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: P871117

Luminaire Tested: **EMM2-HSN-SA3B-840-U-T2U**

Issue Date: 09/05/2024

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:	P871117
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	09/05/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	INVUE
Catalog Number:	EMM2-HSN-SA3B-840-U-T2U
Description:	EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 80CRI 4000K FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC
Light Source:	(30) 4000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	18254 lumens
Efficiency:	N/A
Efficacy:	136.2 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification:	Type III - 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

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REPORT NUMBER: P871117
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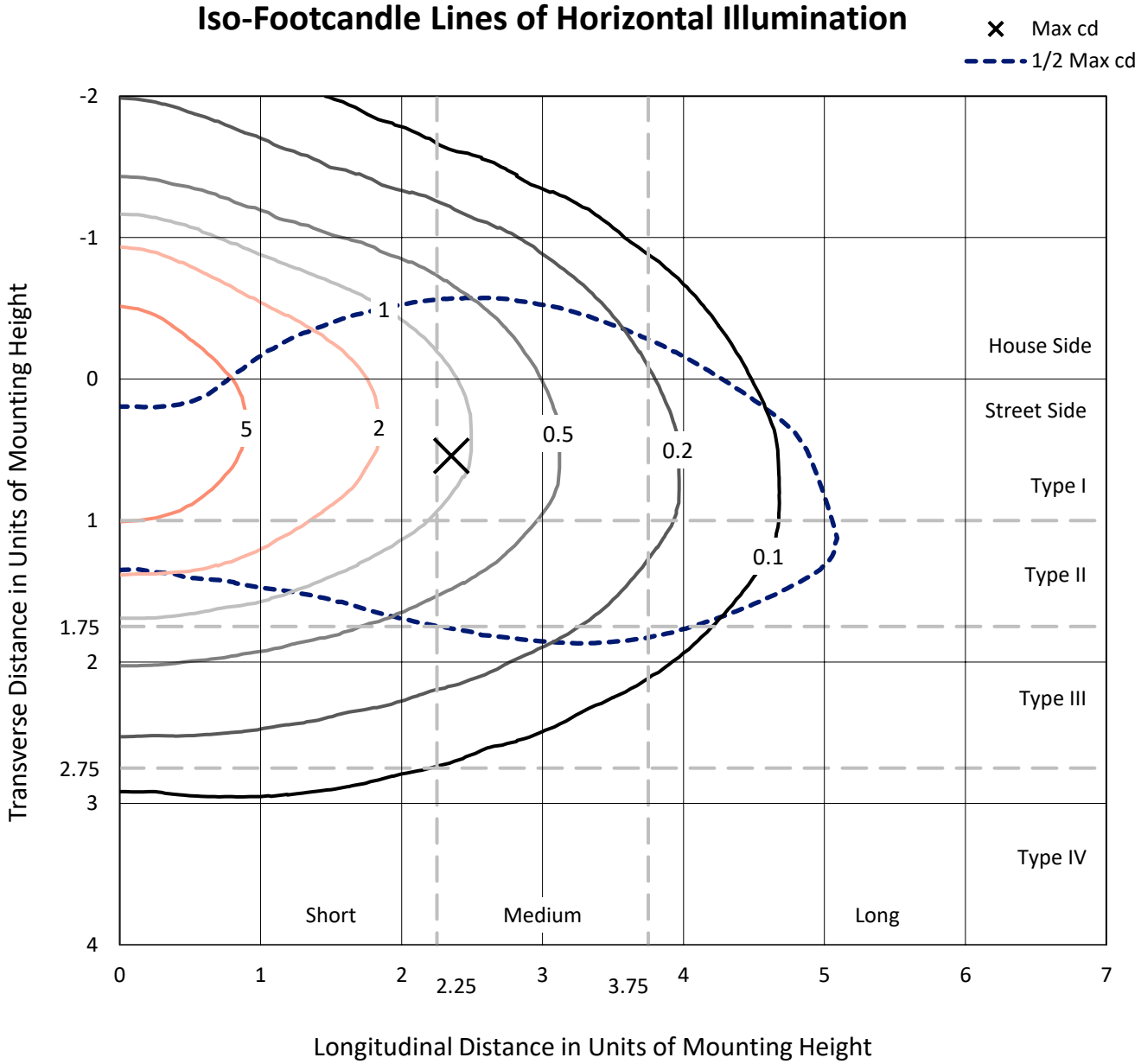
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 9.9 fc
Type III - Medium - N/A

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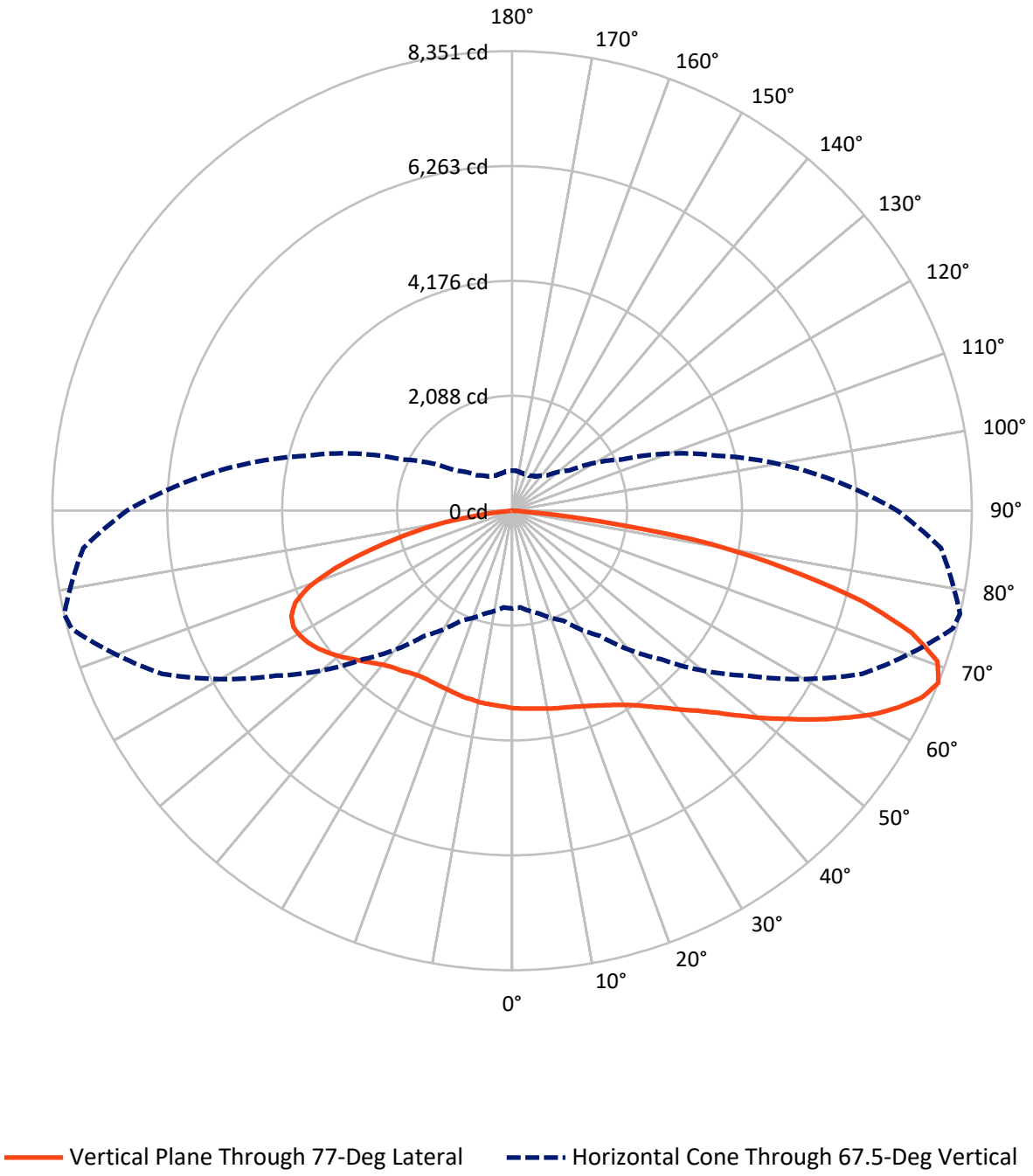
Luminous Intensity Polar Plot



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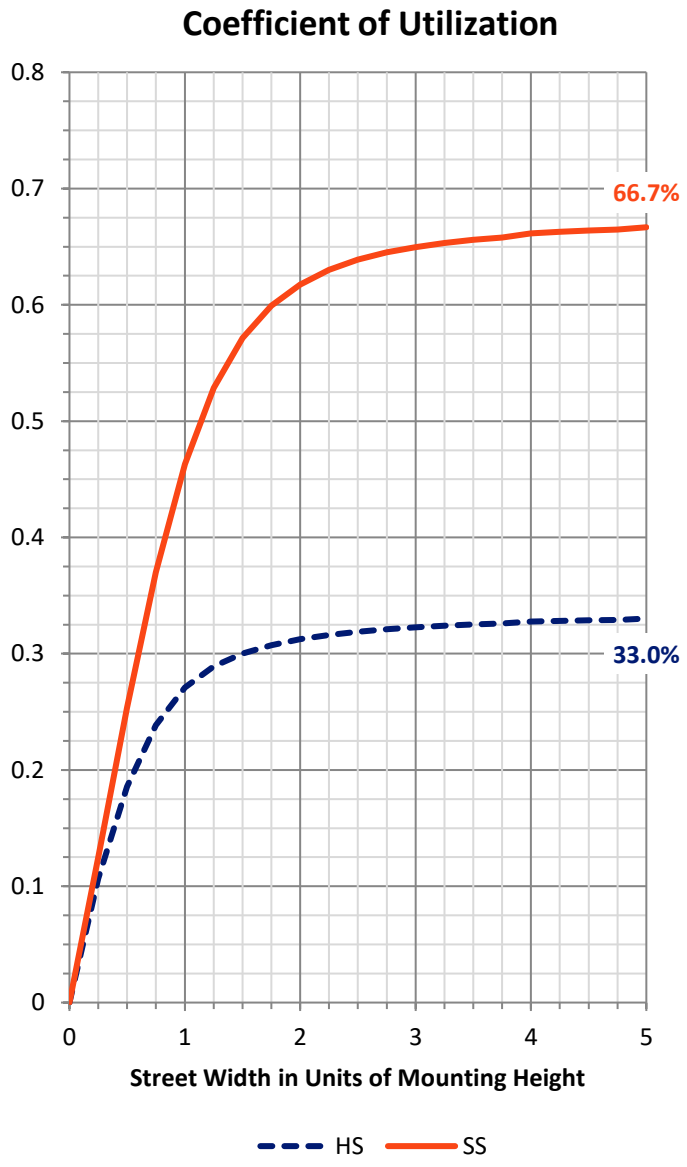
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6070.1	0.0	6070.1
	% Fixture	33.3	0.0	33.3
Street Side	Lumens	12183.9	0.0	12183.9
	% Fixture	66.7	0.0	66.7
Total	Lumens	18254.0	0.0	18254.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.0	1.9
10°-20°	1046.2	5.7
20°-30°	1763.7	9.7
30°-40°	2502.8	13.7
40°-50°	3166.6	17.3
50°-60°	3468.9	19.0
60°-70°	3353.2	18.4
70°-80°	2255.2	12.4
80°-90°	352.4	1.9
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°	18254.0	100.0
0°-180°	18254.0	100.0



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REPORT NUMBER: P871117
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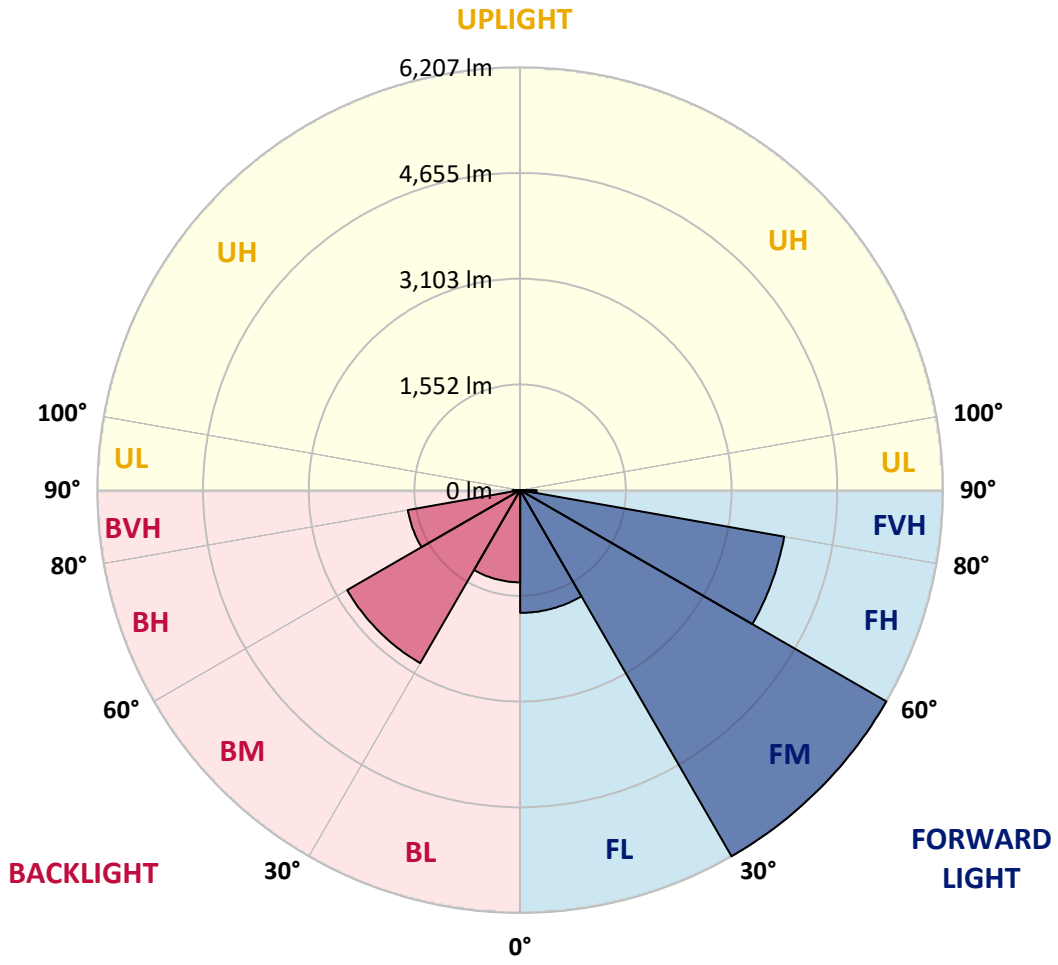
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1801.7	9.9			
FM	(30°-60°)	6206.6	34.0			
FH	(60°-80°)	3934.3	21.6			G2/5000
FVH	(80°-90°)	241.3	1.3			G3/500
BL	(0°-30°)	1353.1	7.4	B3/2500		
BM	(30°-60°)	2931.7	16.1	B3/5000		
BH	(60°-80°)	1674.2	9.2	B3/2500		G3/2500
BVH	(80°-90°)	111.1	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type III Medium



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REPORT NUMBER: P871117
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	*3588.9*	3588.9
2.5°	3668.4	3664.8	3646.7	3653.9	3632.3	3646.7	3625.0	3607.0	3603.4	*3599.8*	3603.4
5°	3783.9	3765.9	3747.8	3737.0	3718.9	3711.7	3675.6	3639.5	3617.8	*3614.2*	3607.0
7.5°	3917.5	3910.3	3885.0	3870.6	3820.0	3794.7	3744.2	3679.2	3646.7	*3632.3*	3614.2
10°	4054.7	4072.8	4040.3	4011.4	3953.6	3899.5	3812.8	3729.8	3664.8	*3657.5*	3617.8
12.5°	4224.4	4220.8	4199.1	4148.6	4080.0	4004.2	3899.5	3783.9	3697.3	*3682.8*	3625.0
15°	4376.1	4372.4	4343.6	4296.6	4206.4	4112.5	3971.7	3838.1	3729.8	*3708.1*	3639.5
17.5°	4516.9	4509.6	4491.6	4441.0	4329.1	4213.6	4076.4	3899.5	3769.5	*3744.2*	3650.3
20°	4639.6	4646.8	4625.2	4574.6	4469.9	4347.2	4173.9	3978.9	3820.0	*3791.1*	3682.8
22.5°	4773.2	4776.8	4766.0	4747.9	4614.4	4484.4	4296.6	4069.2	3877.8	*3848.9*	3718.9
25°	4914.0	4917.6	4924.9	4914.0	4762.4	4621.6	4423.0	4181.1	3957.2	*3917.5*	3769.5
27.5°	5076.5	5080.1	5094.6	5072.9	4910.4	4762.4	4563.8	4300.2	4040.3	*3996.9*	3812.8
30°	5260.6	5275.1	5264.3	5257.0	5069.3	4924.9	4704.6	4423.0	4148.6	*4094.4*	3888.6
32.5°	5480.9	5477.3	5455.6	5434.0	5242.6	5091.0	4863.5	4581.9	4282.2	*4220.8*	4011.4
35°	5639.8	5639.8	5607.3	5596.4	5419.5	5260.6	5036.8	4758.8	4433.8	*4376.1*	4141.4
37.5°	5737.2	5751.7	5726.4	5733.6	5563.9	5415.9	5210.1	4939.3	4599.9	*4549.4*	4300.2
40°	5773.4	5809.5	5831.1	5860.0	5690.3	5563.9	5394.2	5134.3	4812.9	*4755.2*	4491.6
42.5°	5780.6	5834.7	5910.6	5971.9	5780.6	5675.9	5571.2	5332.9	5022.3	*4971.8*	4701.0
45°	5744.5	5719.2	5903.3	5910.6	5831.1	5766.1	5726.4	5571.2	5325.6	*5242.6*	4961.0
47.5°	5470.1	5441.2	5491.7	5722.8	5769.7	5805.9	5885.3	5849.2	5628.9	*5563.9*	5260.6
50°	5026.0	5011.5	5213.7	5462.8	5618.1	5802.2	6015.3	6116.4	5964.7	*5925.0*	5639.8
52.5°	4293.0	4253.3	4664.9	5148.7	5419.5	5766.1	6105.5	6390.8	6343.8	*6286.1*	5964.7
55°	3827.2	3827.2	4105.3	4708.2	5166.8	5636.2	6163.3	6679.6	6762.7	*6697.7*	6336.6
57.5°	3329.0	3368.7	3657.5	4072.8	4802.1	5397.9	6156.1	6921.5	7167.0	*7105.7*	6730.2
60°	2902.9	2935.4	3101.5	3520.3	4372.4	5083.7	6076.6	7120.1	7542.6	*7520.9*	7076.8
62.5°	2469.7	2509.4	2643.0	3036.5	3805.6	4722.7	5910.6	7228.4	7896.4	*7874.7*	7427.0
65°	2123.0	2126.6	2260.2	2588.8	3238.7	4285.8	5618.1	7206.8	8170.8	*8185.2*	7723.1
67.5°	*1776.4*	*1765.6*	*1938.9*	*2206.1*	*2776.6*	*3816.4*	*5228.2*	*7015.4*	*8286.3*	*8351.3*	*7820.6*
70°	1307.0	1321.5	1563.4	1859.5	2346.9	3274.8	4683.0	6643.5	8098.6	*8199.7*	7596.7
72.5°	982.1	1011.0	1245.7	1552.6	1960.6	2733.2	4087.2	5997.2	7575.0	*7589.5*	6914.3
75°	797.9	805.2	1014.6	1289.0	1606.7	2191.6	3282.0	5007.9	6405.2	*6571.3*	5874.5
77.5°	678.8	671.6	772.7	1039.9	1296.2	1751.1	2473.3	3809.2	5029.6	*5105.4*	4599.9
80°	577.7	574.1	610.2	841.3	1014.6	1249.3	1693.4	2653.8	3588.9	*3672.0*	3267.6
82.5°	303.3	325.0	317.7	519.9	574.1	657.1	812.4	1205.9	1567.0	*1588.7*	1502.0
85°	14.4	14.4	14.4	21.7	36.1	57.8	111.9	111.9	122.8	*234.7*	267.2
87.5°	3.6	3.6	7.2	7.2	7.2	10.8	10.8	14.4	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

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CATALOG NUMBER: EMM2-HSN-SA3B-840-U-T2U

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9	3588.9
2.5°	3596.2	3581.7	3560.1	3563.7	3560.1	3560.1	3542.0	3527.6	3523.9	3531.2	3545.6
5°	3599.8	3578.1	3545.6	3534.8	3523.9	3516.7	3487.8	3466.2	3455.3	3462.6	3466.2
7.5°	3599.8	3567.3	3531.2	3509.5	3480.6	3459.0	3426.5	3397.6	3383.1	3386.7	3394.0
10°	3592.6	3556.4	3527.6	3484.2	3437.3	3412.0	3361.5	3325.4	3307.3	3310.9	3292.9
12.5°	3592.6	3552.8	3495.1	3455.3	3390.4	3336.2	3296.5	3256.8	3242.3	3227.9	3220.7
15°	3596.2	3545.6	3487.8	3404.8	3329.0	3271.2	3220.7	3195.4	3173.7	3166.5	3170.1
17.5°	3596.2	3545.6	3459.0	3361.5	3274.8	3202.6	3159.3	3130.4	3123.2	3116.0	3116.0
20°	3614.2	3549.2	3433.7	3318.1	3209.8	3134.0	3094.3	3076.2	3076.2	3065.4	3065.4
22.5°	3643.1	3556.4	3419.2	3282.0	3155.7	3072.6	3029.3	3007.6	3018.5	3011.2	3007.6
25°	3675.6	3581.7	3401.2	3231.5	3083.5	2996.8	2953.5	2939.0	2935.4	2917.4	2942.6
27.5°	3700.9	3599.8	3390.4	3180.9	3018.5	2917.4	2863.2	2837.9	2819.9	2827.1	2819.9
30°	3769.5	3650.3	3394.0	3137.6	2946.3	2823.5	2758.5	2729.6	2722.4	2722.4	2722.4
32.5°	3863.3	3715.3	3419.2	3119.6	2877.7	2733.2	2653.8	2624.9	2617.7	2603.2	2610.5
35°	3982.5	3812.8	3459.0	3090.7	2823.5	2628.5	2541.9	2502.1	2491.3	2476.9	2476.9
37.5°	4116.1	3910.3	3487.8	3076.2	2751.3	2520.2	2422.7	2372.2	2364.9	2350.5	2357.7
40°	4285.8	4043.9	3534.8	3047.3	2668.2	2422.7	2292.7	2209.7	2227.7	2235.0	2249.4
42.5°	4477.1	4213.6	3607.0	3018.5	2603.2	2321.6	2130.3	2047.2	2068.9	2061.7	2076.1
45°	4737.1	4412.2	3697.3	3007.6	2523.8	2198.9	1964.2	1870.3	1863.1	1852.2	1859.5
47.5°	5007.9	4650.5	3783.9	2986.0	2437.2	2047.2	1776.4	1657.3	1628.4	1613.9	1599.5
50°	5289.5	4888.8	3885.0	2971.5	2321.6	1877.5	1588.7	1451.5	1397.3	1379.3	1361.2
52.5°	5607.3	5145.1	3971.7	2935.4	2195.2	1700.6	1419.0	1263.7	1202.3	1166.2	1169.8
55°	5943.1	5379.8	4051.1	2892.1	2050.8	1534.5	1249.3	1119.3	1057.9	1047.1	1047.1
57.5°	6253.6	5621.7	4108.9	2816.3	1906.4	1372.0	1108.5	996.5	967.6	982.1	982.1
60°	6571.3	5816.7	4137.8	2733.2	1758.4	1234.8	1011.0	920.7	906.3	935.1	938.8
62.5°	6827.7	5971.9	4130.5	2617.7	1595.9	1115.7	917.1	844.9	852.1	902.7	913.5
65°	7011.8	6047.8	4040.3	2444.4	1440.6	1011.0	834.0	765.4	765.4	801.6	812.4
67.5°	*6997.4*	*5950.3*	*3859.7*	*2202.5*	*1274.5*	*906.3*	*758.2*	*704.1*	*704.1*	*729.3*	*725.7*
70°	6701.3	5614.5	3516.7	1910.0	1112.1	816.0	693.2	653.5	649.9	660.7	657.1
72.5°	5990.0	4932.1	2982.4	1577.8	960.4	725.7	628.2	592.1	584.9	570.5	559.6
75°	4942.9	4051.1	2328.8	1256.5	812.4	639.1	566.9	534.4	505.5	523.5	512.7
77.5°	3834.5	3108.7	1733.1	974.9	660.7	556.0	505.5	469.4	462.2	527.1	505.5
80°	2798.2	2148.3	1224.0	696.8	512.7	451.3	422.4	393.6	498.3	668.0	664.4
82.5°	1242.0	1036.2	559.6	332.2	238.3	198.6	166.1	187.8	314.1	306.9	317.7
85°	111.9	115.5	61.4	39.7	25.3	21.7	14.4	14.4	10.8	10.8	10.8
87.5°	14.4	14.4	10.8	10.8	7.2	7.2	7.2	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

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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: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-840-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

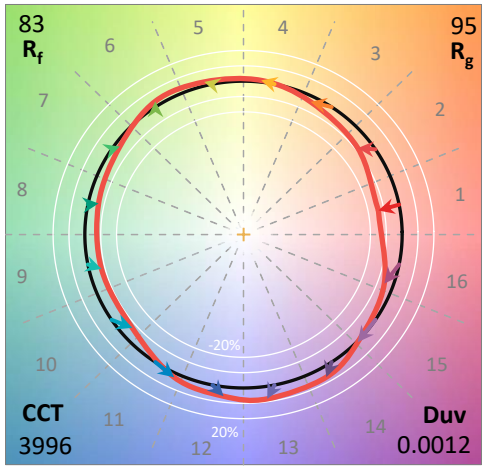
Test Information

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-40-840-U-5WQ**
Description:	Epic Modern Light Square 40W 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
Rf:	82.6
Rg:	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

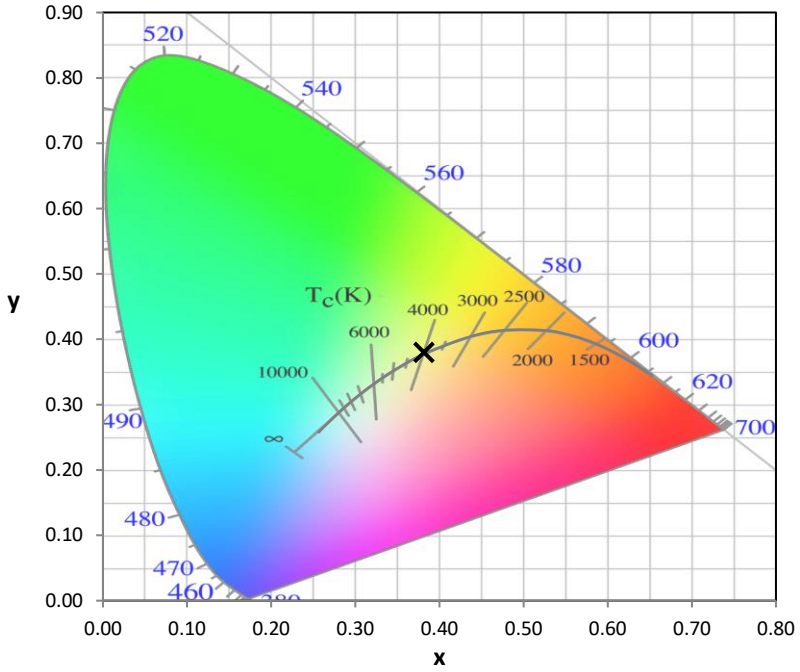
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	24.3

REPORT NUMBER: SP1-2407-157-8

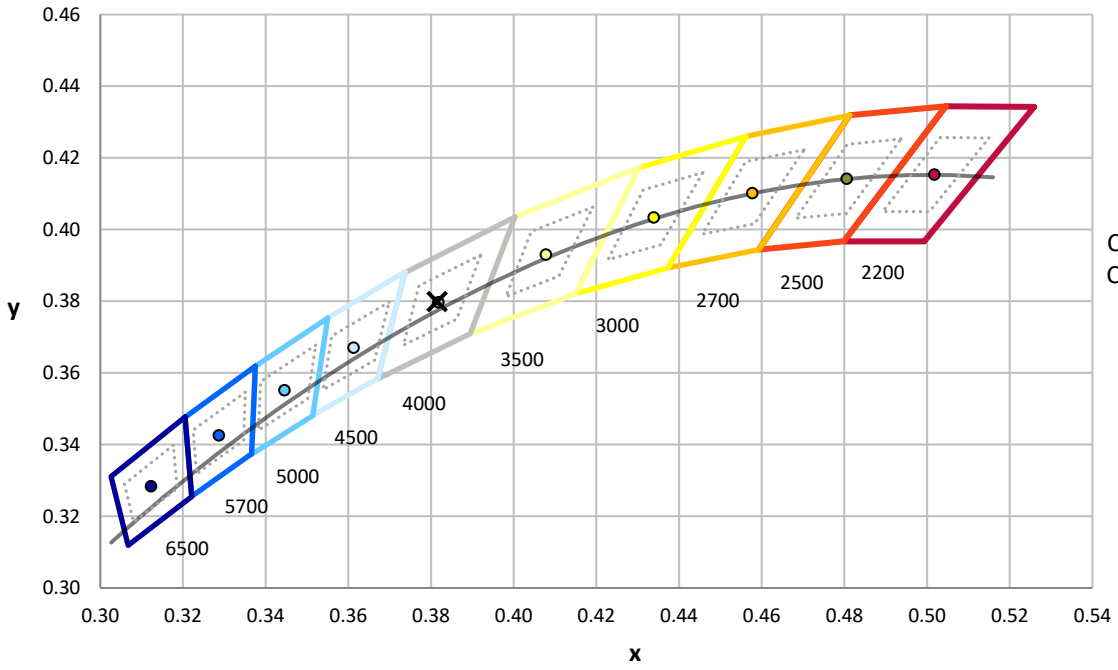
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

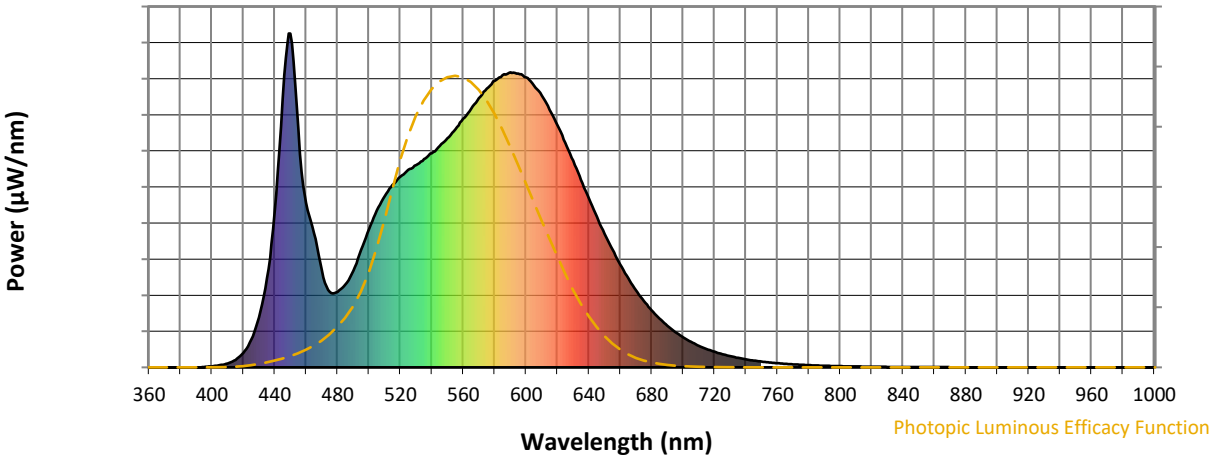


CCT = 3996K
CIE x = 0.3815
CIE y = 0.3799
Duv = 0.0012

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-8

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	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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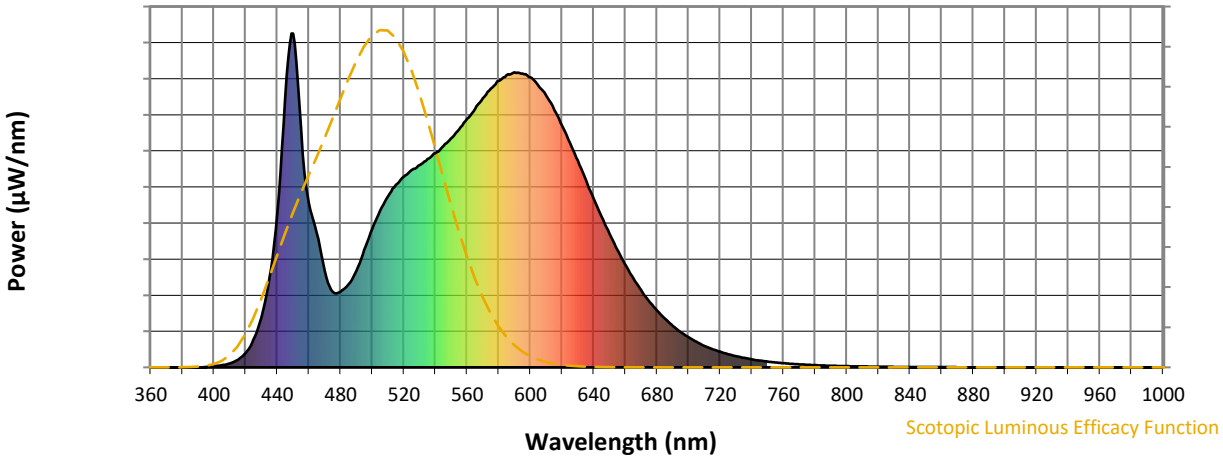
Scotopic Flux vs. Wavelength



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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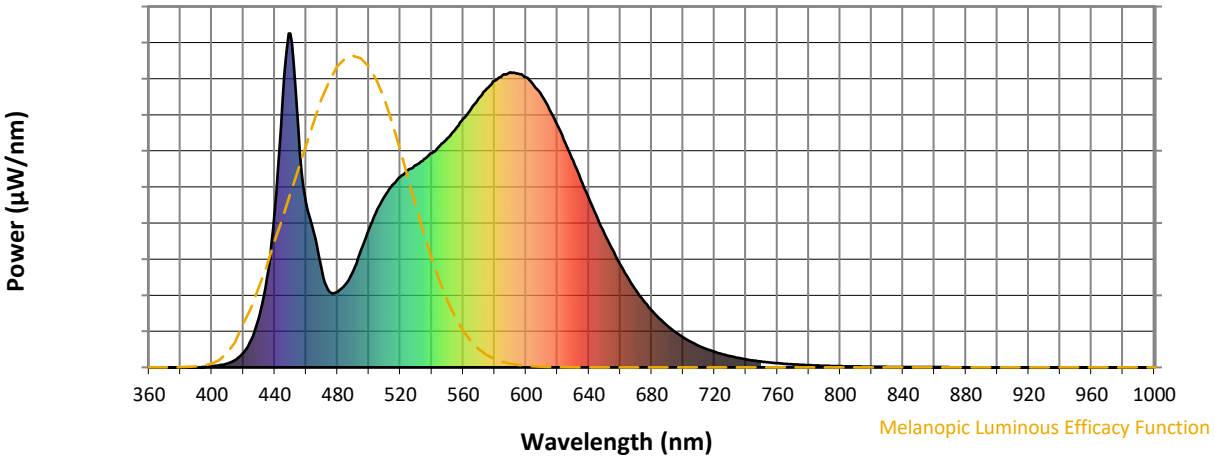
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.37**

λ (nm)	Power W^/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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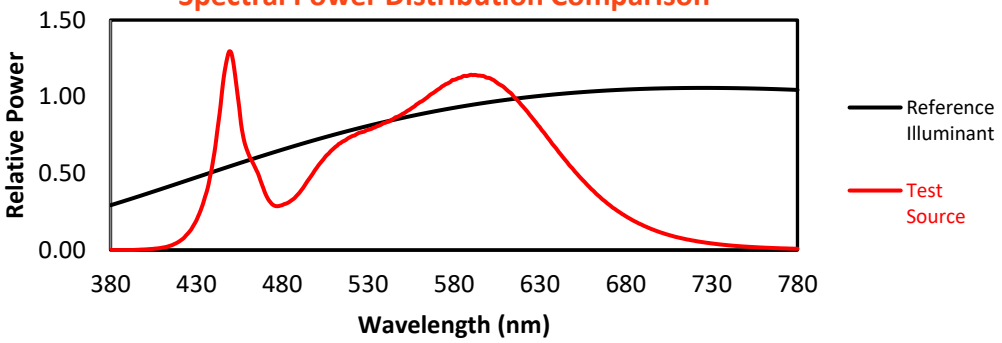
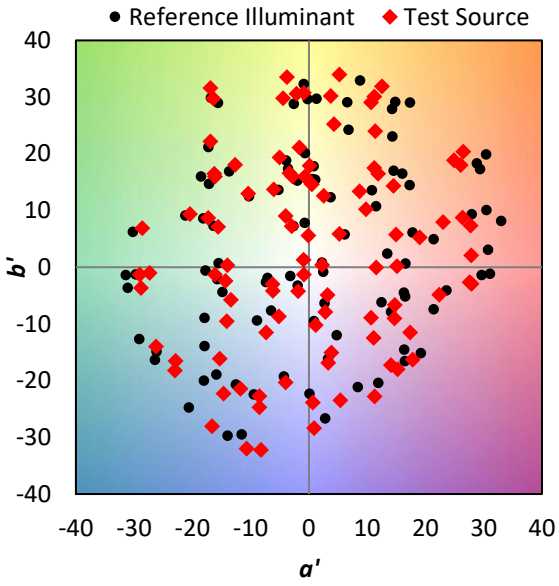
Summary

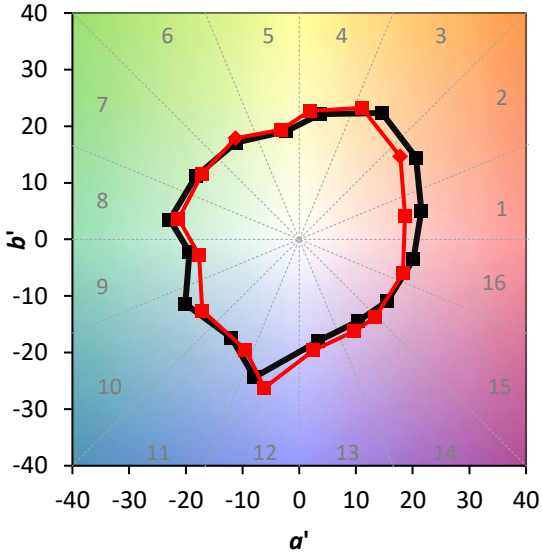
R_f = 82.6
R_g = 95.1
CIE R_a = 80.6
R_9 = -5.8

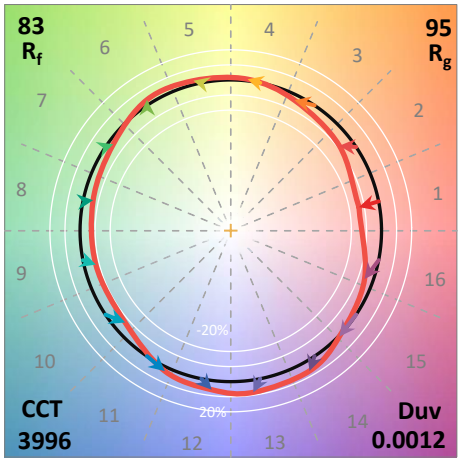
Spectral Power Distribution Comparison

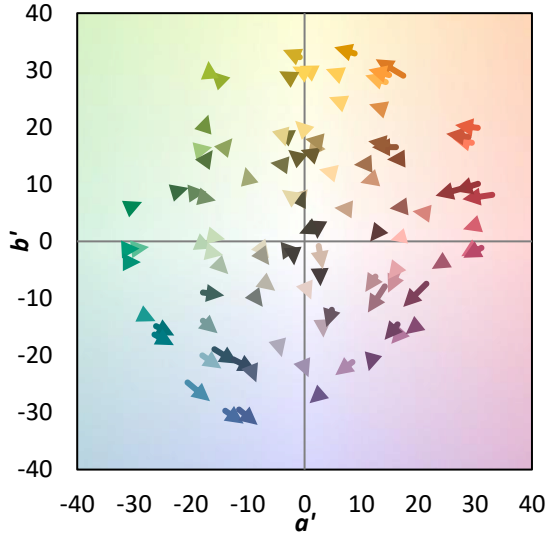


Color Vector Graphics









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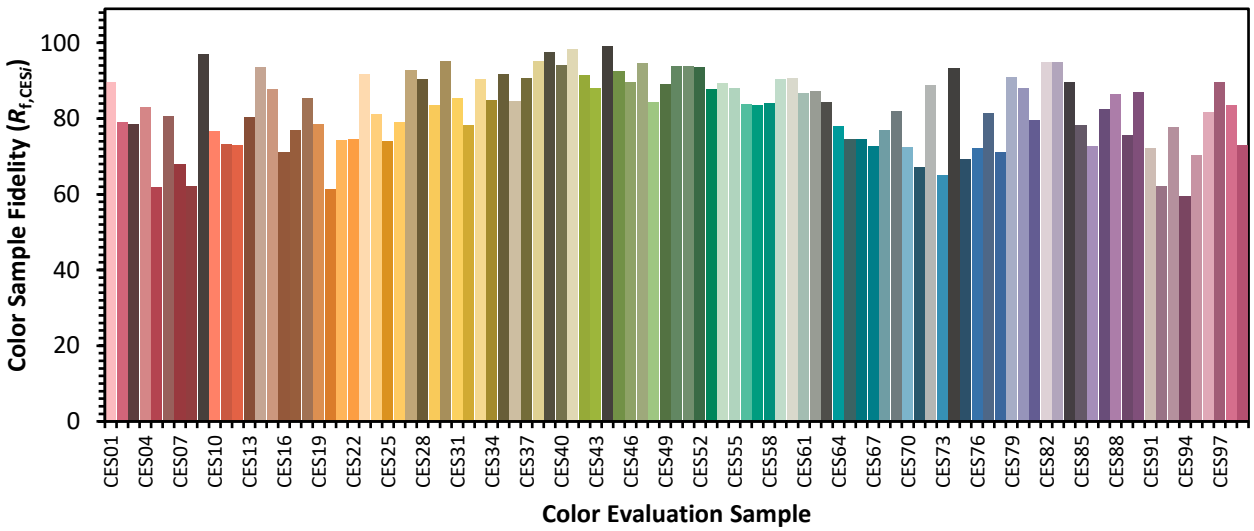
Individual Sample Fidelity Index ($R_{f,i}$)

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	



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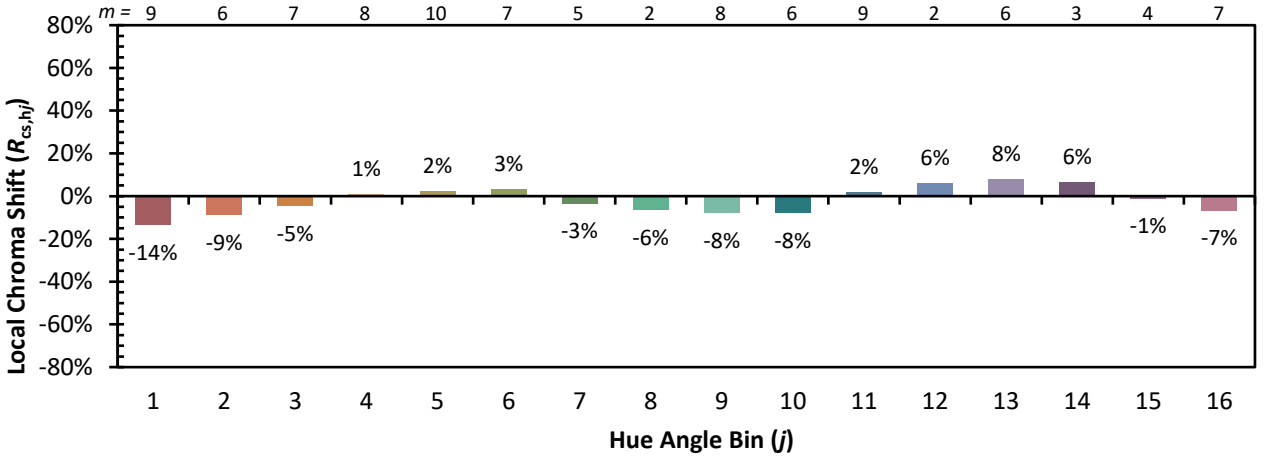
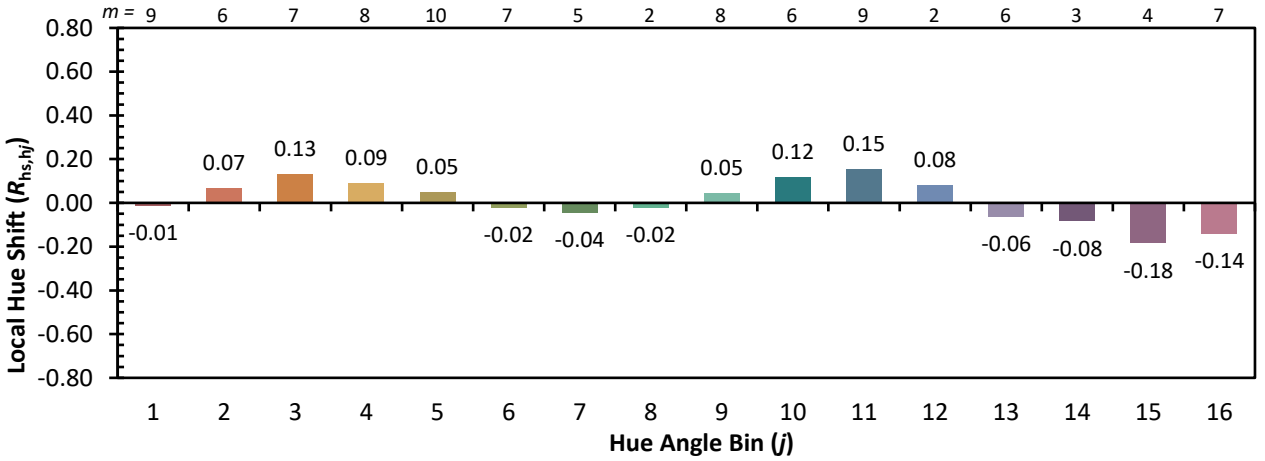
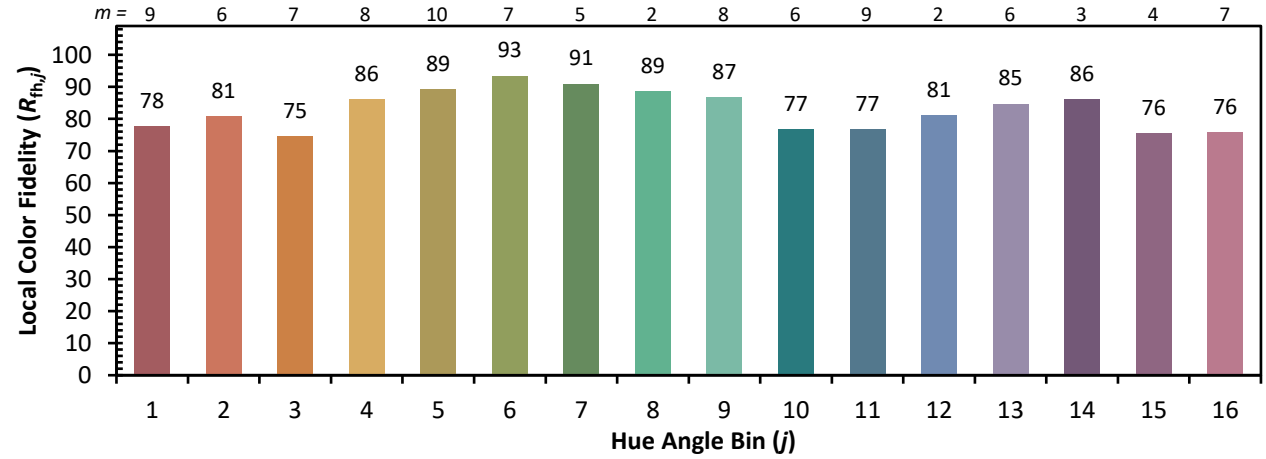
Color Rendition by Hue-Angle Bin







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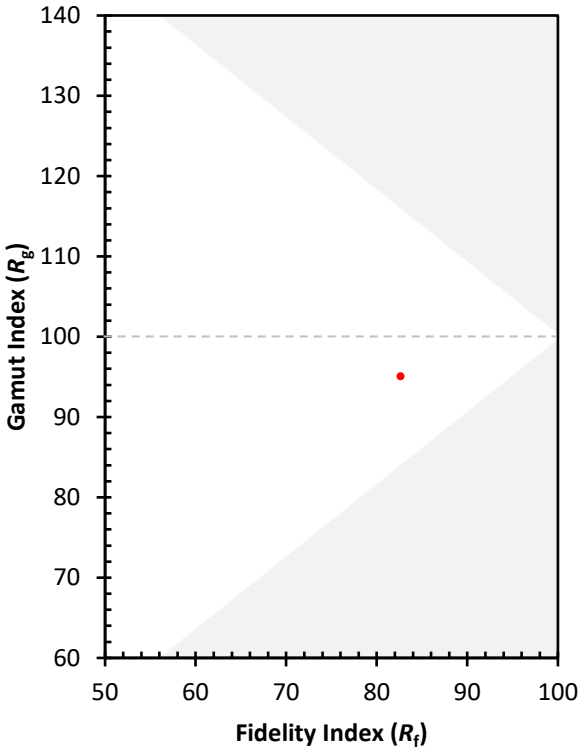
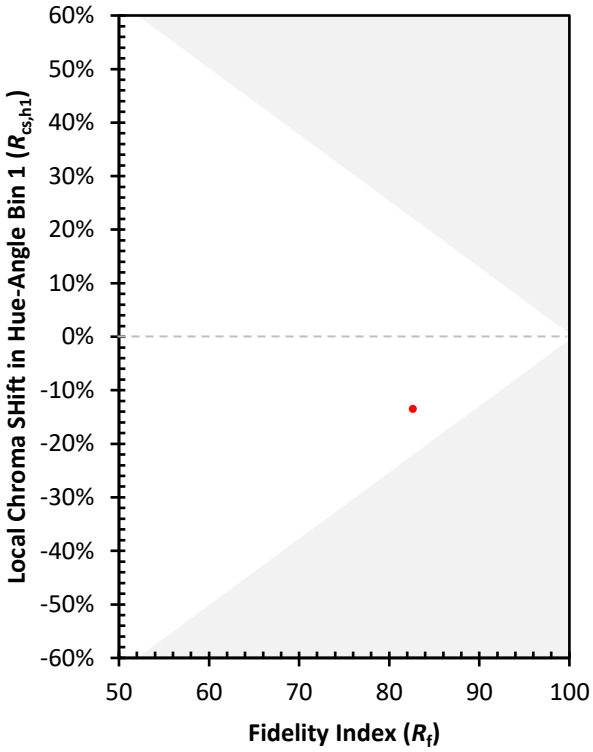
Measure Comparisons





(END OF REPORT)