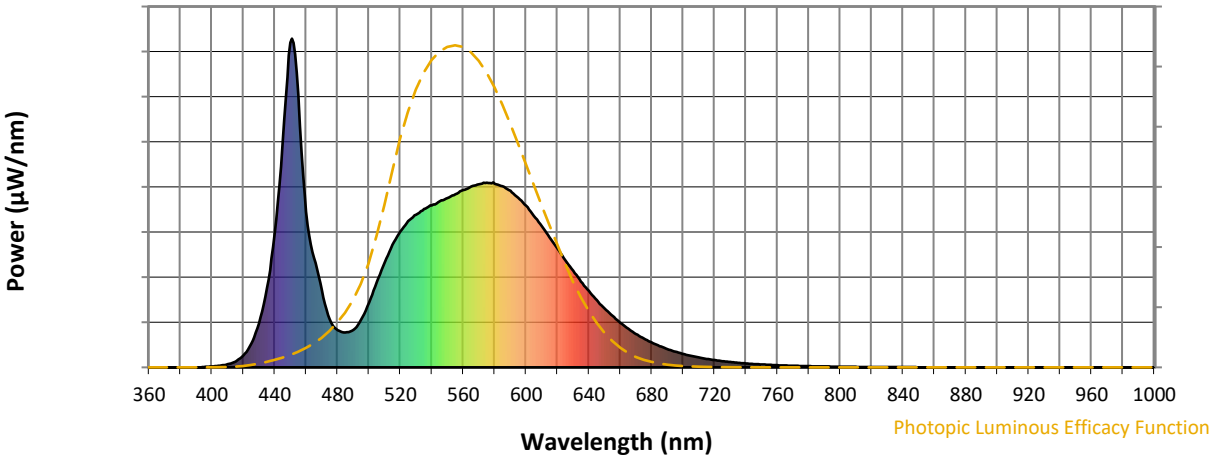
Photopic Flux vs. Wavelength

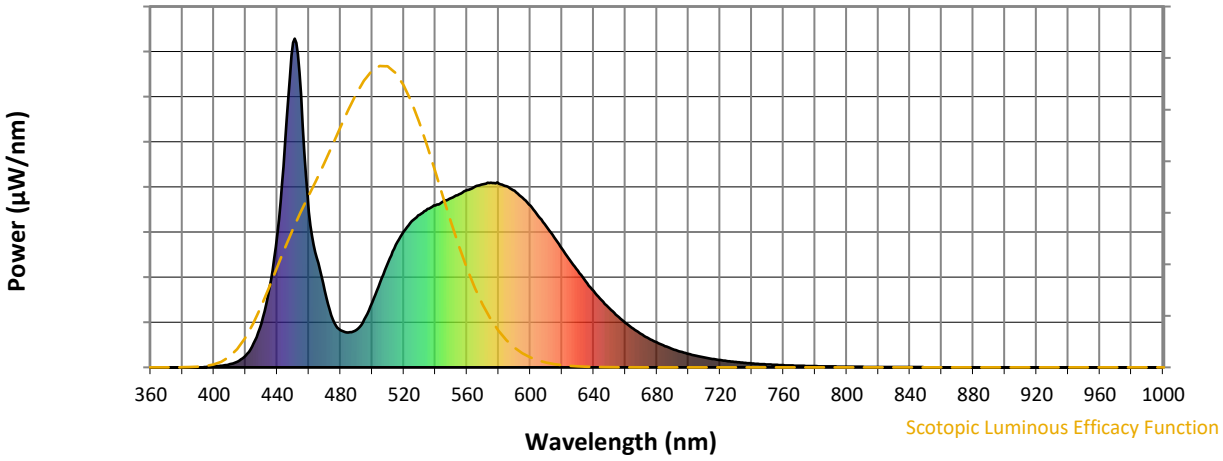


Photopic Lumens: NR

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	114	NR	620	361	NR	750	9	NR	880	0	NR
365	0	NR	495	145	NR	625	326	NR	755	8	NR	885	0	NR
370	0	NR	500	197	NR	630	294	NR	760	7	NR	890	0	NR
375	0	NR	505	259	NR	635	261	NR	765	6	NR	895	0	NR
380	0	NR	510	319	NR	640	232	NR	770	5	NR	900	0	NR
385	0	NR	515	373	NR	645	204	NR	775	4	NR	905	0	NR
390	0	NR	520	414	NR	650	179	NR	780	4	NR	910	0	NR
395	1	NR	525	445	NR	655	157	NR	785	3	NR	915	0	NR
400	3	NR	530	465	NR	660	136	NR	790	3	NR	920	0	NR
405	5	NR	535	482	NR	665	118	NR	795	2	NR	925	0	NR
410	9	NR	540	493	NR	670	102	NR	800	2	NR	930	0	NR
415	18	NR	545	505	NR	675	87	NR	805	2	NR	935	0	NR
420	36	NR	550	515	NR	680	75	NR	810	2	NR	940	0	NR
425	72	NR	555	527	NR	685	65	NR	815	1	NR	945	0	NR
430	134	NR	560	540	NR	690	56	NR	820	1	NR	950	0	NR
435	242	NR	565	550	NR	695	48	NR	825	1	NR	955	0	NR
440	407	NR	570	557	NR	700	41	NR	830	1	NR	960	0	NR
445	684	NR	575	561	NR	705	35	NR	835	1	NR	965	0	NR
450	988	NR	580	559	NR	710	30	NR	840	1	NR	970	0	NR
455	828	NR	585	551	NR	715	26	NR	845	1	NR	975	0	NR
460	473	NR	590	537	NR	720	22	NR	850	1	NR	980	0	NR
465	333	NR	595	516	NR	725	19	NR	855	0	NR	985	0	NR
470	232	NR	600	491	NR	730	16	NR	860	0	NR	990	0	NR
475	146	NR	605	461	NR	735	14	NR	865	0	NR	995	0	NR
480	113	NR	610	429	NR	740	12	NR	870	0	NR	1000	0	NR
485	106	NR	615	395	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-6

Scotopic Flux vs. Wavelength

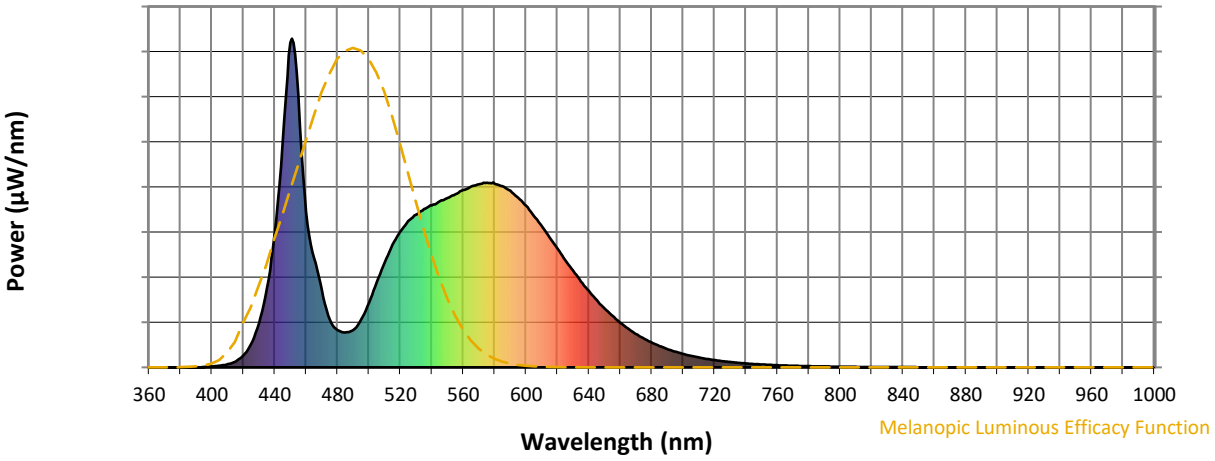


Scotopic Lumens: NR **S/P: 1.81**

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	114	NR	620	361	NR	750	9	NR	880	0	NR
365	0	NR	495	145	NR	625	326	NR	755	8	NR	885	0	NR
370	0	NR	500	197	NR	630	294	NR	760	7	NR	890	0	NR
375	0	NR	505	259	NR	635	261	NR	765	6	NR	895	0	NR
380	0	NR	510	319	NR	640	232	NR	770	5	NR	900	0	NR
385	0	NR	515	373	NR	645	204	NR	775	4	NR	905	0	NR
390	0	NR	520	414	NR	650	179	NR	780	4	NR	910	0	NR
395	1	NR	525	445	NR	655	157	NR	785	3	NR	915	0	NR
400	3	NR	530	465	NR	660	136	NR	790	3	NR	920	0	NR
405	5	NR	535	482	NR	665	118	NR	795	2	NR	925	0	NR
410	9	NR	540	493	NR	670	102	NR	800	2	NR	930	0	NR
415	18	NR	545	505	NR	675	87	NR	805	2	NR	935	0	NR
420	36	NR	550	515	NR	680	75	NR	810	2	NR	940	0	NR
425	72	NR	555	527	NR	685	65	NR	815	1	NR	945	0	NR
430	134	NR	560	540	NR	690	56	NR	820	1	NR	950	0	NR
435	242	NR	565	550	NR	695	48	NR	825	1	NR	955	0	NR
440	407	NR	570	557	NR	700	41	NR	830	1	NR	960	0	NR
445	684	NR	575	561	NR	705	35	NR	835	1	NR	965	0	NR
450	988	NR	580	559	NR	710	30	NR	840	1	NR	970	0	NR
455	828	NR	585	551	NR	715	26	NR	845	1	NR	975	0	NR
460	473	NR	590	537	NR	720	22	NR	850	1	NR	980	0	NR
465	333	NR	595	516	NR	725	19	NR	855	0	NR	985	0	NR
470	232	NR	600	491	NR	730	16	NR	860	0	NR	990	0	NR
475	146	NR	605	461	NR	735	14	NR	865	0	NR	995	0	NR
480	113	NR	610	429	NR	740	12	NR	870	0	NR	1000	0	NR
485	106	NR	615	395	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.73**

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	114	NR	620	361	NR	750	9	NR	880	0	NR
365	0	NR	495	145	NR	625	326	NR	755	8	NR	885	0	NR
370	0	NR	500	197	NR	630	294	NR	760	7	NR	890	0	NR
375	0	NR	505	259	NR	635	261	NR	765	6	NR	895	0	NR
380	0	NR	510	319	NR	640	232	NR	770	5	NR	900	0	NR
385	0	NR	515	373	NR	645	204	NR	775	4	NR	905	0	NR
390	0	NR	520	414	NR	650	179	NR	780	4	NR	910	0	NR
395	1	NR	525	445	NR	655	157	NR	785	3	NR	915	0	NR
400	3	NR	530	465	NR	660	136	NR	790	3	NR	920	0	NR
405	5	NR	535	482	NR	665	118	NR	795	2	NR	925	0	NR
410	9	NR	540	493	NR	670	102	NR	800	2	NR	930	0	NR
415	18	NR	545	505	NR	675	87	NR	805	2	NR	935	0	NR
420	36	NR	550	515	NR	680	75	NR	810	2	NR	940	0	NR
425	72	NR	555	527	NR	685	65	NR	815	1	NR	945	0	NR
430	134	NR	560	540	NR	690	56	NR	820	1	NR	950	0	NR
435	242	NR	565	550	NR	695	48	NR	825	1	NR	955	0	NR
440	407	NR	570	557	NR	700	41	NR	830	1	NR	960	0	NR
445	684	NR	575	561	NR	705	35	NR	835	1	NR	965	0	NR
450	988	NR	580	559	NR	710	30	NR	840	1	NR	970	0	NR
455	828	NR	585	551	NR	715	26	NR	845	1	NR	975	0	NR
460	473	NR	590	537	NR	720	22	NR	850	1	NR	980	0	NR
465	333	NR	595	516	NR	725	19	NR	855	0	NR	985	0	NR
470	232	NR	600	491	NR	730	16	NR	860	0	NR	990	0	NR
475	146	NR	605	461	NR	735	14	NR	865	0	NR	995	0	NR
480	113	NR	610	429	NR	740	12	NR	870	0	NR	1000	0	NR
485	106	NR	615	395	NR	745	10	NR	875	0	NR			

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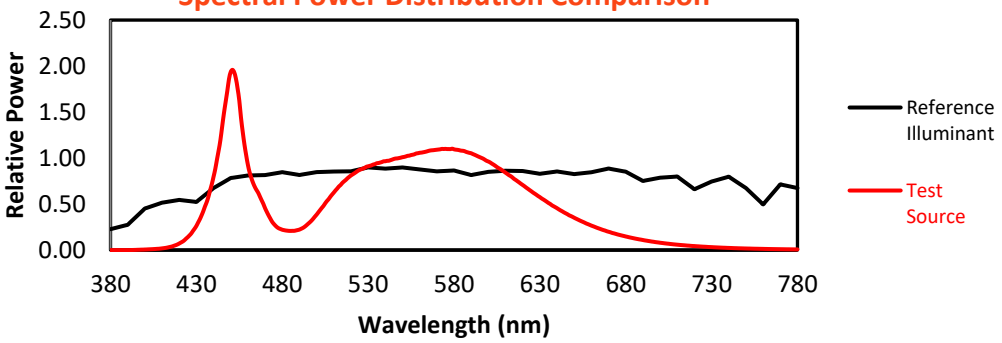
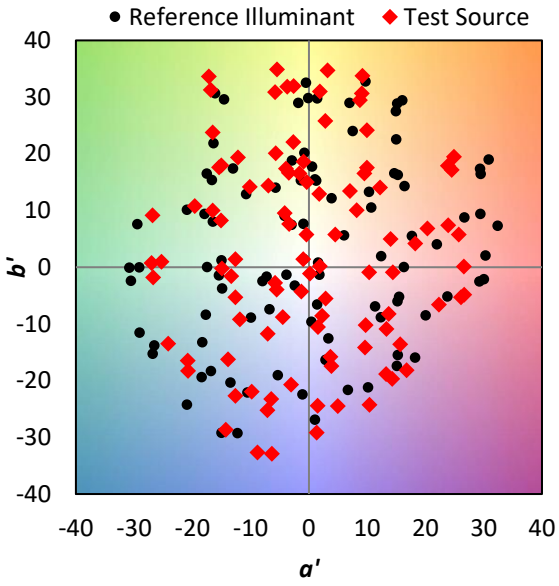
Summary

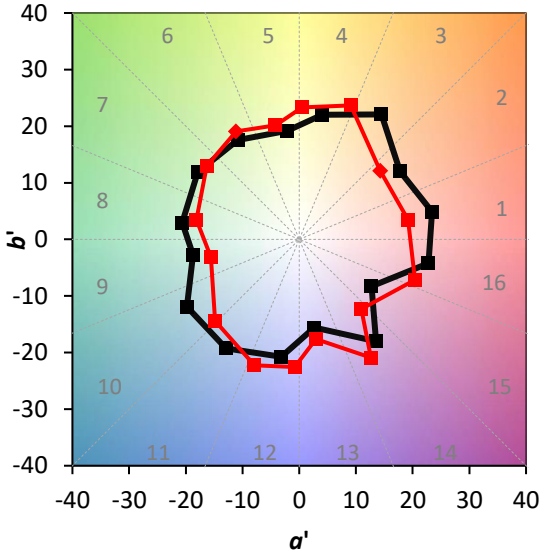
R_f = 73.7
R_g = 93
CIE R_a = 72.0
R_9 = -39.6

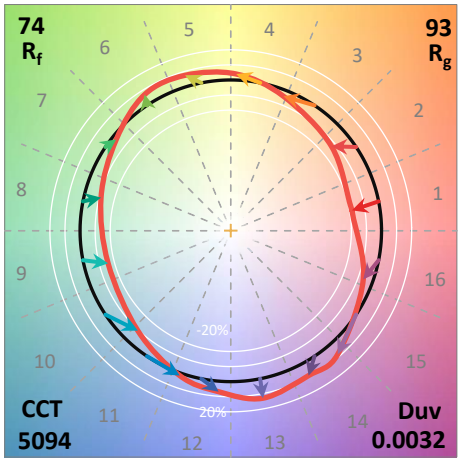
Spectral Power Distribution Comparison

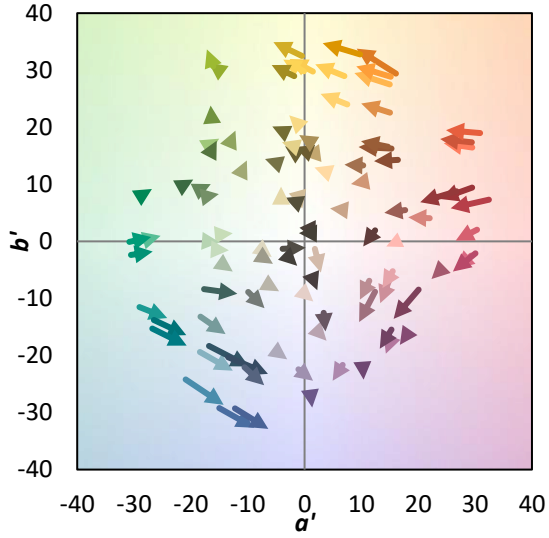


Color Vector Graphics









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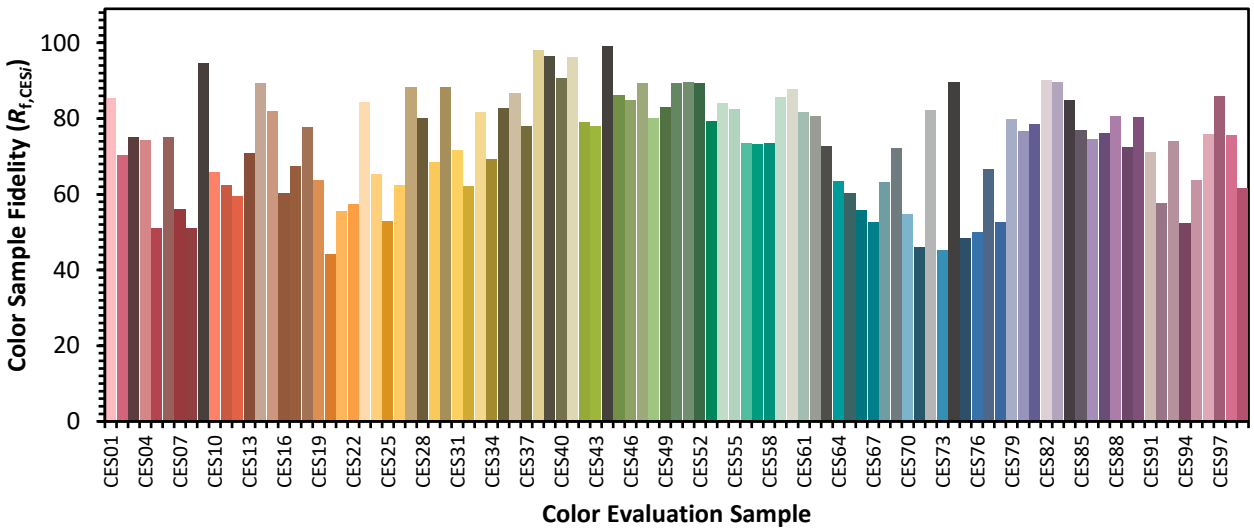
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 62	CES51 = 90	CES76 = 50
CES02 = 59	CES27 = 88	CES52 = 89	CES77 = 67
CES03 = 30	CES28 = 80	CES53 = 79	CES78 = 53
CES04 = 69	CES29 = 69	CES54 = 84	CES79 = 80
CES05 = 46	CES30 = 88	CES55 = 83	CES80 = 77
CES06 = 50	CES31 = 72	CES56 = 74	CES81 = 78
CES07 = 38	CES32 = 62	CES57 = 73	CES82 = 90
CES08 = 38	CES33 = 82	CES58 = 73	CES83 = 90
CES09 = 29	CES34 = 69	CES59 = 86	CES84 = 85
CES10 = 72	CES35 = 83	CES60 = 88	CES85 = 77
CES11 = 56	CES36 = 87	CES61 = 82	CES86 = 75
CES12 = 61	CES37 = 78	CES62 = 81	CES87 = 76
CES13 = 41	CES38 = 98	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 63	CES89 = 72
CES15 = 70	CES40 = 91	CES65 = 60	CES90 = 80
CES16 = 46	CES41 = 96	CES66 = 56	CES91 = 71
CES17 = 49	CES42 = 79	CES67 = 53	CES92 = 58
CES18 = 55	CES43 = 78	CES68 = 63	CES93 = 74
CES19 = 71	CES44 = 99	CES69 = 72	CES94 = 52
CES20 = 63	CES45 = 86	CES70 = 55	CES95 = 64
CES21 = 85	CES46 = 85	CES71 = 46	CES96 = 76
CES22 = 77	CES47 = 89	CES72 = 82	CES97 = 86
CES23 = 91	CES48 = 80	CES73 = 45	CES98 = 76
CES24 = 90	CES49 = 83	CES74 = 90	CES99 = 62
CES25 = 71	CES50 = 89	CES75 = 48	



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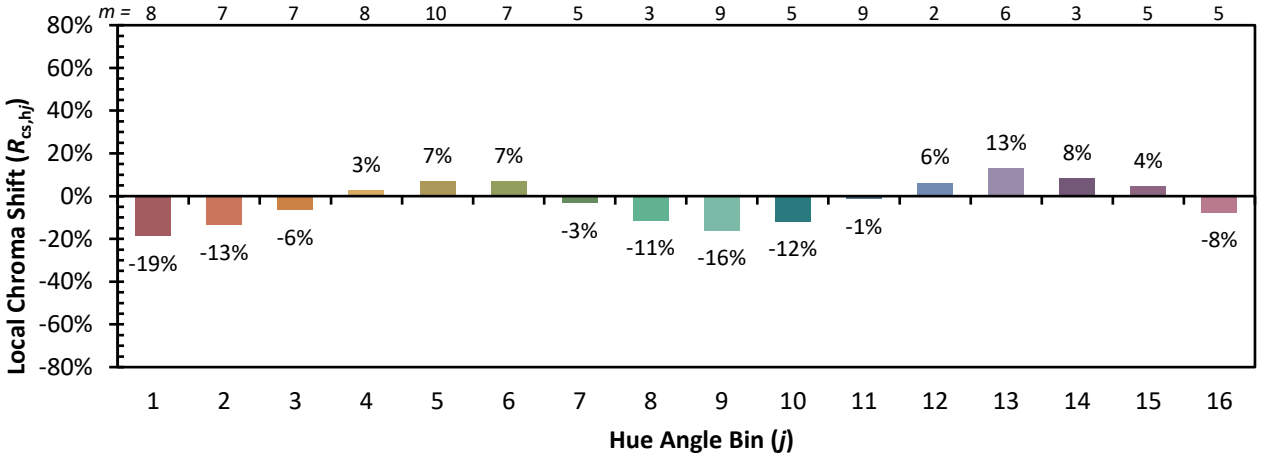
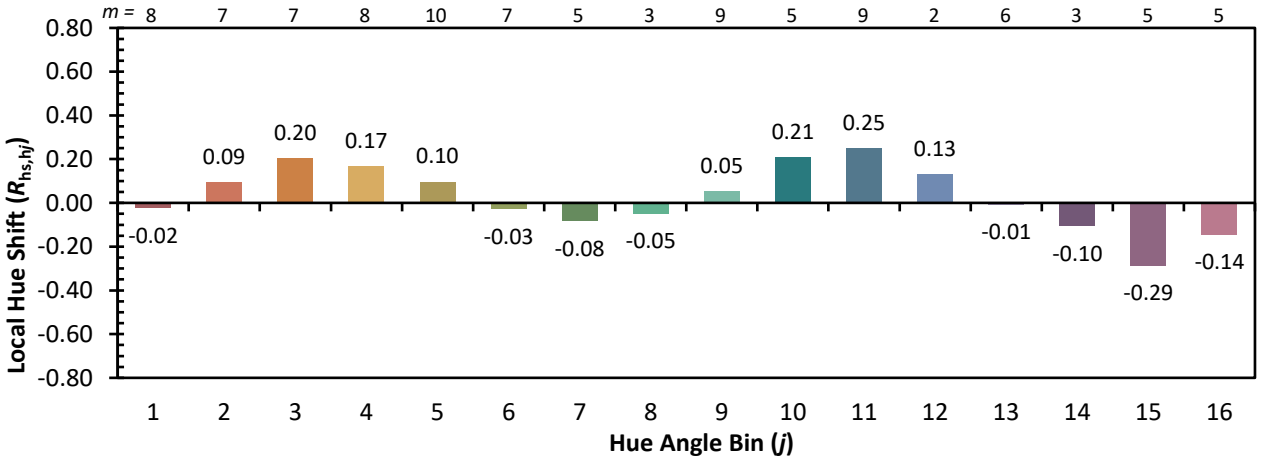
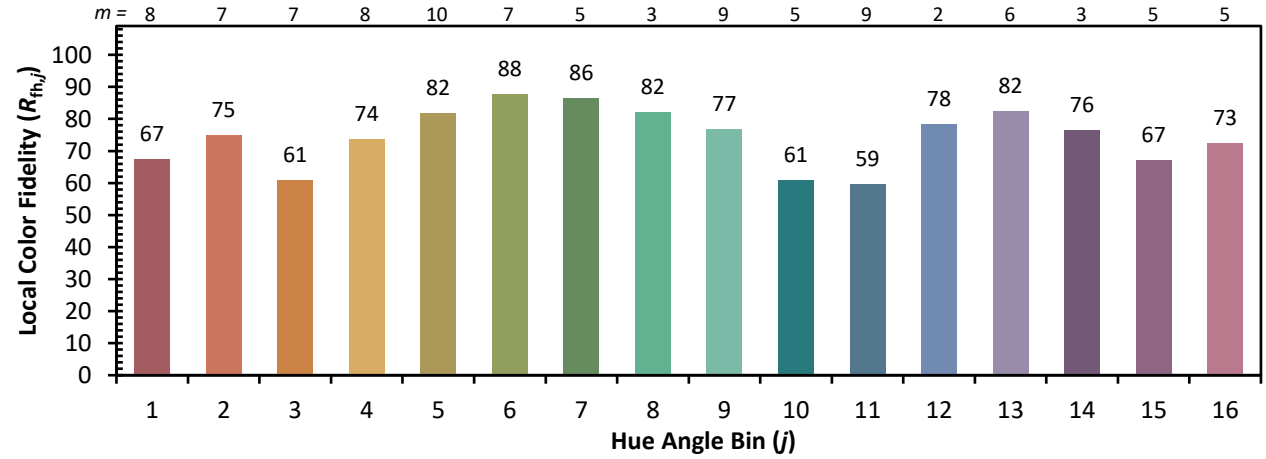
Color Rendition by Hue-Angle Bin







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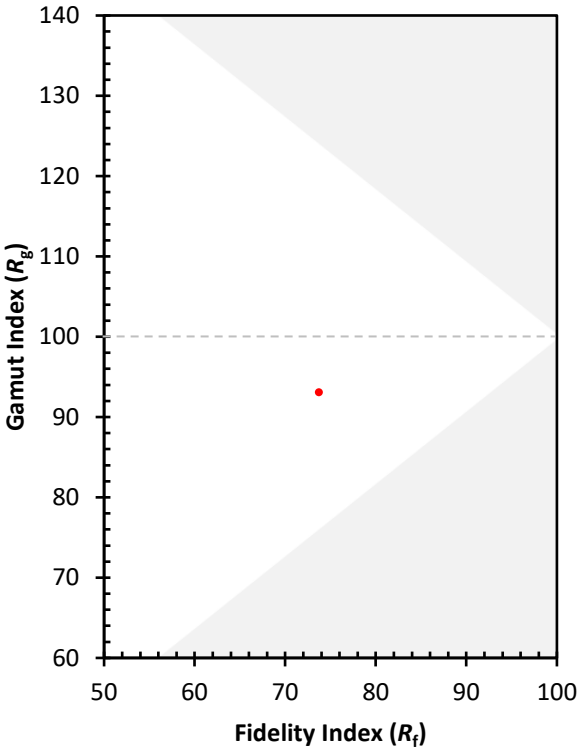
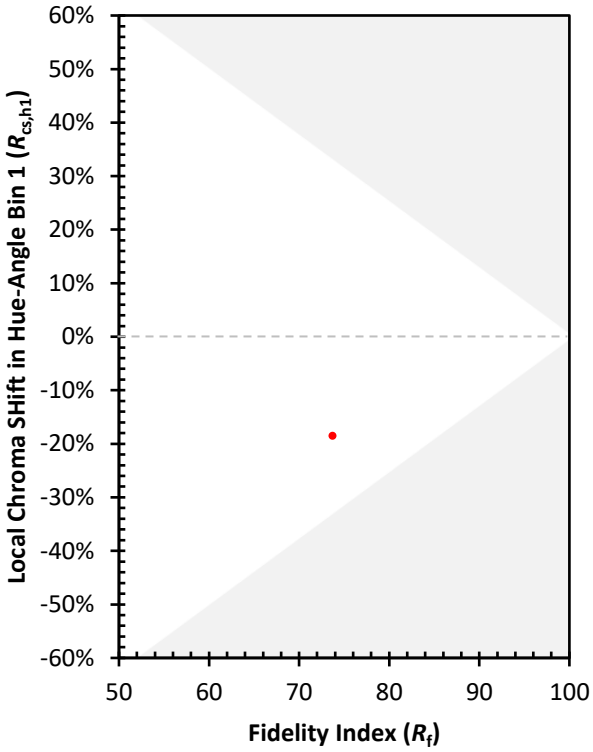
Measure Comparisons





(END OF REPORT)