

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: P869850

Luminaire Tested: **MEM2-HTN-SA-130-840-U-T2R**

Issue Date: 08/21/2024

Test Information

Test Method: LM-79-08
Report Number: P869850
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HTN-SA-130-840-U-T2R
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 80CRI 4000K
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC
Light Source: (30) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18208.9 lumens
Efficiency: N/A
Efficacy: 135.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

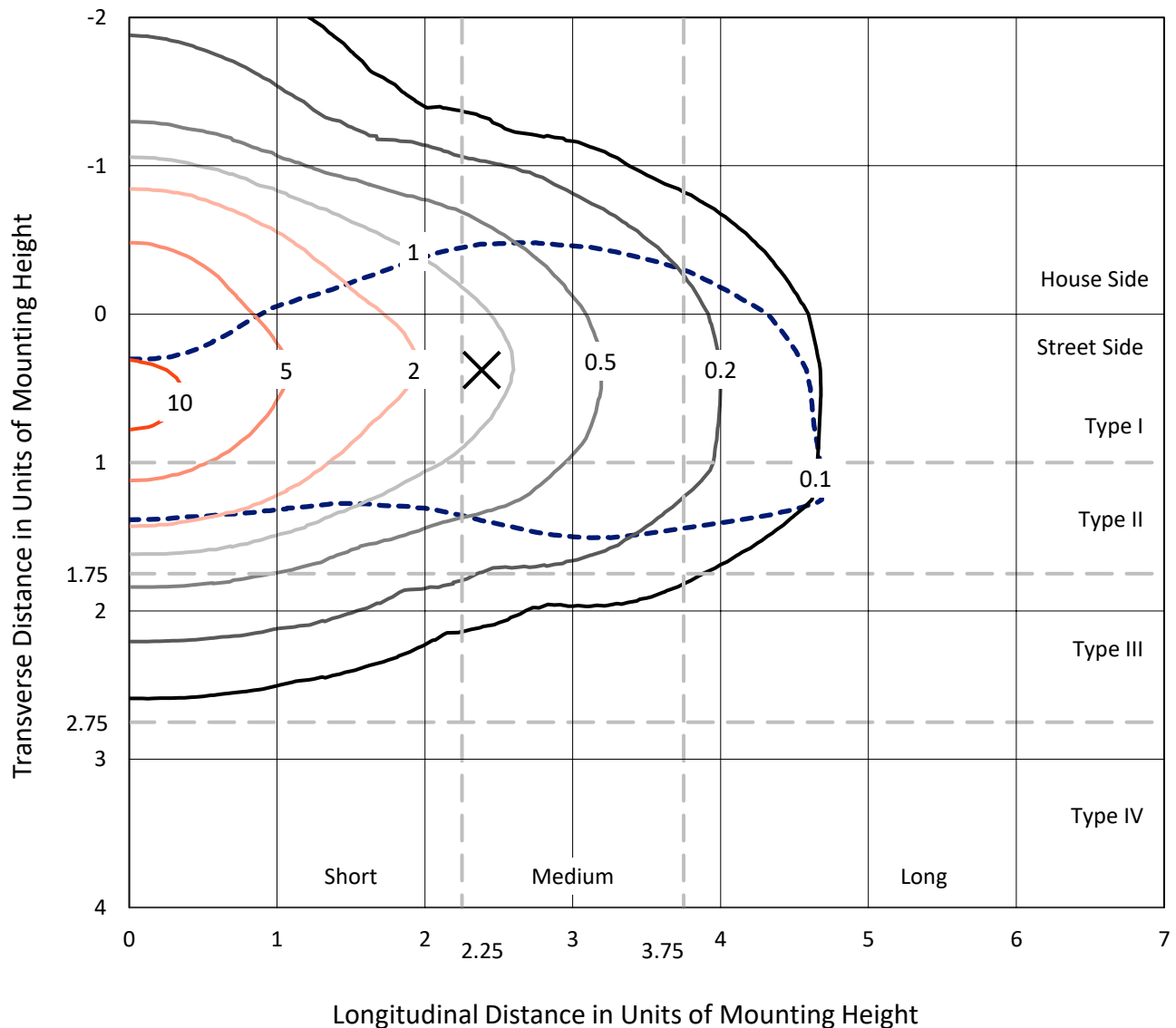
Input Watts (W): 134
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 6.70%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

REPORT NUMBER: P869850

CATALOG NUMBER: MEM2-HTN-SA-130-840-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

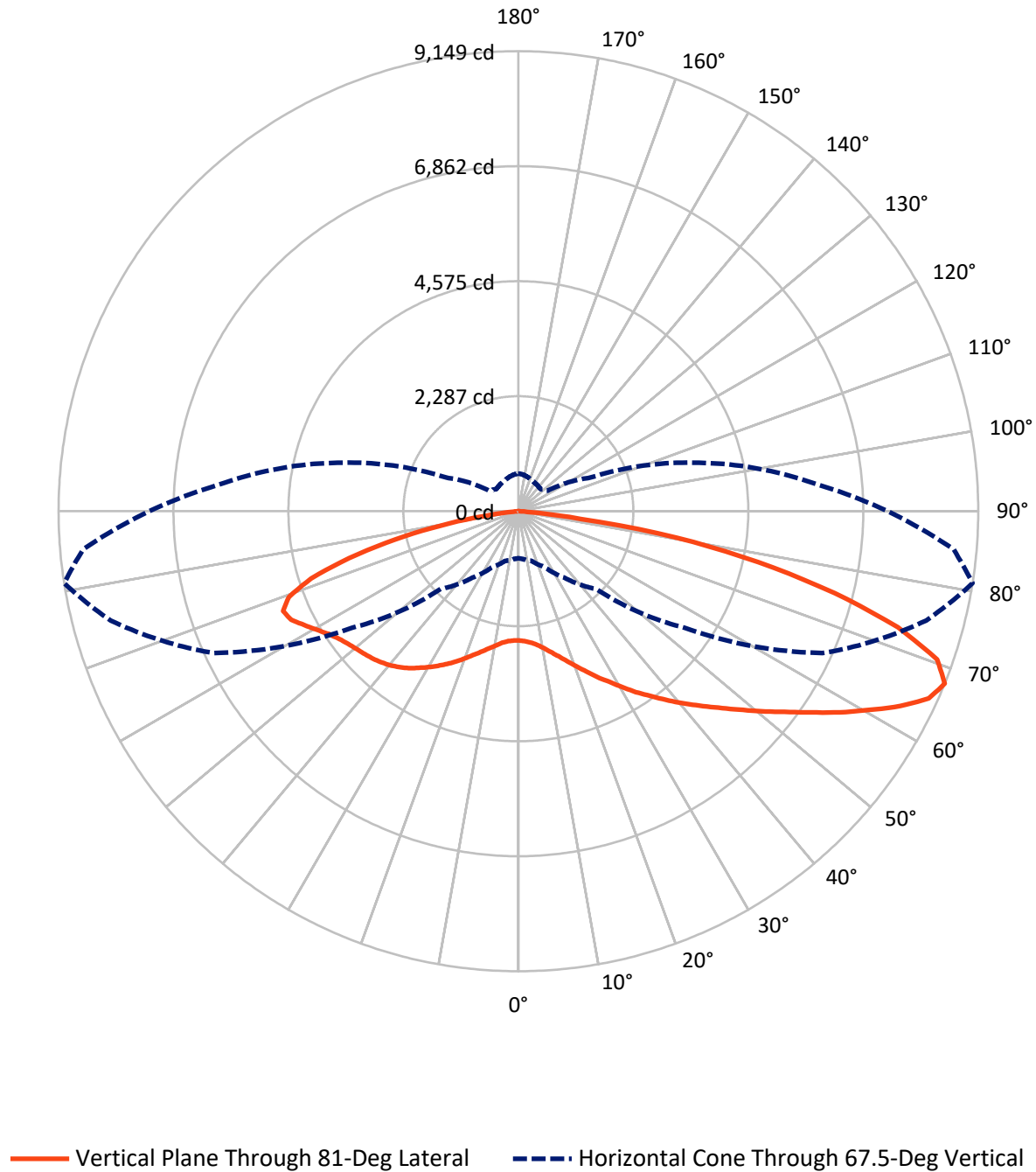


Based on 20 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Medium - N/A

REPORT NUMBER: P869850

CATALOG NUMBER: MEM2-HTN-SA-130-840-U-T2R

Luminous Intensity Polar Plot



REPORT NUMBER: P869850

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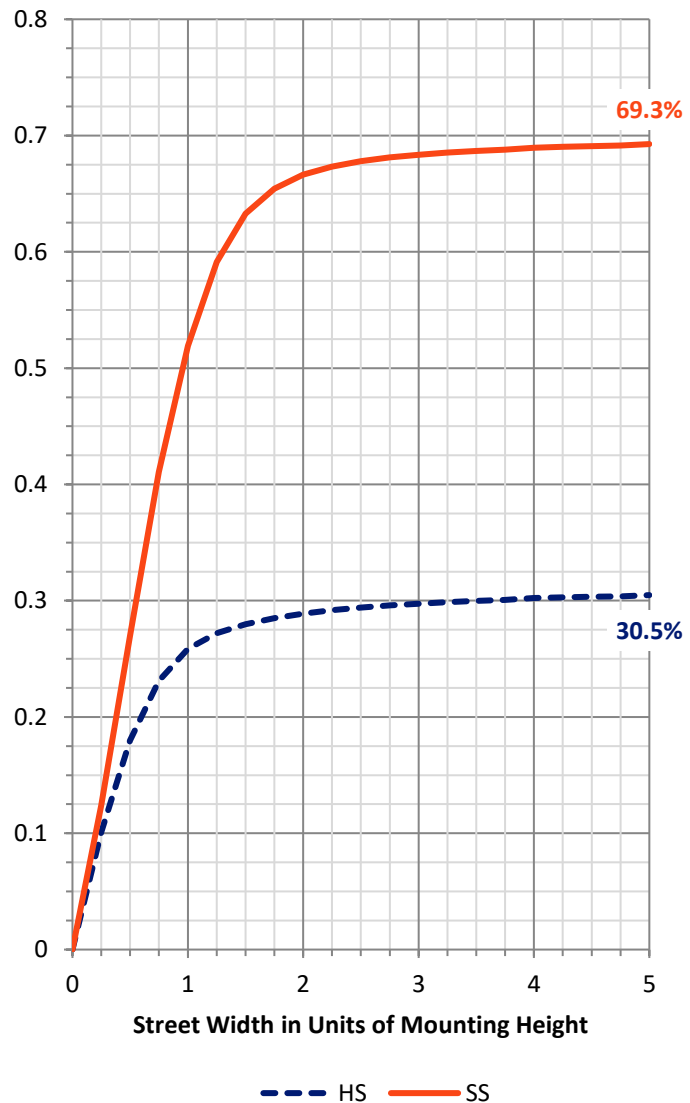
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5579.7	0.0	5579.7
	% Fixture	30.6	0.0	30.6
Street Side	Lumens	12629.2	0.0	12629.2
	% Fixture	69.4	0.0	69.4
Total	Lumens	18208.9	0.0	18208.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.1	1.4
10°-20°	930.6	5.1
20°-30°	1853.5	10.2
30°-40°	2911.8	16.0
40°-50°	3611.2	19.8
50°-60°	3530.1	19.4
60°-70°	2968.6	16.3
70°-80°	1886.3	10.4
80°-90°	254.6	1.4
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°	18208.9	100.0
0°-180°	18208.9	100.0

Coefficient of Utilization



REPORT NUMBER: P869850

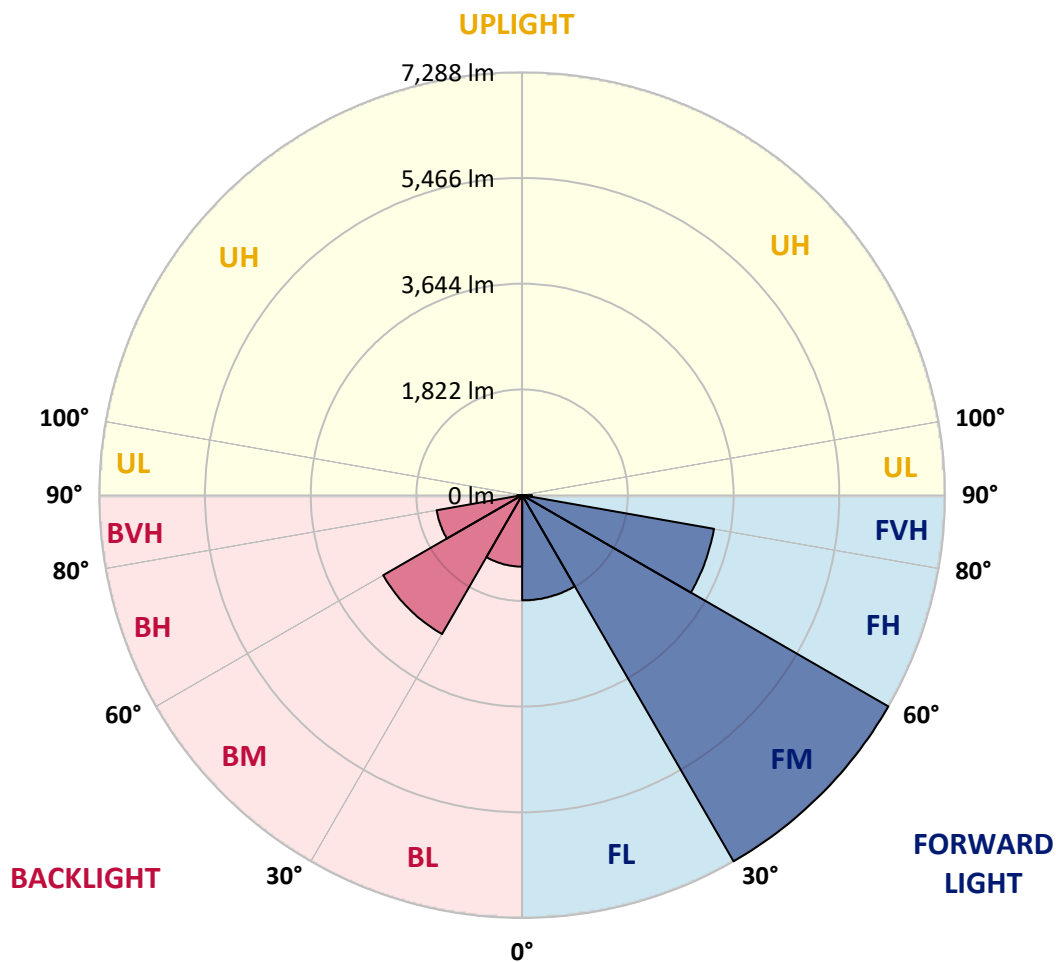
CATALOG NUMBER: MEM2-HTN-SA-130-840-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1813.7	10.0			
FM	(30°-60°)	7287.7	40.0			
FH	(60°-80°)	3357.2	18.4			G2/5000
FVH	(80°-90°)	170.6	0.9			G2/225
BL	(0°-30°)	1232.5	6.8	B3/2500		
BM	(30°-60°)	2765.4	15.2	B3/5000		
BH	(60°-80°)	1497.8	8.2	B3/2500		G3/2500
BVH	(80°-90°)	84.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



REPORT NUMBER: P869850

CATALOG NUMBER: MEM2-HTN-SA-130-840-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8
2.5°	2661.0	2657.4	2657.4	2628.5	2628.5	2621.3	2624.9	2603.3	2592.4	2588.8	2585.2
5°	2852.4	2852.4	2830.7	2812.7	2776.6	2744.1	2715.2	2671.9	2639.4	2624.9	2614.1
7.5°	3141.3	3119.6	3112.4	3058.2	2982.4	2917.4	2859.6	2765.7	2704.4	2682.7	2668.3
10°	3495.1	3466.2	3412.1	3350.7	3253.2	3155.7	3040.2	2913.8	2812.7	2769.4	2751.3
12.5°	3859.8	3820.1	3744.2	3686.5	3560.1	3412.1	3249.6	3076.3	2935.4	2874.1	2841.6
15°	4260.6	4238.9	4148.6	4033.1	3885.0	3675.6	3473.4	3260.4	3079.9	2993.2	2939.1
17.5°	4693.8	4661.3	4563.8	4423.0	4213.6	3964.5	3729.8	3455.4	3246.0	3134.0	3072.7
20°	5119.9	5112.7	4968.2	4834.6	4589.1	4278.6	3975.3	3686.5	3422.9	3292.9	3213.5
22.5°	5596.5	5549.6	5423.2	5235.4	4943.0	4657.7	4300.3	3924.8	3614.2	3462.6	3372.3
25°	6091.1	6087.5	5932.3	5701.2	5358.2	4997.1	4610.8	4195.6	3841.7	3657.6	3538.4
27.5°	6705.0	6658.0	6459.4	6195.9	5798.7	5383.5	4935.7	4477.2	4058.4	3838.1	3693.7
30°	7242.9	7228.5	7004.6	6708.6	6264.5	5769.8	5286.0	4794.9	4314.7	4054.7	3895.9
32.5°	7679.8	7661.8	7470.4	7174.3	6697.7	6185.0	5629.0	5094.6	4571.1	4289.4	4080.0
35°	8044.5	8015.6	7817.0	7521.0	7109.3	6589.4	5997.3	5408.7	4852.7	4509.7	4311.1
37.5°	8188.9	8163.7	8001.2	7755.7	7376.5	6899.9	6329.4	5755.4	5134.3	4758.8	4535.0
40°	8134.8	8120.3	8004.8	7835.1	7546.2	7149.1	6647.2	6116.4	5452.1	5022.4	4755.2
42.5°	7878.4	7878.4	7806.2	7719.5	7575.1	7289.9	6928.8	6463.0	5759.0	5286.0	4964.6
45°	7517.3	7502.9	7477.6	7445.1	7423.5	7315.2	7113.0	6762.7	6098.4	5574.8	5217.4
47.5°	7037.1	7048.0	7029.9	7044.4	7134.6	7203.2	7192.4	7040.7	6445.0	5892.6	5466.5
50°	6282.5	6333.1	6390.8	6560.5	6744.7	6936.0	7113.0	7239.3	6853.0	6253.6	5755.4
52.5°	5347.4	5369.0	5524.3	5925.1	6318.6	6571.4	6907.2	7329.6	7214.1	6629.1	6094.8
55°	4195.6	4235.3	4470.0	5036.8	5737.3	6221.1	6614.7	7289.9	7582.3	7058.8	6491.9
57.5°	3007.7	3032.9	3408.4	3993.4	4906.9	5719.3	6282.5	7131.0	7878.4	7546.2	6899.9
60°	2137.5	2184.4	2426.3	2996.8	3874.2	5026.0	5979.2	6899.9	8152.8	8022.8	7434.3
62.5°	1577.8	1603.1	1772.8	2188.0	2910.2	4080.0	5585.7	6730.2	8333.4	8535.5	7968.7
65°	1187.9	1198.7	1314.3	1599.5	2177.2	3007.7	4964.6	6697.7	8434.5	8972.4	8441.7
67.5°	935.2	953.2	1025.4	1220.4	1621.2	2188.0	4043.9	6676.1	8398.3	9149.4	8690.8
70°	787.1	790.7	844.9	953.2	1213.2	1574.2	3022.1	6351.1	8196.1	8838.8	8459.7
72.5°	682.4	682.4	707.7	794.3	974.9	1191.5	2058.1	5574.8	7683.4	7896.5	7658.2
75°	552.4	548.8	592.1	675.2	783.5	917.1	1382.9	4220.8	6607.5	6499.1	6304.2
77.5°	480.2	476.6	512.7	584.9	646.3	733.0	946.0	2740.5	5199.3	4874.4	4751.6
80°	411.6	400.8	429.7	498.3	530.8	570.5	653.5	1595.9	3397.6	3195.4	3047.4
82.5°	310.5	285.2	278.0	335.8	357.5	332.2	332.2	559.6	1234.8	1245.7	1151.8
85°	25.3	28.9	36.1	43.3	61.4	68.6	72.2	119.2	184.1	176.9	180.5
87.5°	3.6	3.6	3.6	7.2	7.2	10.8	10.8	10.8	14.4	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P869850

CATALOG NUMBER: MEM2-HTN-SA-130-840-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8	2570.8
2.5°	2581.6	2574.4	2567.2	2567.2	2567.2	2559.9	2556.3	2556.3	2552.7	2541.9	2538.3
5°	2606.9	2596.0	2585.2	2585.2	2585.2	2581.6	2578.0	2581.6	2578.0	2567.2	2563.6
7.5°	2657.4	2643.0	2628.5	2628.5	2635.8	2632.2	2632.2	2635.8	2632.2	2621.3	2617.7
10°	2729.6	2708.0	2700.8	2700.8	2708.0	2704.4	2700.8	2700.8	2697.1	2679.1	2686.3
12.5°	2809.1	2787.4	2780.2	2783.8	2780.2	2773.0	2776.6	2765.7	2762.1	2733.3	2729.6
15°	2910.2	2884.9	2870.5	2874.1	2863.2	2848.8	2834.4	2827.1	2812.7	2787.4	2780.2
17.5°	3025.7	2986.0	2967.9	2967.9	2946.3	2917.4	2895.7	2874.1	2852.4	2823.5	2816.3
20°	3137.6	3101.5	3072.7	3065.4	3022.1	2975.2	2935.4	2899.3	2874.1	2841.6	2834.4
22.5°	3278.5	3227.9	3188.2	3155.7	3090.7	3014.9	2953.5	2903.0	2866.8	2830.7	2819.9
25°	3426.5	3354.3	3289.3	3227.9	3137.6	3029.3	2942.7	2870.5	2823.5	2783.8	2776.6
27.5°	3574.5	3480.7	3386.8	3289.3	3152.1	3011.3	2888.5	2801.9	2740.5	2689.9	2682.7
30°	3733.4	3617.9	3469.8	3329.0	3148.5	2964.3	2809.1	2686.3	2614.1	2556.3	2549.1
32.5°	3895.9	3751.5	3549.3	3357.9	3130.4	2895.7	2693.5	2563.6	2473.3	2408.3	2390.2
35°	4076.4	3899.5	3621.5	3368.7	3079.9	2794.6	2570.8	2408.3	2303.6	2238.6	2224.2
37.5°	4260.6	4036.7	3668.4	3361.5	3007.7	2675.5	2411.9	2245.8	2123.1	2032.8	2018.3
40°	4448.3	4163.1	3697.3	3325.4	2906.6	2527.4	2263.9	2061.7	1884.8	1801.7	1762.0
42.5°	4621.6	4278.6	3711.7	3274.8	2794.6	2372.2	2068.9	1805.3	1639.2	1549.0	1567.0
45°	4802.1	4386.9	3715.3	3213.5	2646.6	2173.6	1823.4	1577.8	1411.8	1343.2	1335.9
47.5°	4957.4	4477.2	3708.1	3126.8	2480.5	1946.1	1567.0	1332.3	1209.6	1144.6	1137.4
50°	5163.2	4578.3	3697.3	3025.7	2263.9	1686.2	1328.7	1137.4	1025.4	974.9	971.3
52.5°	5369.0	4690.2	3690.1	2884.9	2036.4	1440.6	1112.1	960.4	884.6	859.3	852.1
55°	5639.8	4827.4	3693.7	2722.4	1776.4	1187.9	942.4	837.7	798.0	787.1	787.1
57.5°	5950.3	5004.3	3715.3	2541.9	1505.6	982.1	819.6	772.7	769.1	776.3	779.9
60°	6325.8	5239.0	3758.7	2354.1	1256.5	830.4	747.4	743.8	754.6	779.9	787.1
62.5°	6748.3	5495.4	3812.8	2108.6	1018.2	729.3	707.7	722.1	736.6	765.5	769.1
65°	7120.2	5784.2	3845.3	1873.9	852.1	671.6	682.4	689.6	725.7	765.5	765.5
67.5°	7344.0	5993.7	3722.6	1577.8	711.3	621.0	642.7	664.4	704.1	740.2	747.4
70°	7268.2	5925.1	3303.7	1224.0	603.0	574.1	599.4	631.9	671.6	714.9	736.6
72.5°	6741.1	5437.6	2682.7	891.8	523.5	530.8	563.3	606.6	642.7	689.6	718.5
75°	5636.2	4538.6	1935.3	642.7	458.6	487.4	538.0	574.1	599.4	610.2	613.8
77.5°	4278.6	3336.2	1317.9	480.2	397.2	436.9	491.0	530.8	538.0	545.2	552.4
80°	2794.6	2123.1	743.8	335.8	303.3	357.5	400.8	444.1	429.7	451.3	458.6
82.5°	1180.7	927.9	339.4	166.1	140.8	151.6	162.5	144.4	133.6	133.6	115.5
85°	155.3	119.2	50.5	21.7	18.1	10.8	10.8	10.8	7.2	7.2	7.2
87.5°	14.4	14.4	10.8	10.8	7.2	7.2	3.6	7.2	3.6	3.6	3.6
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

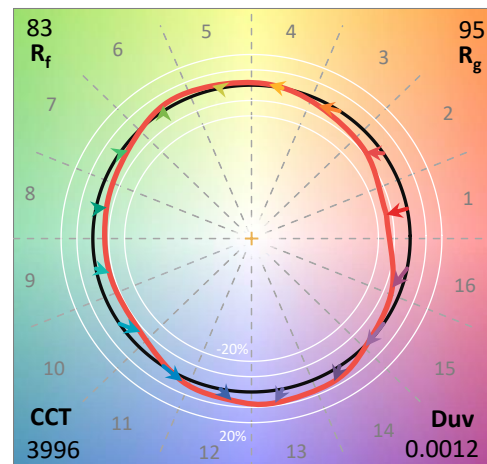
Test Information

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

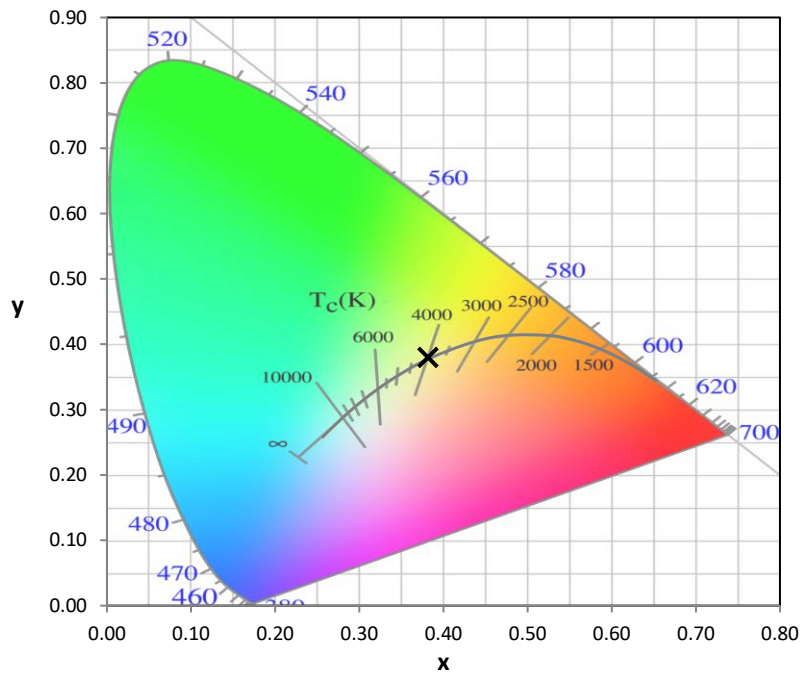
Stabilization Time: 29M
 Operation Time: 1H 29M
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-8

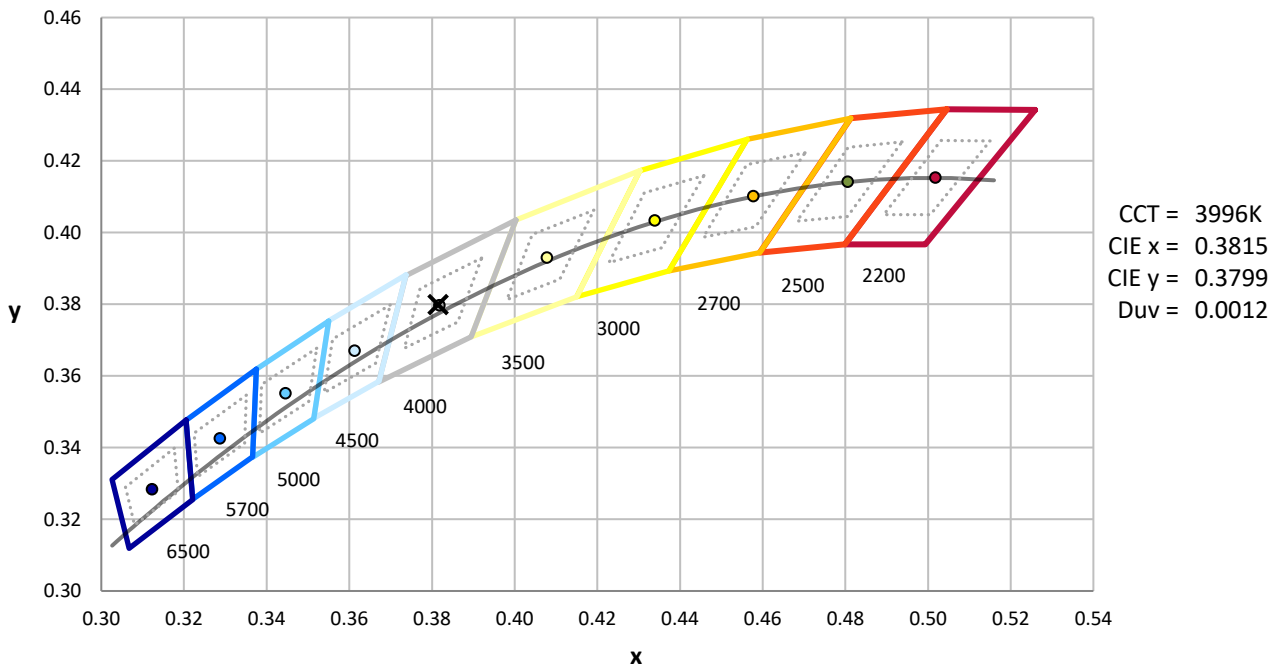
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-157-8

CIE 1931 Chromaticity Diagram

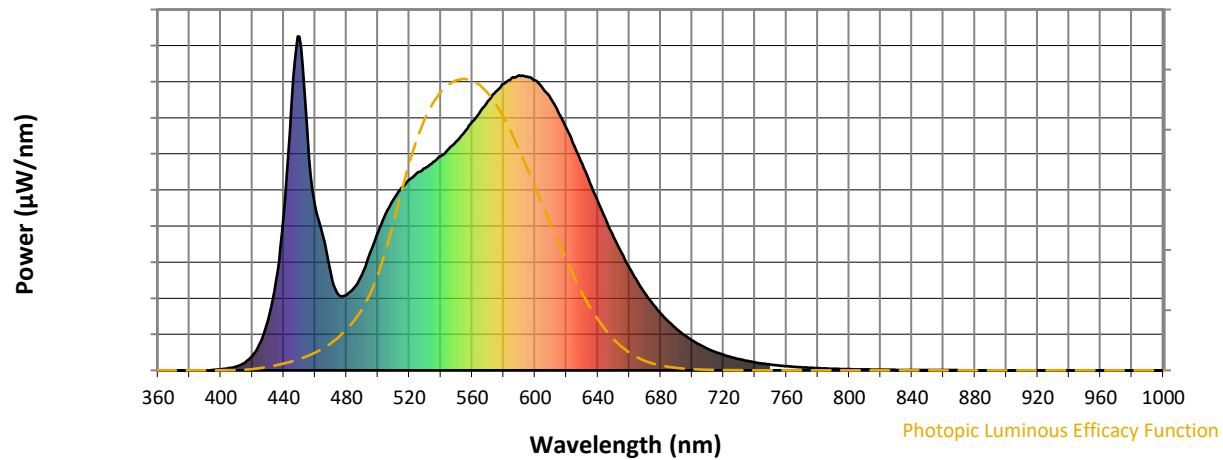


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



REPORT NUMBER: SP1-2407-157-8

Photopic Flux vs. Wavelength

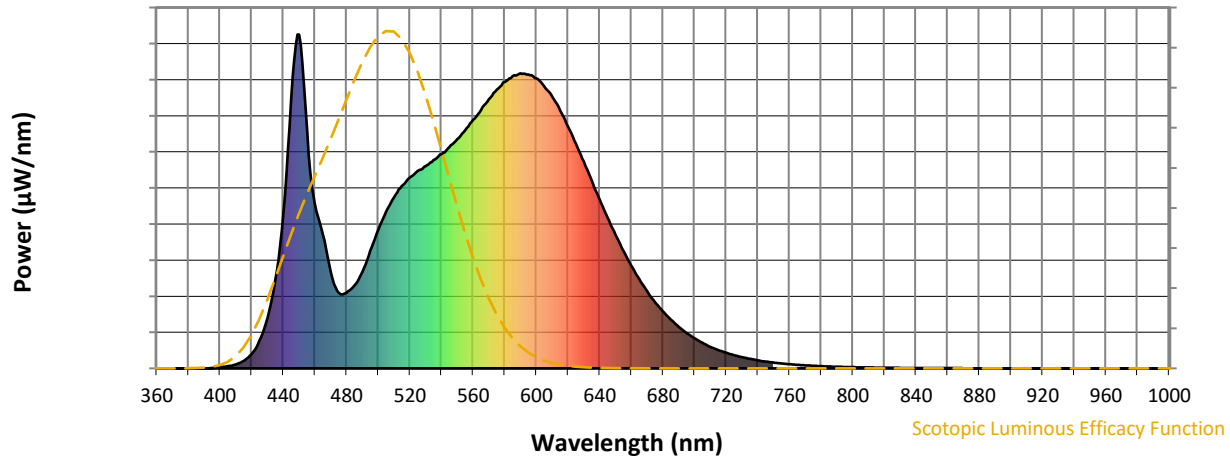


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2407-157-8

Scotopic Flux vs. Wavelength



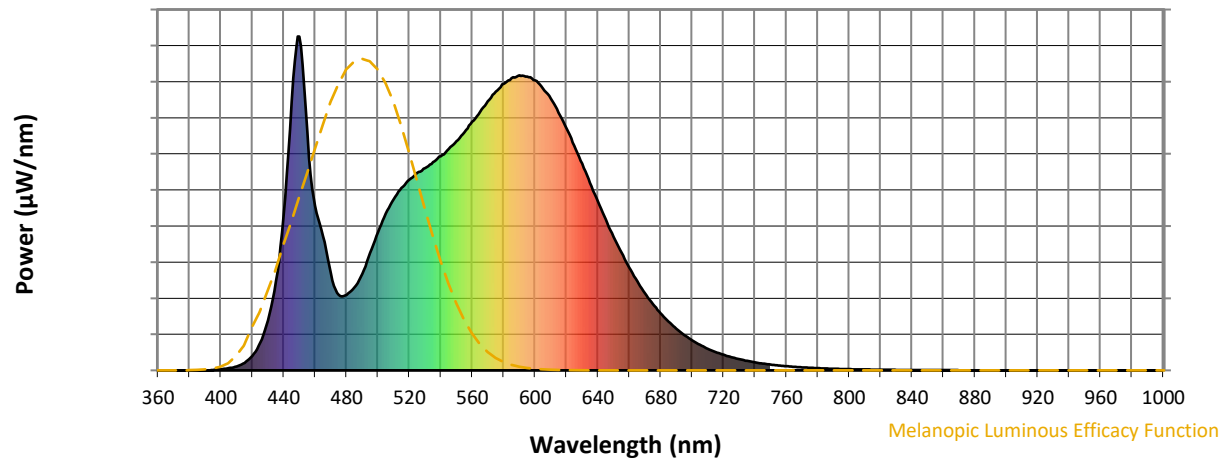
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2407-157-8

Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 3.37

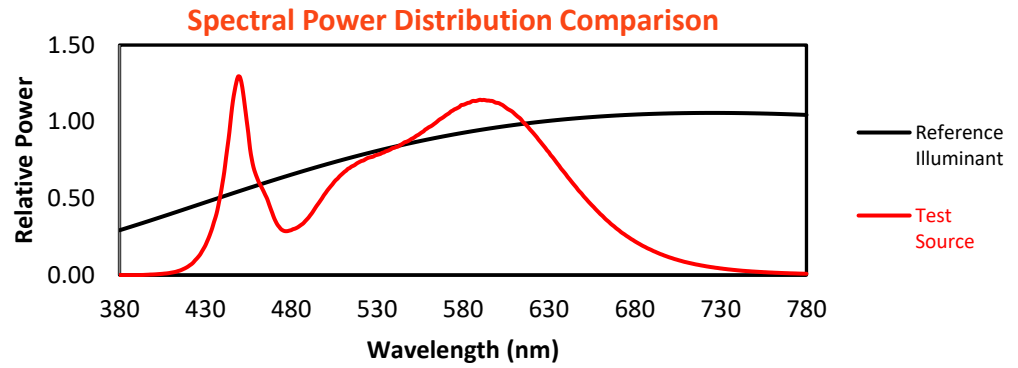
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	289	NR	620	725	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			

REPORT NUMBER: SP1-2407-157-8

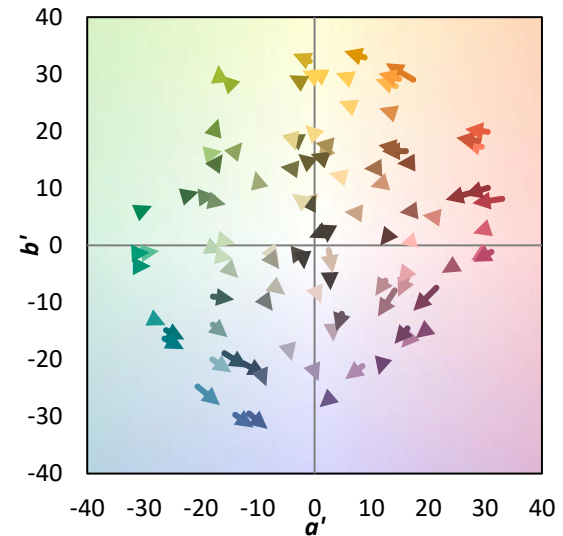
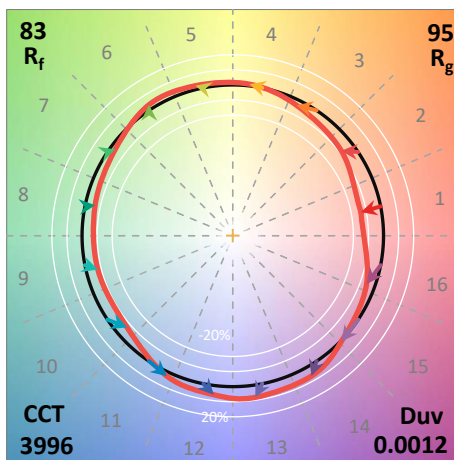
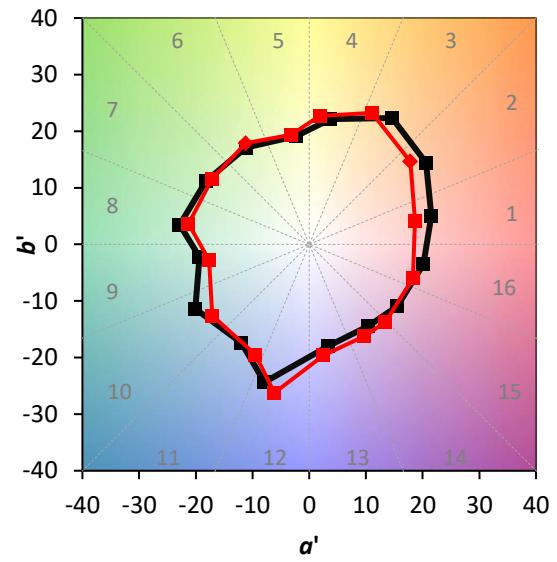
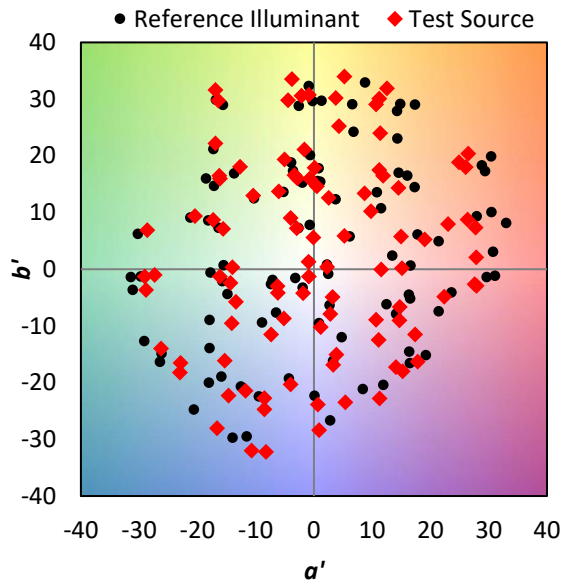
TM-30-18

Summary

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

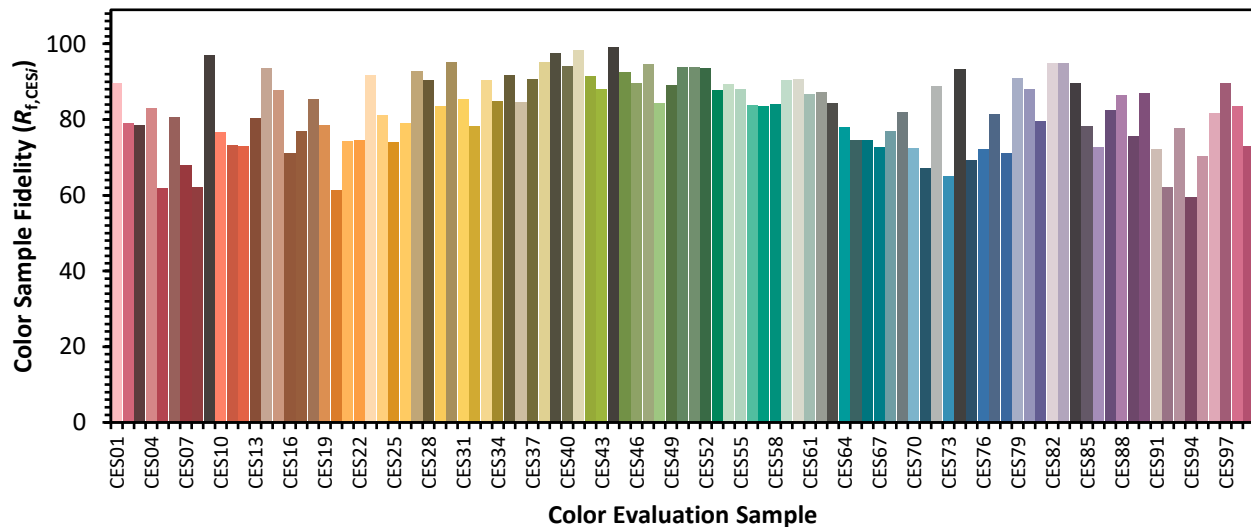


Color Vector Graphics

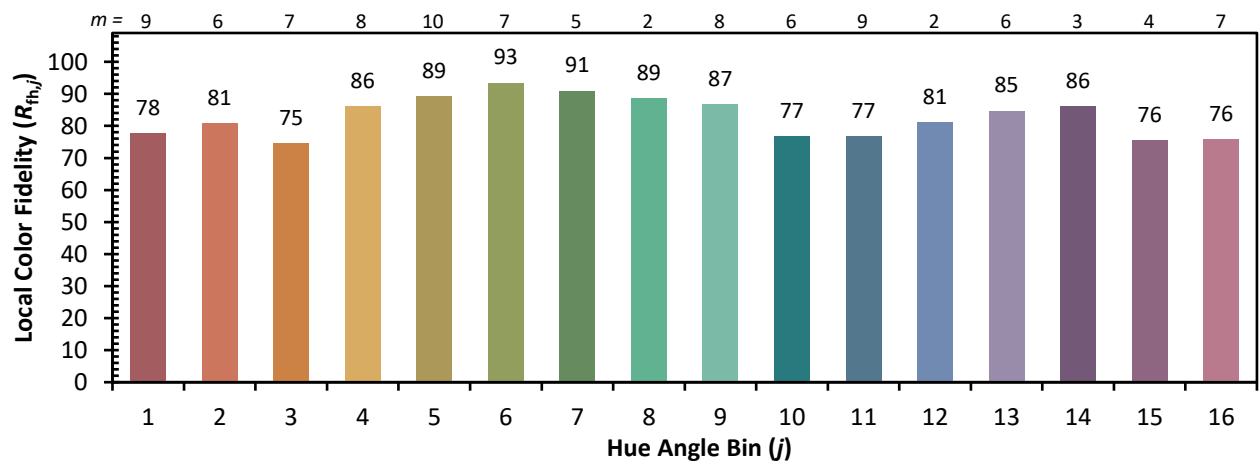
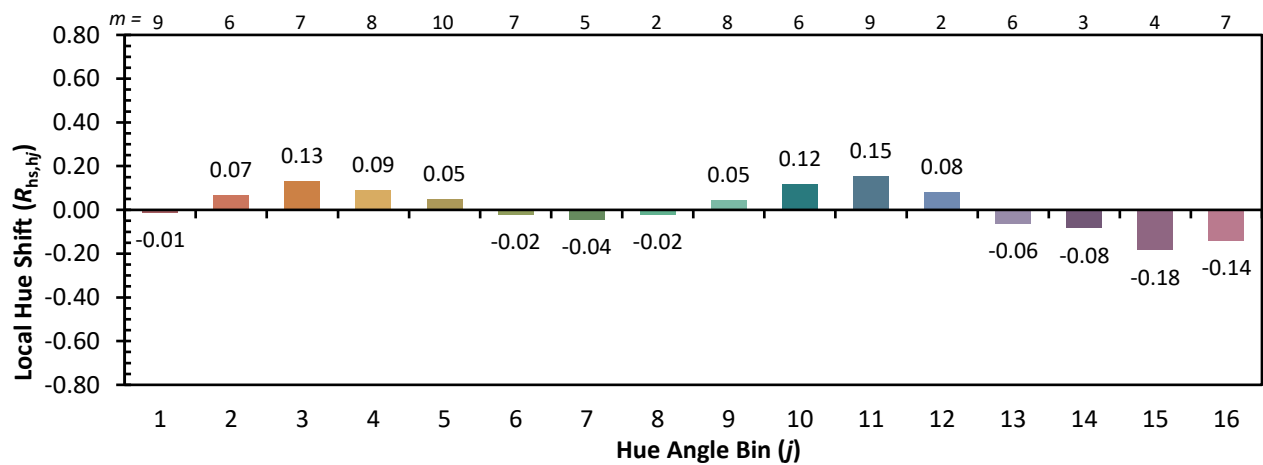
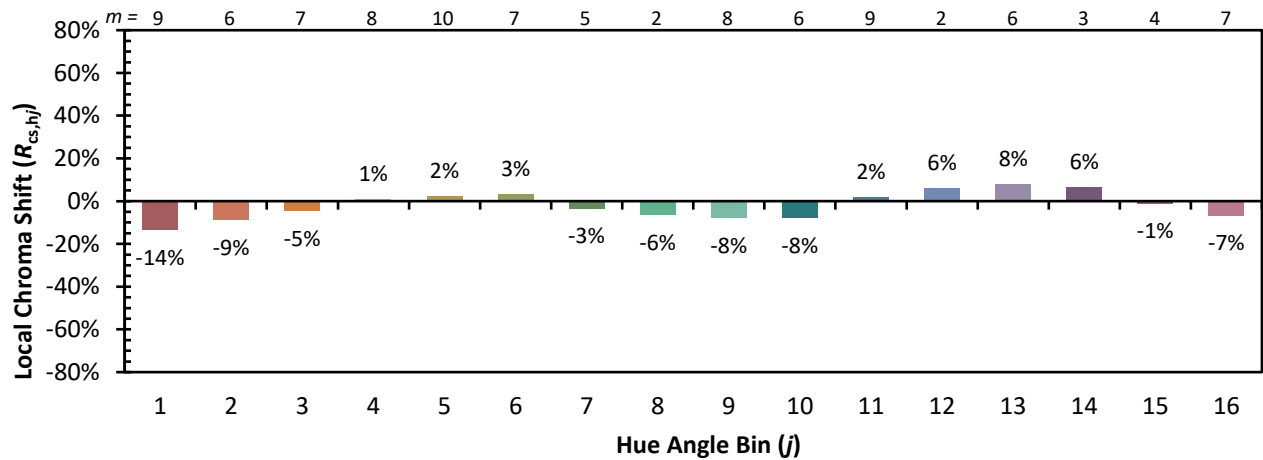


Individual Sample Fidelity Index ($R_{f,i}$)

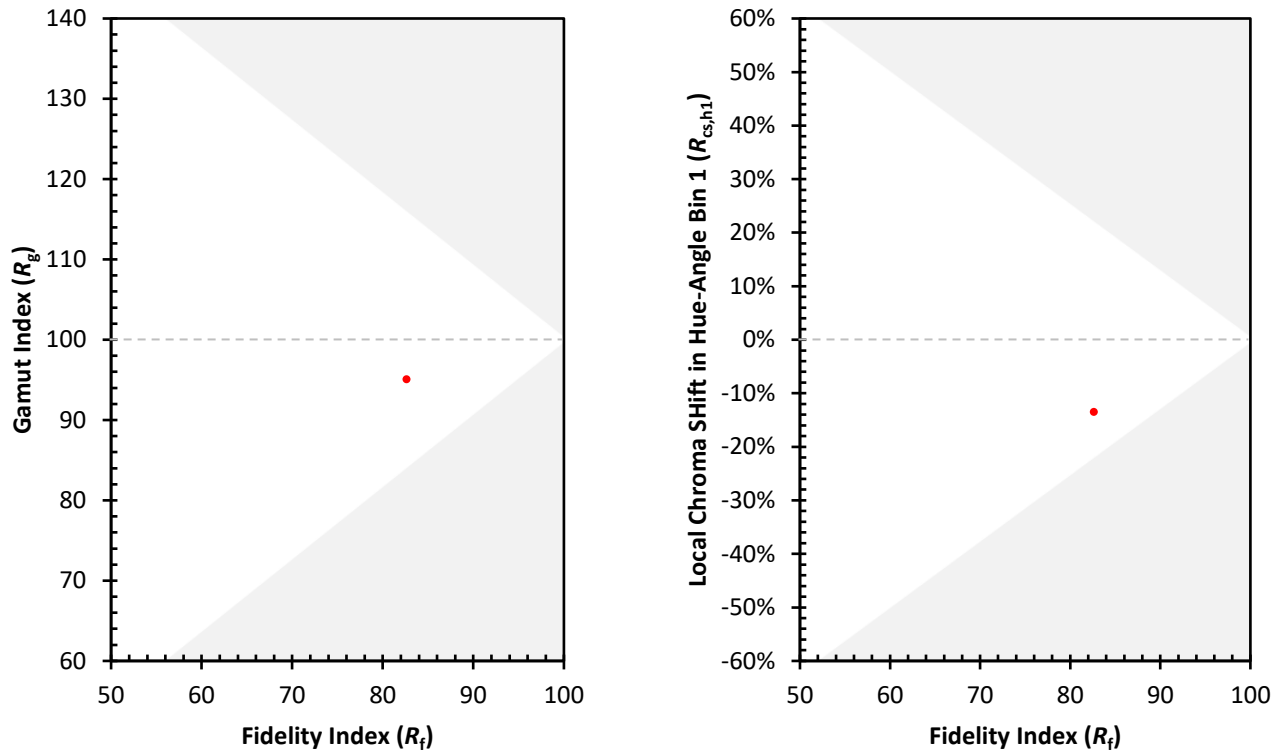
CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 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)