

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: INVUE

Report Number: P870885

Luminaire Tested: **EMM2-HTN-SA3A-830-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870885  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3A-830-U-T4W-HSS  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 80CRI 3000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

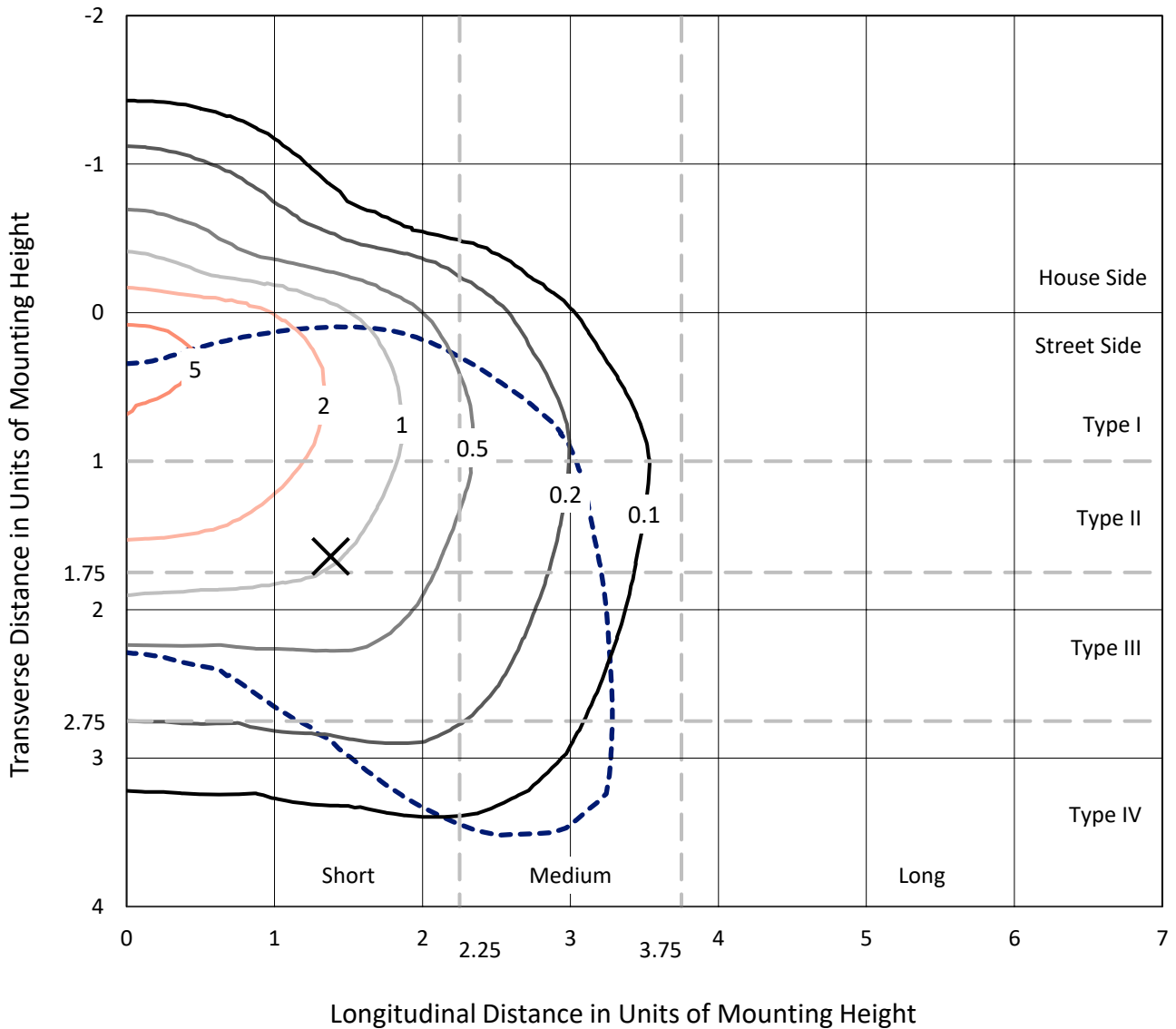
Lumens per Lamp: N/A  
Luminaire Lumens: 10428.3 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 113  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

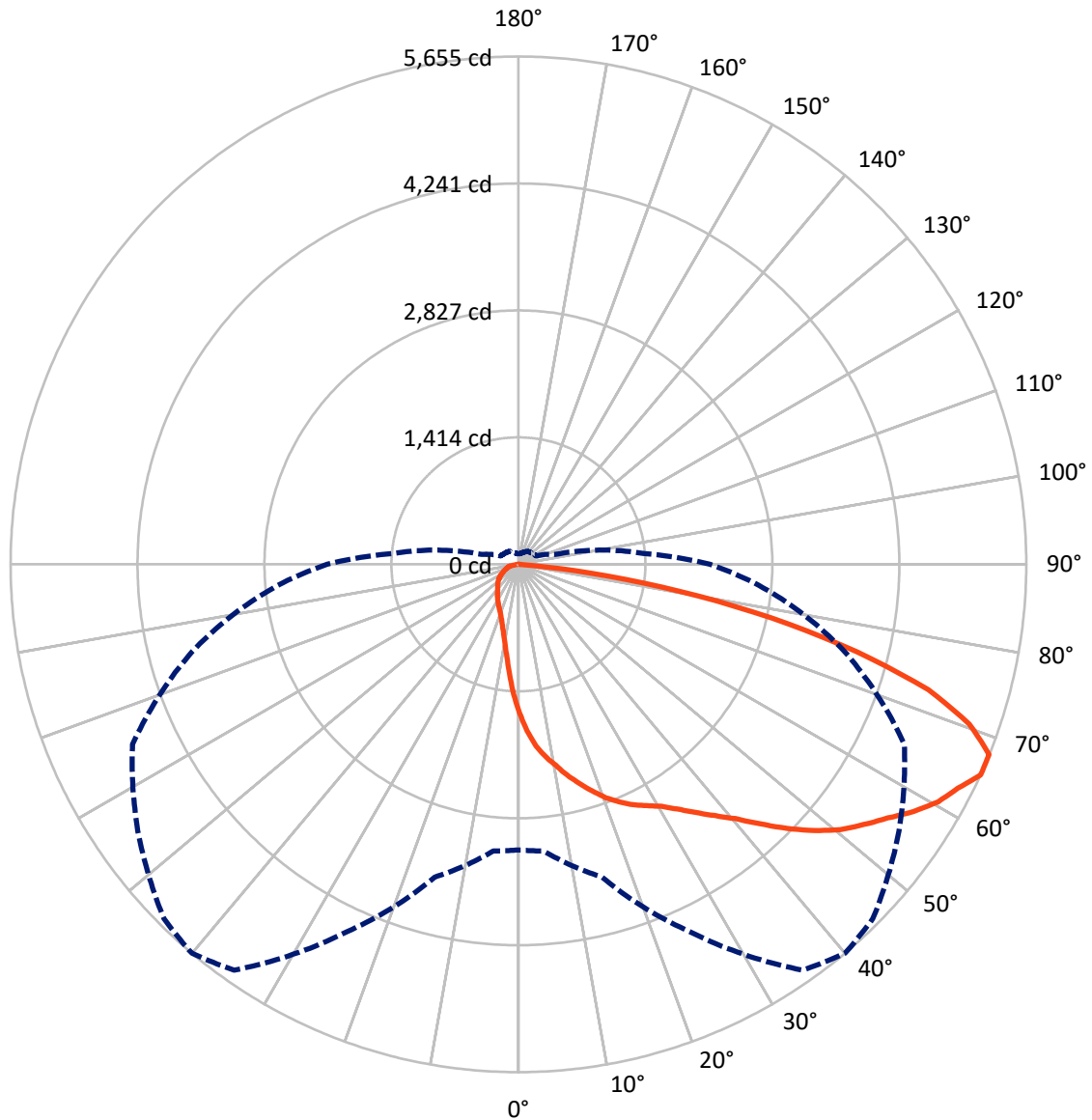
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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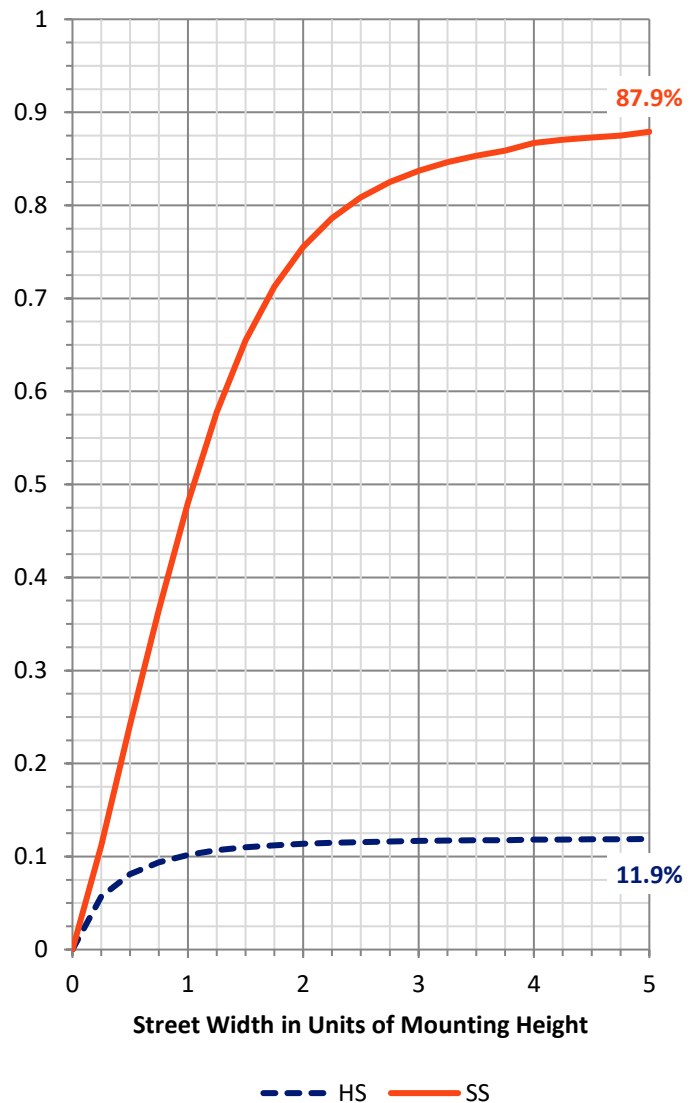
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1248.5	0.0	1248.5
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	9179.8	0.0	9179.8
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	10428.3	0.0	10428.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.2	1.5
10°-20°	466.6	4.5
20°-30°	802.6	7.7
30°-40°	1213.3	11.6
40°-50°	1774.1	17.0
50°-60°	2265.9	21.7
60°-70°	2261.3	21.7
70°-80°	1326.0	12.7
80°-90°	163.3	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°	10428.3	100.0
0°-180°	10428.3	100.0



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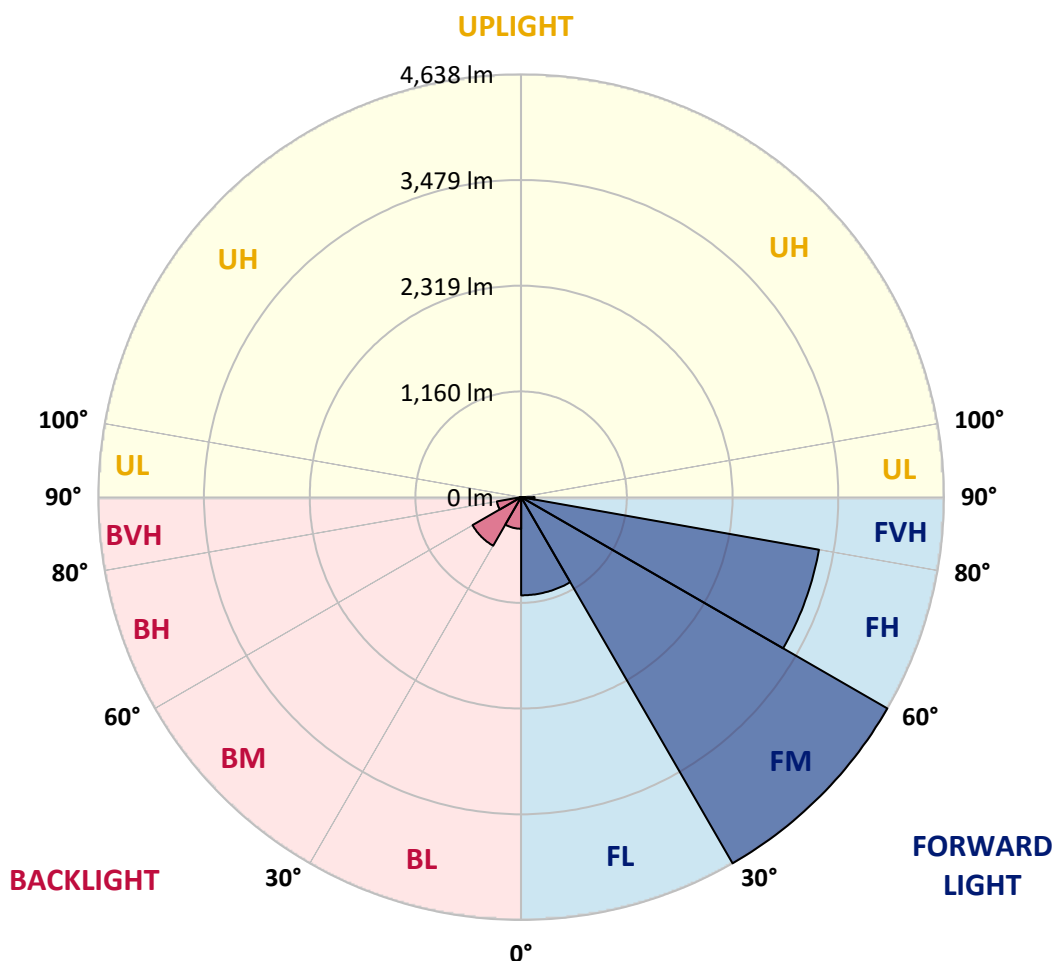
CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T4W-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1077.1	10.3			
FM (30°-60°)	4638.0	44.5			
FH (60°-80°)	3317.1	31.8			G2/5000
FVH (80°-90°)	147.6	1.4			G2/225
BL (0°-30°)	347.3	3.3	B1/500		
BM (30°-60°)	615.2	5.9	B1/1000		
BH (60°-80°)	270.3	2.6	B1/500		G1/500
BVH (80°-90°)	15.7	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7
2.5°	1933.9	1925.1	1907.5	1892.8	1872.2	1854.6	1836.9	1804.6	1763.5	1728.2	1684.1
5°	2125.0	2110.3	2098.5	2080.9	2045.6	2030.9	2019.2	1951.6	1881.0	1807.6	1710.6
7.5°	2260.2	2271.9	2248.4	2222.0	2177.9	2160.2	2142.6	2075.0	1986.8	1881.0	1742.9
10°	2415.9	2418.9	2389.5	2357.2	2310.1	2274.9	2251.4	2169.1	2072.1	1954.5	1778.2
12.5°	2565.8	2565.8	2548.2	2501.2	2439.5	2407.1	2366.0	2271.9	2154.4	2016.2	1819.3
15°	2686.3	2692.2	2677.5	2642.3	2574.7	2530.6	2489.4	2380.7	2230.8	2086.8	1851.6
17.5°	2795.1	2792.2	2783.3	2751.0	2686.3	2651.1	2609.9	2489.4	2319.0	2142.6	1901.6
20°	2868.6	2868.6	2865.6	2848.0	2801.0	2774.5	2724.6	2598.2	2415.9	2224.9	1954.5
22.5°	2924.4	2921.5	2921.5	2924.4	2898.0	2871.5	2850.9	2724.6	2515.9	2295.4	2007.4
25°	2971.4	2968.5	2977.3	2983.2	2971.4	2965.6	2942.0	2845.1	2639.3	2377.7	2060.3
27.5°	3033.2	3042.0	3039.0	3039.0	3036.1	3042.0	3039.0	2956.7	2759.8	2465.9	2116.2
30°	3130.1	3144.8	3136.0	3124.3	3124.3	3127.2	3141.9	3089.0	2900.9	2574.7	2177.9
32.5°	3356.5	3341.8	3280.0	3238.9	3244.8	3247.7	3262.4	3233.0	3042.0	2698.1	2242.5
35°	3615.1	3597.5	3529.9	3435.8	3403.5	3391.7	3388.8	3371.2	3194.8	2830.4	2319.0
37.5°	3950.2	3956.0	3856.1	3720.9	3623.9	3550.4	3535.7	3497.5	3327.1	2950.9	2398.3
40°	4291.1	4267.6	4182.3	4050.1	3859.0	3723.8	3679.8	3626.9	3477.0	3077.2	2474.7
42.5°	4620.3	4576.2	4464.5	4320.5	4097.1	3950.2	3850.2	3782.6	3615.1	3215.4	2548.2
45°	5049.4	4923.0	4723.1	4593.8	4314.6	4194.1	4103.0	3953.1	3779.7	3353.5	2636.4
47.5°	5387.4	5143.4	4961.2	4905.4	4540.9	4429.2	4346.9	4138.3	3947.2	3509.3	2727.5
50°	5325.7	5175.8	5131.7	5081.7	4711.4	4643.8	4567.4	4349.9	4117.7	3673.9	2815.7
52.5°	5166.9	5184.6	5240.4	5155.2	4861.3	4814.3	4764.3	4576.2	4288.2	3809.1	2895.0
55°	5040.6	5075.8	5225.7	5199.3	5040.6	4987.7	4952.4	4799.6	4452.7	3932.5	2962.6
57.5°	4811.3	4781.9	4970.0	5275.7	5231.6	5190.5	5155.2	5034.7	4620.3	4020.7	3006.7
60°	4449.8	4341.1	4593.8	5181.6	5363.9	5369.7	5349.2	5211.0	4755.5	4020.7	2983.2
62.5°	3941.3	3838.5	4150.0	4867.2	5434.4	5490.3	5478.5	5272.8	4814.3	3932.5	2892.1
65°	3180.1	3203.6	3606.3	4511.5	5516.7	5654.8	5581.4	5172.8	4740.8	3762.1	2686.3
67.5°	2539.4	2609.9	2971.4	4050.1	5478.5	5651.9	5549.0	4890.7	4426.3	3524.0	2371.9
70°	2004.5	2051.5	2351.3	3427.0	5143.4	5325.7	5196.3	4458.6	3894.3	3156.6	1972.1
72.5°	1566.5	1610.6	1866.3	2742.2	4561.5	4773.1	4611.5	3876.7	3230.1	2677.5	1566.5
75°	1190.3	1222.7	1413.7	2113.2	3632.7	3897.3	3779.7	3103.7	2521.8	2119.1	1199.2
77.5°	767.1	811.2	1025.7	1481.3	2565.8	2883.3	2898.0	2319.0	1813.4	1531.3	881.7
80°	508.5	526.1	658.4	964.0	1578.3	1825.2	1910.4	1566.5	1158.0	975.8	634.8
82.5°	211.6	235.1	314.5	485.0	790.6	793.6	908.2	661.3	470.3	414.4	267.5
85°	5.9	11.8	8.8	23.5	20.6	32.3	38.2	52.9	38.2	41.1	41.1
87.5°	0.0	0.0	2.9	2.9	5.9	5.9	5.9	5.9	5.9	8.8	5.9
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°	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7	1657.7
2.5°	1663.5	1637.1	1584.2	1543.0	1498.9	1466.6	1437.2	1404.9	1384.3	1387.3	1366.7
5°	1663.5	1613.6	1507.8	1413.7	1328.5	1266.8	1199.2	1146.3	1108.0	1102.2	1119.8
7.5°	1672.4	1590.1	1431.3	1290.3	1172.7	1075.7	1005.2	952.3	925.8	908.2	905.2
10°	1681.2	1572.4	1360.8	1181.5	1034.6	928.8	867.0	808.3	778.9	775.9	767.1
12.5°	1687.0	1551.8	1296.1	1072.8	919.9	820.0	758.3	711.3	687.8	687.8	684.8
15°	1707.6	1546.0	1228.5	990.5	831.8	734.8	681.9	643.7	629.0	620.2	617.2
17.5°	1725.3	1534.2	1169.8	908.2	752.4	667.2	617.2	590.8	576.1	570.2	567.2
20°	1751.7	1528.3	1113.9	840.6	693.6	611.3	573.1	549.6	540.8	534.9	534.9
22.5°	1778.2	1522.5	1058.1	781.8	643.7	570.2	534.9	514.3	505.5	502.6	499.6
25°	1810.5	1519.5	1011.1	731.8	599.6	537.9	505.5	487.9	476.1	470.3	470.3
27.5°	1842.8	1522.5	964.0	681.9	561.4	508.5	476.1	455.6	446.7	435.0	437.9
30°	1886.9	1525.4	925.8	640.7	529.0	479.1	449.7	423.2	411.5	405.6	405.6
32.5°	1931.0	1537.2	887.6	602.5	496.7	455.6	420.3	396.8	382.1	379.1	376.2
35°	1978.0	1546.0	852.3	570.2	470.3	429.1	393.8	370.3	358.6	355.6	355.6
37.5°	2030.9	1560.7	825.9	540.8	443.8	402.7	370.3	346.8	338.0	335.1	335.1
40°	2086.8	1584.2	805.3	514.3	423.2	379.1	349.8	329.2	323.3	320.4	320.4
42.5°	2142.6	1604.8	787.7	493.8	402.7	358.6	335.1	314.5	305.7	305.7	305.7
45°	2195.5	1619.4	770.0	473.2	382.1	343.9	317.4	299.8	291.0	291.0	291.0
47.5°	2242.5	1634.1	743.6	452.6	361.5	323.3	302.7	285.1	276.3	276.3	276.3
50°	2292.5	1643.0	714.2	426.2	340.9	308.6	288.0	267.5	261.6	258.6	258.6
52.5°	2333.7	1643.0	676.0	399.7	317.4	288.0	270.4	252.8	243.9	238.1	238.1
55°	2363.0	1643.0	634.8	367.4	293.9	270.4	252.8	235.1	223.4	214.6	214.6
57.5°	2380.7	1634.1	587.8	329.2	270.4	246.9	235.1	214.6	191.0	173.4	167.5
60°	2366.0	1607.7	537.9	288.0	243.9	226.3	217.5	191.0	158.7	149.9	149.9
62.5°	2304.3	1546.0	487.9	252.8	223.4	205.7	196.9	167.5	144.0	135.2	135.2
65°	2130.9	1396.1	426.2	220.4	199.9	188.1	176.3	149.9	129.3	117.6	117.6
67.5°	1878.1	1205.0	355.6	194.0	179.3	170.5	161.7	135.2	114.6	102.9	102.9
70°	1522.5	972.8	302.7	170.5	158.7	152.8	144.0	123.4	99.9	91.1	91.1
72.5°	1196.2	764.2	252.8	152.8	147.0	135.2	129.3	108.7	91.1	82.3	82.3
75°	890.5	570.2	223.4	135.2	135.2	120.5	117.6	97.0	79.4	73.5	73.5
77.5°	655.4	423.2	194.0	117.6	117.6	105.8	99.9	85.2	73.5	67.6	67.6
80°	443.8	288.0	144.0	88.2	88.2	85.2	79.4	73.5	61.7	55.8	52.9
82.5°	188.1	120.5	70.5	44.1	41.1	32.3	26.5	20.6	20.6	17.6	17.6
85°	32.3	14.7	14.7	11.8	8.8	8.8	8.8	5.9	5.9	5.9	5.9
87.5°	5.9	5.9	5.9	5.9	5.9	5.9	2.9	2.9	2.9	2.9	2.9
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: SP1-2407-157-7

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-830-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-830-U-5WQ

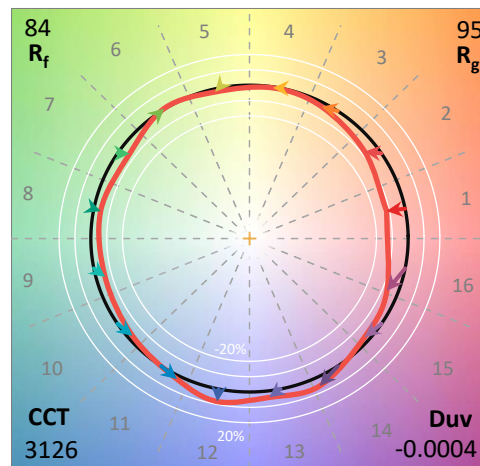
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-7  
 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-40-830-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3126  
 CIE u': 0.2465  
 CIE v': 0.5182  
 Duv: -0.0004  
 CIE x: 0.4277  
 CIE y: 0.3997  
 CIE z: 0.1727  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 582  
 Purity: 48.31913  
 Rf: 84.4  
 Rg: 94.7

CRI (Ra):	82.6		
R1:	81.4	R9:	5.1
R2:	92.2	R10:	82.2
R3:	94.9	R11:	79.8
R4:	80.1	R12:	70.4
R5:	81.8	R13:	84.2
R6:	90.5	R14:	97.9
R7:	81.8	R15:	73.6
R8:	58.0		



**Test Conditions**

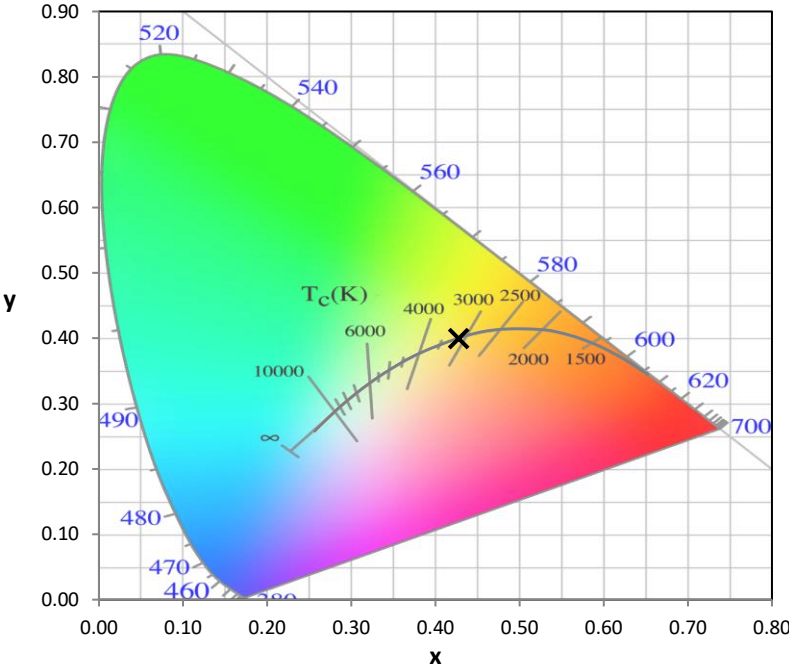
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

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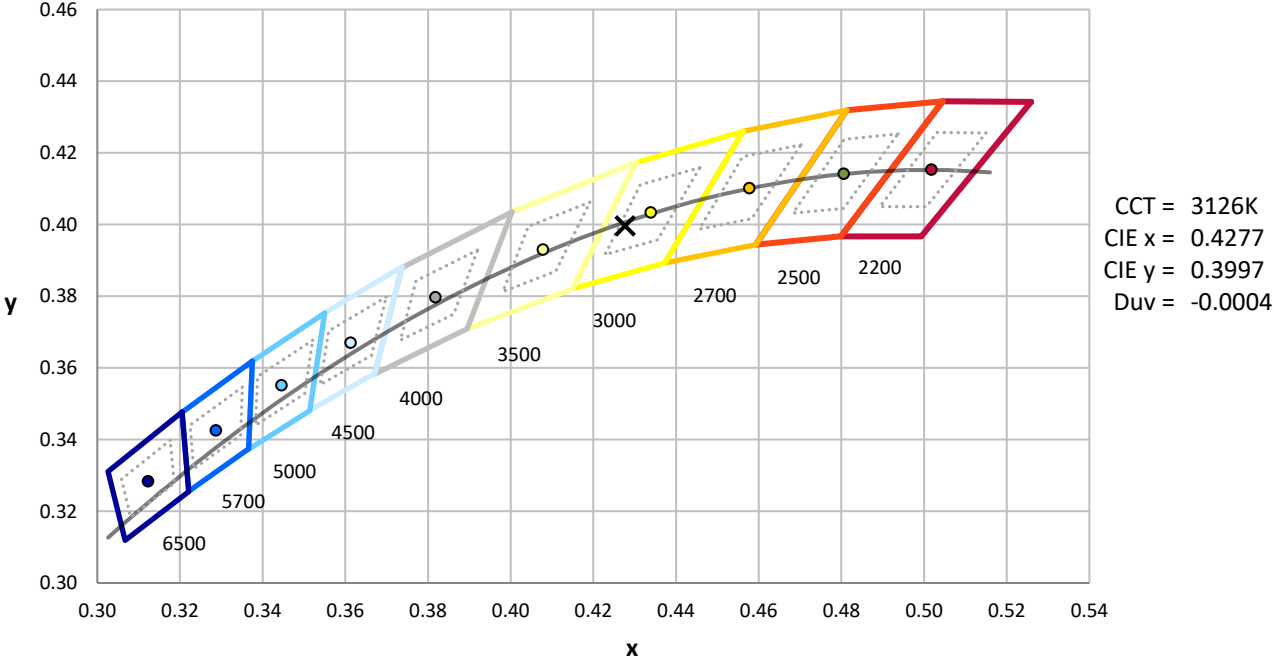
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



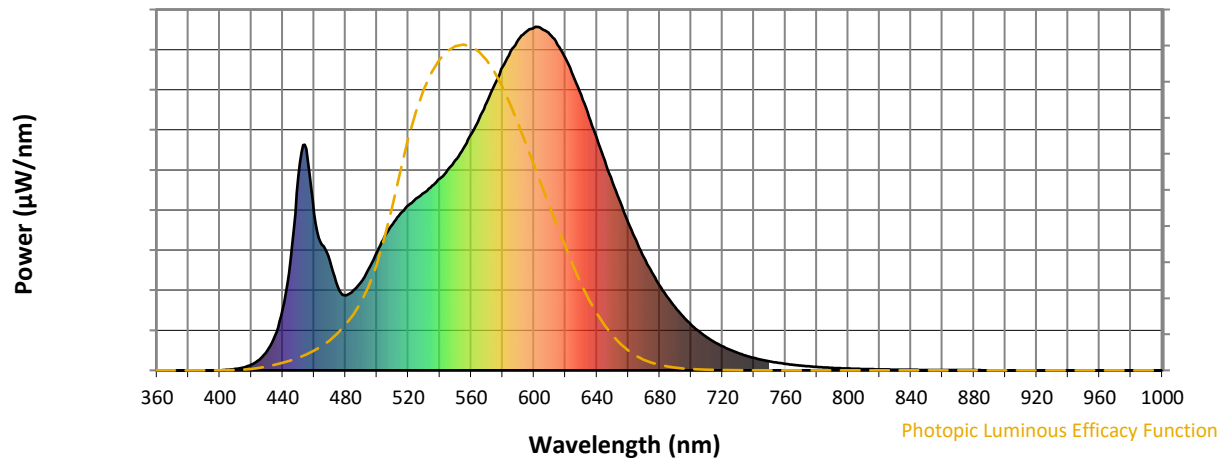
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

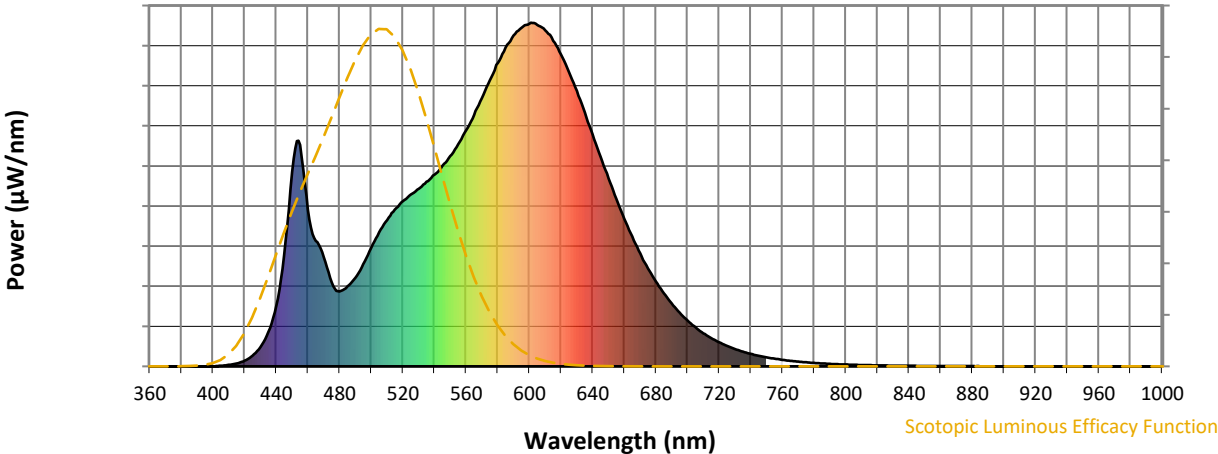


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



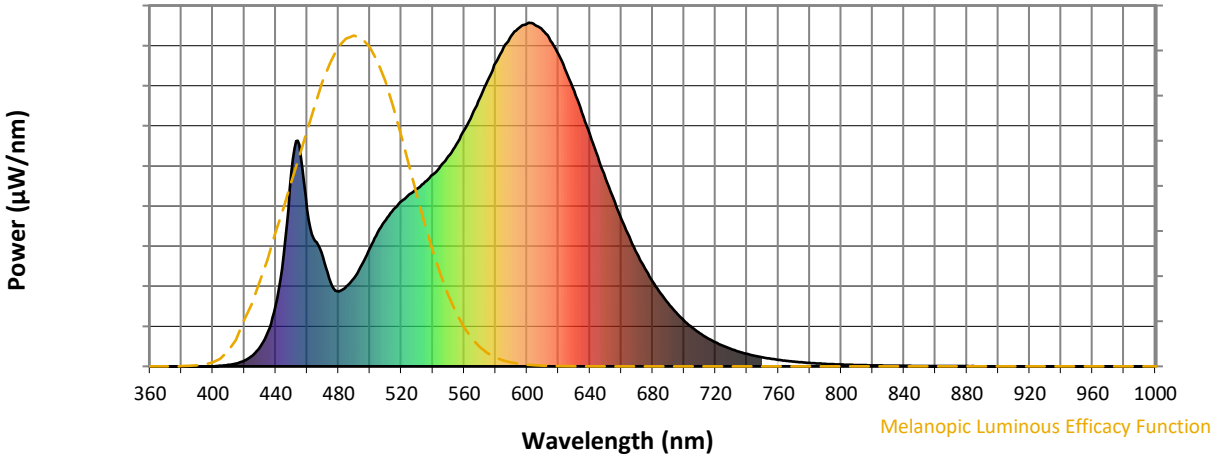
Scotopic Lumens: NR

S/P: 1.42

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



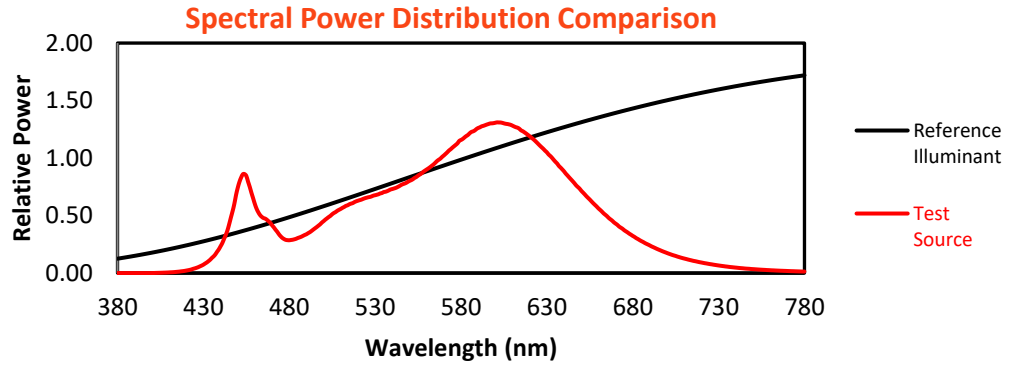
Melanopic Lumens: NR

M/P: 2.79

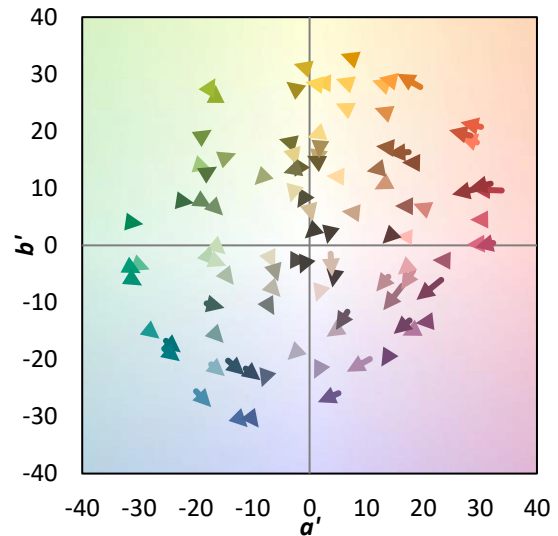
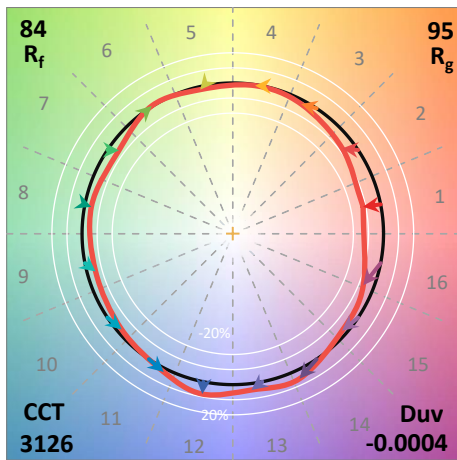
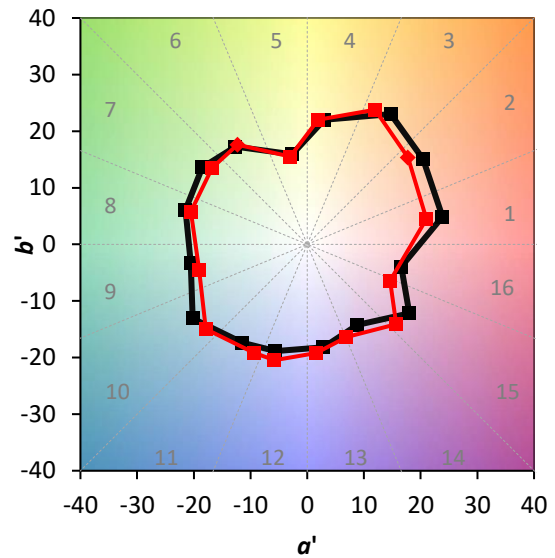
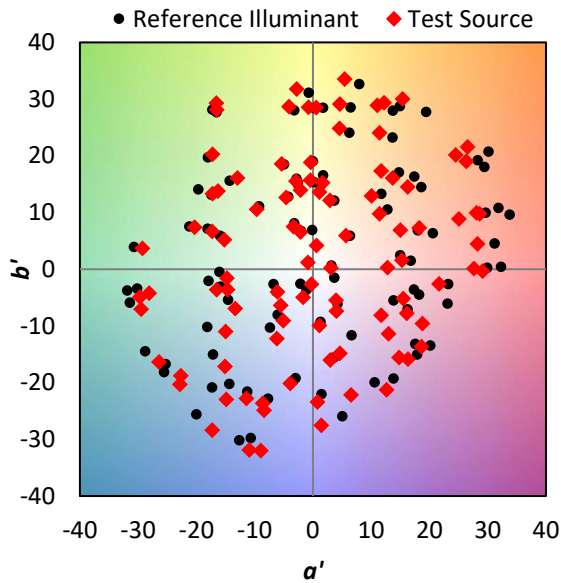
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

**Summary**

$R_f = 84.4$   
 $R_g = 94.7$   
 $CIE R_a = 82.6$   
 $R_9 = 5.1$



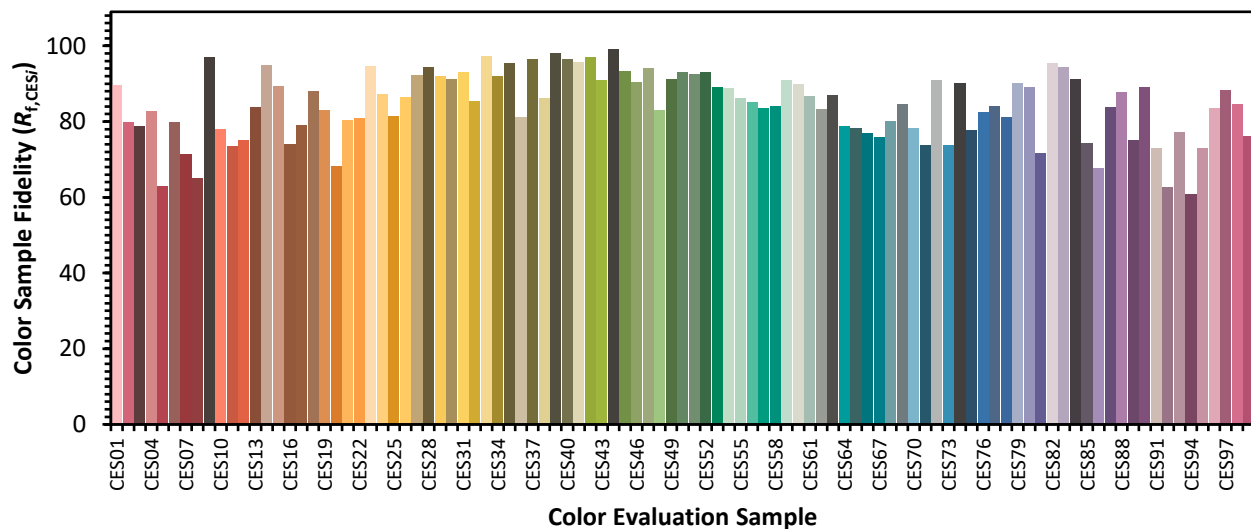
**Color Vector Graphics**



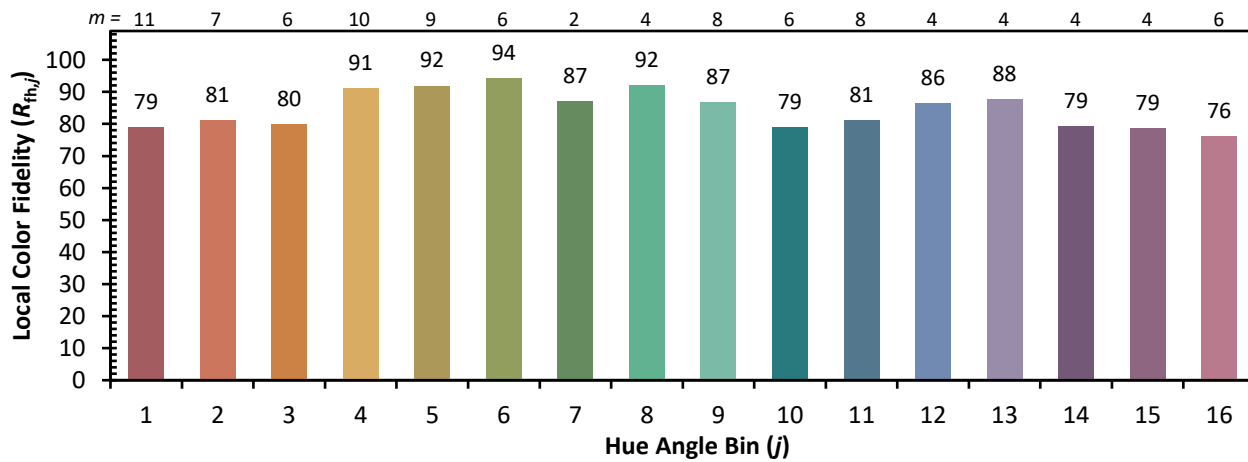
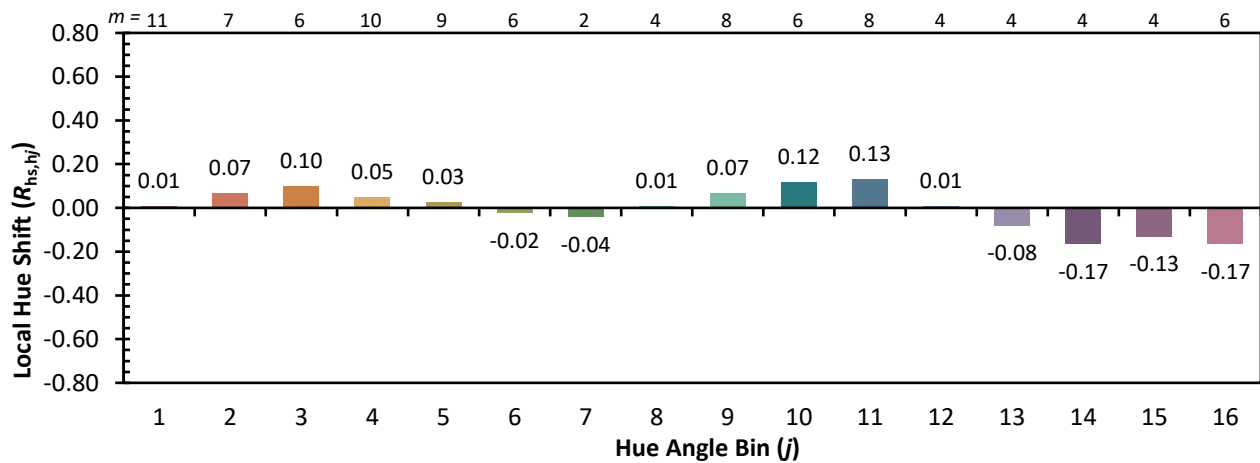
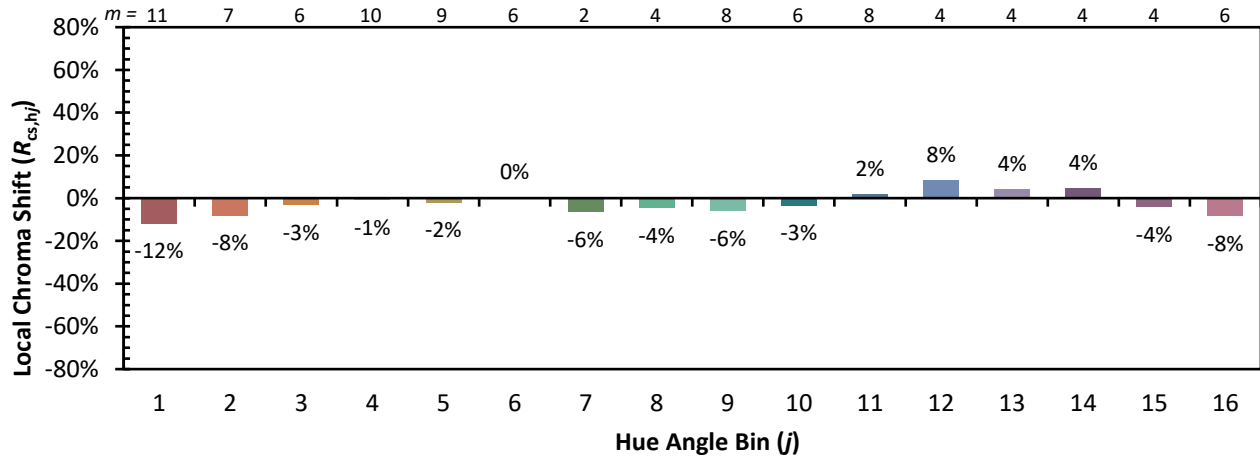


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

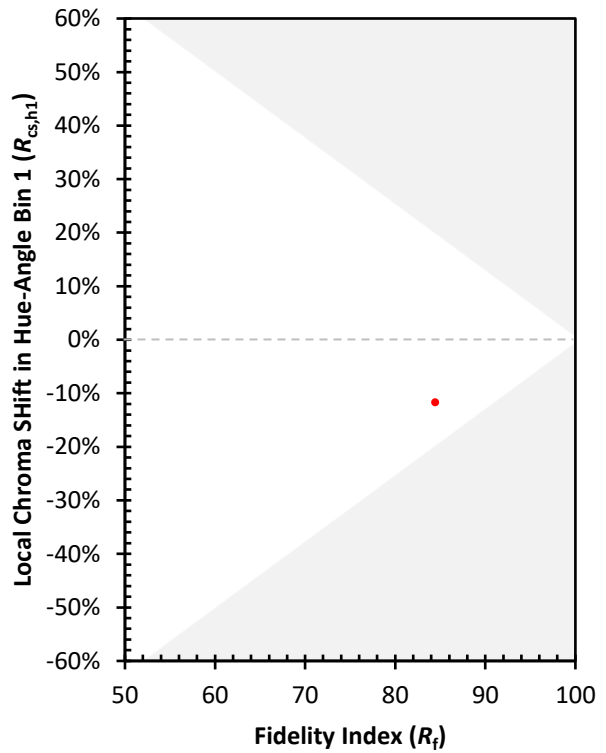
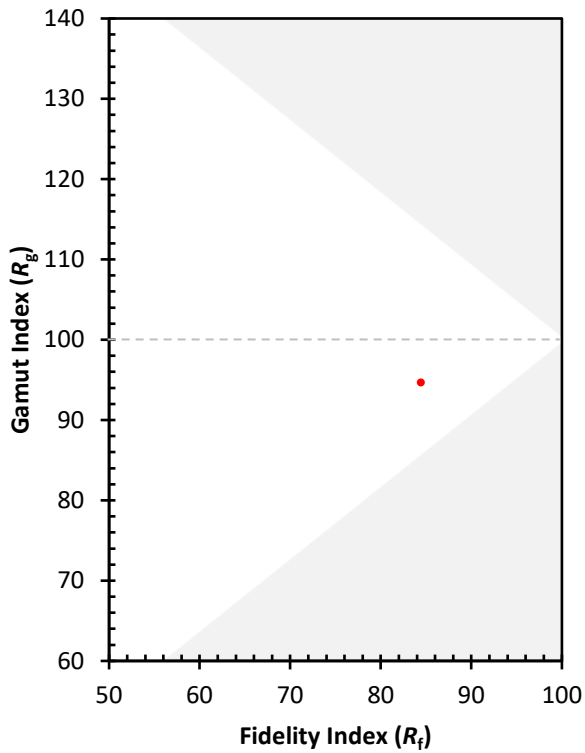
CES01 = 86	CES26 = 86	CES51 = 93	CES76 = 82
CES02 = 63	CES27 = 92	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 94	CES53 = 89	CES78 = 81
CES04 = 70	CES29 = 92	CES54 = 89	CES79 = 90
CES05 = 49	CES30 = 91	CES55 = 86	CES80 = 89
CES06 = 51	CES31 = 93	CES56 = 85	CES81 = 72
CES07 = 42	CES32 = 85	CES57 = 83	CES82 = 95
CES08 = 41	CES33 = 97	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 92	CES59 = 91	CES84 = 91
CES10 = 76	CES35 = 96	CES60 = 90	CES85 = 74
CES11 = 59	CES36 = 81	CES61 = 87	CES86 = 68
CES12 = 65	CES37 = 96	CES62 = 83	CES87 = 84
CES13 = 43	CES38 = 86	CES63 = 87	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 75
CES15 = 71	CES40 = 96	CES65 = 78	CES90 = 89
CES16 = 47	CES41 = 96	CES66 = 77	CES91 = 73
CES17 = 50	CES42 = 97	CES67 = 76	CES92 = 63
CES18 = 56	CES43 = 91	CES68 = 80	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 85	CES94 = 61
CES20 = 66	CES45 = 93	CES70 = 78	CES95 = 73
CES21 = 87	CES46 = 90	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 94	CES72 = 91	CES97 = 88
CES23 = 92	CES48 = 83	CES73 = 74	CES98 = 85
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 76
CES25 = 72	CES50 = 93	CES75 = 78	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)