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: P867834

Luminaire Tested: **MEM2-HTN-SA-30-740-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:	P867834
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	08/21/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HTN-SA-30-740-U-5WQ
Description:	EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 30W 70CRI 4000K FIXTURE w/ TYPE V SQUARE WIDE DISTRIBUTION OPTIC
Light Source:	(10) 4000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5119 lumens
Efficiency:	N/A
Efficacy:	156.1 lumens/watt
Luminous Opening:	Rectangular (W 0.33' x L: 0.33' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G1

Input Watts (W):	32.8
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	9.76%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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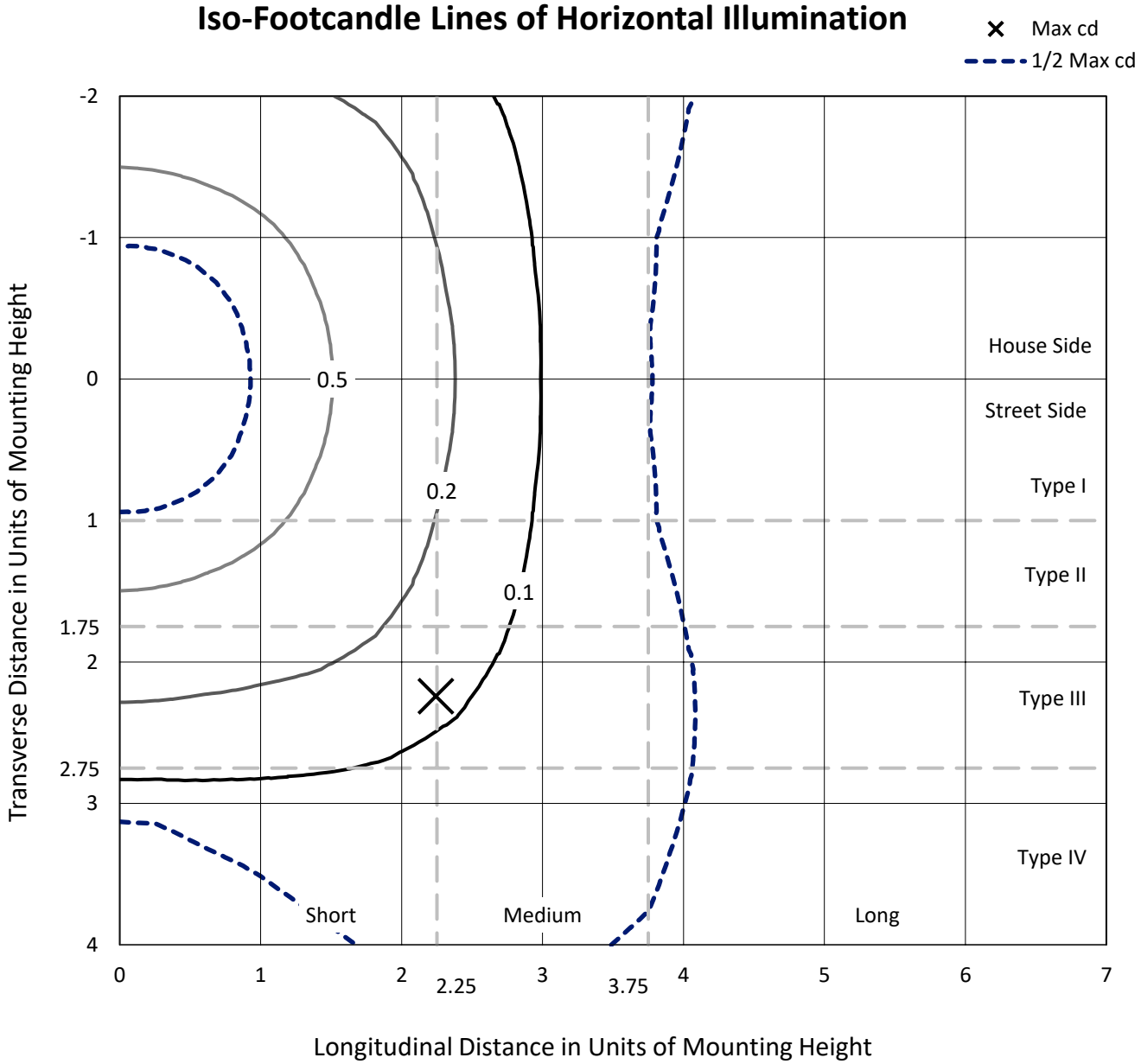
Scaled Data Report

REPORT NUMBER: P867834
CATALOG NUMBER: MEM2-HTN-SA-30-740-U-5WQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 0.9 fc
Type V - Short - N/A

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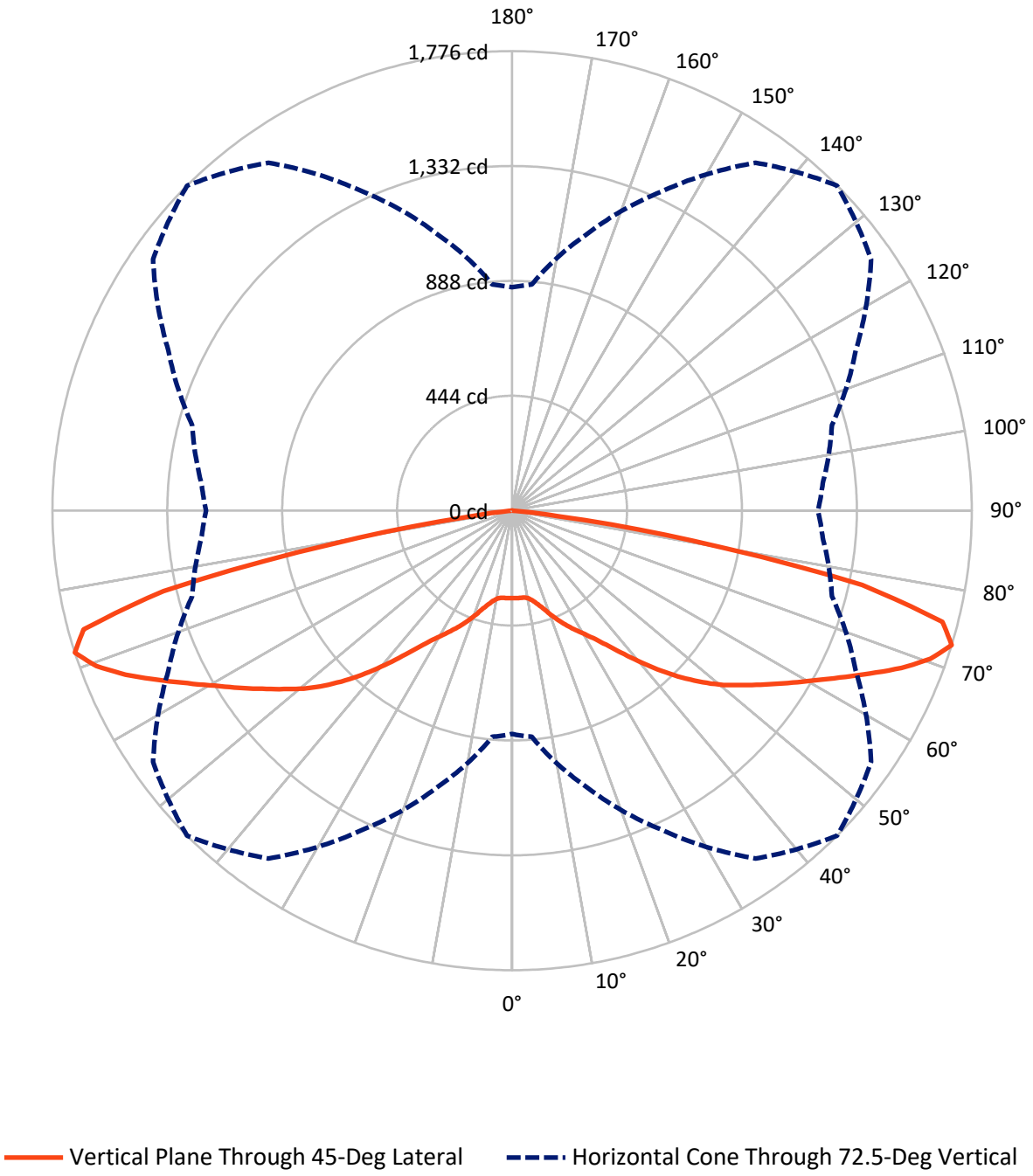
Luminous Intensity Polar Plot



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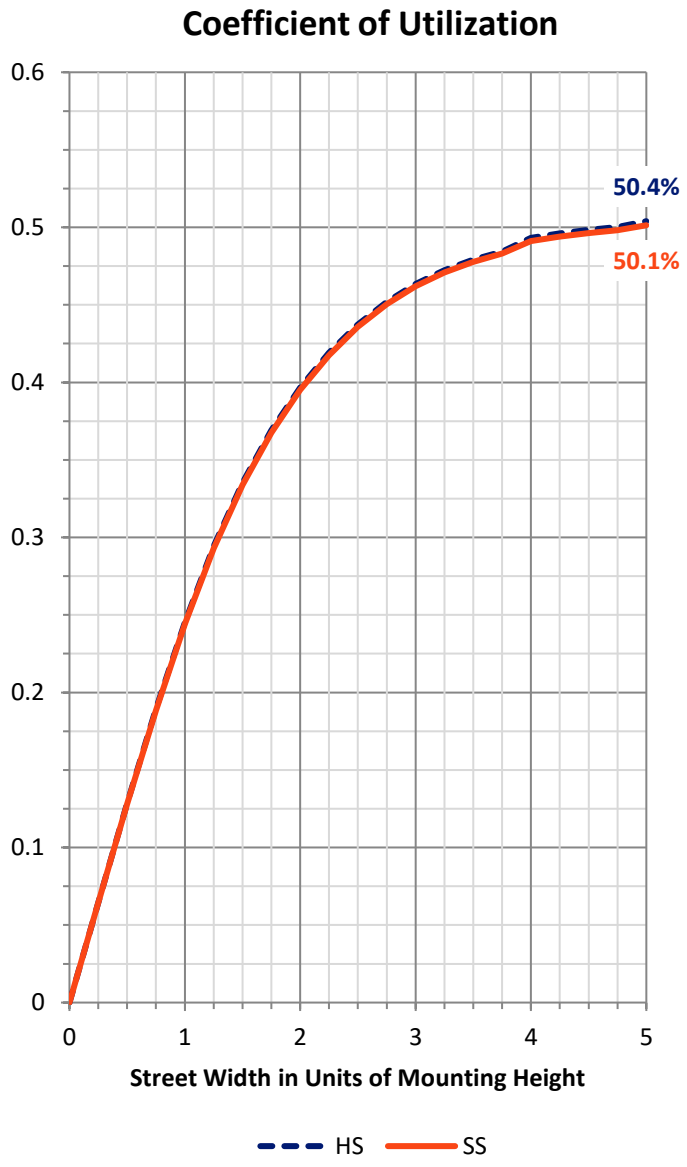
REPORT NUMBER: P867834
CATALOG NUMBER: MEM2-HTN-SA-30-740-U-5WQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2559.5	0.0	2559.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2559.5	0.0	2559.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	5119.0	0.0	5119.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	0.6
10°-20°	108.1	2.1
20°-30°	223.0	4.4
30°-40°	410.6	8.0
40°-50°	722.0	14.1
50°-60°	1047.1	20.5
60°-70°	1365.0	26.7
70°-80°	1134.6	22.2
80°-90°	76.2	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°	5119.0	100.0
0°-180°	5119.0	100.0



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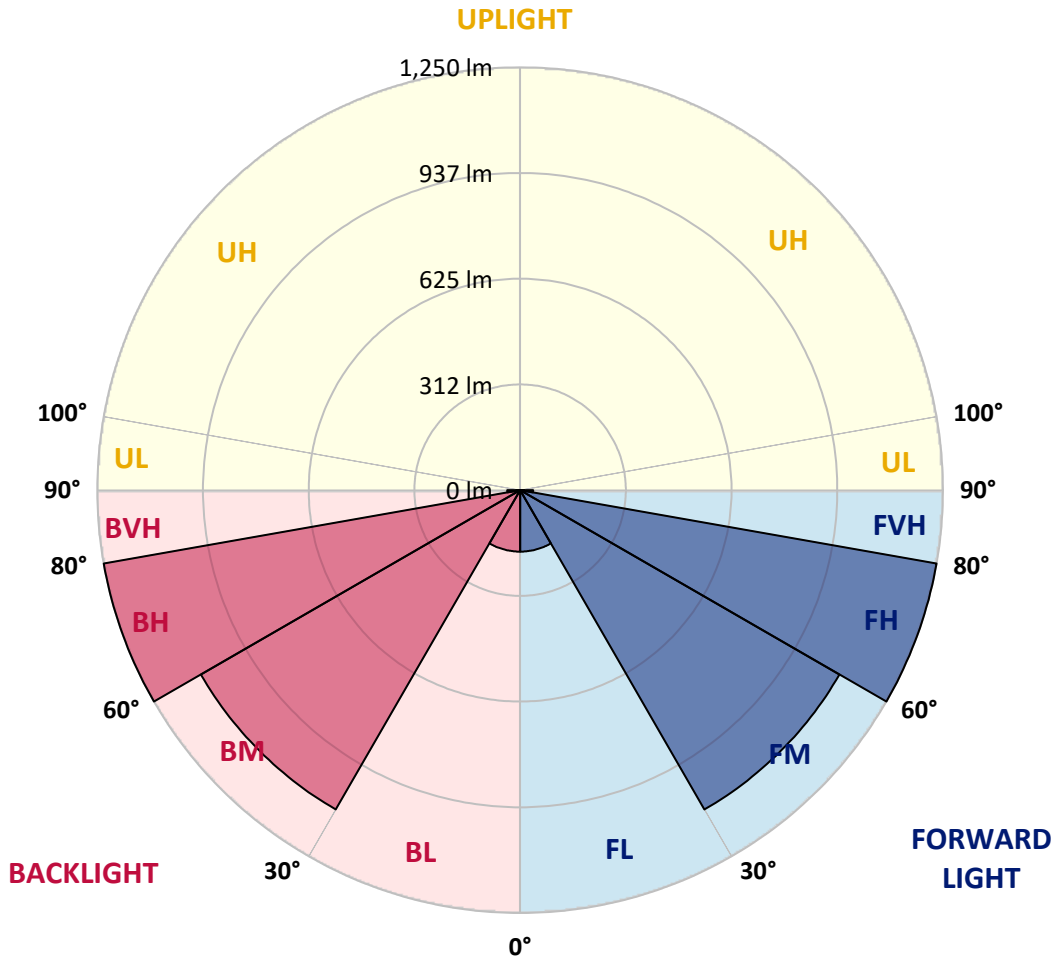
Scaled Data Report

REPORT NUMBER: P867834
CATALOG NUMBER: MEM2-HTN-SA-30-740-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	181.8	3.6			
FM	(30°-60°)	1089.8	21.3			
FH	(60°-80°)	1249.8	24.4			G1/1800
FVH	(80°-90°)	38.1	0.7			G1/100
BL	(0°-30°)	181.8	3.6	B1/500		
BM	(30°-60°)	1089.8	21.3	B2/2500		
BH	(60°-80°)	1249.8	24.4	B3/2500		G1/1800
BVH	(80°-90°)	38.1	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1
Type V Short



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REPORT NUMBER: P867834
CATALOG NUMBER: MEM2-HTN-SA-30-740-U-5WQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	337.9	337.9	337.9	337.9	337.9	*337.9*	337.9	337.9	337.9	337.9	337.9
2.5°	336.9	337.4	337.4	337.4	337.9	*338.5*	339.0	339.5	340.6	341.1	341.1
5°	338.5	337.9	337.4	338.5	338.5	*338.5*	339.0	339.5	339.5	339.5	340.1
7.5°	336.9	337.4	336.9	336.9	338.5	*339.0*	338.5	337.9	337.9	338.5	338.5
10°	342.7	342.2	341.7	341.7	343.2	*343.8*	343.2	342.7	342.7	343.8	343.8
12.5°	356.0	357.0	353.9	353.9	356.0	*357.0*	355.4	354.9	355.4	356.5	356.5
15°	376.7	376.1	374.0	371.9	374.0	*375.6*	373.5	372.4	373.0	375.6	373.5
17.5°	399.5	400.0	397.9	395.8	397.4	*399.5*	396.3	393.6	394.2	395.2	394.2
20°	424.9	424.4	423.9	423.9	427.1	*429.7*	424.9	418.6	417.0	415.9	415.9
22.5°	443.5	445.1	445.6	450.4	457.8	*460.5*	454.1	445.6	439.3	436.1	434.0
25°	472.7	471.1	470.0	475.3	486.5	*491.3*	483.3	471.6	465.3	464.7	466.3
27.5°	499.2	499.2	501.3	506.6	517.3	*522.0*	515.1	503.5	500.3	500.3	498.7
30°	533.7	532.1	534.2	543.3	551.2	*554.4*	548.6	540.6	537.9	537.9	535.3
32.5°	574.0	574.6	577.7	583.6	591.5	*592.1*	589.9	586.2	584.6	583.0	585.7
35°	635.6	635.6	634.5	638.7	640.9	*641.9*	643.0	641.4	641.4	641.4	639.3
37.5°	712.0	707.7	707.2	703.5	700.8	*703.5*	708.2	713.6	717.8	715.1	714.1
40°	787.8	785.7	779.3	773.5	771.4	*772.4*	778.3	789.4	794.2	794.2	798.4
42.5°	869.5	865.3	857.3	850.4	844.6	*846.2*	851.5	865.3	875.9	880.7	878.5
45°	942.7	939.0	931.1	924.7	920.5	*919.9*	926.8	935.8	950.2	954.4	957.6
47.5°	1005.3	1002.7	995.8	989.4	991.0	*991.5*	993.7	1001.6	1013.3	1019.1	1018.6
50°	1056.3	1054.1	1047.8	1050.4	1054.7	*1058.9*	1056.3	1061.6	1069.0	1071.7	1073.8
52.5°	1103.0	1099.8	1095.5	1100.3	1111.4	*1119.9*	1121.5	1117.8	1119.9	1121.5	1119.9
55°	1149.1	1145.4	1144.3	1152.8	1169.8	*1185.7*	1184.1	1173.5	1170.9	1167.7	1166.1
57.5°	1186.8	1184.1	1188.4	1202.7	1235.6	*1256.8*	1249.9	1225.5	1214.9	1207.5	1205.3
60°	1210.6	1210.1	1219.7	1253.1	1303.0	*1332.7*	1321.5	1279.6	1255.7	1248.8	1245.7
62.5°	1223.4	1223.9	1240.9	1300.3	1379.9	*1420.2*	1400.6	1336.4	1299.2	1292.3	1293.4
65°	1235.1	1233.5	1255.7	1340.1	1463.2	*1517.8*	1491.3	1404.8	1350.7	1336.9	1336.9
67.5°	1243.5	1245.1	1278.6	1379.9	1544.3	*1622.3*	1583.6	1477.5	1405.9	1385.2	1382.5
70°	1136.4	1151.8	1256.3	1406.4	1608.5	*1714.6*	1663.7	1522.1	1408.0	1349.1	1343.3
72.5°	*863.2*	*877.5*	*1103.5*	*1359.2*	*1641.4*	*1776.2*	*1693.4*	*1465.3*	*1279.6*	*1204.8*	*1182.5*
75°	569.2	579.3	822.3	1187.3	1550.2	*1717.8*	1542.2	1262.1	1007.5	910.4	916.2
77.5°	253.6	286.0	524.2	926.3	1277.0	*1382.5*	1176.2	861.0	615.4	521.0	510.9
80°	106.1	116.2	197.9	493.9	740.1	*708.2*	500.8	288.6	183.6	142.7	137.9
82.5°	30.8	31.8	39.3	85.4	150.7	*177.2*	106.6	54.1	51.5	40.9	37.7
85°	2.1	2.1	3.2	5.3	7.4	*12.2*	13.8	15.9	18.0	15.4	15.4
87.5°	1.1	1.1	1.1	1.6	1.6	*2.1*	1.6	1.6	1.6	1.6	1.6
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: SP1-2407-157-5

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-30-740-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-30-740-U-5WQ-2

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

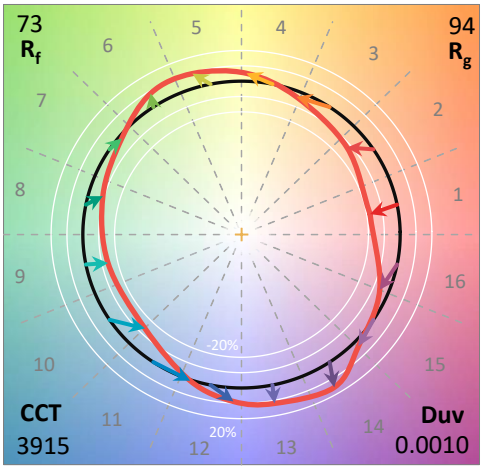
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-157-5
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-30-740-U-5WQ-2**
Description:	Epic Modern Light Square 30W 5WQ Optic and Flare Trim

Spectral Parameters

CCT (K):	3915
CIE u':	0.2262
CIE v':	0.5044
Duv:	0.0010
CIE x:	0.3850
CIE y:	0.3816
CIE z:	0.2334
Peak Wavelength (nm):	449
Dominant Wavelength (nm):	578
Purity:	30.05482
Rf:	73.2
Rg:	93.9

CRI (Ra):	71.0
R1:	67.6
R2:	78.3
R3:	87.1
R4:	69.7
R5:	67.4
R6:	69.3
R7:	79.7
R8:	48.7
R9:	-38.4
R10:	48.9
R11:	65.3
R12:	40.4
R13:	69.3
R14:	92.6
R15:	59.9



Test Conditions

Stabilization Time:	21M
Operation Time:	1H 21M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2407-157-5

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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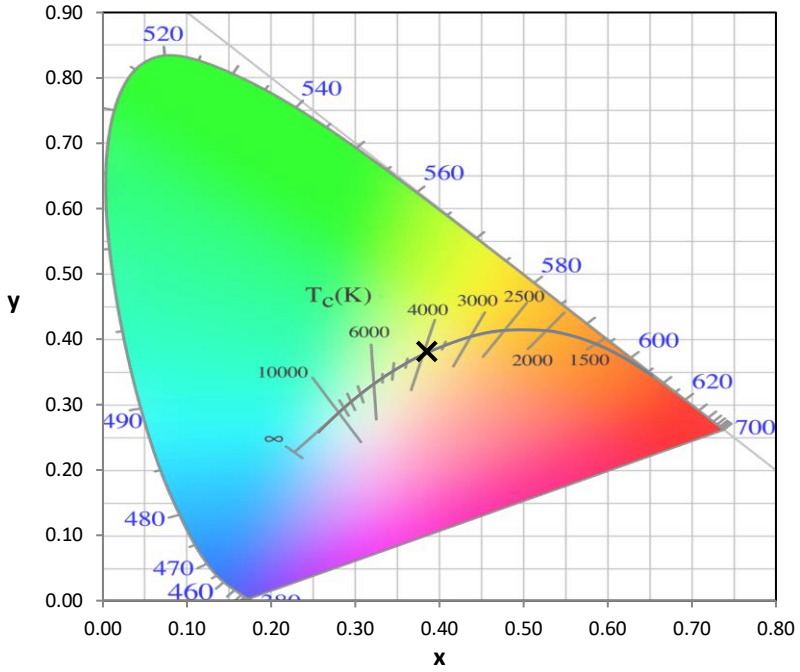
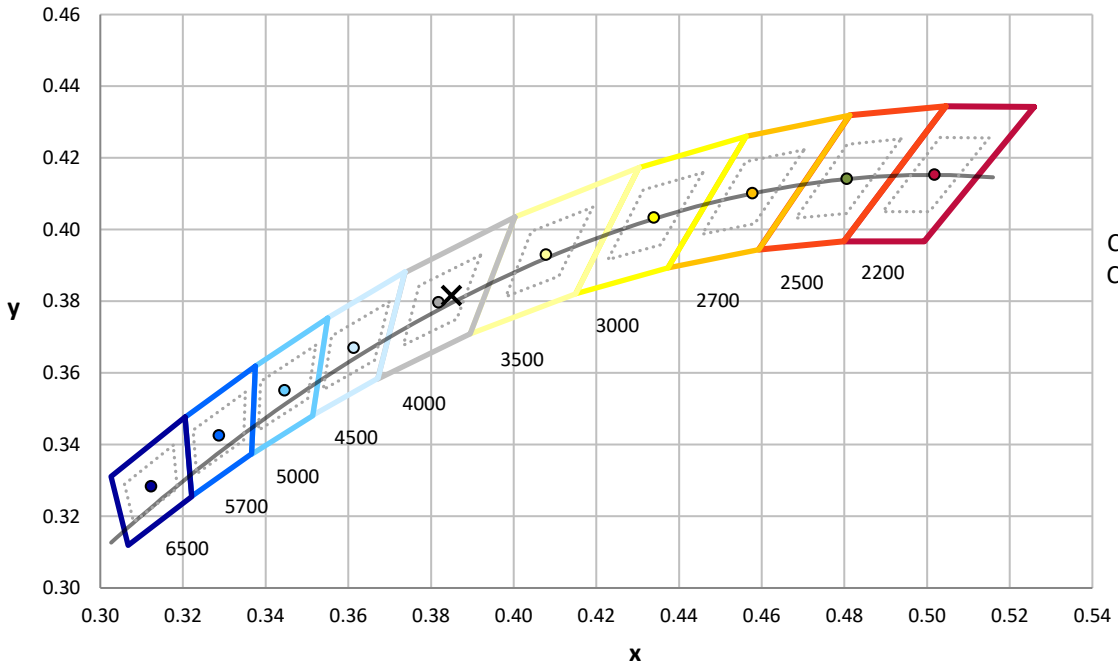
CIE 1931 Chromaticity Diagram



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



CCT = 3915K
CIE x = 0.3850
CIE y = 0.3816
Duv = 0.0010

Point lies inside the ANSI 4000K 4-step quadrangle

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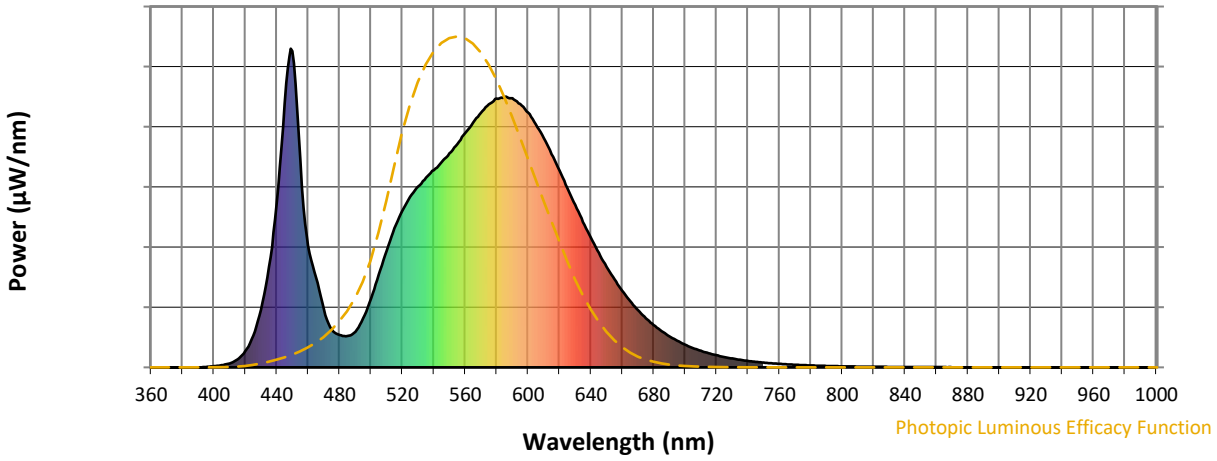
Photopic Flux vs. Wavelength

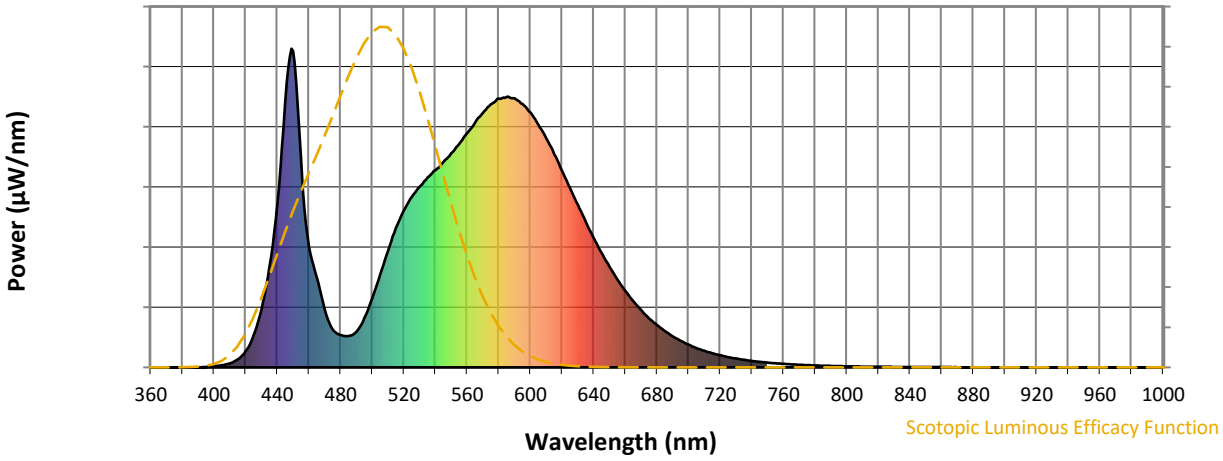


Photopic Lumens: NR

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-5

Scotopic Flux vs. Wavelength

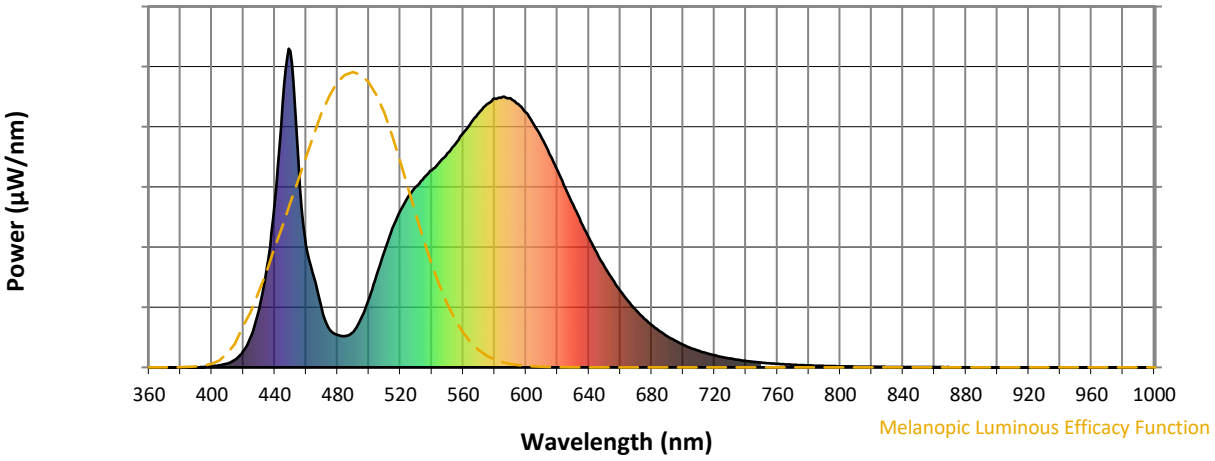


Scotopic Lumens: NR **S/P: 1.49**

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.88**

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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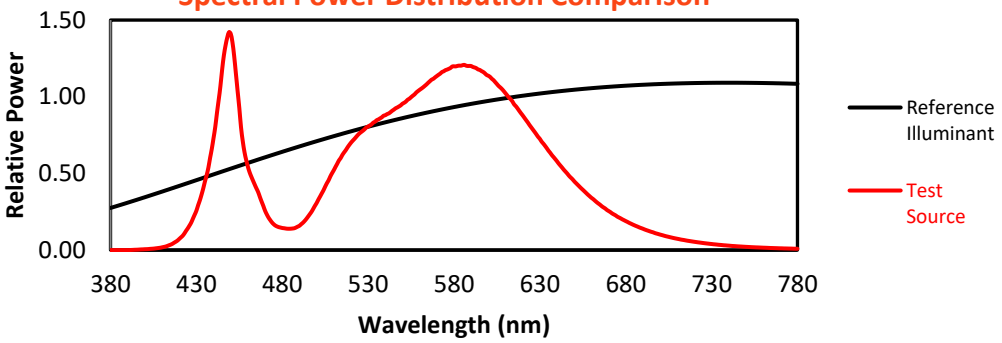
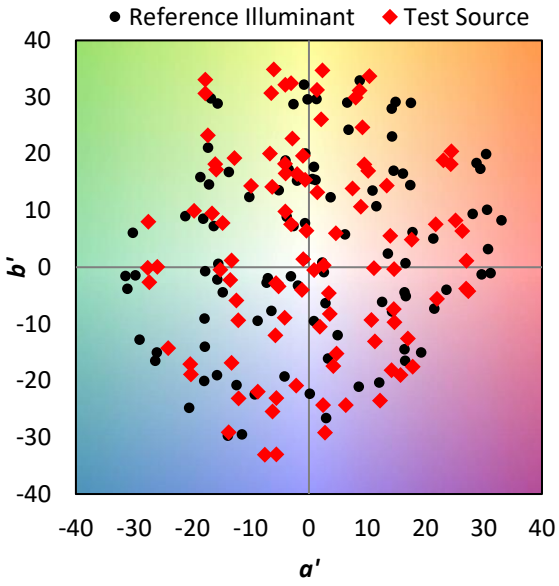
Summary

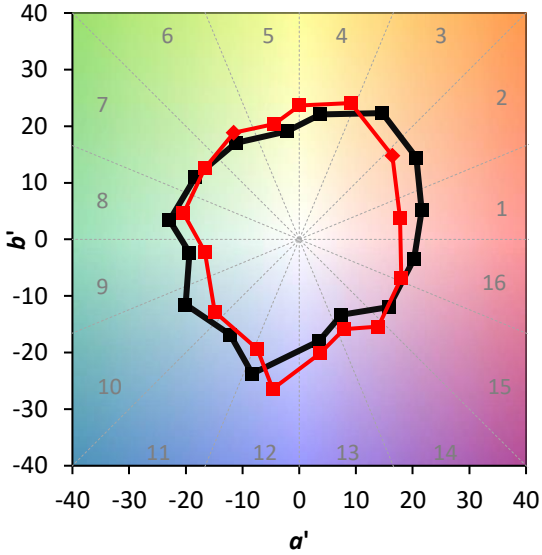
R_f = 73.2
R_g = 93.9
CIE R_a = 71.0
R_9 = -38.4

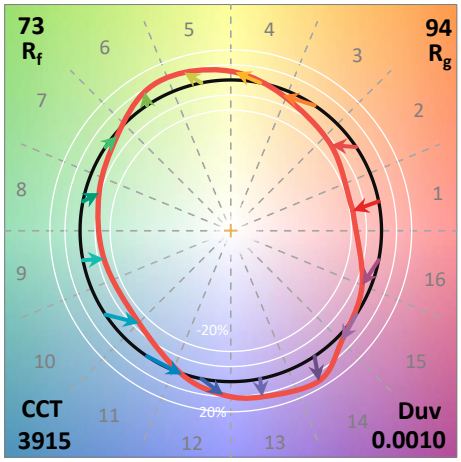
Spectral Power Distribution Comparison

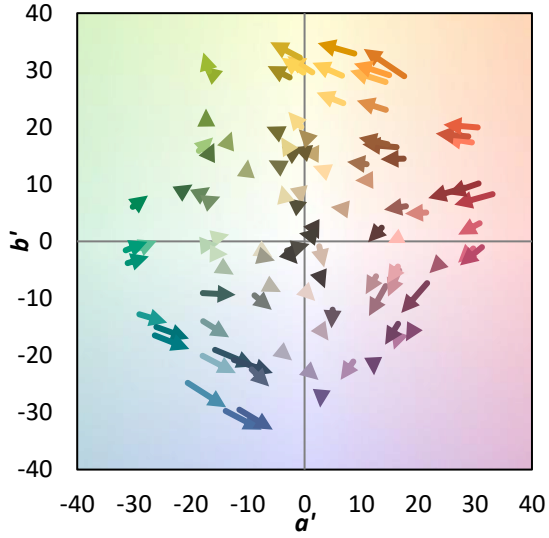


Color Vector Graphics









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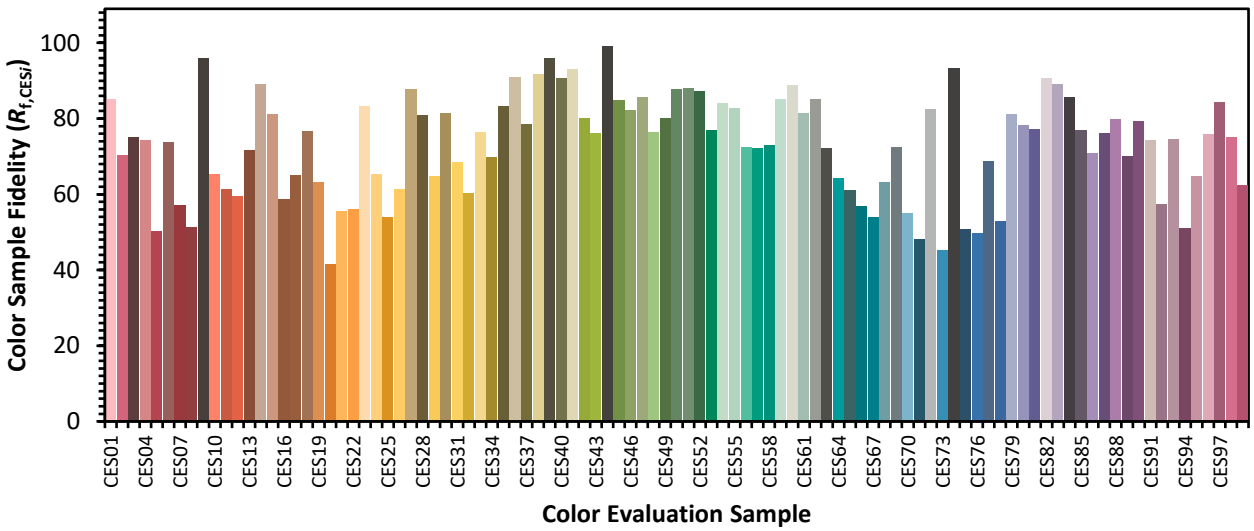
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 61	CES51 = 88	CES76 = 50
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 69
CES03 = 30	CES28 = 81	CES53 = 77	CES78 = 53
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 81	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 77
CES07 = 40	CES32 = 60	CES57 = 72	CES82 = 91
CES08 = 39	CES33 = 76	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 83	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 91	CES61 = 81	CES86 = 71
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 76
CES13 = 42	CES38 = 92	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 64	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 61	CES90 = 79
CES16 = 46	CES41 = 93	CES66 = 57	CES91 = 74
CES17 = 49	CES42 = 80	CES67 = 54	CES92 = 57
CES18 = 56	CES43 = 76	CES68 = 63	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 51
CES20 = 65	CES45 = 85	CES70 = 55	CES95 = 65
CES21 = 86	CES46 = 82	CES71 = 48	CES96 = 76
CES22 = 78	CES47 = 86	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 77	CES73 = 45	CES98 = 75
CES24 = 91	CES49 = 80	CES74 = 93	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 51	



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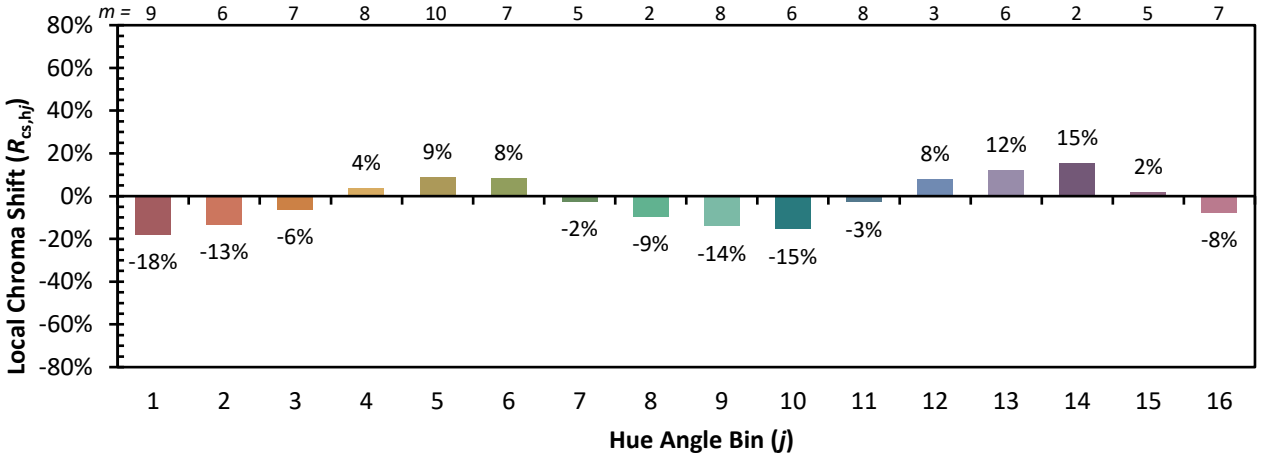
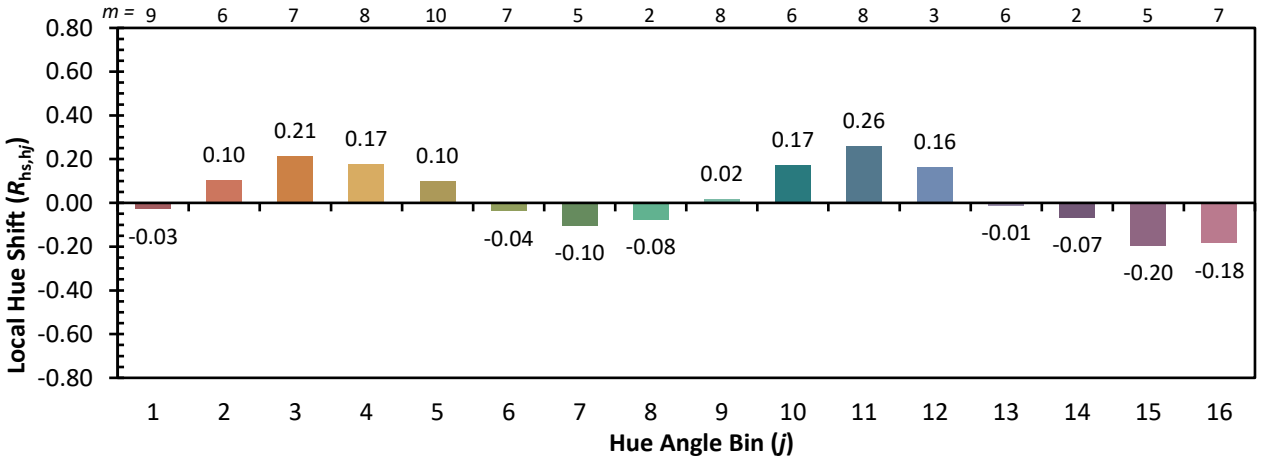
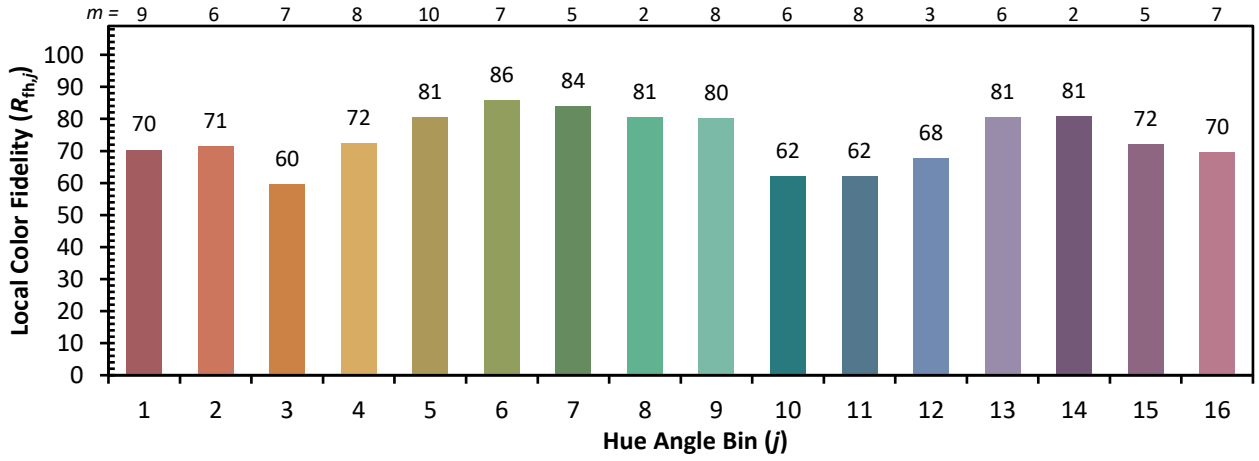
Color Rendition by Hue-Angle Bin







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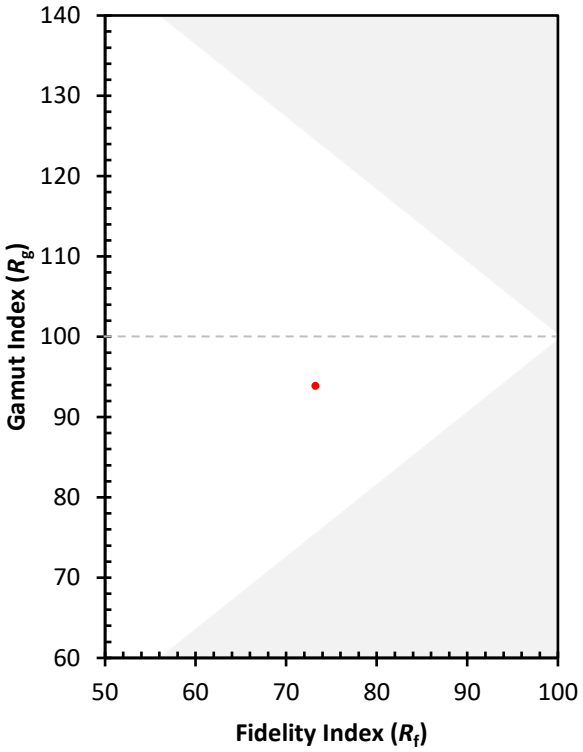
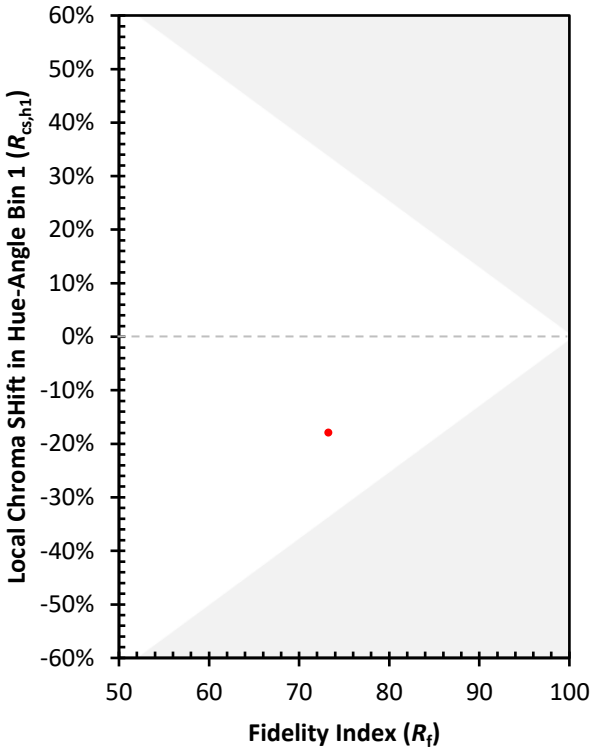
Measure Comparisons





(END OF REPORT)