

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: P870353

Luminaire Tested: **MEM2-HSN-SA-110-840-U-T2U-HSS**

Issue Date: 09/05/2024

Test Information

Test Method: LM-79-08
Report Number: P870353
Test Lab: INNOVATION CENTER(G3)
Issue Date: 09/05/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-SA-110-840-U-T2U-HSS
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 110W 80CRI 4000K
FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD
Light Source: (30) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10860.5 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

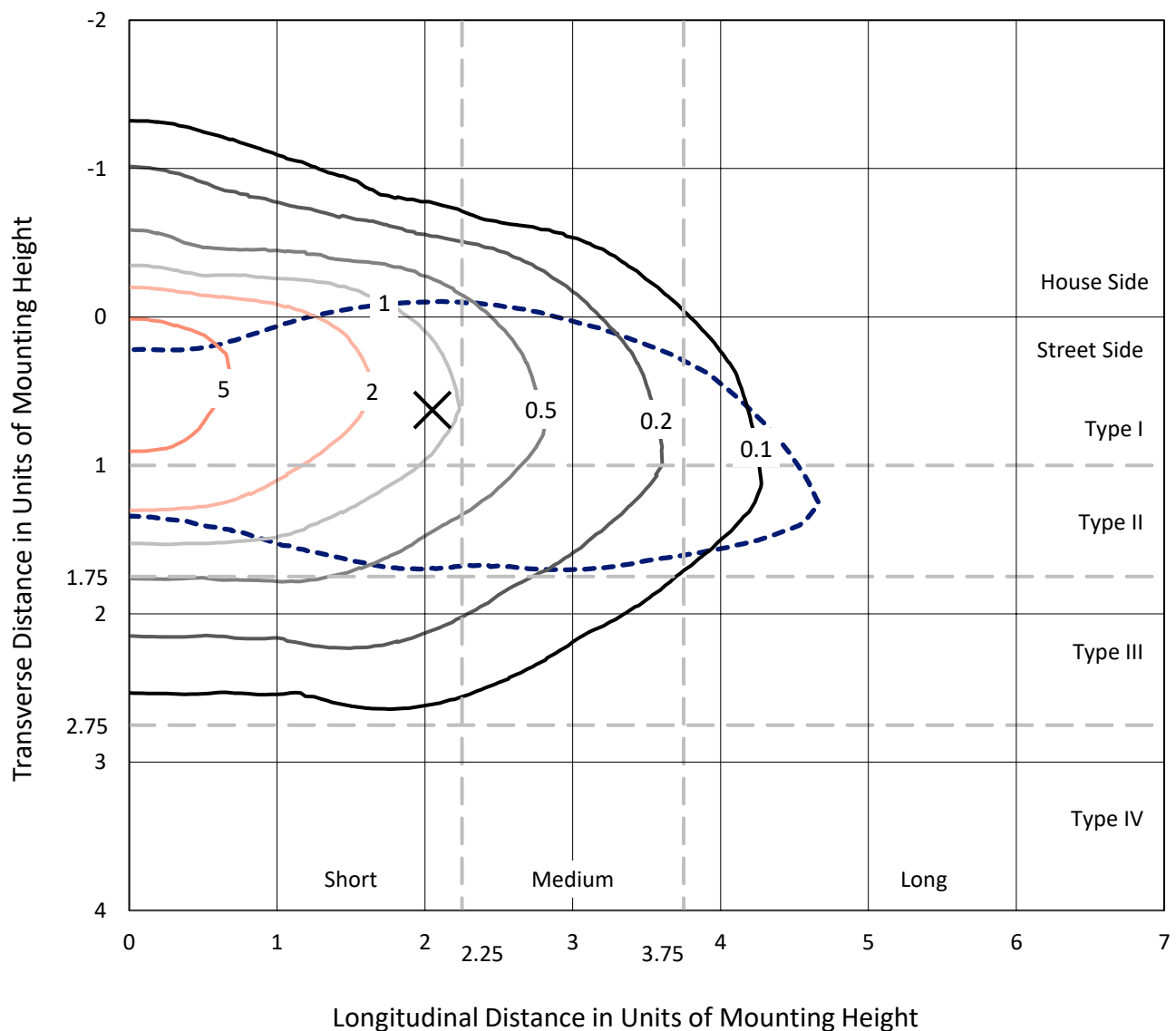
Input Watts (W): 113
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 7.77%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

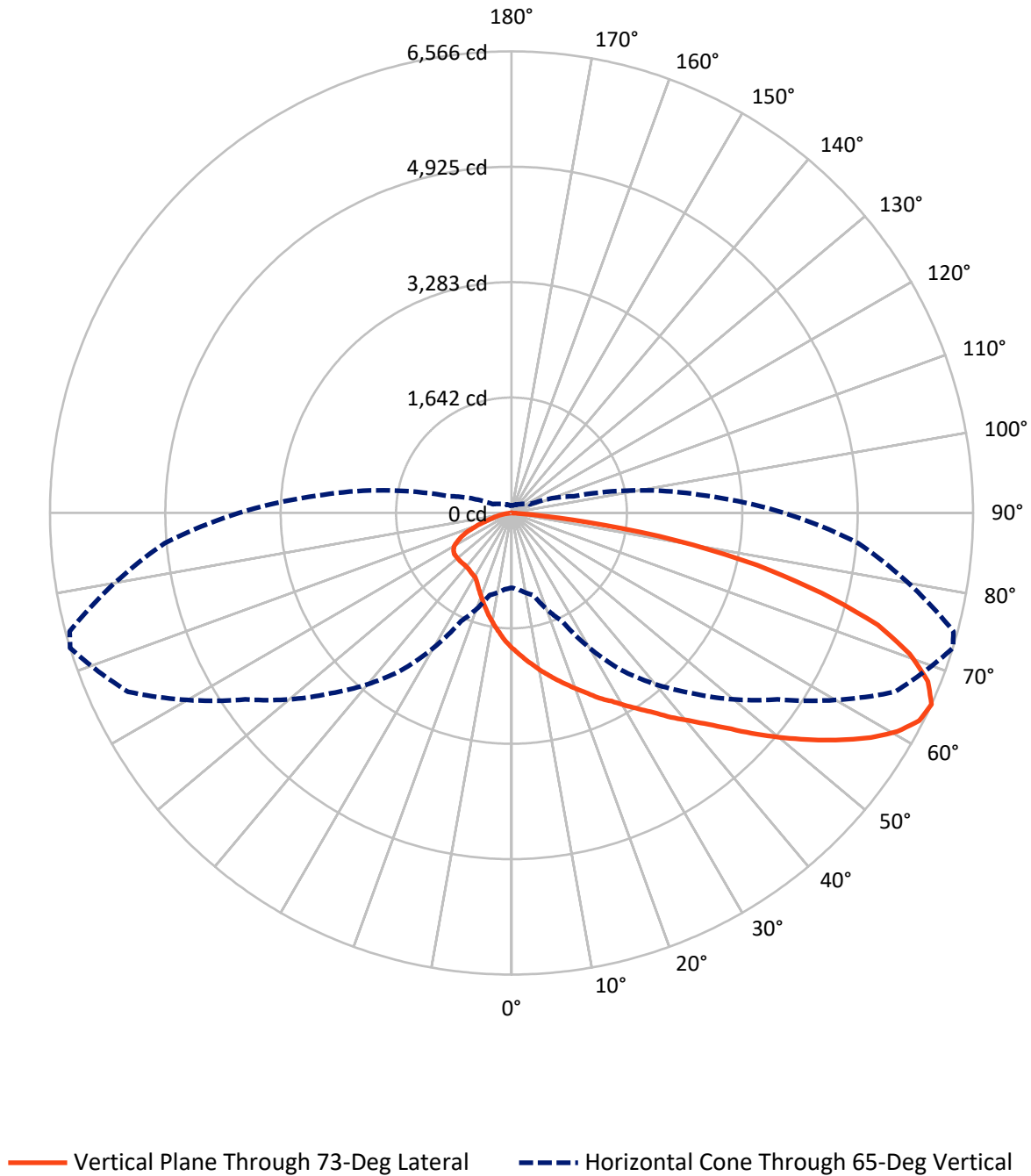


Based on 20 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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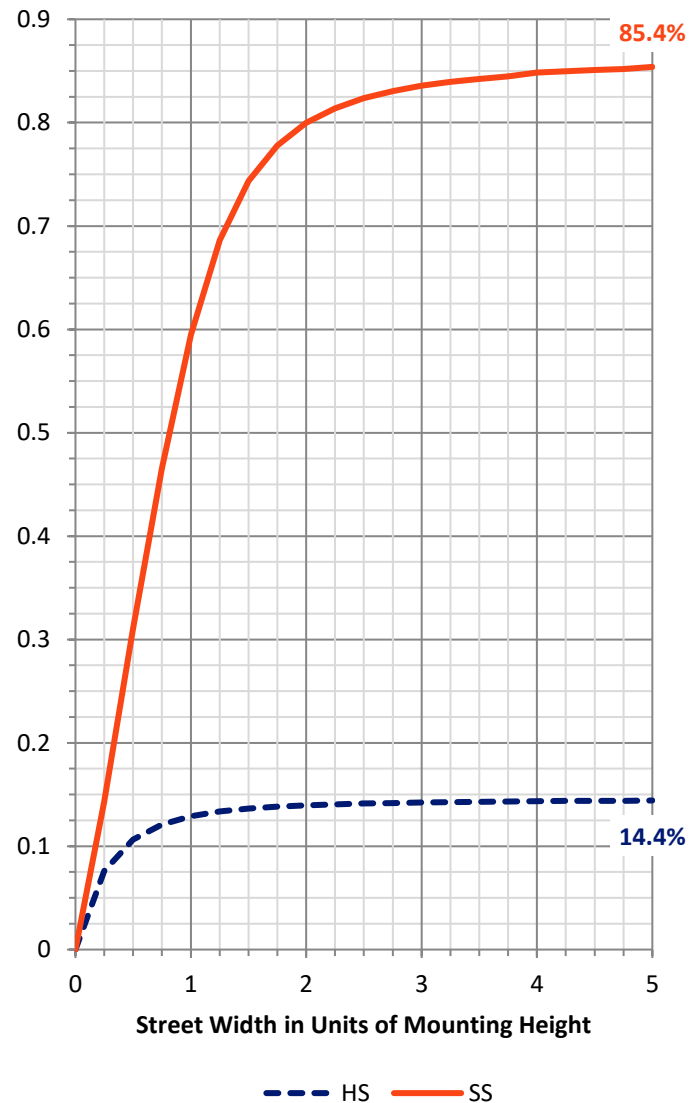
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1579.3	0.0	1579.3
	% Fixture	14.5	0.0	14.5
Street Side	Lumens	9281.2	0.0	9281.2
	% Fixture	85.5	0.0	85.5
Total	Lumens	10860.5	0.0	10860.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	1.7
10°-20°	565.2	5.2
20°-30°	946.6	8.7
30°-40°	1427.9	13.1
40°-50°	2017.5	18.6
50°-60°	2270.2	20.9
60°-70°	2035.7	18.7
70°-80°	1238.1	11.4
80°-90°	173.3	1.6
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°	10860.5	100.0
0°-180°	10860.5	100.0

Coefficient of Utilization



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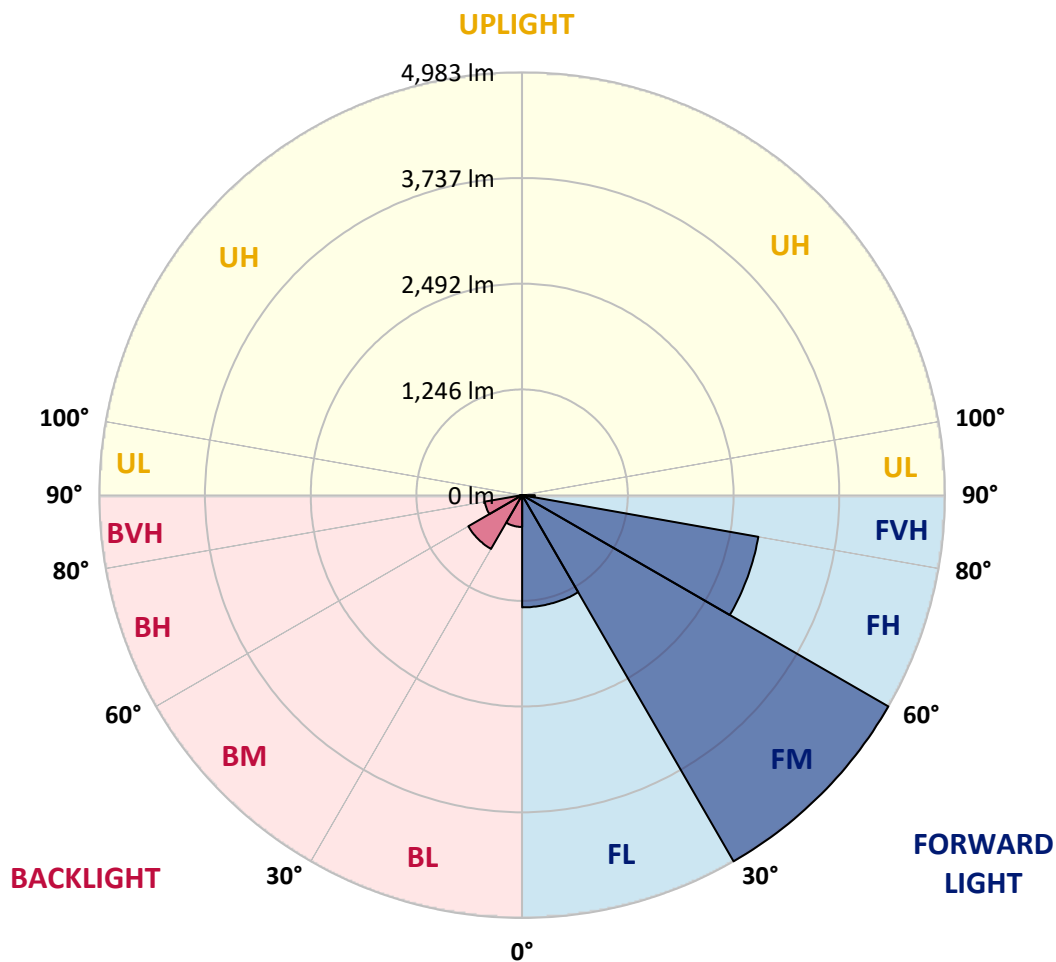
CATALOG NUMBER: MEM2-HSN-SA-110-840-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1322.6	12.2			
FM	(30°-60°)	4983.3	45.9			
FH	(60°-80°)	2826.5	26.0			G2/5000
FVH	(80°-90°)	148.8	1.4			G2/225
BL	(0°-30°)	375.2	3.5	B1/500		
BM	(30°-60°)	732.3	6.7	B1/1000		
BH	(60°-80°)	447.3	4.1	B1/500		G1/500
BVH	(80°-90°)	24.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7
2.5°	2223.8	2211.0	2191.9	2175.9	2147.1	2108.8	2076.8	2035.3	2006.5	1997.0	1955.4
5°	2546.5	2530.6	2508.2	2469.8	2393.2	2348.4	2265.4	2169.5	2092.8	2076.8	1981.0
7.5°	2878.8	2872.4	2821.3	2763.8	2671.1	2572.1	2444.3	2294.1	2182.3	2156.7	2009.7
10°	3160.0	3131.2	3102.5	3048.2	2949.1	2808.5	2642.4	2434.7	2278.1	2236.6	2038.5
12.5°	3329.3	3319.8	3294.2	3230.3	3134.4	3013.0	2814.9	2572.1	2370.8	2313.3	2067.3
15°	3453.9	3463.5	3438.0	3396.4	3297.4	3182.4	2990.7	2715.9	2469.8	2402.7	2099.2
17.5°	3572.2	3565.8	3562.6	3514.7	3425.2	3310.2	3115.3	2834.1	2568.9	2495.4	2131.2
20°	3639.3	3642.5	3636.1	3616.9	3530.6	3418.8	3236.7	2974.7	2677.5	2594.5	2172.7
22.5°	3674.4	3687.2	3700.0	3696.8	3626.5	3540.2	3351.7	3086.5	2789.4	2703.1	2223.8
25°	3696.8	3706.4	3735.1	3773.5	3709.6	3639.3	3479.5	3220.7	2920.4	2821.3	2284.5
27.5°	3715.9	3728.7	3763.9	3821.4	3770.3	3728.7	3591.3	3335.7	3032.2	2942.7	2354.8
30°	3840.6	3856.5	3856.5	3885.3	3827.8	3818.2	3715.9	3473.1	3172.8	3076.9	2444.3
32.5°	4169.7	4137.7	4080.2	4051.4	3914.0	3917.2	3837.4	3610.5	3322.9	3227.1	2556.1
35°	4454.0	4454.0	4383.7	4291.1	4070.6	4025.9	3978.0	3792.6	3485.9	3393.2	2703.1
37.5°	4728.8	4732.0	4658.5	4578.6	4326.2	4166.5	4140.9	3968.4	3687.2	3578.6	2856.5
40°	4901.3	4920.5	4901.3	4840.6	4597.8	4412.5	4300.7	4166.5	3878.9	3795.8	3032.2
42.5°	4930.1	4968.4	5038.7	5057.9	4795.9	4633.0	4505.1	4371.0	4109.0	4016.3	3233.5
45°	4856.6	4869.4	5026.0	5048.3	4942.9	4808.7	4722.4	4610.6	4383.7	4303.9	3457.1
47.5°	4655.3	4629.8	4684.1	4879.0	4920.5	4914.1	4936.5	4882.2	4703.2	4601.0	3703.2
50°	4224.0	4233.6	4409.3	4645.7	4789.5	4952.5	5096.3	5157.0	5026.0	4923.7	3968.4
52.5°	3438.0	3482.7	3818.2	4377.3	4626.6	4926.9	5211.3	5415.8	5361.4	5262.4	4230.4
55°	2824.5	2891.6	3227.1	3946.0	4402.9	4802.3	5278.4	5687.4	5696.9	5620.3	4470.0
57.5°	2211.0	2265.4	2620.0	3278.2	4083.4	4607.4	5288.0	5920.6	6029.2	5939.8	4680.9
60°	1731.8	1770.1	1977.8	2731.8	3690.4	4329.4	5217.7	6105.9	6310.4	6243.3	4863.0
62.5°	1313.2	1342.0	1527.3	2159.9	3207.9	4003.5	4981.2	6173.0	6508.5	6444.6	4965.2
65°	1064.0	1089.5	1211.0	1696.6	2731.8	3626.5	4623.4	6019.6	6566.0	6508.5	4952.5
67.5°	869.1	878.7	977.7	1322.8	2310.1	3201.5	4099.4	5620.3	6390.3	6387.1	4805.5
70°	702.9	728.5	811.6	1054.4	1920.3	2712.7	3489.1	4994.0	6010.1	6042.0	4511.5
72.5°	597.5	603.9	677.4	872.3	1565.6	2201.5	2888.4	4271.9	5450.9	5476.5	4051.4
75°	504.8	514.4	568.7	706.1	1271.7	1747.7	2322.9	3450.8	4562.7	4671.3	3412.4
77.5°	434.5	437.7	476.1	581.5	904.2	1313.2	1703.0	2588.1	3572.2	3648.9	2680.7
80°	341.9	348.3	389.8	460.1	629.4	853.1	1175.8	1770.1	2386.8	2473.0	1856.4
82.5°	159.8	178.9	188.5	252.4	329.1	421.8	556.0	738.1	1080.0	1076.8	865.9
85°	16.0	12.8	12.8	19.2	28.8	28.8	35.1	41.5	83.1	99.0	76.7
87.5°	0.0	0.0	0.0	3.2	6.4	6.4	6.4	9.6	9.6	9.6	9.6
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7	1926.7
2.5°	1936.3	1907.5	1856.4	1808.4	1776.5	1750.9	1709.4	1683.8	1664.7	1639.1	1635.9
5°	1929.9	1878.7	1776.5	1690.2	1607.2	1536.9	1463.4	1418.6	1370.7	1348.3	1367.5
7.5°	1936.3	1853.2	1693.4	1562.4	1437.8	1326.0	1230.1	1169.4	1124.7	1102.3	1105.5
10°	1939.5	1830.8	1623.1	1441.0	1281.3	1150.3	1041.6	958.5	904.2	891.4	875.5
12.5°	1933.1	1802.1	1552.8	1322.8	1131.1	987.3	859.5	795.6	741.3	715.7	715.7
15°	1939.5	1779.7	1479.4	1214.2	996.9	830.7	722.1	651.8	619.9	597.5	600.7
17.5°	1939.5	1760.5	1409.1	1108.7	865.9	712.5	613.5	556.0	524.0	511.2	508.0
20°	1961.8	1744.5	1342.0	1009.7	750.9	607.1	527.2	482.5	456.9	444.1	437.7
22.5°	1977.8	1731.8	1281.3	913.8	655.0	530.4	463.3	421.8	402.6	396.2	396.2
25°	2006.5	1728.6	1226.9	821.2	578.3	472.9	412.2	380.2	364.2	357.9	357.9
27.5°	2048.1	1735.0	1175.8	741.3	520.8	415.4	370.6	345.1	335.5	332.3	329.1
30°	2108.8	1763.7	1143.9	680.6	466.5	380.2	338.7	322.7	316.3	313.1	313.1
32.5°	2188.7	1814.8	1131.1	648.6	434.5	351.5	316.3	303.5	297.1	297.1	294.0
35°	2287.7	1872.4	1121.5	619.9	412.2	332.3	300.3	287.6	284.4	284.4	284.4
37.5°	2405.9	1933.1	1105.5	600.7	399.4	316.3	287.6	274.8	274.8	274.8	274.8
40°	2536.9	2022.5	1102.3	587.9	389.8	306.7	274.8	262.0	262.0	262.0	262.0
42.5°	2683.9	2118.4	1099.1	578.3	383.4	300.3	262.0	249.2	249.2	249.2	249.2
45°	2862.8	2239.8	1105.5	571.9	383.4	294.0	252.4	236.4	233.2	233.2	233.2
47.5°	3038.6	2354.8	1111.9	565.5	377.0	284.4	239.6	223.7	220.5	217.3	217.3
50°	3227.1	2473.0	1111.9	559.1	370.6	274.8	230.1	207.7	204.5	201.3	201.3
52.5°	3412.4	2572.1	1115.1	549.6	354.7	258.8	214.1	194.9	188.5	185.3	182.1
55°	3591.3	2677.5	1118.3	533.6	335.5	242.8	204.5	182.1	172.5	166.1	166.1
57.5°	3725.5	2763.8	1102.3	501.6	309.9	226.9	188.5	166.1	153.4	147.0	147.0
60°	3853.3	2818.1	1073.6	453.7	284.4	210.9	175.7	150.2	137.4	131.0	131.0
62.5°	3904.5	2827.7	1006.5	370.6	252.4	194.9	159.8	137.4	127.8	124.6	124.6
65°	3875.7	2786.2	917.0	294.0	223.7	175.7	147.0	127.8	115.0	105.4	105.4
67.5°	3719.1	2642.4	795.6	233.2	194.9	159.8	134.2	115.0	102.2	92.7	92.7
70°	3422.0	2412.3	619.9	185.3	169.3	140.6	121.4	105.4	92.7	83.1	83.1
72.5°	2984.3	2092.8	450.5	156.6	147.0	124.6	108.6	95.9	83.1	76.7	76.7
75°	2460.3	1613.5	319.5	134.2	131.0	111.8	99.0	86.3	76.7	70.3	70.3
77.5°	1846.8	1124.7	249.2	118.2	115.0	102.2	89.5	79.9	70.3	67.1	63.9
80°	1230.1	696.5	188.5	89.5	86.3	79.9	73.5	67.1	57.5	51.1	51.1
82.5°	549.6	294.0	95.9	51.1	44.7	38.3	32.0	22.4	22.4	19.2	19.2
85°	57.5	38.3	19.2	12.8	12.8	9.6	9.6	9.6	6.4	6.4	6.4
87.5°	9.6	9.6	6.4	6.4	6.4	3.2	3.2	3.2	3.2	3.2	3.2
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: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-30-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-30-840-U-5WQ

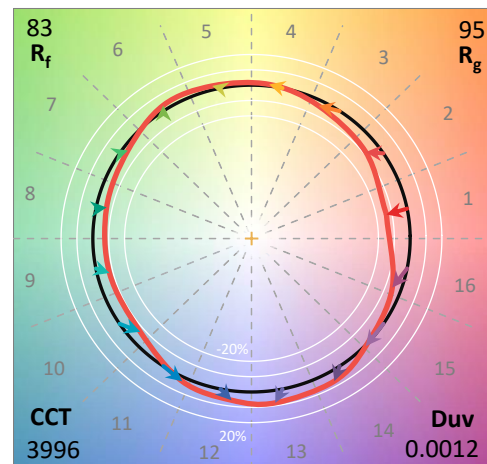
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-157-8
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 09/05/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Streetworks
 Catalog Number: **MEM2-HTN-SA-30-840-U-5WQ**
 Description: Epic Modern Light Square 30W 5WQ Optic

Spectral Parameters

CCT (K): 3996
 CIE u' : 0.2245
 CIE v' : 0.5031
 Duv: 0.0012
 CIE x: 0.3815
 CIE y: 0.3799
 CIE z: 0.2386
 Peak Wavelength (nm): 449
 Dominant Wavelength (nm): 578
 Purity: 28.49233
 R_f: 82.6
 R_g: 95.1

CRI (Ra): 80.6
 R1: 78.1
 R2: 87.1
 R3: 94.5
 R4: 79.7
 R5: 78.7
 R6: 82.7
 R7: 84.3
 R8: 59.5
 R9: -5.8
 R10: 70.3
 R11: 78.7
 R12: 60.5
 R13: 80.2
 R14: 97.2
 R15: 70.6



Test Conditions

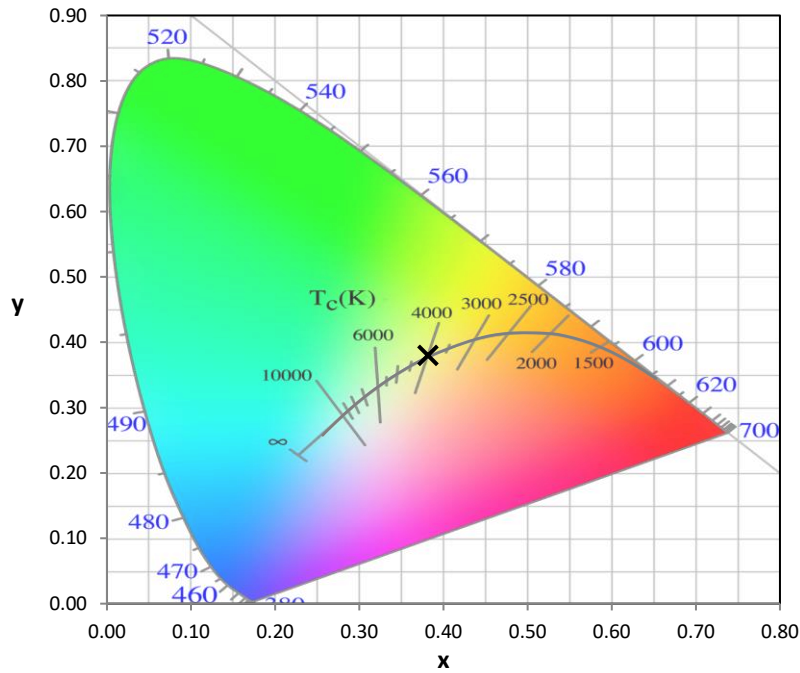
Stabilization Time: 29M
 Operation Time: 1H 29M
 Sphere Temperature (°C): 24.3

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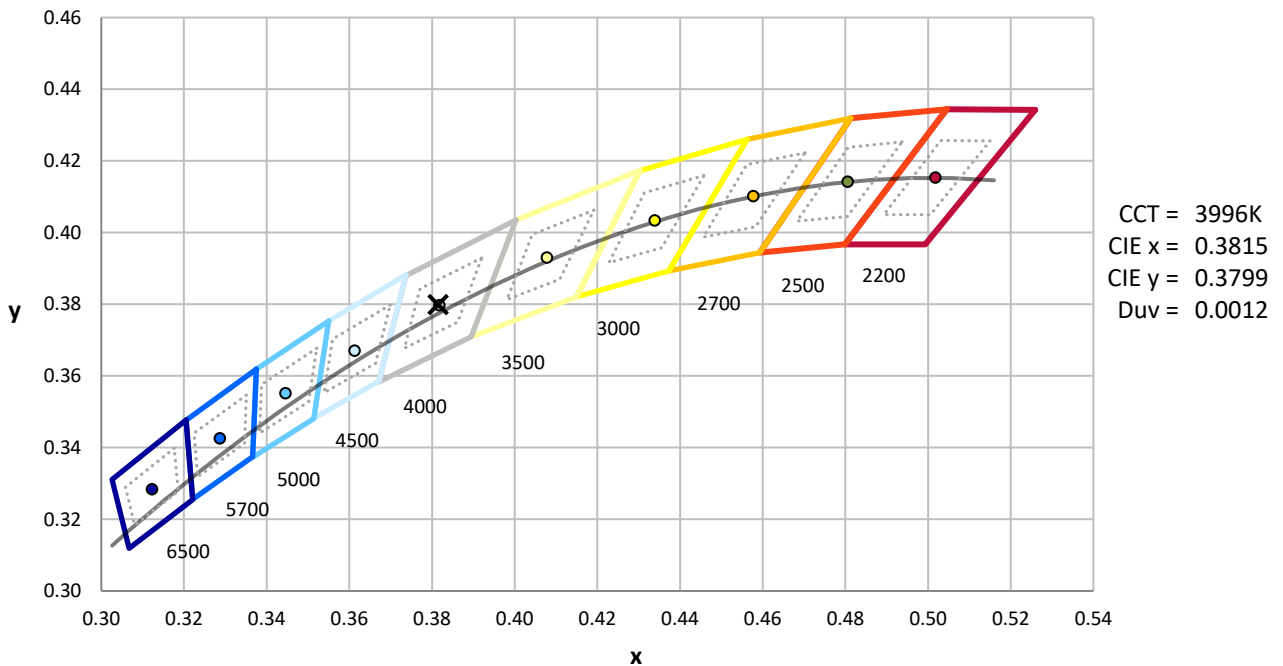
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



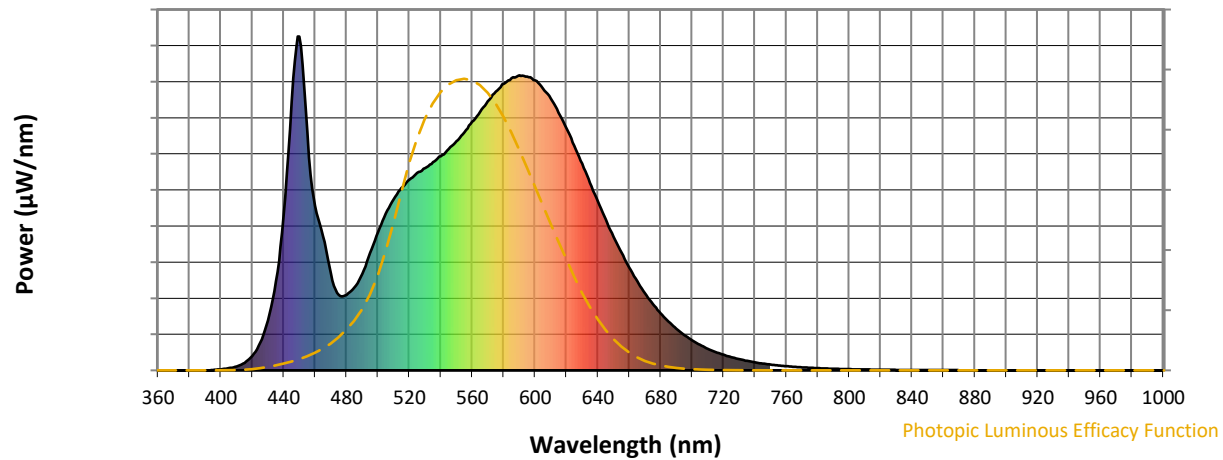
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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Photopic Flux vs. Wavelength

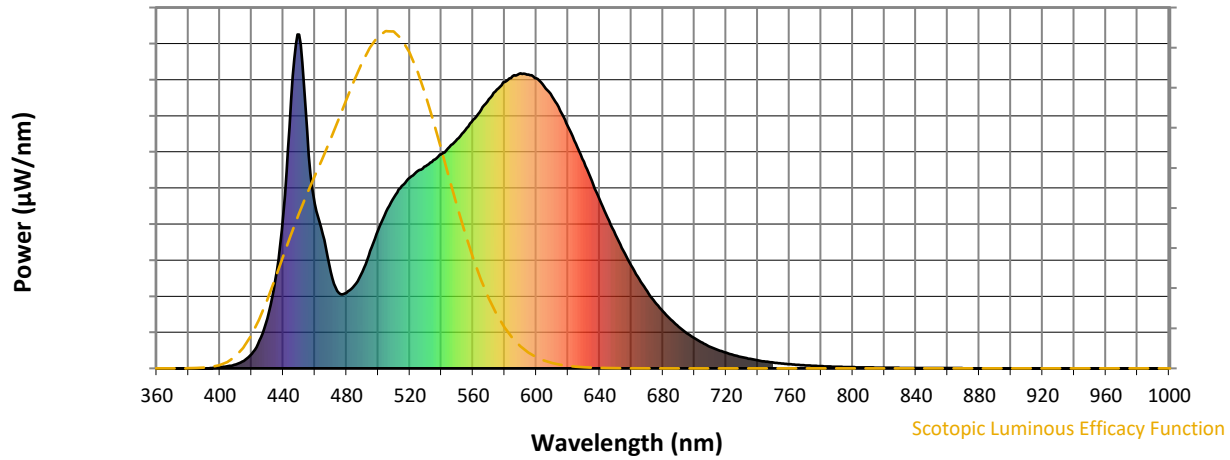


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



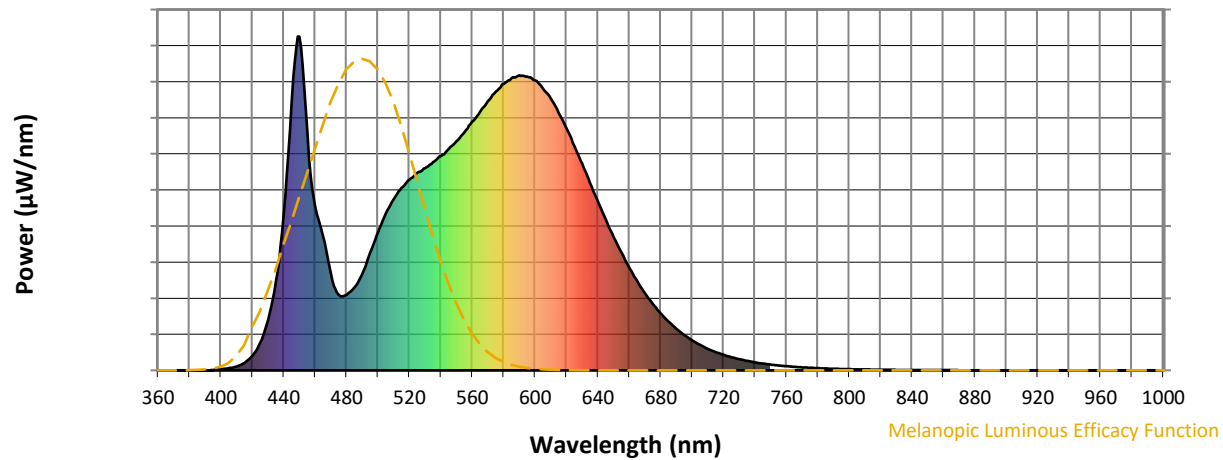
Scotopic Lumens: NR

S/P: 1.66

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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.37

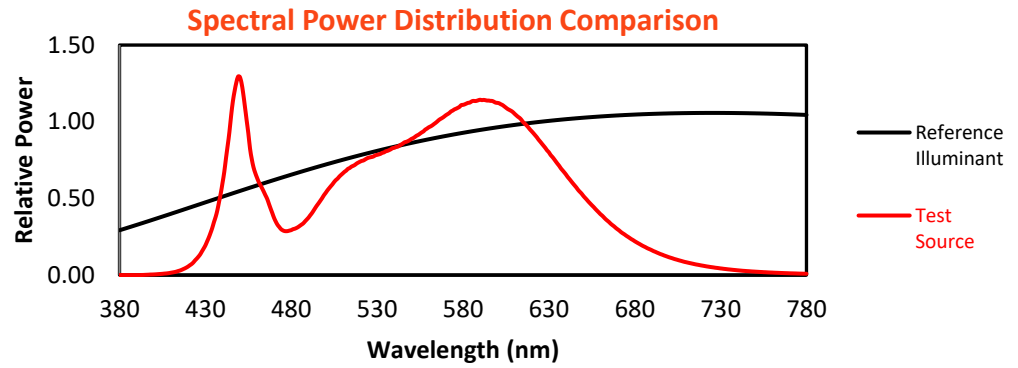
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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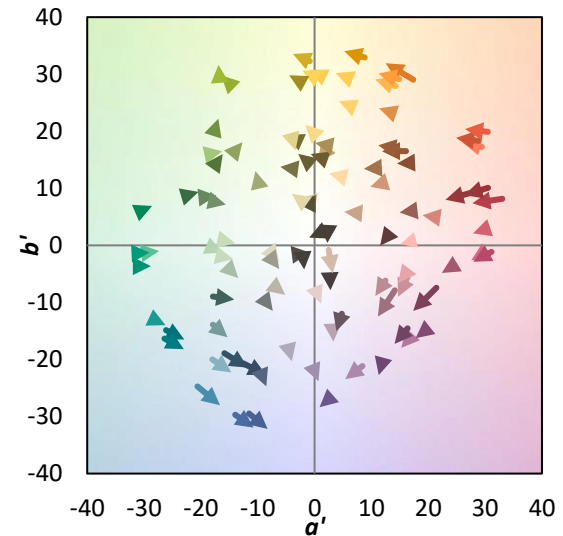
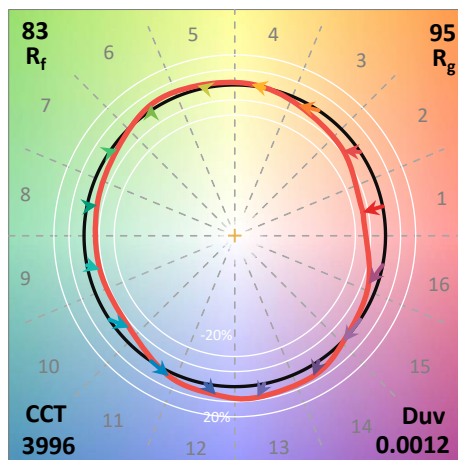
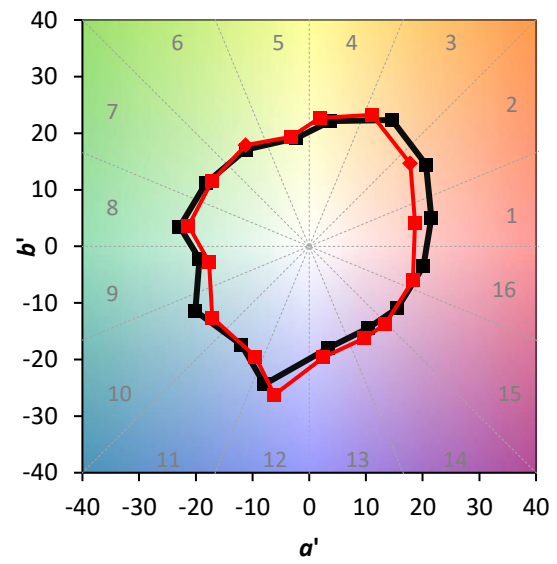
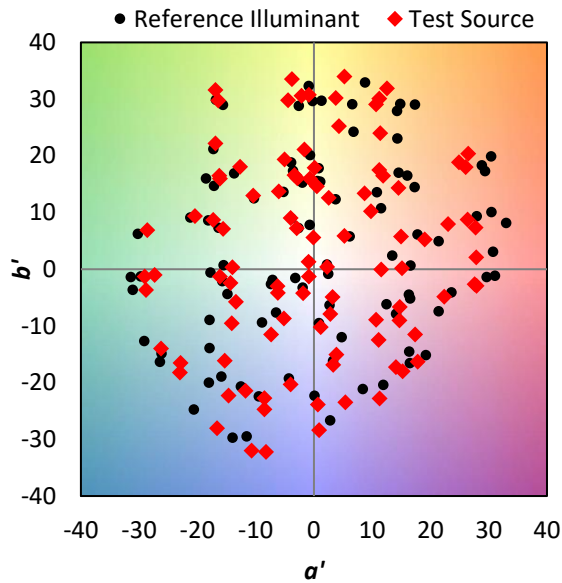
TM-30-18

Summary

$R_f = 82.6$
 $R_g = 95.1$
 $CIE R_a = 80.6$
 $R_g = -5.8$

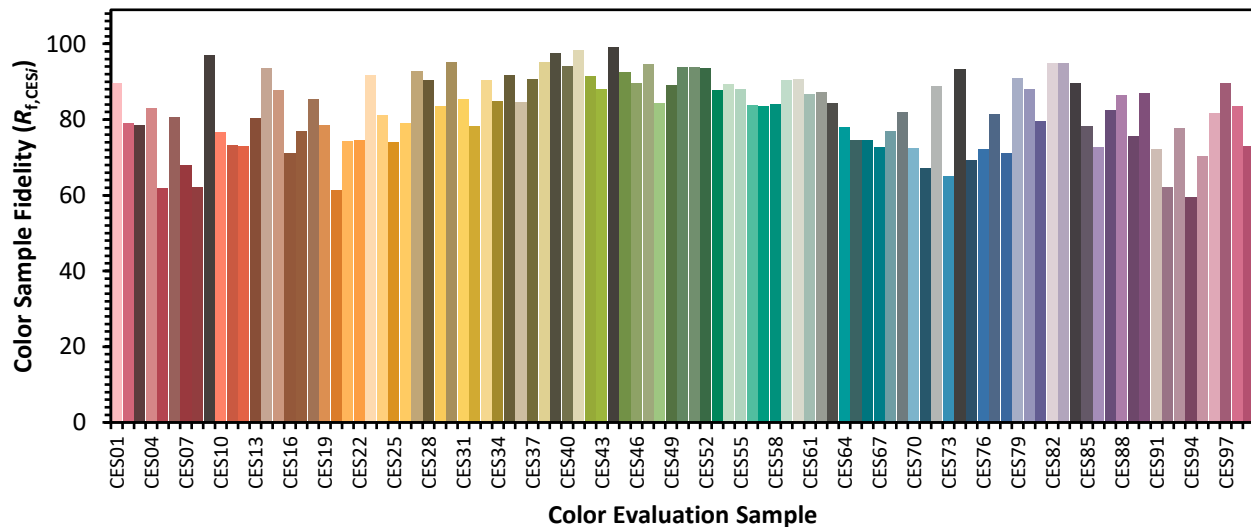


Color Vector Graphics

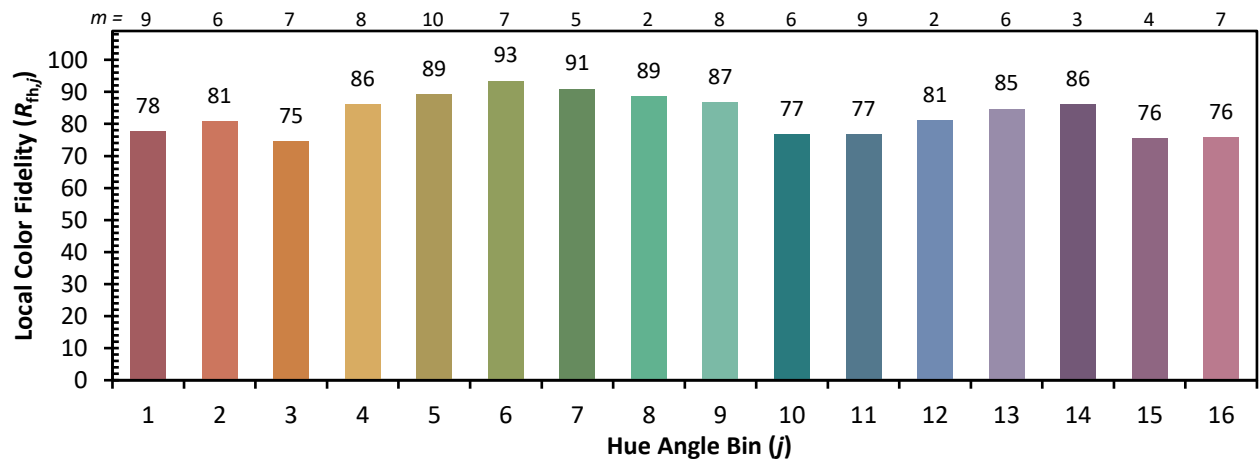
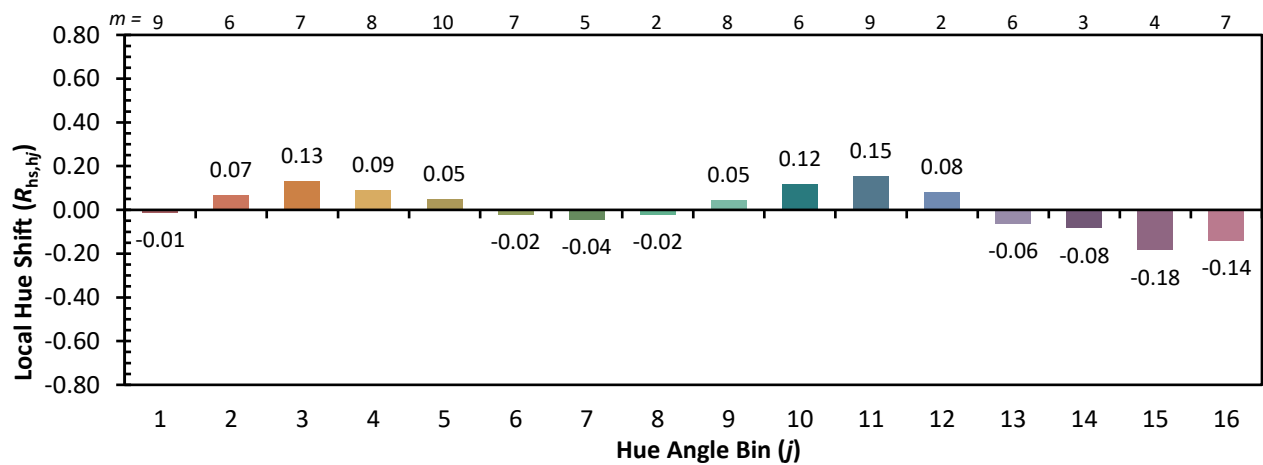
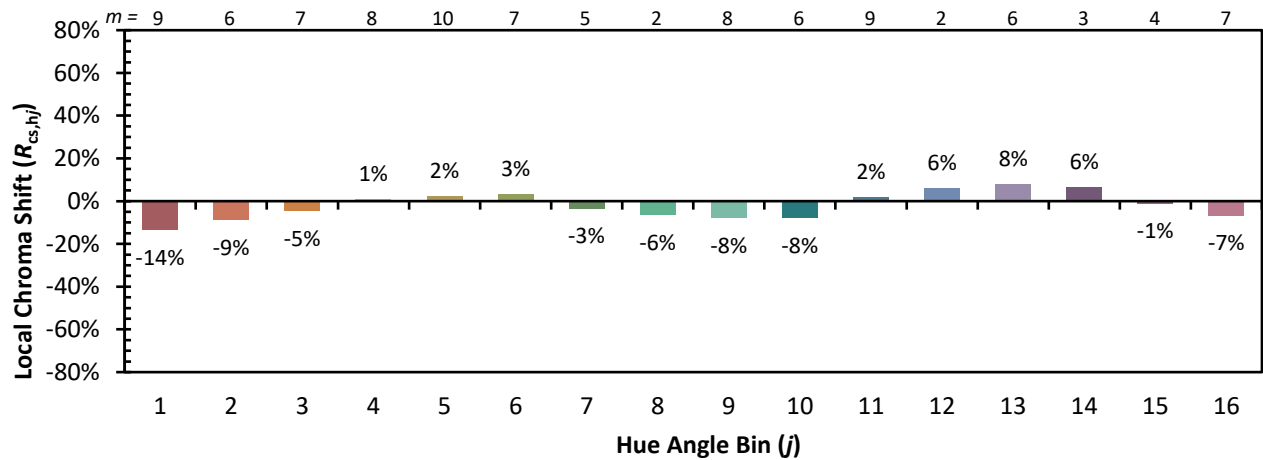


Individual Sample Fidelity Index ($R_{f,i}$)

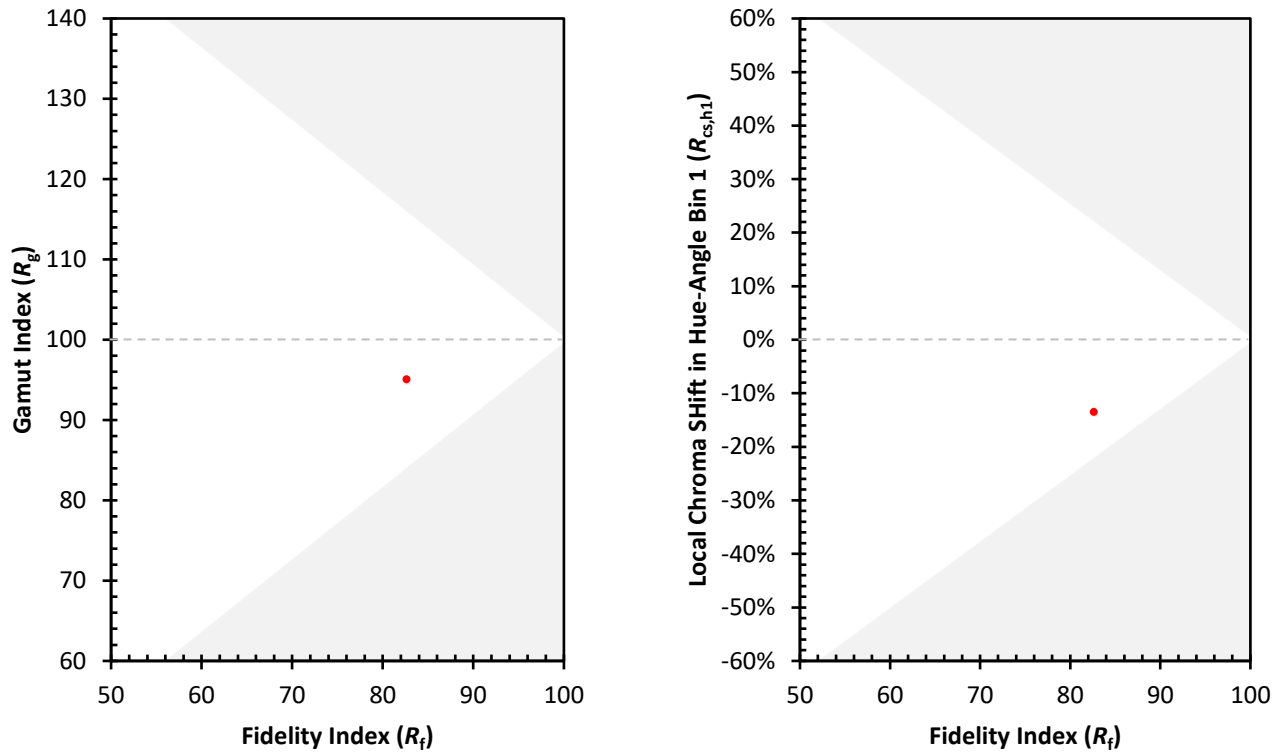
CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 95
CES08 = 39	CES33 = 90	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 85	CES59 = 90	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 91	CES85 = 78
CES11 = 57	CES36 = 85	CES61 = 87	CES86 = 73
CES12 = 63	CES37 = 91	CES62 = 87	CES87 = 83
CES13 = 42	CES38 = 95	CES63 = 84	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 76
CES15 = 71	CES40 = 94	CES65 = 75	CES90 = 87
CES16 = 46	CES41 = 98	CES66 = 75	CES91 = 72
CES17 = 49	CES42 = 92	CES67 = 73	CES92 = 62
CES18 = 56	CES43 = 88	CES68 = 77	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 60
CES20 = 65	CES45 = 93	CES70 = 72	CES95 = 70
CES21 = 86	CES46 = 90	CES71 = 67	CES96 = 82
CES22 = 78	CES47 = 95	CES72 = 89	CES97 = 90
CES23 = 91	CES48 = 84	CES73 = 65	CES98 = 84
CES24 = 90	CES49 = 89	CES74 = 93	CES99 = 73
CES25 = 71	CES50 = 94	CES75 = 69	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)