Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638505

Luminaire Tested: GWS-SA4E-830-U-T4FT-W

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P638505
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-54)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-T4FT-W
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23481.7 lumens
Efficiency:	N/A
Efficacy:	115.9 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B3 - U0 - G4

Input Watts (W):	202.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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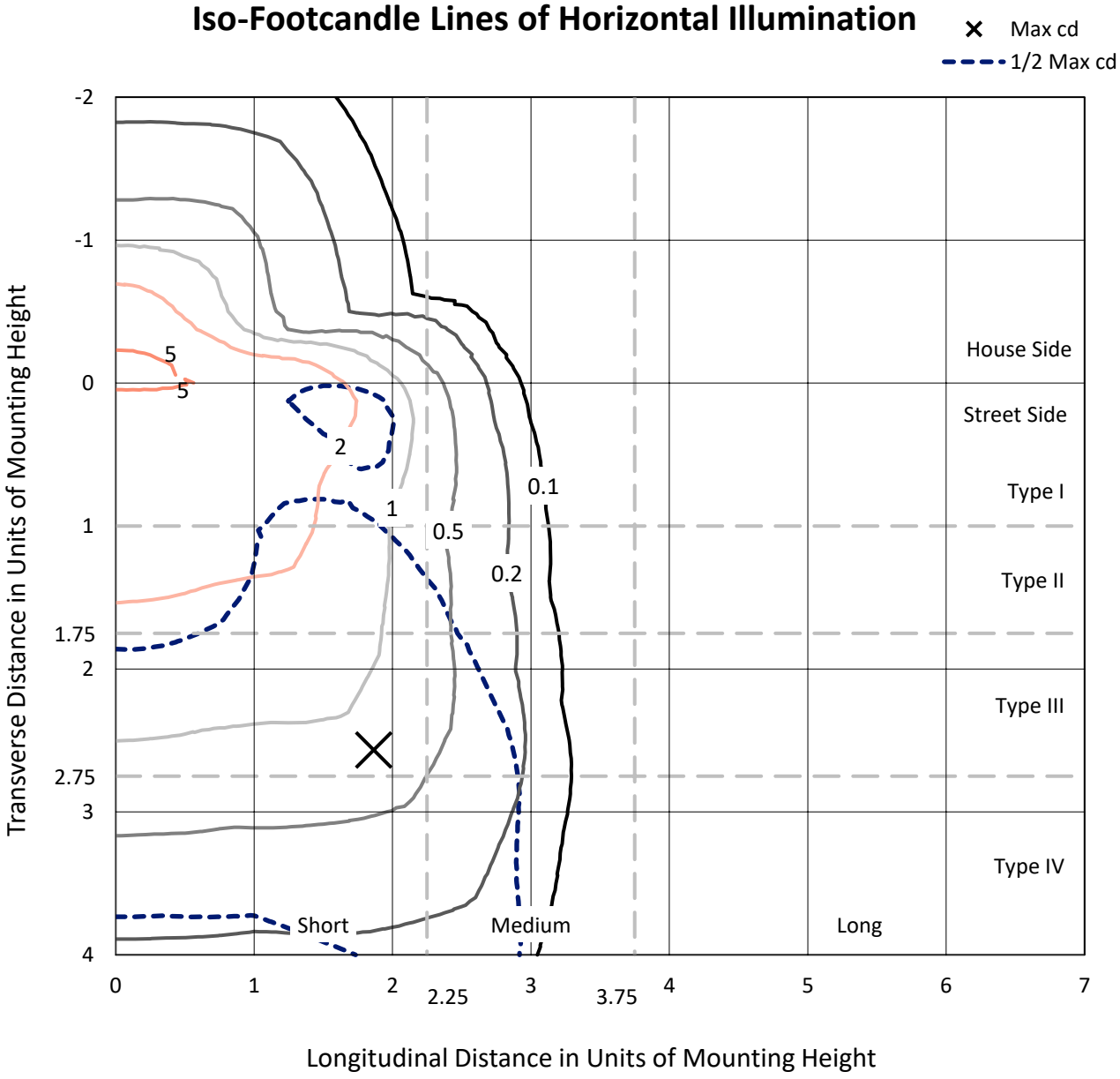
REPORT NUMBER: P638505
CATALOG NUMBER: GWS-SA4E-830-U-T4FT-W

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
Type IV - Short - N/A

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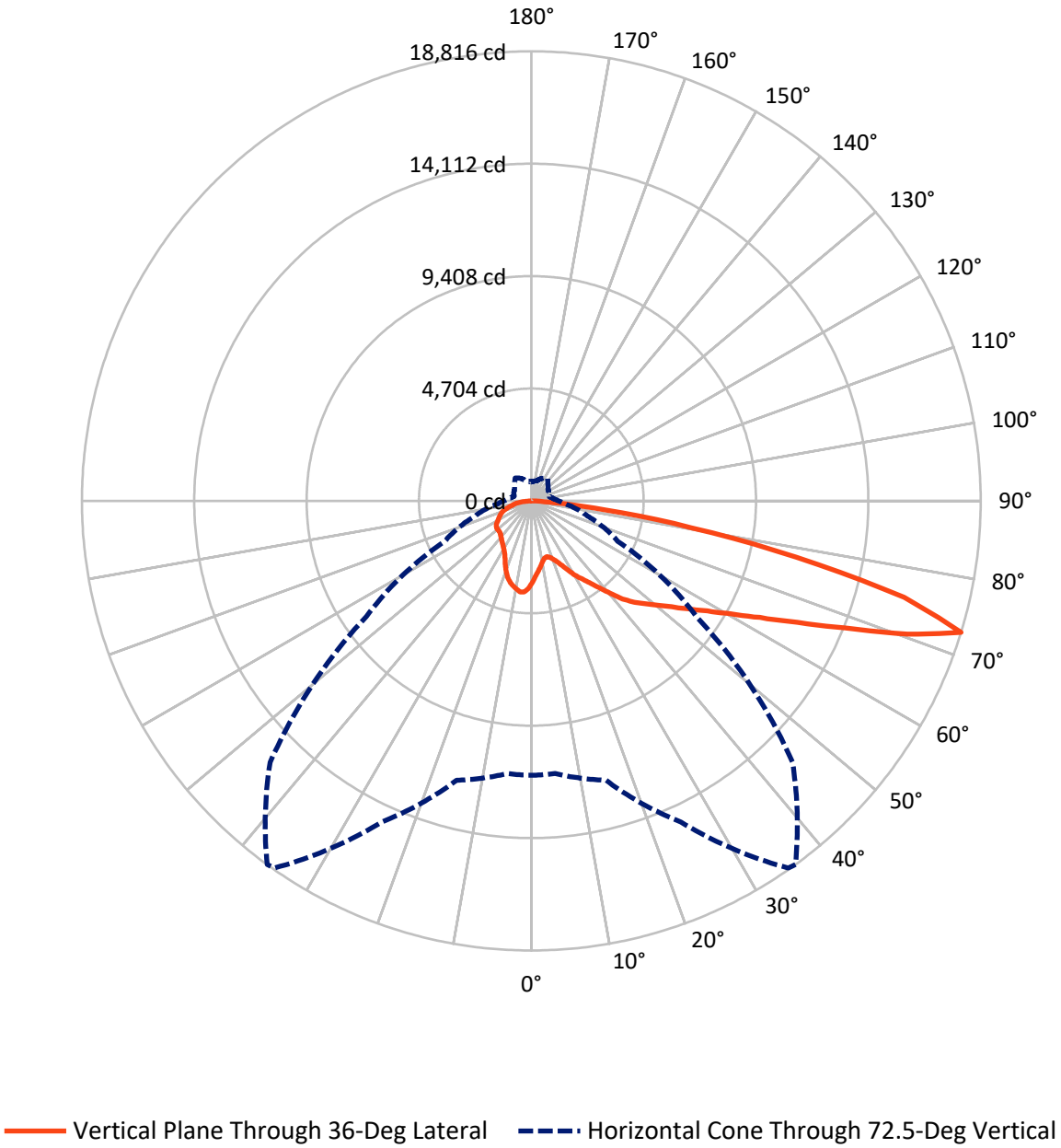
Luminous Intensity Polar Plot



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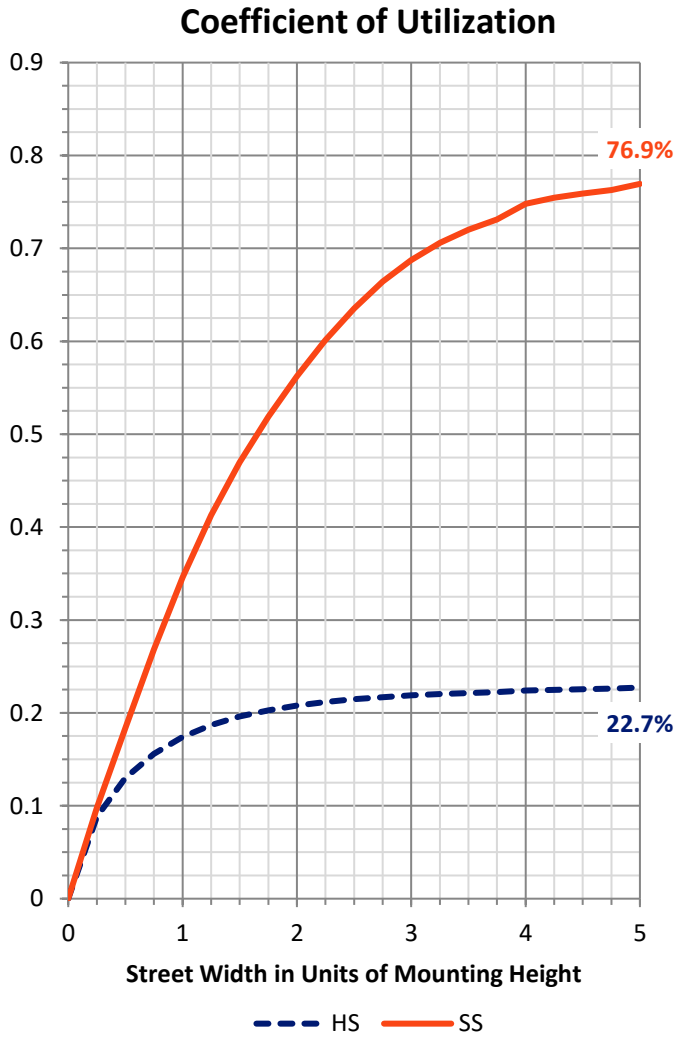
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5413.6	0.0	5413.6
	% Fixture	23.1	0.0	23.1
Street Side	Lumens	18068.2	0.0	18068.2
	% Fixture	76.9	0.0	76.9
Total	Lumens	23481.7	0.0	23481.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.2	1.4
10°-20°	906.3	3.9
20°-30°	1501.0	6.4
30°-40°	2247.9	9.6
40°-50°	3279.4	14.0
50°-60°	4667.6	19.9
60°-70°	5897.2	25.1
70°-80°	4202.3	17.9
80°-90°	458.7	2.0
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°	23481.7	100.0
0°-180°	23481.7	100.0



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REPORT NUMBER: P638505
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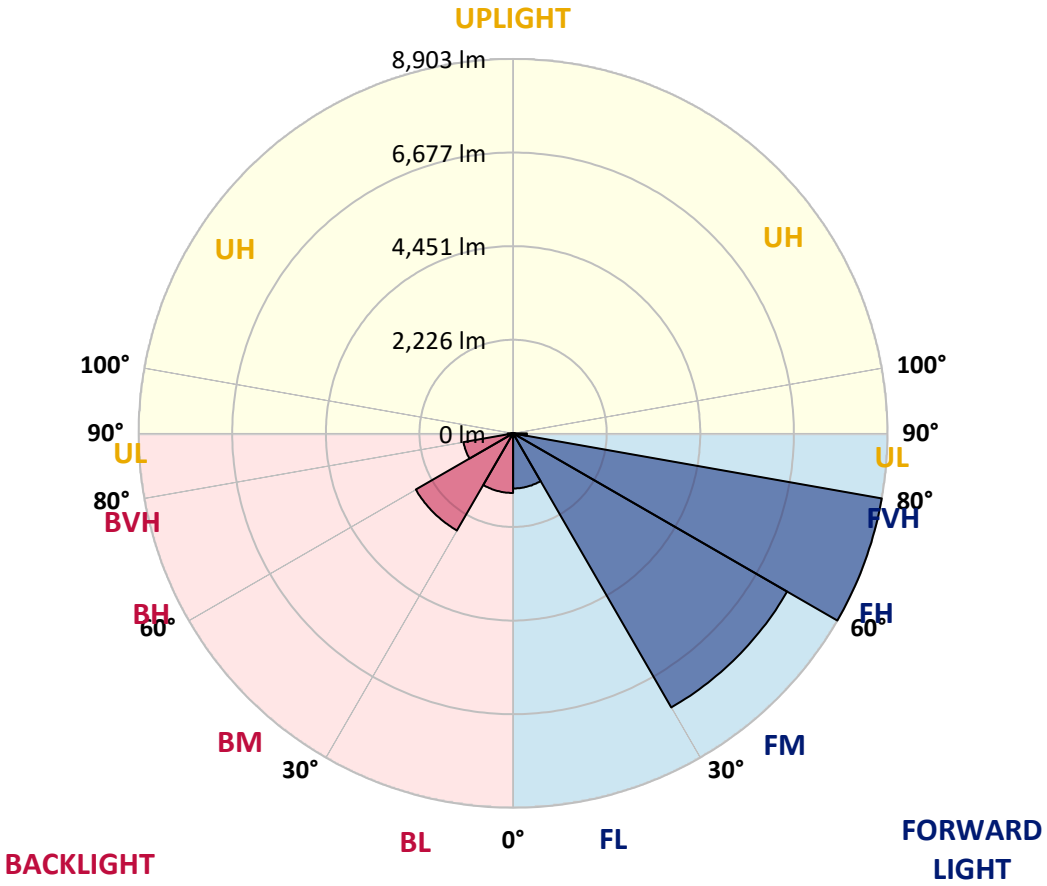
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1310.9	5.6			
FM	(30°-60°)	7525.3	32.0			
FH	(60°-80°)	8902.7	37.9			G4/12000
FVH	(80°-90°)	329.3	1.4			G3/500
BL	(0°-30°)	1417.6	6.0	B3/2500		
BM	(30°-60°)	2669.6	11.4	B3/5000		
BH	(60°-80°)	1196.8	5.1	B3/2500		G3/2500
BVH	(80°-90°)	129.5	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-G4
Type IV Short



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REPORT NUMBER: P638505
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3436.7	3436.7	3436.7	3436.7	3436.7	*3436.7*	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3135.2	3129.9	3119.5	3150.8	3182.2	*3178.7*	3222.3	3264.1	3309.4	3356.5	3419.2
5°	2884.2	2880.7	2872.0	2919.1	2966.1	*2964.4*	3035.8	3103.8	3196.2	3297.2	3422.7
7.5°	2633.3	2624.5	2636.7	2696.0	2762.2	*2769.2*	2866.8	2978.3	3112.5	3264.1	3441.9
10°	2411.9	2410.2	2415.4	2481.6	2581.0	*2587.9*	2713.4	2868.5	3046.3	3248.4	3485.4
12.5°	2354.4	2350.9	2337.0	2370.1	2445.0	*2455.5*	2593.2	2783.1	3001.0	3257.2	3544.7
15°	2448.5	2439.8	2391.0	2375.3	2411.9	*2420.6*	2537.4	2732.6	2974.8	3272.8	3619.6
17.5°	2610.6	2605.4	2513.0	2448.5	2472.9	*2479.9*	2567.0	2723.9	2967.9	3304.2	3712.0
20°	2847.6	2825.0	2680.3	2582.7	2582.7	*2593.2*	2645.5	2762.2	2976.6	3342.5	3816.6
22.5°	3161.3	3116.0	2912.1	2779.6	2744.8	*2758.7*	2781.4	2858.1	3013.2	3407.0	3947.3
25°	3513.3	3471.5	3229.3	3042.8	2994.0	*2999.2*	2980.1	2994.0	3093.3	3495.9	4109.3
27.5°	3888.0	3860.1	3602.2	3365.2	3288.5	*3288.5*	3220.6	3187.4	3204.9	3597.0	4290.6
30°	4222.6	4184.3	3966.4	3706.8	3605.7	*3605.7*	3476.7	3405.3	3363.5	3720.7	4532.8
32.5°	4398.6	4376.0	4231.3	4032.7	3908.9	*3889.8*	3778.2	3694.6	3597.0	3903.7	4860.5
35°	4628.7	4623.4	4536.3	4381.2	4224.4	*4196.5*	4119.8	4053.6	3884.5	4132.0	5296.1
37.5°	4918.0	4909.3	4895.3	4802.9	4614.7	*4609.5*	4541.5	4461.4	4241.8	4461.4	5824.2
40°	5242.1	5226.4	5209.0	5207.3	5094.0	*5074.8*	5069.6	4979.0	4672.2	4858.7	6374.9
42.5°	5688.3	5634.2	5470.4	5543.6	5627.3	*5609.8*	5676.1	5540.1	5209.0	5331.0	6896.0
45°	6237.2	6104.8	5780.6	5801.5	6012.4	*6047.3*	6277.3	6244.2	5799.8	5876.5	7444.9
47.5°	6566.6	6451.6	6150.1	6132.6	6395.8	*6439.4*	6939.5	7002.3	6435.9	6533.5	8122.8
50°	6836.7	6756.5	6509.1	6533.5	6812.3	*6855.9*	7596.5	7730.7	7035.4	7206.2	8910.5
52.5°	7162.6	7047.6	6855.9	6970.9	7312.5	*7364.8*	8326.7	8471.4	7575.6	7945.1	9726.1
55°	7345.6	7298.5	7302.0	7478.0	7906.7	*7978.2*	9091.8	9067.4	8070.6	8577.7	10339.6
57.5°	7767.3	7749.9	7910.2	7976.4	8600.3	*8692.7*	9856.8	9647.7	8520.2	9067.4	10634.1
60°	8511.5	8467.9	8607.3	8708.4	9457.8	*9588.5*	10710.8	10215.8	8825.2	9431.6	10534.8
62.5°	9557.1	9503.1	9508.3	9668.6	10606.2	*10743.9*	11660.6	10689.9	8919.3	9487.4	9905.6
65°	10857.2	10778.7	10689.9	10907.7	12131.1	*12246.1*	12694.0	11034.9	8694.5	8950.6	8591.6
67.5°	12228.7	12164.2	12059.7	12516.2	14105.6	*14175.3*	13852.9	11005.3	7981.7	7514.6	6026.3
70°	12308.9	12324.5	12819.5	14471.6	16683.1	*16700.5*	14949.1	10409.3	6463.8	4870.9	3002.7
72.5°	*11482.8*	*11456.7*	*12101.5*	*14828.8*	*18756.9*	*18816.2*	*15466.7*	*8433.0*	*3994.3*	*2429.4*	*1408.1*
75°	9327.1	9372.4	10050.3	12974.6	16076.6	*16128.9*	12608.6	4972.0	1897.8	1188.5	901.0
77.5°	4015.2	4267.9	5604.6	9140.6	11514.2	*11352.1*	6498.6	2014.6	1012.5	847.0	690.1
80°	1158.9	1258.2	1997.2	4346.4	6899.4	*6777.5*	2572.3	754.6	705.8	636.1	494.9
82.5°	374.7	414.8	731.9	1730.5	3091.6	*3088.1*	975.9	446.1	461.8	432.2	318.9
85°	104.6	120.2	224.8	524.6	956.8	*937.6*	282.3	210.9	245.7	249.2	158.6
87.5°	0.0	0.0	1.7	3.5	3.5	*3.5*	7.0	31.4	71.5	90.6	64.5
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: GWS-SA4E-830-U-T4FT-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7	3436.7
2.5°	3457.6	3452.3	3523.8	3579.6	3631.8	3666.7	3677.1	3684.1	3698.1	3705.0	3698.1
5°	3482.0	3508.1	3626.6	3713.7	3783.5	3825.3	3827.0	3823.5	3834.0	3825.3	3820.1
7.5°	3534.2	3584.8	3734.7	3827.0	3872.3	3874.1	3832.3	3783.5	3759.1	3738.1	3731.2
10°	3604.0	3678.9	3842.7	3903.7	3889.8	3825.3	3732.9	3656.2	3612.7	3581.3	3574.3
12.5°	3699.8	3783.5	3938.6	3936.8	3849.7	3734.7	3626.6	3534.2	3471.5	3434.9	3422.7
15°	3790.4	3896.7	4008.3	3926.4	3788.7	3649.3	3509.8	3386.1	3302.5	3245.0	3234.5
17.5°	3902.0	4015.2	4058.8	3893.2	3712.0	3532.5	3346.0	3184.0	3070.7	3002.7	2997.5
20°	4030.9	4132.0	4083.2	3835.7	3612.7	3377.4	3124.7	2943.5	2821.5	2755.2	2760.5
22.5°	4180.8	4254.0	4090.2	3757.3	3475.0	3157.8	2875.5	2701.2	2619.3	2584.5	2586.2
25°	4341.1	4388.2	4078.0	3651.0	3264.1	2889.4	2619.3	2539.1	2532.2	2523.5	2526.9
27.5°	4531.1	4520.6	4041.4	3501.1	2980.1	2577.5	2439.8	2460.7	2488.6	2485.1	2488.6
30°	4785.5	4686.2	3994.3	3293.7	2642.0	2316.1	2333.5	2392.8	2429.4	2432.8	2443.3
32.5°	5076.6	4869.2	3919.4	3011.4	2319.6	2169.7	2234.2	2305.6	2349.2	2357.9	2371.8
35°	5423.4	5078.3	3786.9	2659.4	2087.8	2082.6	2141.8	2190.6	2237.7	2241.1	2241.1
37.5°	5822.4	5287.4	3576.1	2270.8	1944.9	2007.6	2063.4	2073.8	2086.0	2075.6	2080.8
40°	6188.4	5489.6	3276.3	1917.0	1828.1	1941.4	1988.4	1953.6	1915.3	1889.1	1894.3
42.5°	6495.1	5627.3	2879.0	1669.5	1709.6	1882.1	1918.7	1847.3	1772.4	1723.6	1730.5
45°	6840.2	5754.5	2411.9	1502.2	1608.5	1840.3	1864.7	1772.4	1676.5	1603.3	1592.8
47.5°	7316.0	6014.1	1997.2	1385.5	1537.1	1817.7	1857.7	1732.3	1606.8	1497.0	1484.8
50°	7903.3	6381.9	1650.4	1308.8	1504.0	1805.5	1856.0	1688.7	1538.8	1409.9	1401.2
52.5°	8544.6	6740.9	1394.2	1249.5	1470.9	1768.9	1847.3	1639.9	1467.4	1328.0	1317.5
55°	8971.5	6882.0	1221.6	1193.8	1416.8	1711.4	1812.4	1592.8	1359.3	1232.1	1216.4
57.5°	9097.0	6700.8	1101.4	1143.2	1347.1	1631.2	1746.2	1493.5	1293.1	1192.0	1179.8
60°	8880.9	6244.2	1026.5	1101.4	1270.4	1528.4	1631.2	1436.0	1240.8	1150.2	1141.5
62.5°	8271.0	5540.1	969.0	1057.8	1192.0	1420.3	1558.0	1366.3	1183.3	1111.9	1099.7
65°	7044.1	4543.3	921.9	1012.5	1117.1	1317.5	1477.8	1296.6	1120.6	1066.5	1052.6
67.5°	4926.7	3190.9	871.4	958.5	1042.1	1218.2	1394.2	1232.1	1056.1	1016.0	1002.1
70°	2408.4	1692.2	810.4	895.8	962.0	1117.1	1310.5	1153.7	970.7	948.0	928.9
72.5°	*1146.7*	*946.3*	*738.9*	*810.4*	*852.2*	*982.9*	*1171.1*	*1040.4*	*869.6*	*820.8*	*787.7*
75°	768.5	672.7	644.8	709.3	719.7	824.3	1003.8	897.5	766.8	711.0	683.1
77.5°	582.1	514.1	542.0	599.5	578.6	677.9	826.1	799.9	691.9	641.3	627.4
80°	409.5	374.7	430.5	465.3	449.6	576.8	744.1	684.9	569.9	514.1	503.6
82.5°	257.9	251.0	317.2	322.4	327.6	456.6	611.7	538.5	442.7	364.2	338.1
85°	129.0	142.9	190.0	190.0	188.2	235.3	348.5	303.2	238.8	190.0	184.7
87.5°	43.6	61.0	81.9	66.2	50.5	40.1	45.3	55.8	59.3	57.5	57.5
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

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

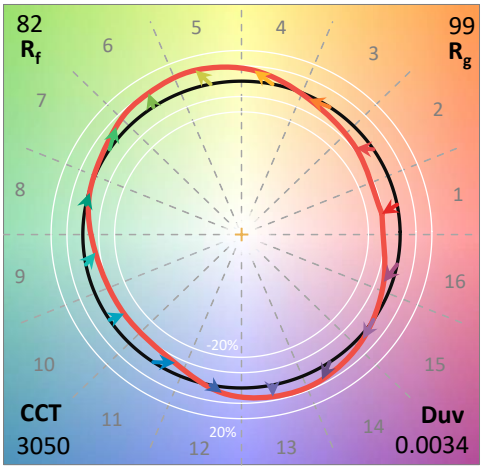
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

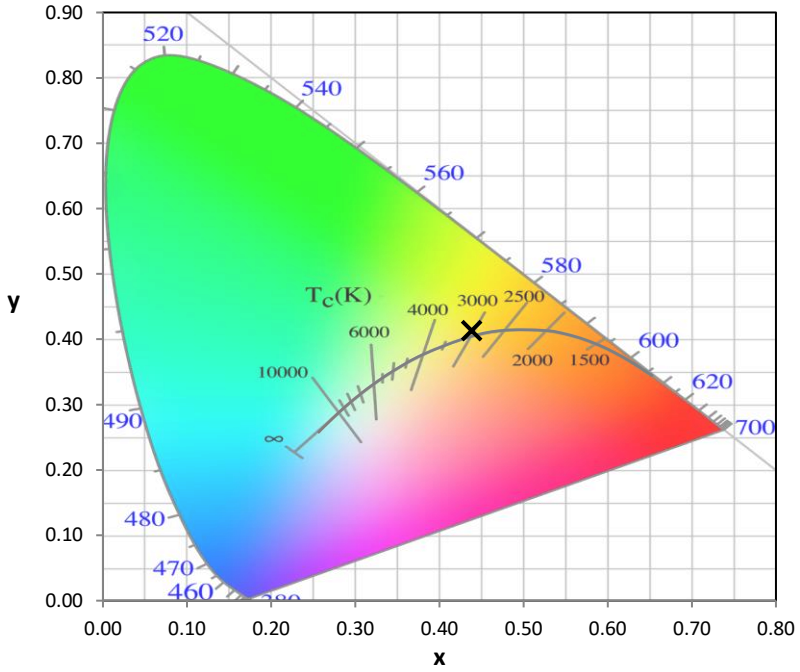
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

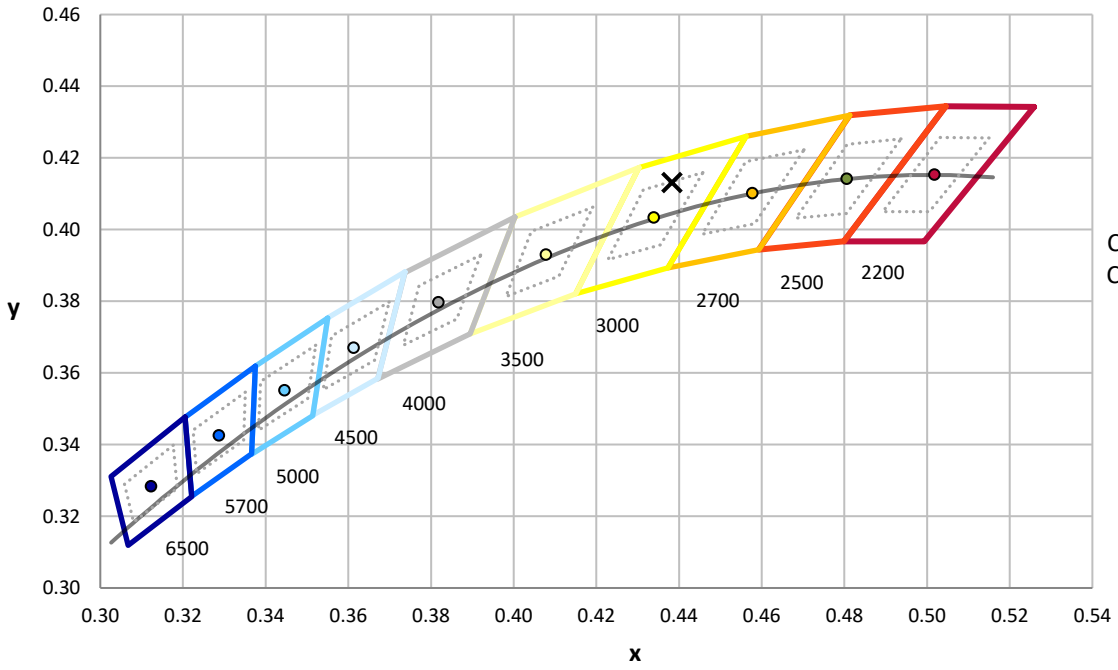
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

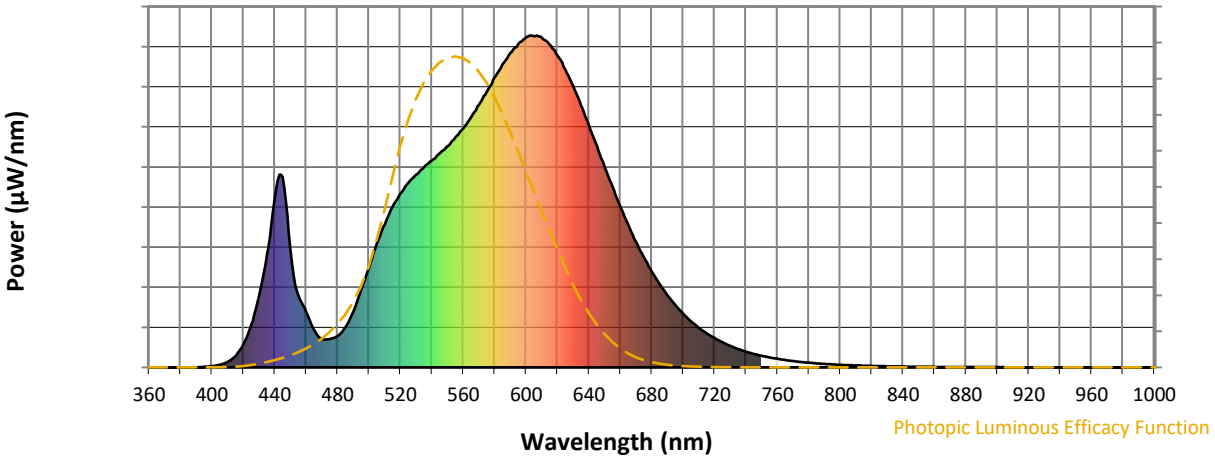


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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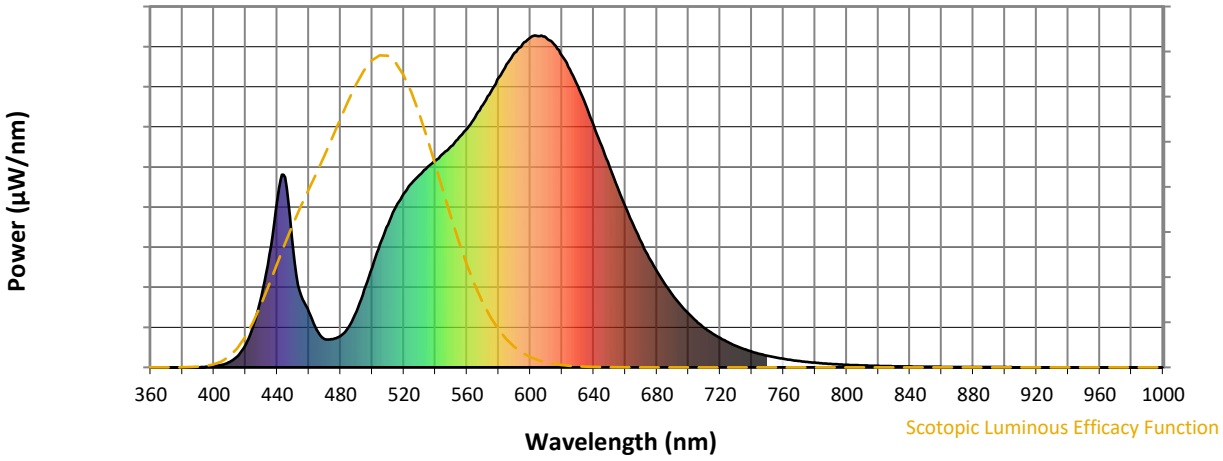
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.27**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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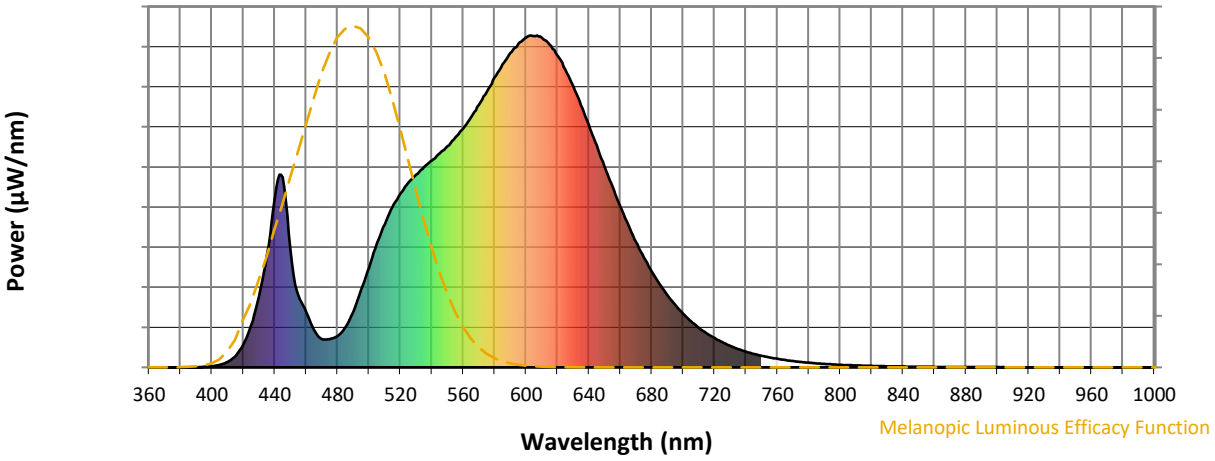
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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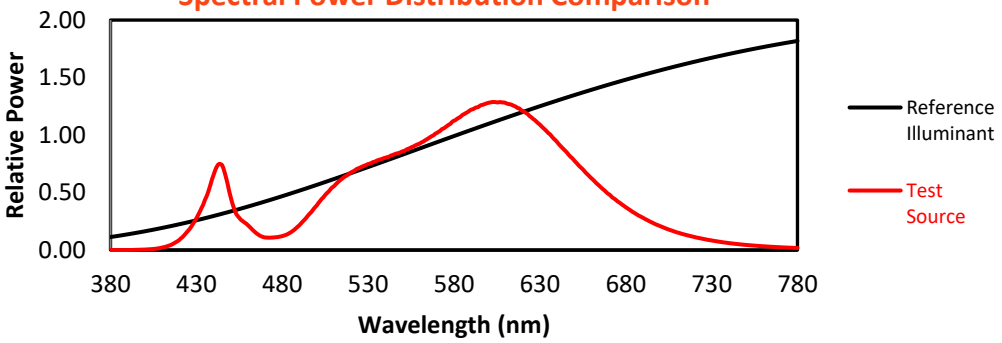
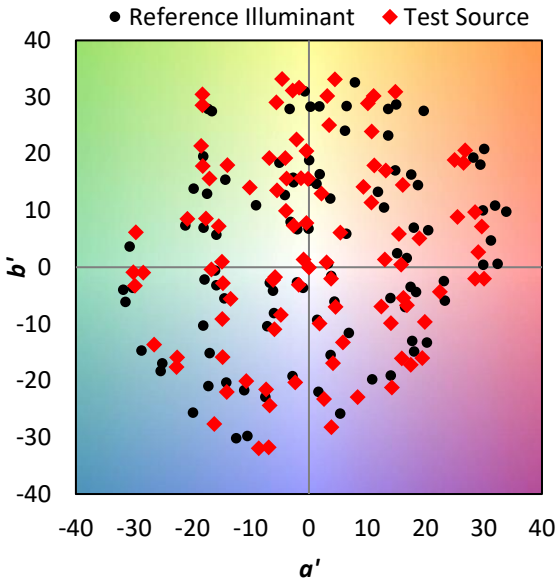
Summary

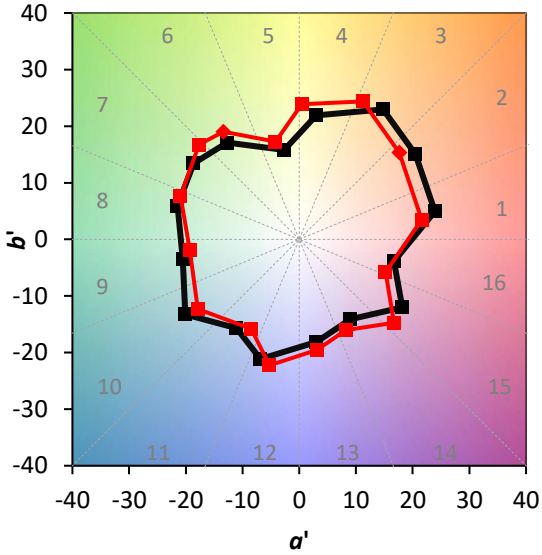
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

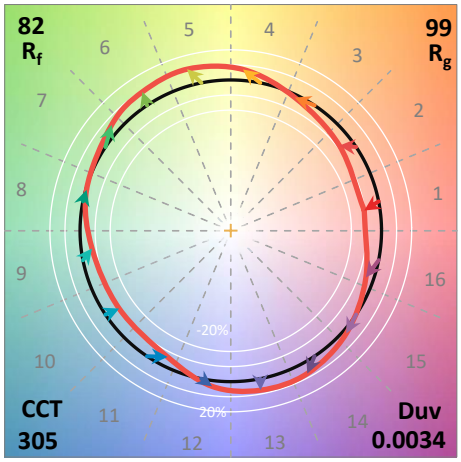
Spectral Power Distribution Comparison

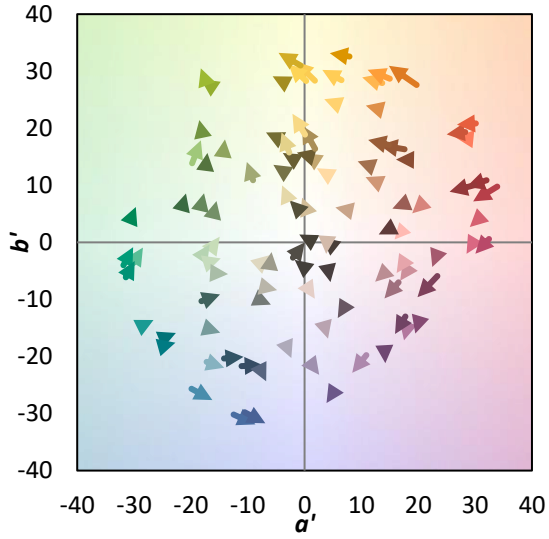


Color Vector Graphics









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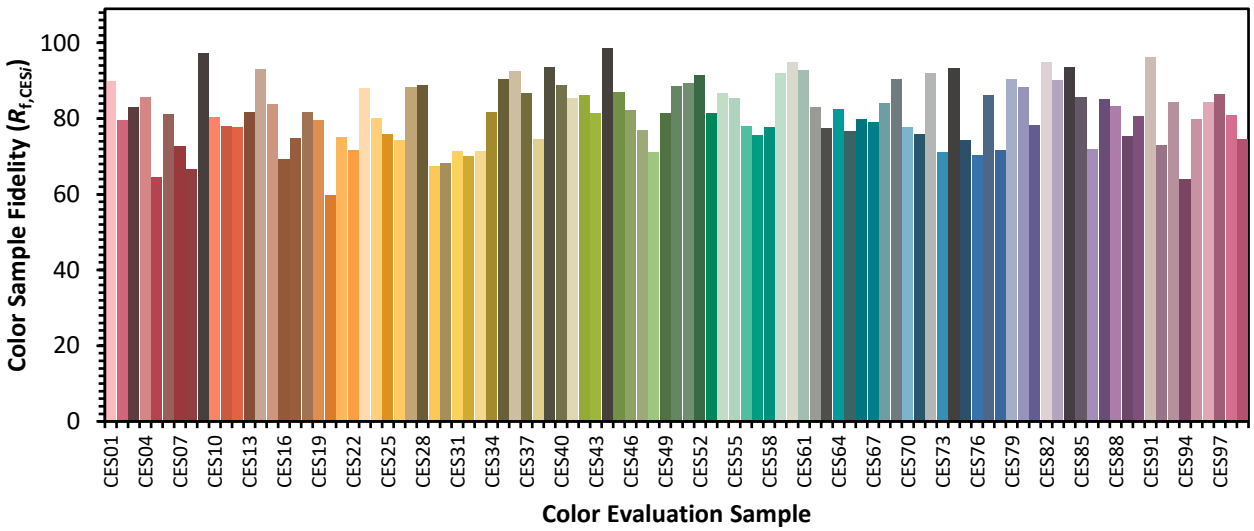
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



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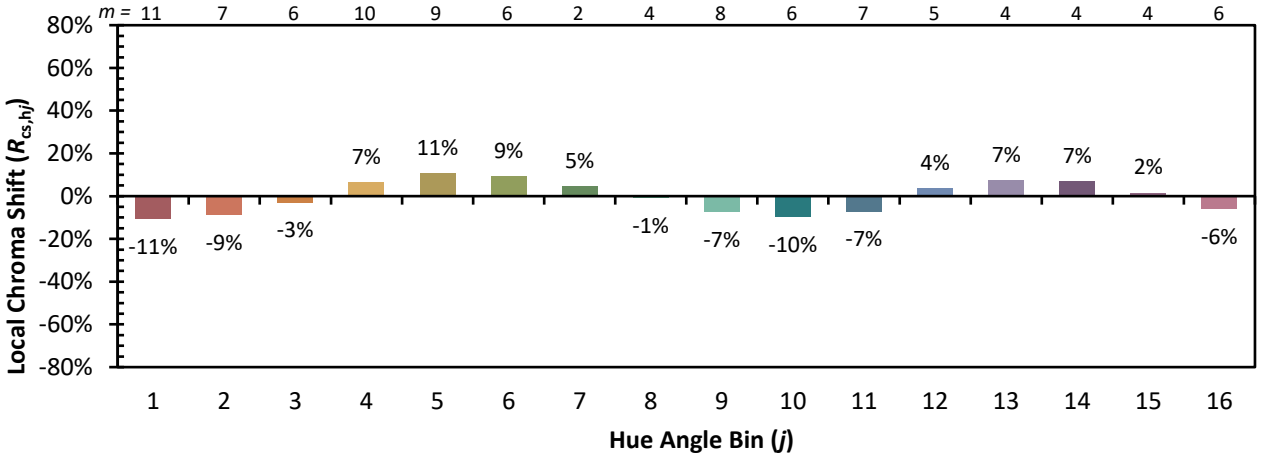
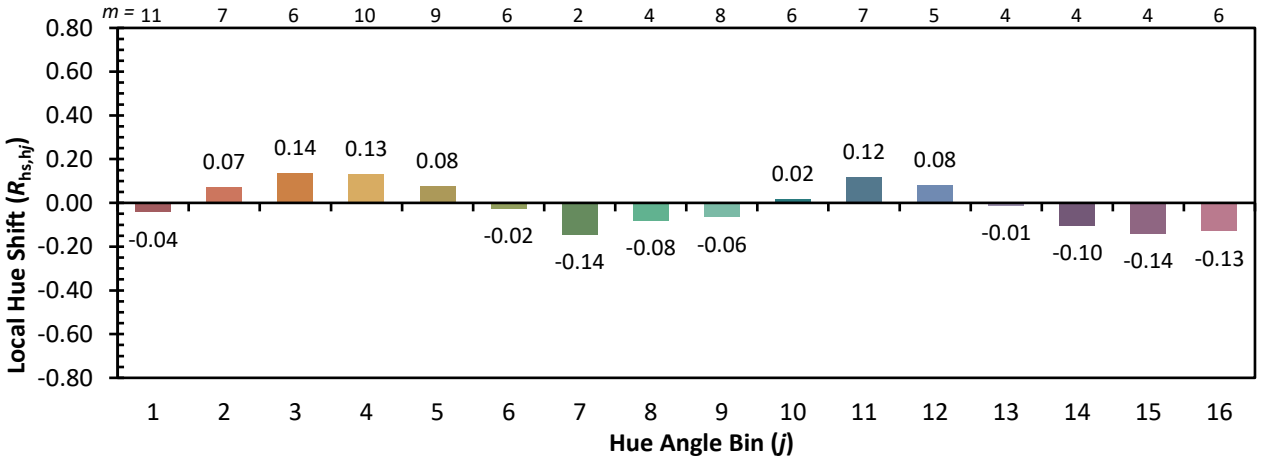
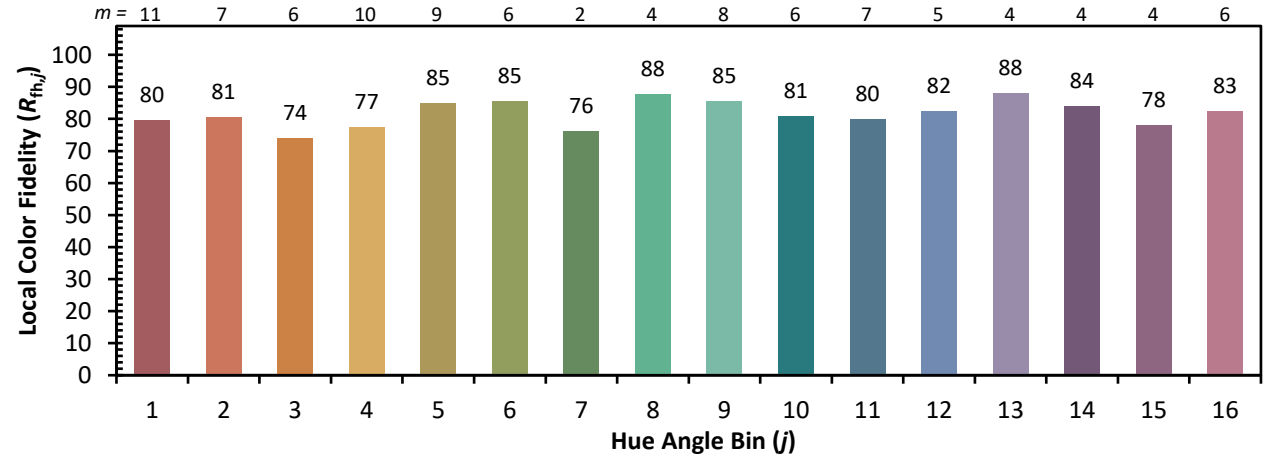
Color Rendition by Hue-Angle Bin







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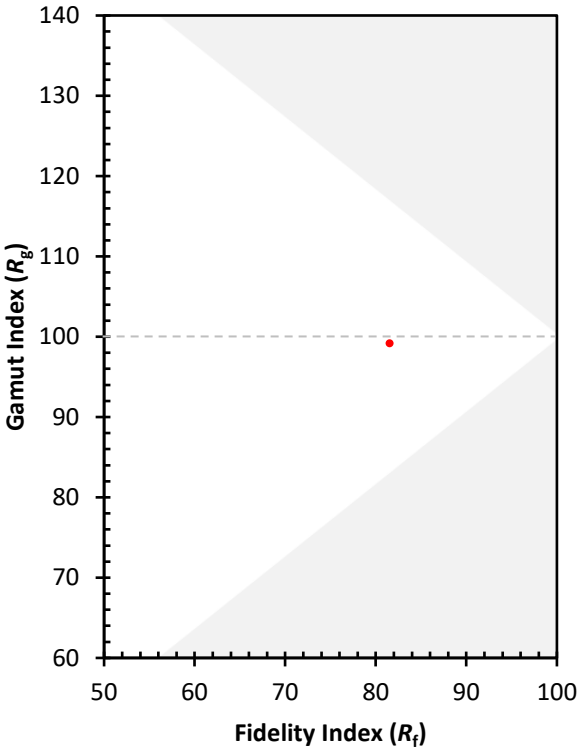
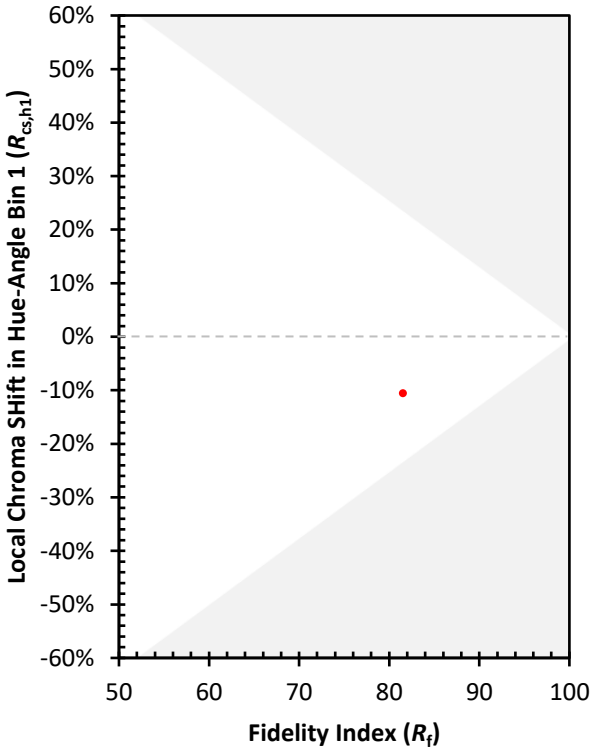
Measure Comparisons





(END OF REPORT)