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: P867847

Luminaire Tested: **MEM2-HTN-SA-130-750-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:	P867847
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	08/21/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HTN-SA-130-750-U-5WQ
Description:	EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 70CRI 5000K FIXTURE w/ TYPE V SQUARE WIDE DISTRIBUTION OPTIC
Light Source:	(30) 5000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	19444.8 lumens
Efficiency:	N/A
Efficacy:	145.1 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B4 - U0 - G2

Input Watts (W):	134
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	6.70%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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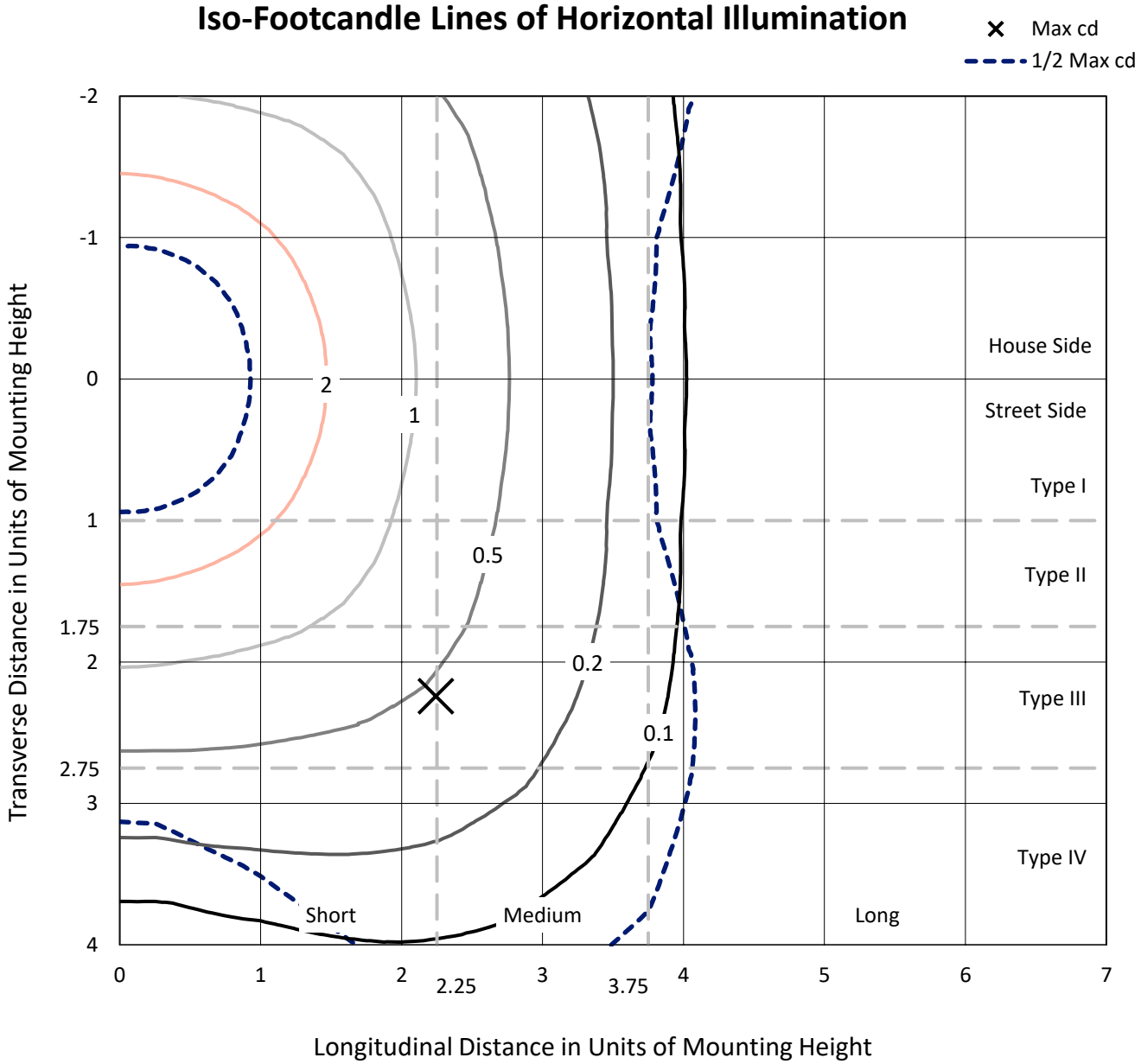
Scaled Data Report

REPORT NUMBER: P867847
CATALOG NUMBER: MEM2-HTN-SA-130-750-U-5WQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
Type V - Short - N/A

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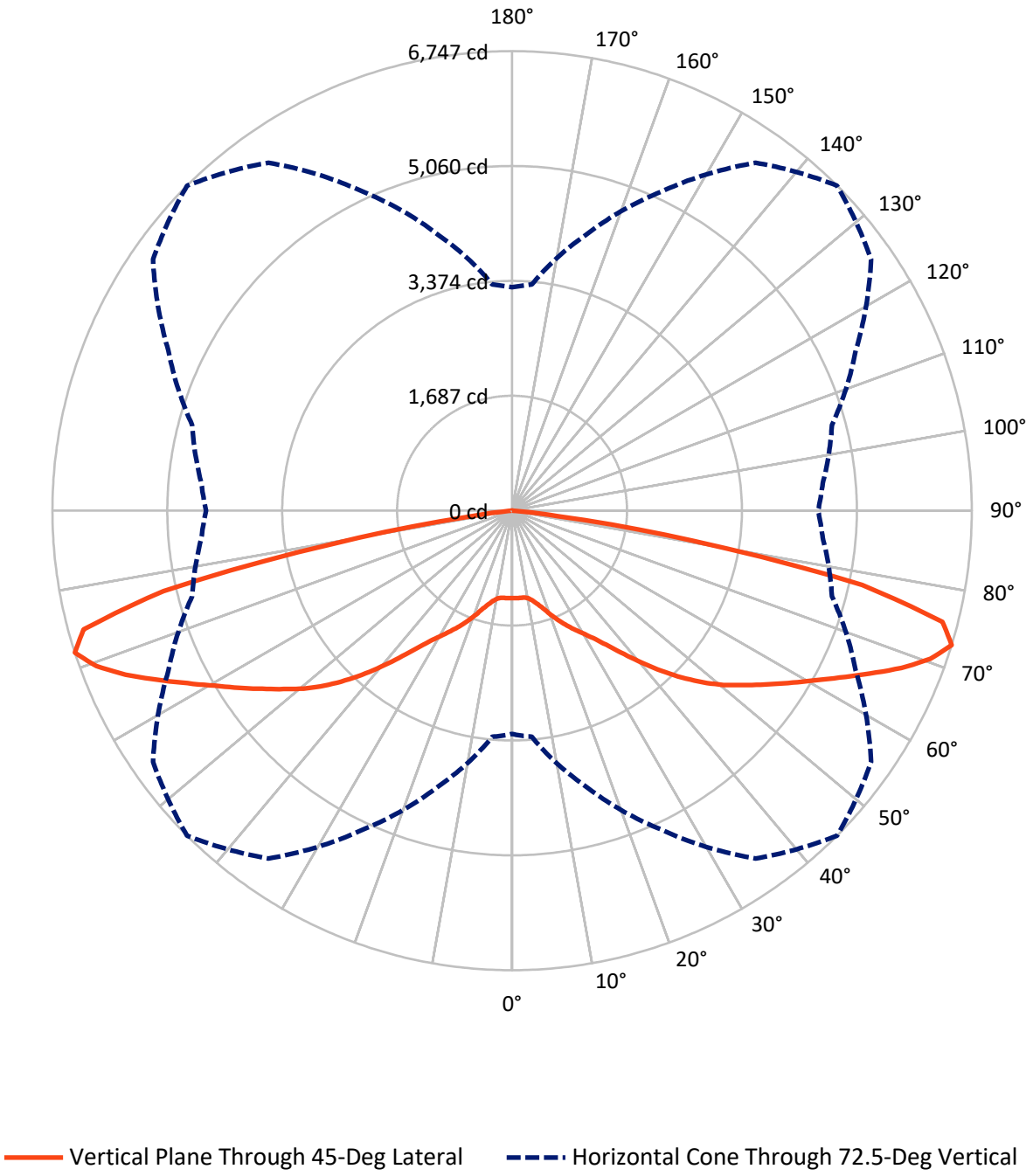
Luminous Intensity Polar Plot



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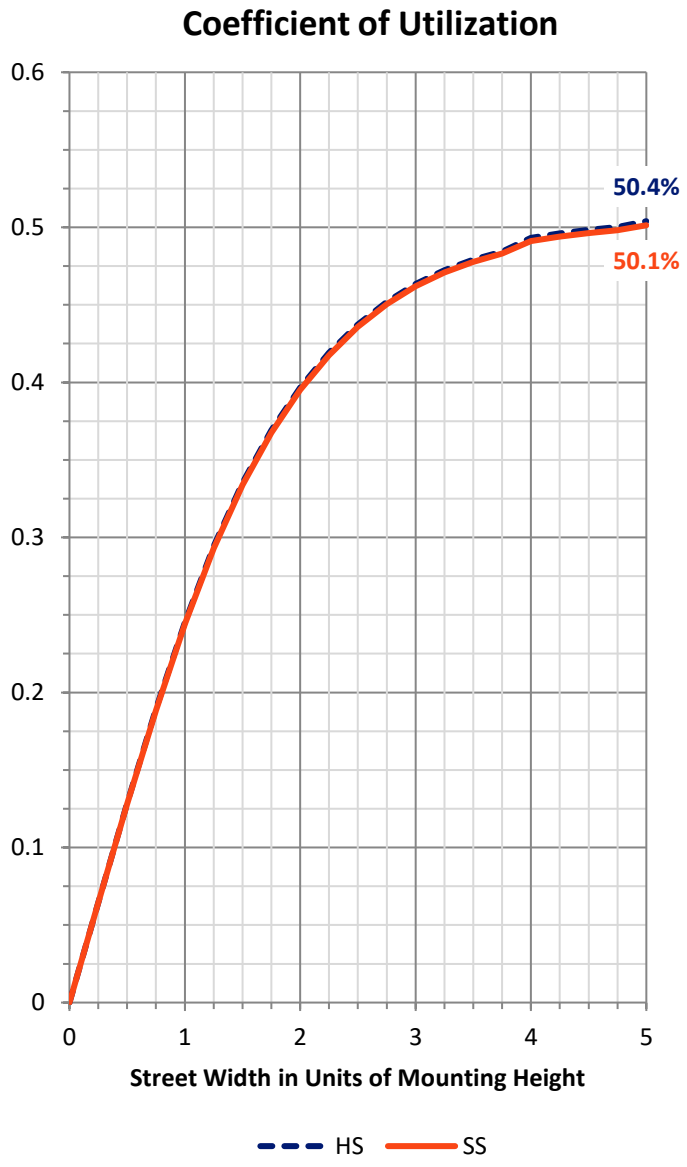
REPORT NUMBER: P867847
CATALOG NUMBER: MEM2-HTN-SA-130-750-U-5WQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9722.4	0.0	9722.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9722.4	0.0	9722.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	19444.8	0.0	19444.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	0.6
10°-20°	410.6	2.1
20°-30°	847.2	4.4
30°-40°	1559.7	8.0
40°-50°	2742.4	14.1
50°-60°	3977.4	20.5
60°-70°	5185.0	26.7
70°-80°	4310.0	22.2
80°-90°	289.4	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°	19444.8	100.0
0°-180°	19444.8	100.0



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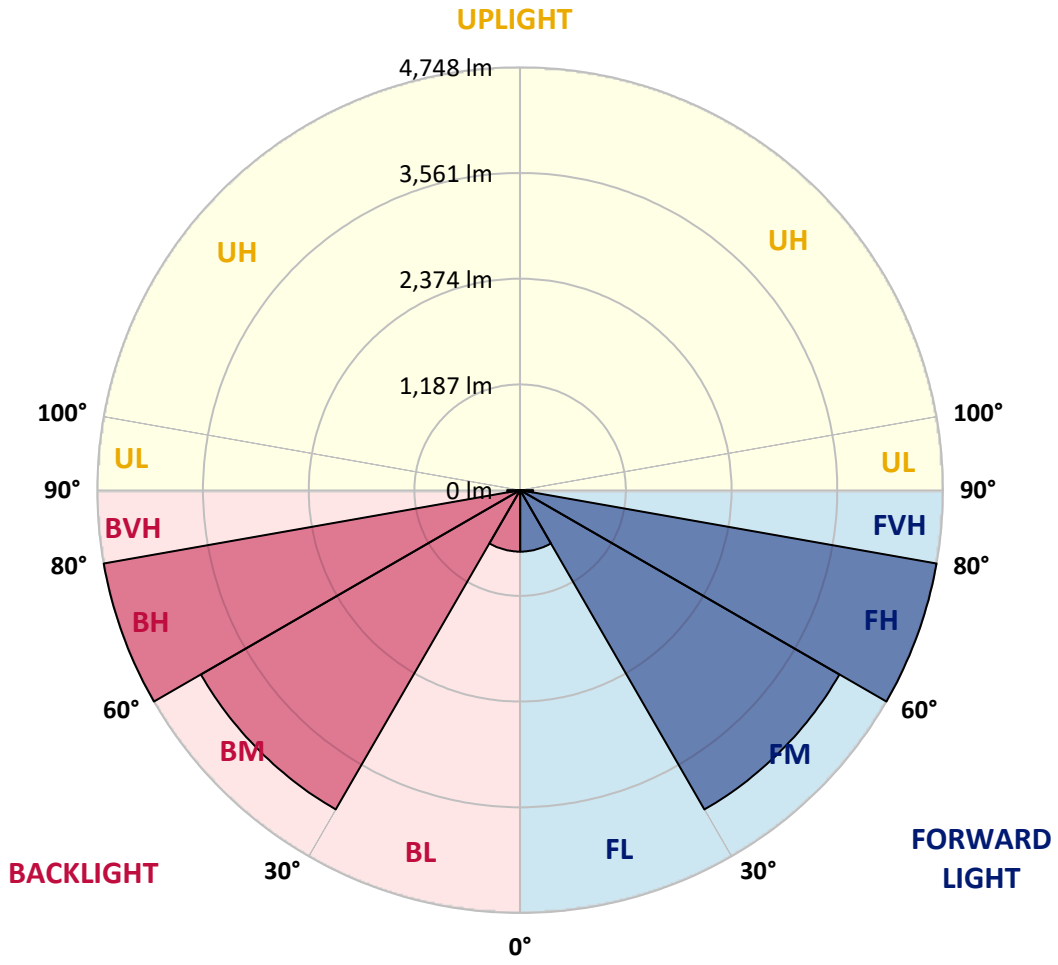
REPORT NUMBER: P867847
CATALOG NUMBER: MEM2-HTN-SA-130-750-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	690.4	3.6			
FM	(30°-60°)	4139.8	21.3			
FH	(60°-80°)	4747.5	24.4			G2/5000
FVH	(80°-90°)	144.7	0.7			G2/225
BL	(0°-30°)	690.4	3.6	B2/1000		
BM	(30°-60°)	4139.8	21.3	B3/5000		
BH	(60°-80°)	4747.5	24.4	B4/5000		G2/5000
BVH	(80°-90°)	144.7	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: P867847
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7	1283.7
2.5°	1279.7	1281.7	1281.7	1281.7	1283.7	1285.7	1287.7	1289.7	1293.8	1295.8	1295.8
5°	1285.7	1283.7	1281.7	1285.7	1285.7	1285.7	1287.7	1289.7	1289.7	1289.7	1291.8
7.5°	1279.7	1281.7	1279.7	1279.7	1285.7	1287.7	1285.7	1283.7	1283.7	1285.7	1285.7
10°	1301.8	1299.8	1297.8	1297.8	1303.8	1305.9	1303.8	1301.8	1301.8	1305.9	1305.9
12.5°	1352.2	1356.2	1344.2	1344.2	1352.2	1356.2	1350.2	1348.2	1350.2	1354.2	1354.2
15°	1430.8	1428.8	1420.7	1412.7	1420.7	1426.8	1418.7	1414.7	1416.7	1426.8	1418.7
17.5°	1517.5	1519.5	1511.4	1503.4	1509.4	1517.5	1505.4	1495.3	1497.3	1501.3	1497.3
20°	1614.2	1612.2	1610.2	1610.2	1622.3	1632.3	1614.2	1590.0	1584.0	1579.9	1579.9
22.5°	1684.7	1690.8	1692.8	1710.9	1739.1	1749.2	1725.0	1692.8	1668.6	1656.5	1648.5
25°	1795.6	1789.5	1785.5	1805.6	1848.0	1866.1	1835.9	1791.5	1767.4	1765.3	1771.4
27.5°	1896.3	1896.3	1904.4	1924.5	1964.8	1983.0	1956.8	1912.4	1900.4	1900.4	1894.3
30°	2027.3	2021.3	2029.3	2063.6	2093.8	2105.9	2083.7	2053.5	2043.4	2043.4	2033.4
32.5°	2180.5	2182.5	2194.6	2216.7	2247.0	2249.0	2240.9	2226.8	2220.8	2214.7	2224.8
35°	2414.2	2414.2	2410.2	2426.3	2434.4	2438.4	2442.5	2436.4	2436.4	2436.4	2428.3
37.5°	2704.4	2688.3	2686.3	2672.2	2662.1	2672.2	2690.3	2710.5	2726.6	2716.5	2712.5
40°	2992.6	2984.5	2960.4	2938.2	2930.1	2934.2	2956.3	2998.7	3016.8	3016.8	3032.9
42.5°	3303.0	3286.8	3256.6	3230.4	3208.2	3214.3	3234.4	3286.8	3327.1	3345.3	3337.2
45°	3581.1	3566.9	3536.7	3512.5	3496.4	3494.4	3520.6	3554.9	3609.3	3625.4	3637.5
47.5°	3818.8	3808.8	3782.6	3758.4	3764.4	3766.5	3774.5	3804.7	3849.1	3871.2	3869.2
50°	4012.3	4004.2	3980.1	3990.1	4006.3	4022.4	4012.3	4032.5	4060.7	4070.8	4078.8
52.5°	4189.6	4177.6	4161.4	4179.6	4221.9	4254.1	4260.2	4246.1	4254.1	4260.2	4254.1
55°	4365.0	4350.9	4346.8	4379.1	4443.6	4504.0	4498.0	4457.7	4447.6	4435.5	4429.5
57.5°	4508.1	4498.0	4514.1	4568.5	4693.5	4774.1	4747.9	4655.2	4614.9	4586.6	4578.6
60°	4598.7	4596.7	4633.0	4760.0	4949.4	5062.2	5019.9	4860.7	4770.0	4743.8	4731.7
62.5°	4647.1	4649.1	4713.6	4939.3	5241.6	5394.8	5320.2	5076.3	4935.3	4909.1	4913.1
65°	4691.4	4685.4	4770.0	5090.5	5558.0	5765.6	5664.8	5336.3	5130.8	5078.4	5078.4
67.5°	4723.7	4729.7	4856.7	5241.6	5866.3	6162.6	6015.4	5612.4	5340.3	5261.7	5251.7
70°	4316.6	4375.1	4772.0	5342.4	6110.2	6513.2	6319.7	5781.7	5348.4	5124.7	5102.5
72.5°	3278.8	3333.2	4191.7	5163.0	6235.1	6747.0	6432.6	5566.0	4860.7	4576.6	4491.9
75°	2162.3	2200.6	3123.6	4510.1	5888.5	6525.3	5858.3	4794.2	3826.9	3458.1	3480.3
77.5°	963.3	1086.2	1991.0	3518.6	4850.6	5251.7	4467.8	3270.7	2337.7	1978.9	1940.7
80°	403.0	441.3	751.7	1876.2	2811.2	2690.3	1902.4	1096.3	697.3	542.1	524.0
82.5°	116.9	120.9	149.1	324.5	572.3	673.1	405.1	205.6	195.5	155.2	143.1
85°	8.1	8.1	12.1	20.2	28.2	46.4	52.4	60.5	68.5	58.4	58.4
87.5°	4.0	4.0	4.0	6.0	6.0	8.1	6.0	6.0	6.0	6.0	6.0
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

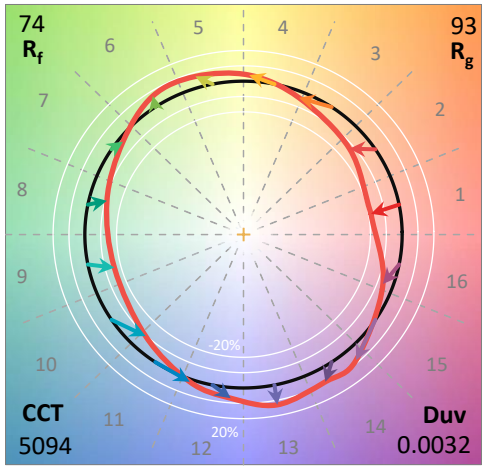
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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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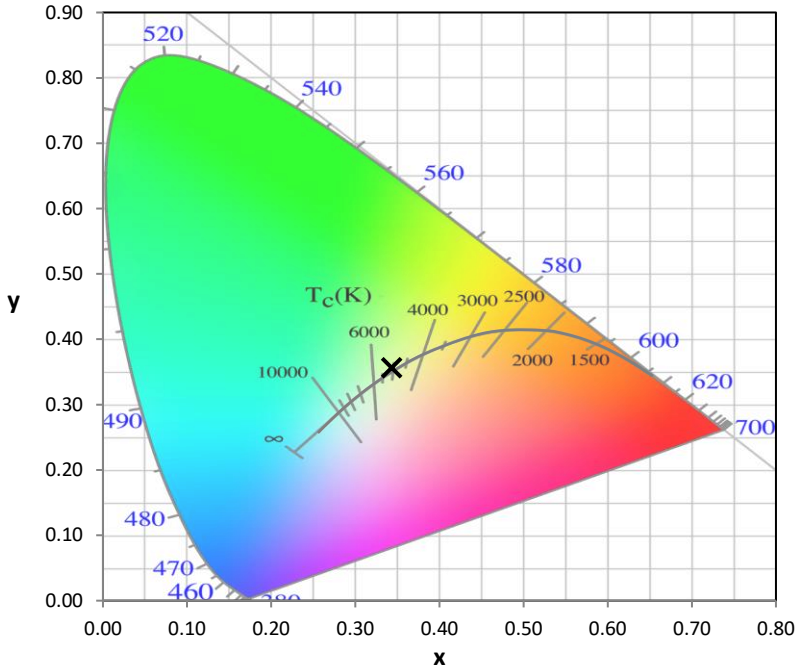
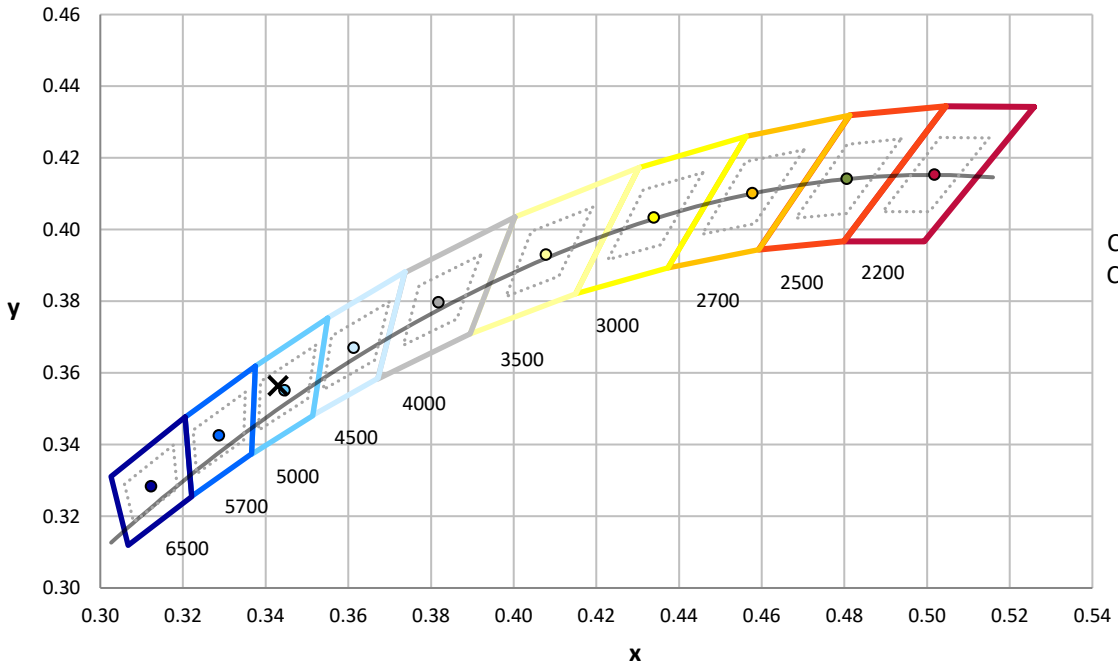
CIE 1931 Chromaticity Diagram



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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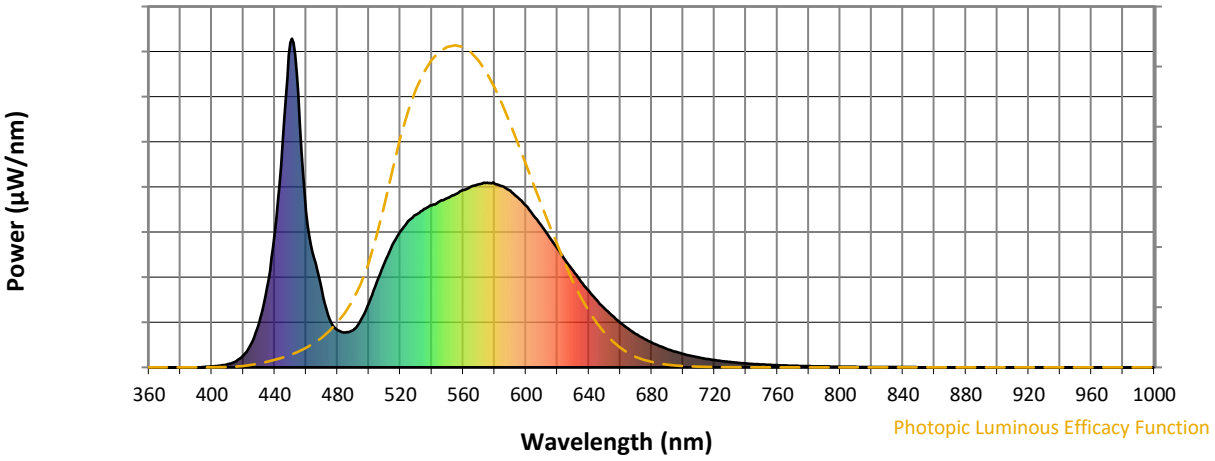
Photopic Flux vs. Wavelength



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			

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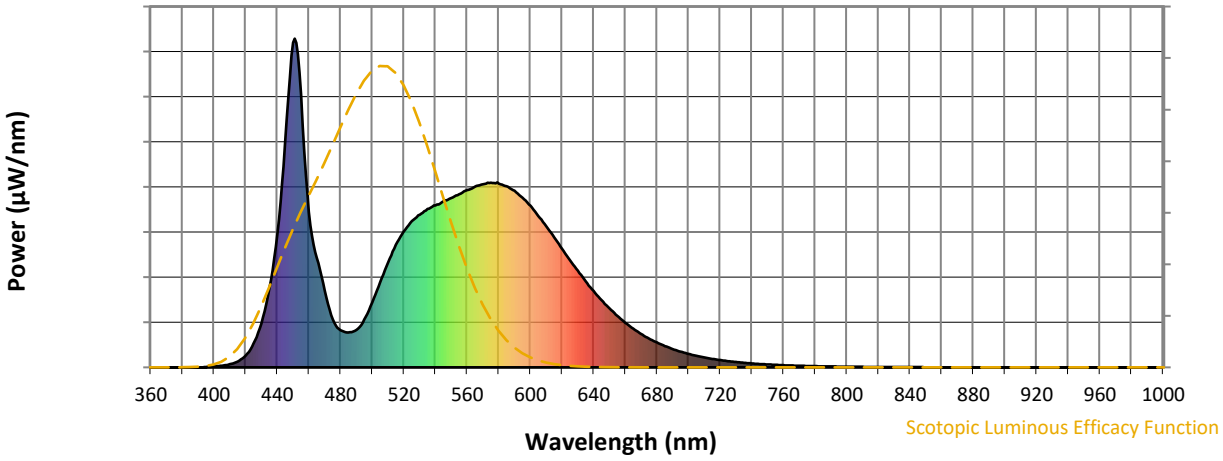
Scotopic Flux vs. Wavelength

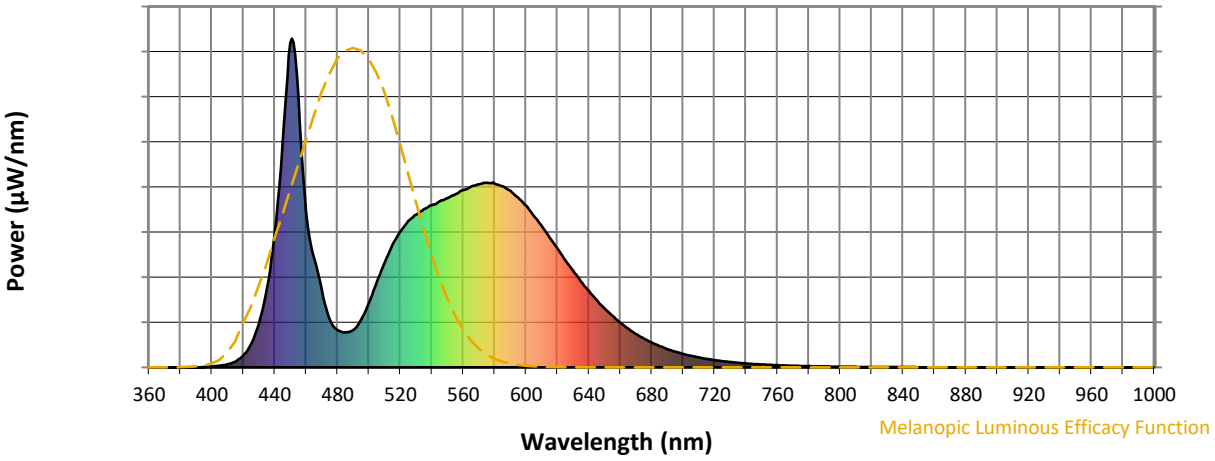


Scotopic Lumens: NR **S/P: 1.81**

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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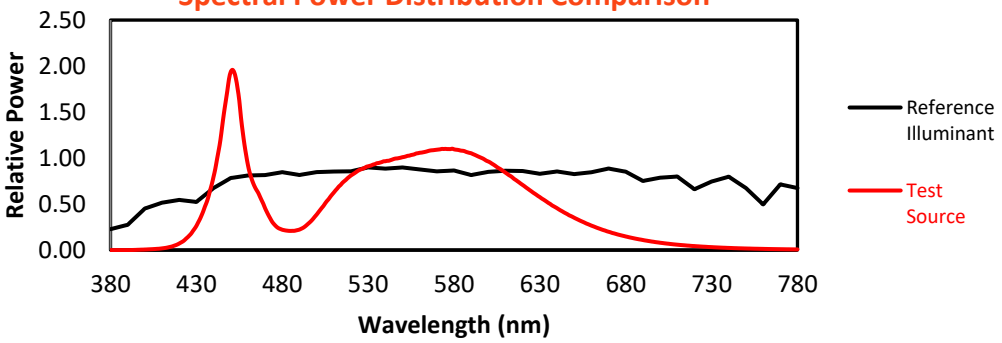
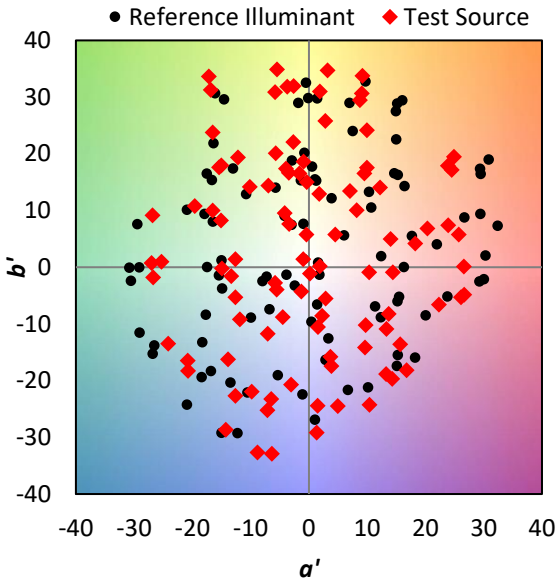
Summary

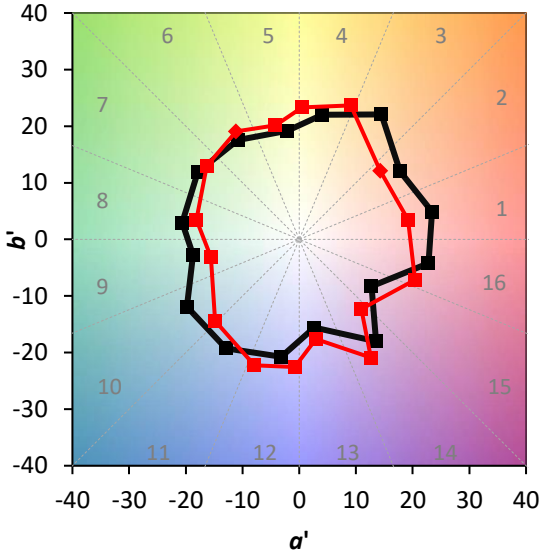
R_f = 73.7
R_g = 93
CIE R_a = 72.0
R_9 = -39.6

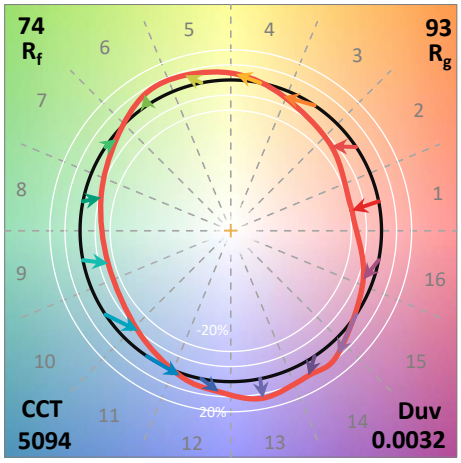
Spectral Power Distribution Comparison

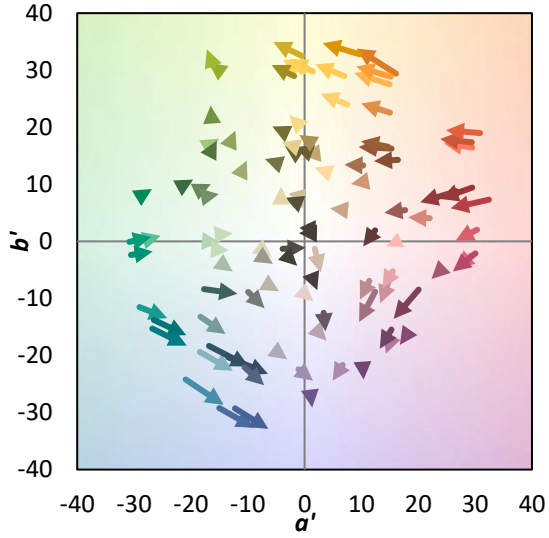


Color Vector Graphics









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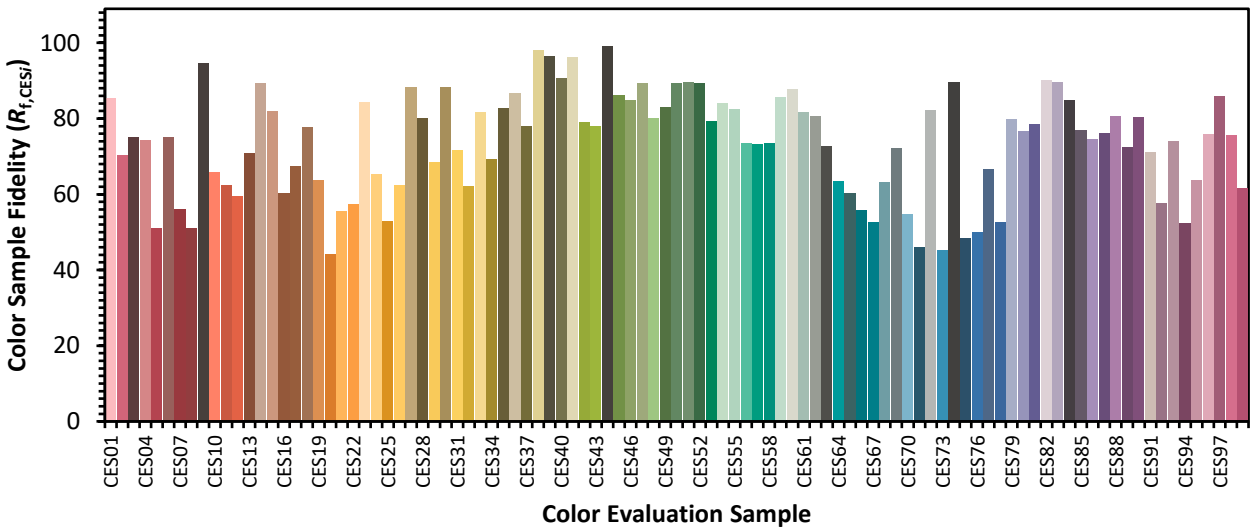
Individual Sample Fidelity Index ($R_{f,i}$)

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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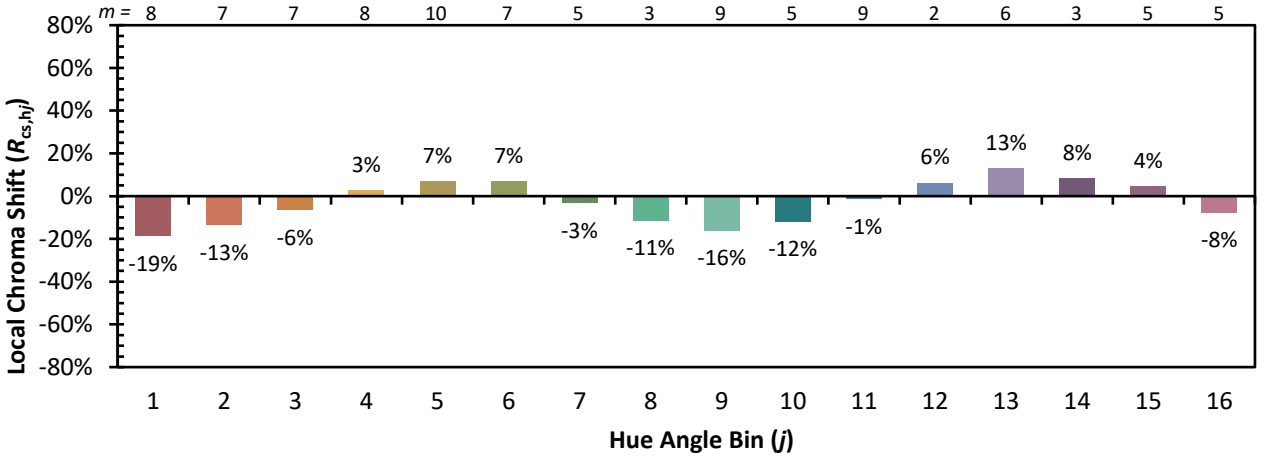
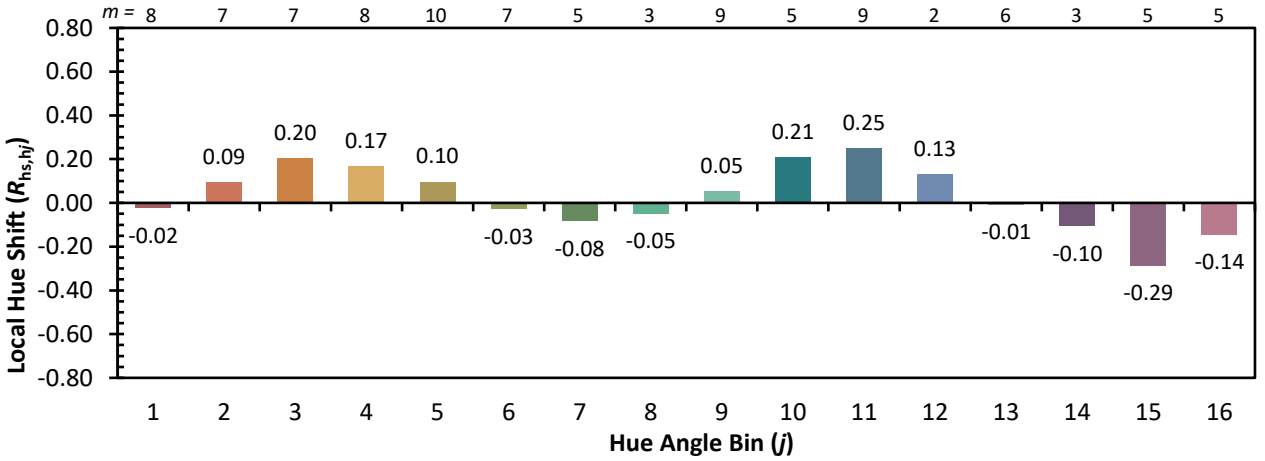
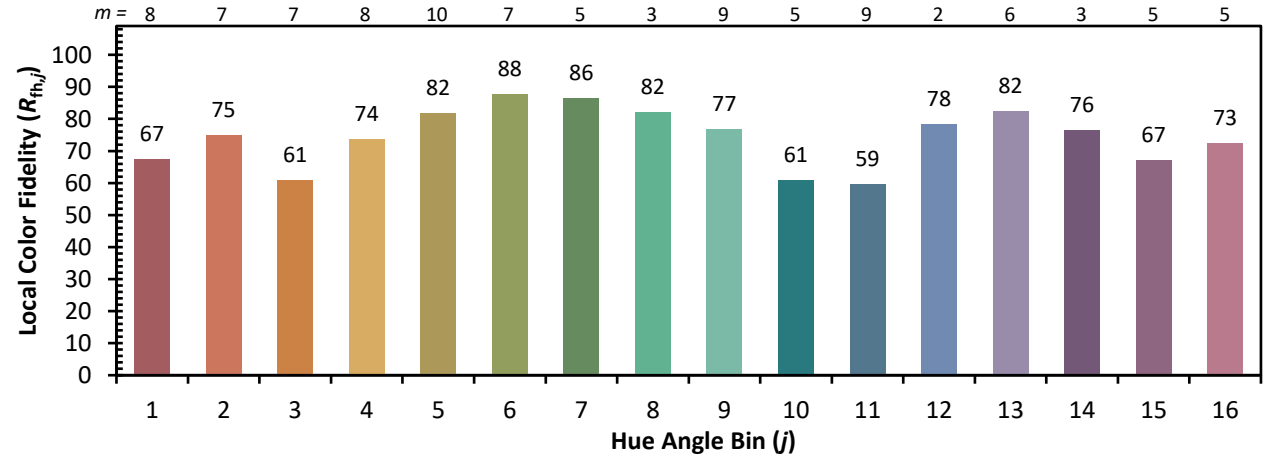
Color Rendition by Hue-Angle Bin







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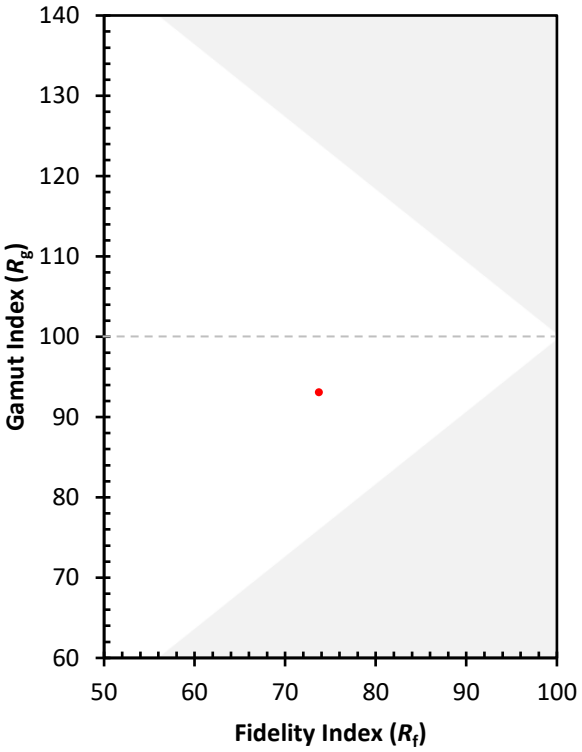
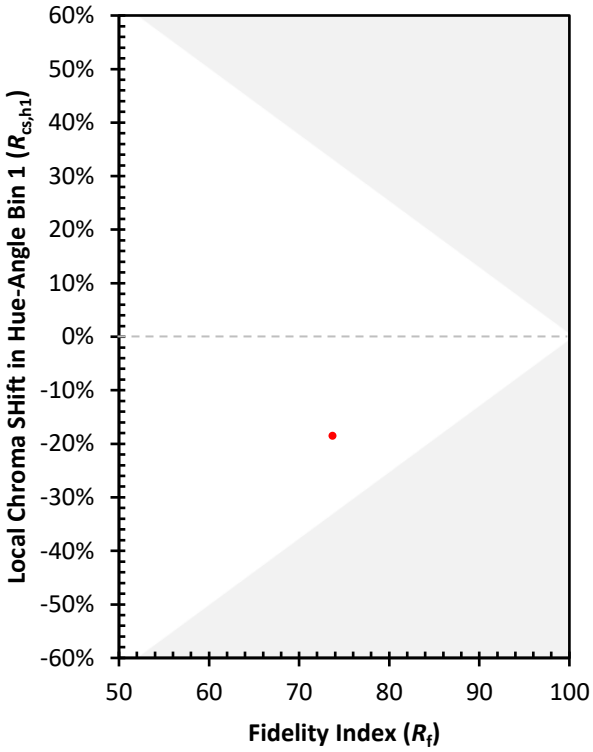
Measure Comparisons





(END OF REPORT)