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: P638006

Luminaire Tested: GWS-SA4D-830-U-T3R-W-GRSWH

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:	P638006
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-17)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-T3R-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	17055.8 lumens
Efficiency:	N/A
Efficacy:	105.2 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G2

Input Watts (W):	162.1
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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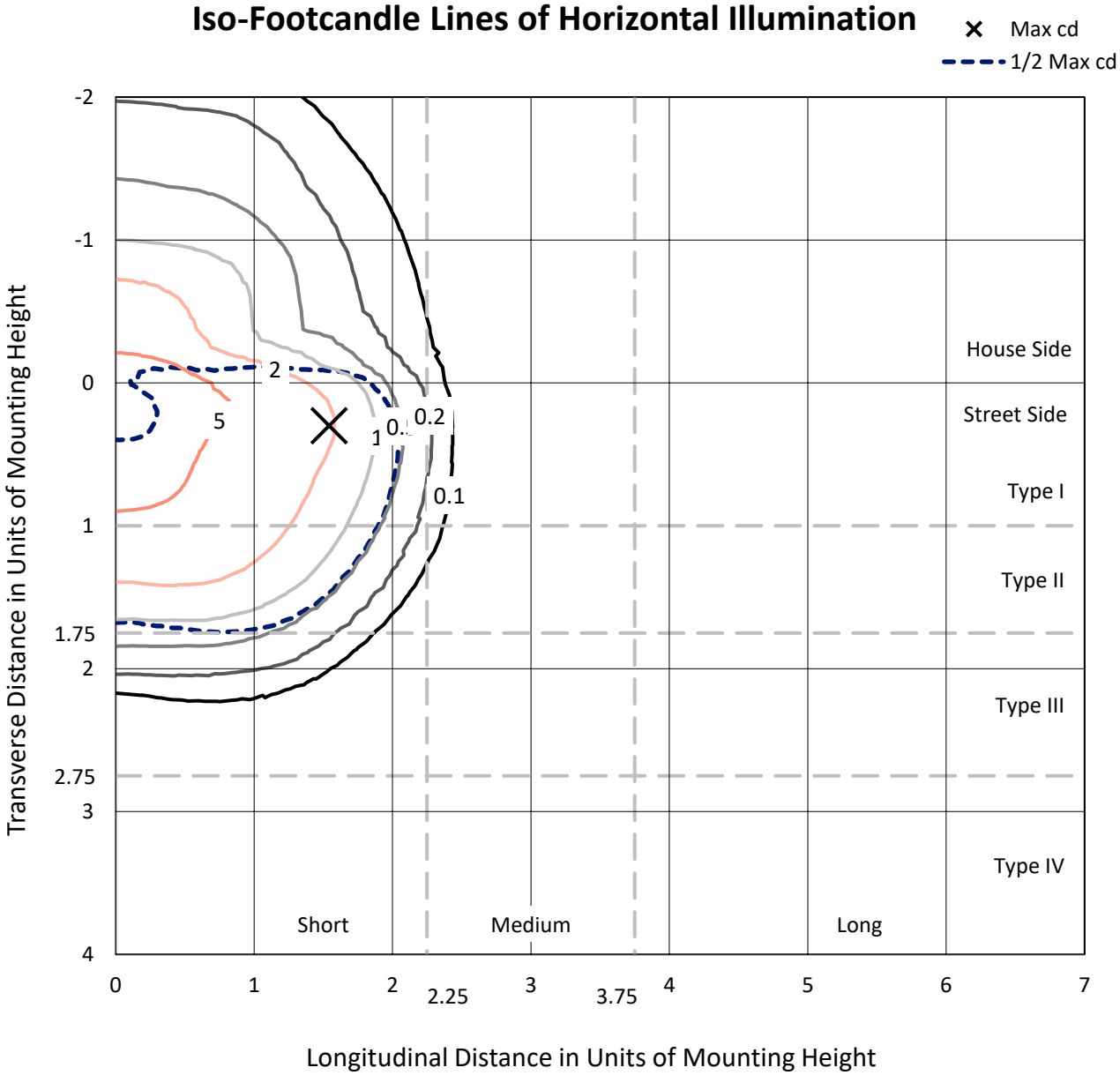
Scaled Data Report

REPORT NUMBER: P638006
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Short - N/A

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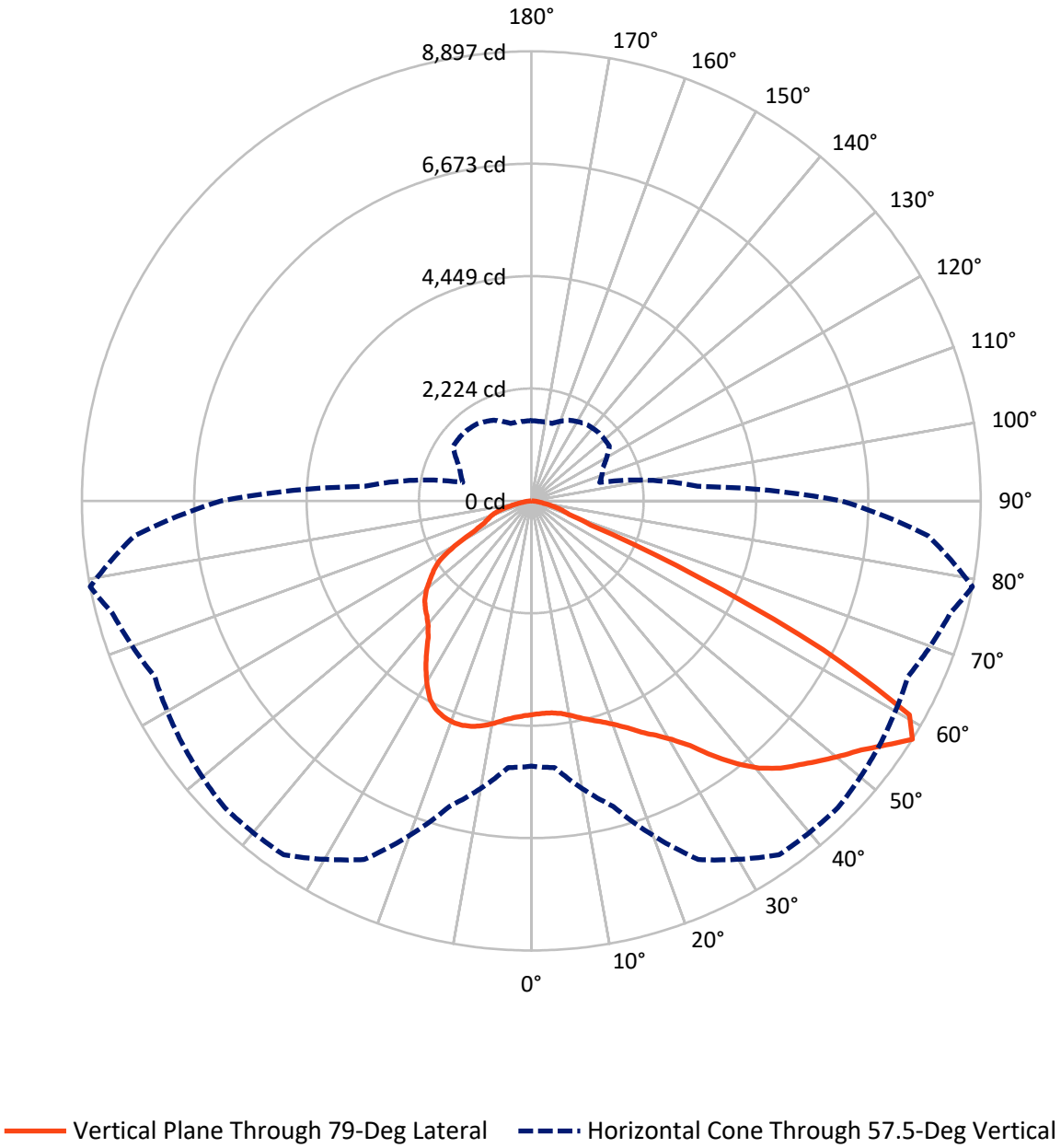
Luminous Intensity Polar Plot



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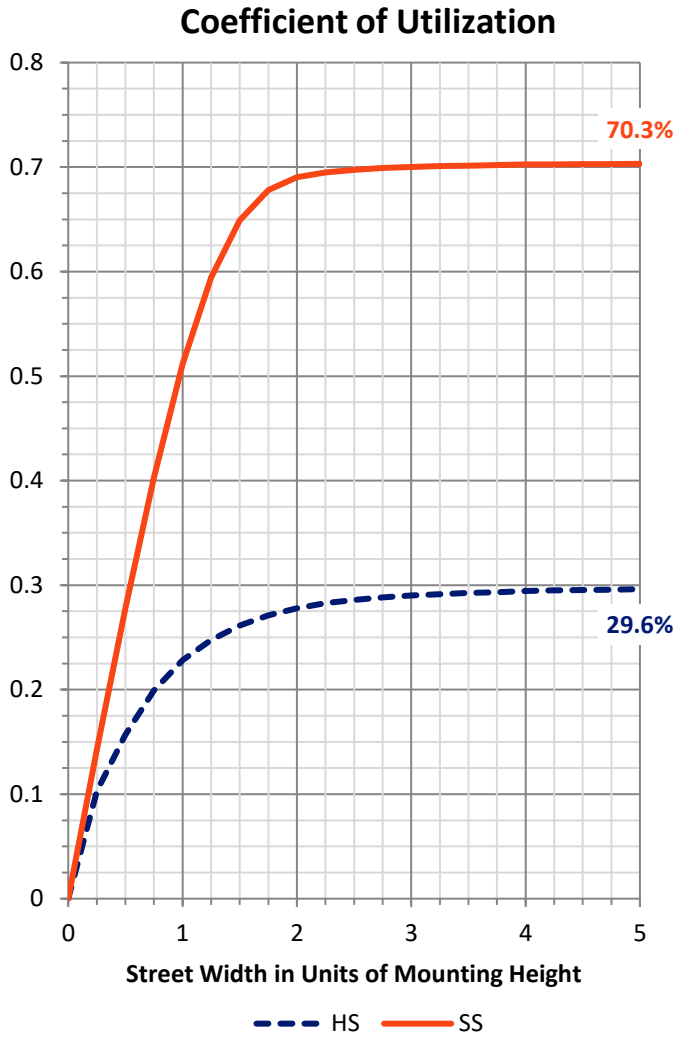
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5069.9	0.0	5069.9
	% Fixture	29.7	0.0	29.7
Street Side	Lumens	11985.9	0.0	11985.9
	% Fixture	70.3	0.0	70.3
Total	Lumens	17055.8	0.0	17055.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.4	2.3
10°-20°	1087.8	6.4
20°-30°	1843.9	10.8
30°-40°	2822.3	16.5
40°-50°	3763.3	22.1
50°-60°	4346.3	25.5
60°-70°	2258.5	13.2
70°-80°	480.1	2.8
80°-90°	62.2	0.4
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°	17055.8	100.0
0°-180°	17055.8	100.0



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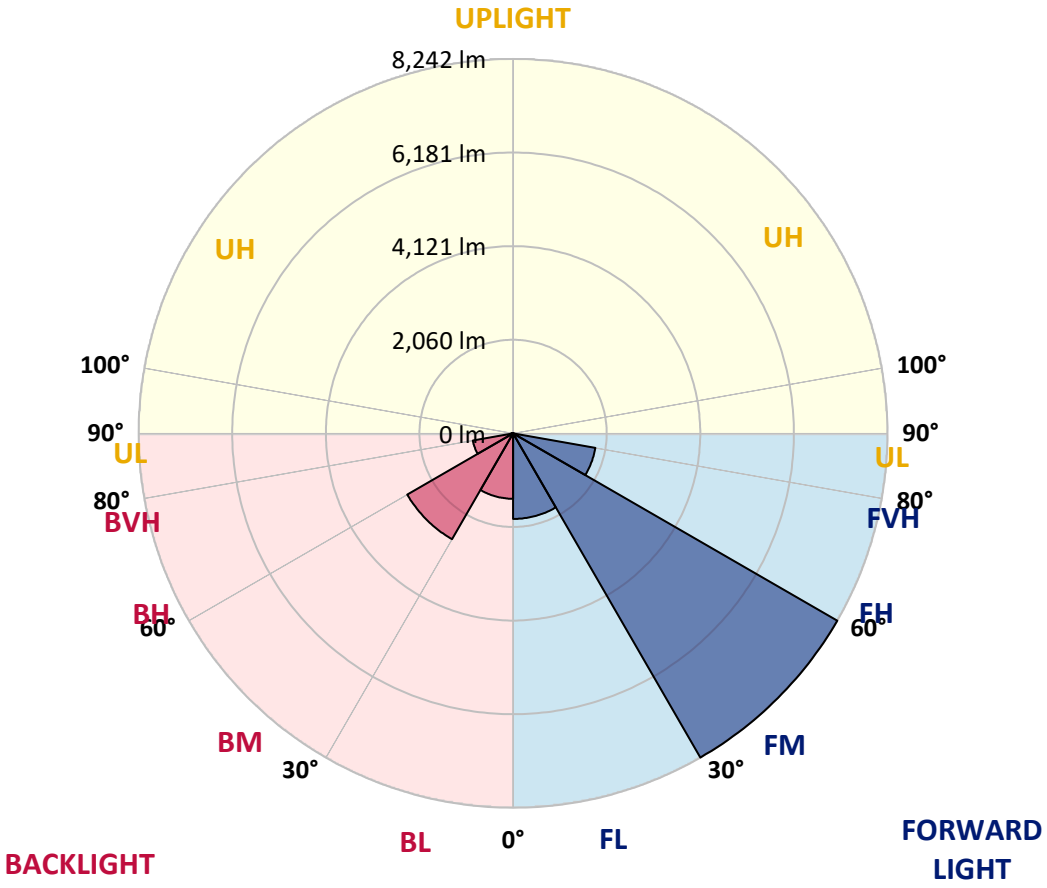
REPORT NUMBER: P638006
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1883.3	11.0			
FM	(30°-60°)	8241.8	48.3			
FH	(60°-80°)	1839.0	10.8			G2/5000
FVH	(80°-90°)	21.7	0.1			G1/100
BL	(0°-30°)	1439.8	8.4	B3/2500		
BM	(30°-60°)	2690.1	15.8	B3/5000		
BH	(60°-80°)	899.5	5.3	B2/1000		G2/1000
BVH	(80°-90°)	40.5	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type II Short



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REPORT NUMBER: P638006
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	*4226.8*	4226.8
2.5°	4034.4	4026.0	4028.8	4040.0	4081.8	4112.5	4144.5	4173.8	4201.7	*4210.1*	4217.1
5°	3890.7	3875.4	3879.6	3897.7	3946.5	3998.1	4055.3	4125.0	4192.0	*4214.3*	4243.6
7.5°	3788.9	3786.1	3793.1	3821.0	3872.6	3921.4	3995.3	4094.3	4210.1	*4247.7*	4299.3
10°	3653.7	3648.1	3676.0	3733.2	3818.2	3896.3	3984.2	4101.3	4263.1	*4318.9*	4398.3
12.5°	3546.3	3543.5	3572.8	3652.3	3761.0	3885.2	4006.5	4137.6	4334.2	*4410.9*	4508.5
15°	3609.0	3596.5	3597.9	3653.7	3751.3	3897.7	4062.3	4203.1	4405.3	*4502.9*	4628.4
17.5°	3791.7	3769.4	3752.7	3762.4	3818.2	3970.2	4147.3	4291.0	4487.6	*4602.0*	4755.3
20°	4044.1	4031.6	3985.6	3954.9	3967.4	4101.3	4281.2	4415.1	4595.0	*4723.3*	4887.8
22.5°	4383.0	4352.3	4289.6	4240.8	4203.1	4307.7	4473.7	4589.4	4744.2	*4878.1*	5049.6
25°	4802.8	4758.1	4659.1	4582.4	4501.5	4608.9	4756.7	4844.6	4949.2	*5073.3*	5236.5
27.5°	5230.9	5193.2	5083.1	4979.9	4879.5	4946.4	5122.1	5172.3	5161.2	*5251.8*	5391.3
30°	5686.9	5639.5	5534.9	5423.3	5293.6	5336.9	5494.4	5519.6	5401.0	*5476.3*	5571.1
32.5°	6168.0	6122.0	6031.3	5901.7	5755.2	5772.0	5815.2	5838.9	5725.9	*5769.2*	5841.7
35°	6657.5	6614.3	6522.2	6393.9	6286.5	6184.7	6076.0	6170.8	6105.3	*6188.9*	6183.3
37.5°	7105.1	7061.9	7004.7	6905.7	6721.6	6520.8	6269.8	6386.9	6488.7	*6594.7*	6576.6
40°	7407.7	7378.5	7392.4	7377.1	7140.0	6742.6	6364.6	6492.9	6770.4	*6951.7*	6942.0
42.5°	7668.5	7639.2	7720.1	7778.7	7499.8	6947.6	6410.7	6533.4	6950.3	*7233.4*	7219.5
45°	7784.3	7775.9	7909.8	8095.2	7828.9	7165.1	6529.2	6617.0	7087.0	*7449.6*	7396.6
47.5°	7646.2	7675.5	7939.1	8252.8	8102.2	7423.1	6771.8	6794.2	7265.5	*7683.9*	7534.6
50°	7371.5	7435.6	7791.2	8257.0	8301.6	7714.5	7107.9	7052.1	7505.4	*7933.5*	7607.2
52.5°	6971.3	7038.2	7618.3	8224.9	8416.0	8052.0	7555.6	7476.1	7808.0	*8183.1*	7619.7
55°	6052.3	6142.9	7222.3	8152.4	8527.6	8358.8	8060.4	7898.6	8198.4	*8526.2*	7743.8
57.5°	*5250.4*	*5297.8*	*6257.3*	*7830.3*	*8549.9*	*8584.7*	*8420.2*	*8227.7*	*8586.1*	*8897.1*	*7883.3*
60°	3853.1	3864.2	4727.5	6479.0	7865.2	8453.6	8390.9	8105.0	8402.0	*8600.1*	7244.6
62.5°	2176.9	2178.3	2867.2	4324.4	5875.2	6890.4	6929.4	6677.0	6427.4	*6486.0*	5042.6
65°	817.2	893.9	1309.5	2125.3	3387.3	4067.8	4229.6	4288.2	3872.6	*3614.6*	2704.0
67.5°	546.7	564.8	764.2	1093.3	1507.5	1740.4	1946.8	1952.3	1428.0	*1273.2*	1065.4
70°	417.0	435.1	601.0	782.3	764.2	705.6	762.8	741.9	767.0	*787.9*	810.2
72.5°	311.0	329.1	465.8	552.2	458.8	451.8	511.8	569.0	622.0	*644.3*	679.1
75°	206.4	220.3	313.8	295.6	253.8	299.8	373.7	430.9	461.6	*488.1*	514.6
77.5°	131.1	140.8	167.3	135.3	140.8	175.7	217.5	269.1	298.4	*324.9*	338.9
80°	60.0	58.6	57.2	64.1	79.5	103.2	131.1	161.8	184.1	*195.2*	203.6
82.5°	23.7	26.5	29.3	34.9	43.2	55.8	73.9	94.8	113.0	*115.7*	122.7
85°	9.8	11.2	12.6	15.3	19.5	25.1	30.7	43.2	54.4	*58.6*	62.8
87.5°	0.0	0.0	0.0	0.0	1.4	2.8	4.2	7.0	12.6	*13.9*	15.3
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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Scaled Data Report

REPORT NUMBER: P638006
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8	4226.8
2.5°	4254.7	4236.6	4267.3	4288.2	4307.7	4286.8	4279.8	4261.7	4258.9	4258.9	4268.7
5°	4293.8	4281.2	4313.3	4325.8	4324.4	4278.4	4250.5	4214.3	4196.1	4196.1	4198.9
7.5°	4363.5	4356.5	4374.6	4355.1	4310.5	4217.1	4125.0	4048.3	3996.7	3970.2	3978.6
10°	4479.2	4470.9	4455.5	4383.0	4254.7	4060.9	3872.6	3733.2	3649.5	3602.1	3604.9
12.5°	4592.2	4578.2	4523.9	4363.5	4099.9	3791.7	3544.9	3388.7	3296.7	3240.9	3228.3
15°	4716.3	4680.0	4562.9	4263.1	3847.5	3462.6	3204.6	3035.9	2936.9	2903.4	2902.0
17.5°	4834.8	4770.7	4558.7	4084.6	3544.9	3118.2	2858.8	2754.2	2737.5	2752.8	2757.0
20°	4954.8	4851.6	4512.7	3837.7	3185.1	2775.1	2641.2	2684.5	2747.2	2789.1	2798.8
22.5°	5078.9	4918.5	4408.1	3519.8	2805.8	2543.6	2599.4	2694.2	2772.3	2828.1	2833.7
25°	5218.3	4981.3	4251.9	3130.7	2501.8	2479.5	2589.6	2690.0	2773.7	2837.9	2849.0
27.5°	5297.8	4982.7	4033.0	2730.5	2362.3	2454.4	2565.9	2660.8	2744.4	2814.2	2826.7
30°	5375.9	4945.0	3685.7	2405.6	2321.9	2425.1	2525.5	2613.3	2692.8	2761.2	2776.5
32.5°	5486.1	4910.1	3285.5	2218.7	2298.2	2397.2	2479.5	2557.6	2618.9	2649.6	2658.0
35°	5622.7	4865.5	2860.2	2137.8	2282.8	2374.9	2447.4	2489.2	2409.7	2393.0	2411.1
37.5°	5813.8	4823.7	2436.2	2103.0	2273.1	2366.5	2430.7	2323.3	2225.7	2186.6	2200.6
40°	6020.2	4800.0	2149.0	2075.1	2277.3	2374.9	2360.9	2202.0	2061.1	1978.8	1976.0
42.5°	6195.9	4763.7	1964.9	2056.9	2288.4	2407.0	2266.1	2094.6	1885.4	1836.6	1838.0
45°	6314.4	4671.7	1867.3	2037.4	2298.2	2413.9	2221.5	1946.8	1797.5	1766.9	1765.5
47.5°	6363.2	4504.3	1804.5	2006.7	2296.8	2356.8	2130.8	1885.4	1736.2	1727.8	1733.4
50°	6331.2	4229.6	1740.4	1946.8	2263.3	2296.8	2026.3	1831.0	1694.4	1740.4	1773.8
52.5°	6212.6	3874.0	1663.7	1864.5	2203.4	2228.5	1973.3	1797.5	1663.7	1725.0	1751.5
55°	6182.0	3585.3	1566.1	1757.1	2114.1	2107.1	1917.5	1780.8	1642.8	1619.0	1623.2
57.5°	*6141.5*	*3303.6*	*1404.3*	*1564.7*	*1888.2*	*1899.4*	*1864.5*	*1761.3*	*1588.4*	*1581.4*	*1588.4*
60°	5335.5	2532.5	1252.3	1349.9	1550.7	1610.7	1804.5	1725.0	1500.5	1471.2	1469.8
62.5°	3484.9	1534.0	1114.2	1177.0	1263.4	1333.2	1645.5	1620.4	1404.3	1386.2	1398.7
65°	1874.2	1093.3	1013.8	1051.5	1098.9	1151.9	1363.9	1443.3	1269.0	1204.9	1206.3
67.5°	958.0	930.2	938.5	965.0	1001.3	1027.8	1100.3	1170.0	1082.2	1027.8	1026.4
70°	820.0	842.3	854.8	870.2	893.9	889.7	896.7	909.2	902.3	875.8	874.4
72.5°	698.7	733.5	736.3	739.1	747.5	727.9	715.4	694.5	695.9	700.1	701.4
75°	531.3	564.8	573.2	569.0	577.3	552.2	535.5	514.6	489.5	485.3	488.1
77.5°	345.8	372.3	384.9	382.1	386.3	366.8	358.4	336.1	306.8	295.6	295.6
80°	209.2	224.5	234.3	237.1	241.3	227.3	213.4	193.8	181.3	168.7	168.7
82.5°	126.9	136.7	143.6	143.6	147.8	132.5	121.3	107.4	101.8	90.6	90.6
85°	64.1	71.1	73.9	72.5	69.7	57.2	53.0	46.0	43.2	37.7	37.7
87.5°	15.3	19.5	19.5	13.9	13.9	7.0	4.2	1.4	0.0	0.0	0.0
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

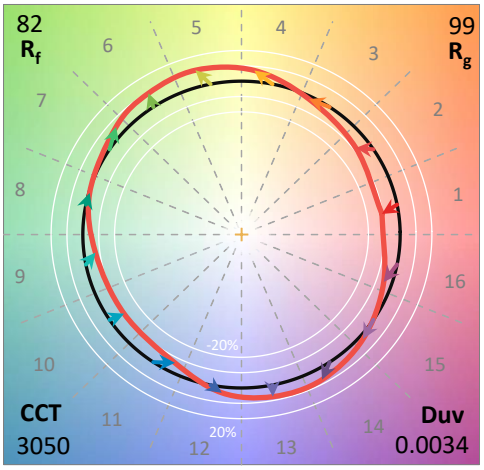
Test Information

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

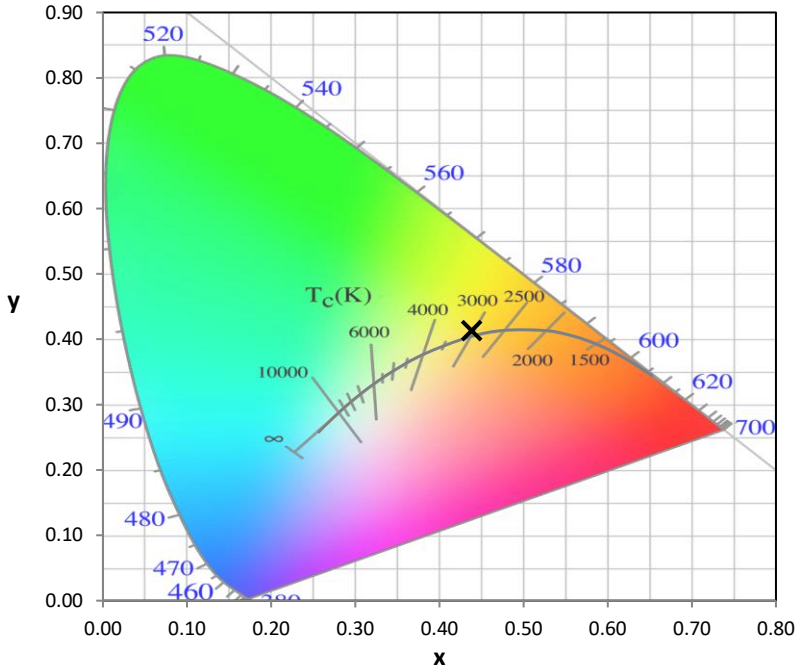
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

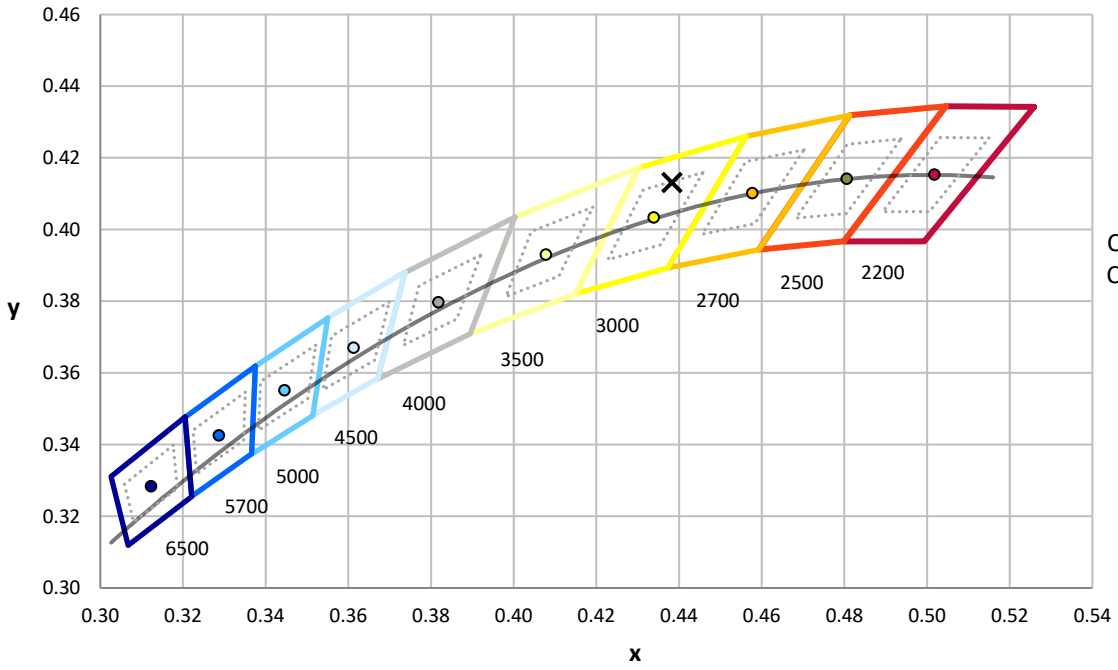
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

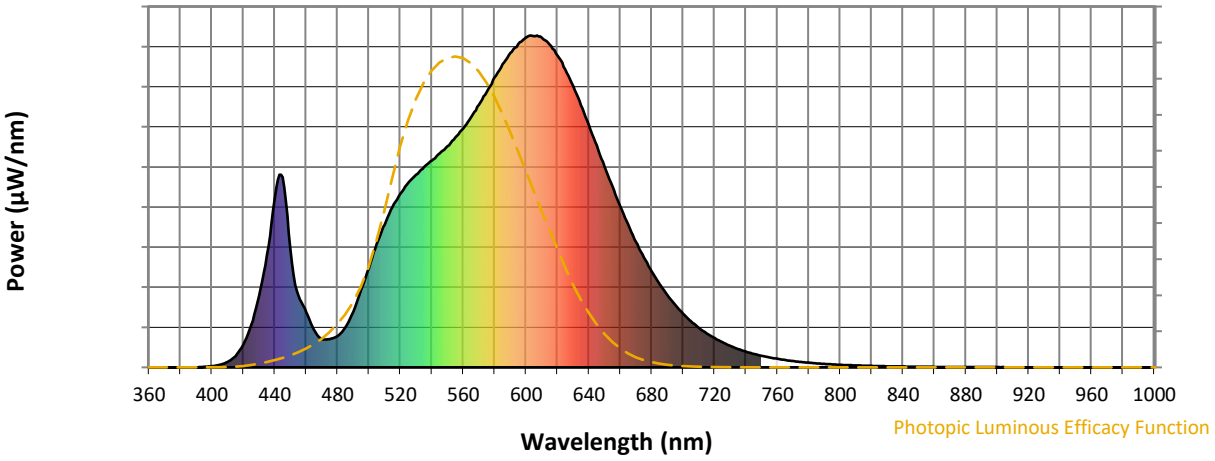


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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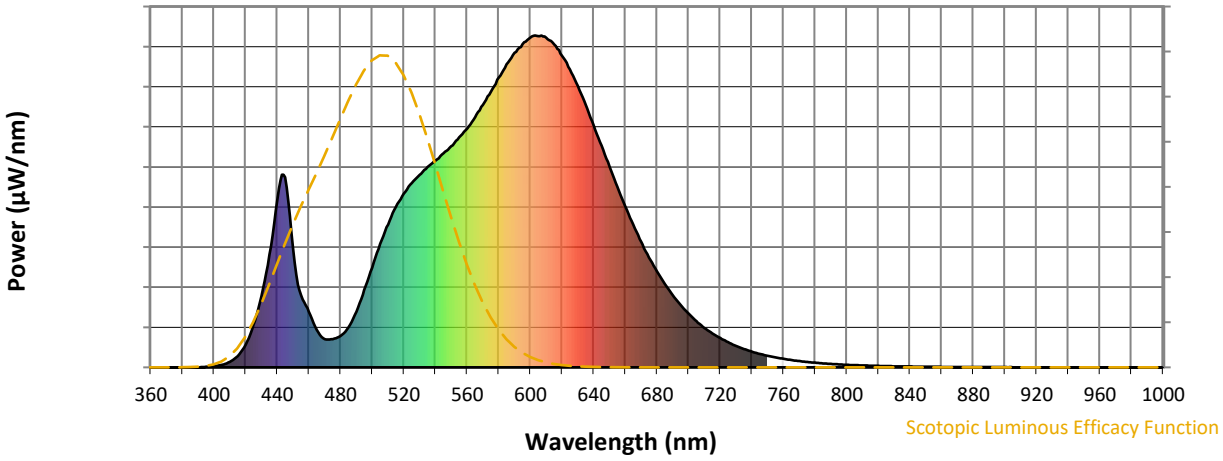
Scotopic Flux vs. Wavelength



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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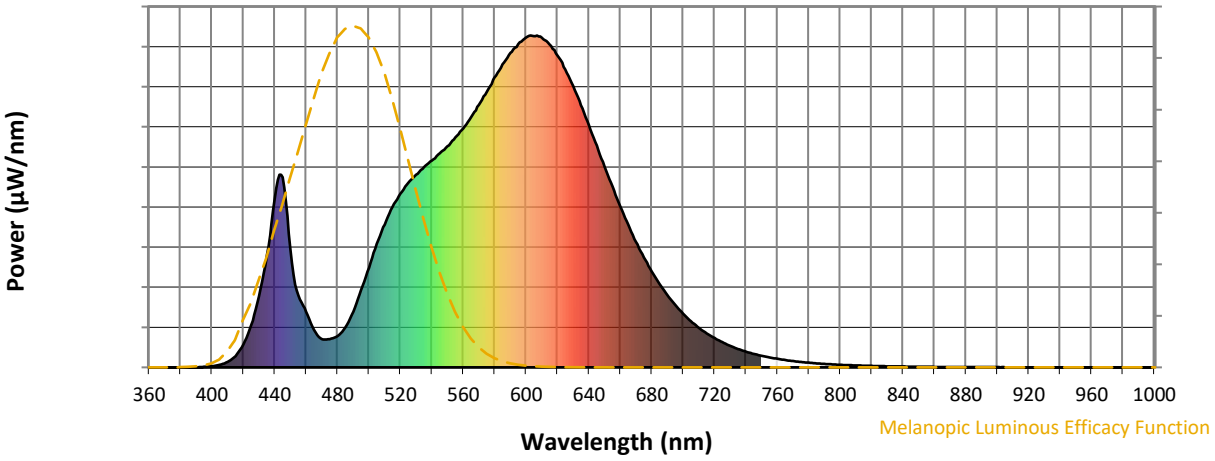
Melanopic Flux vs. Wavelength



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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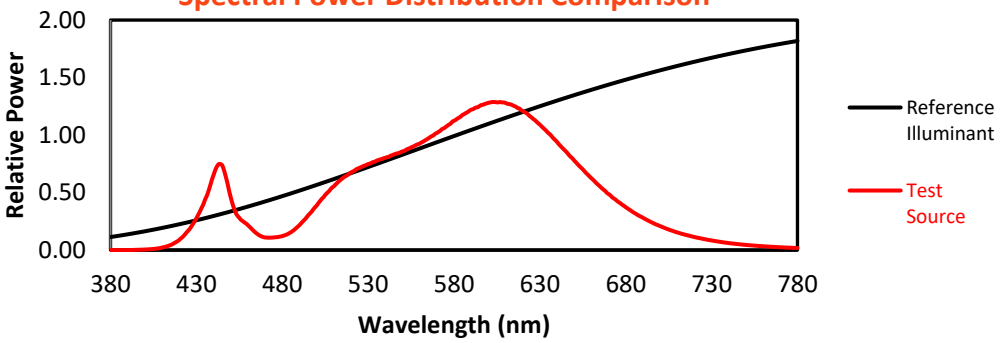
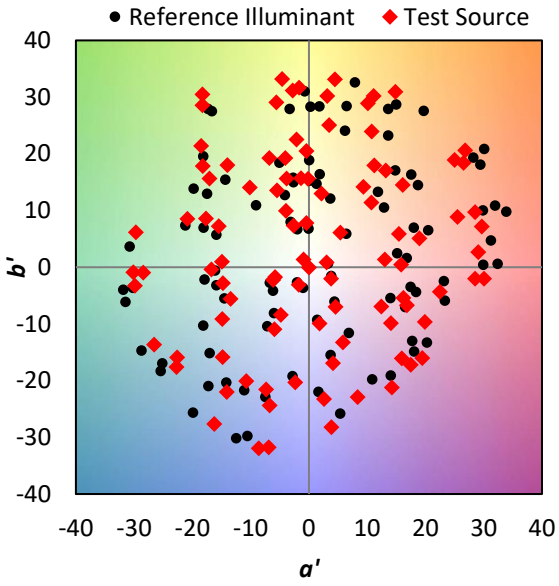
Summary

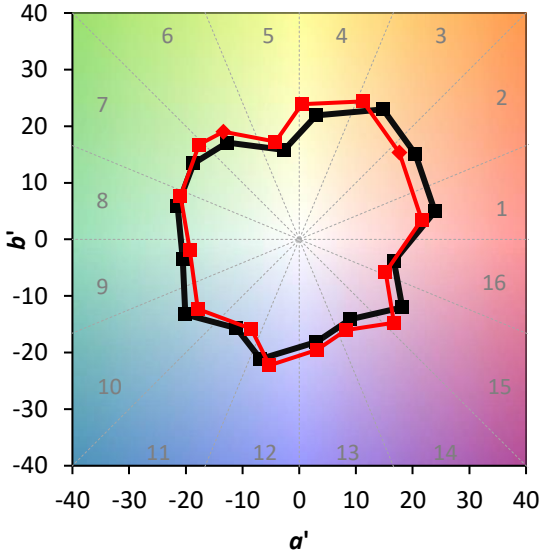
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

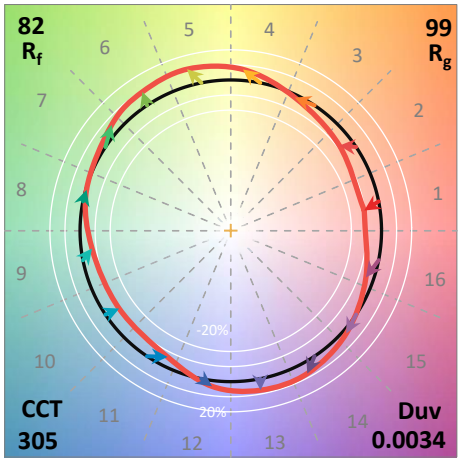
Spectral Power Distribution Comparison

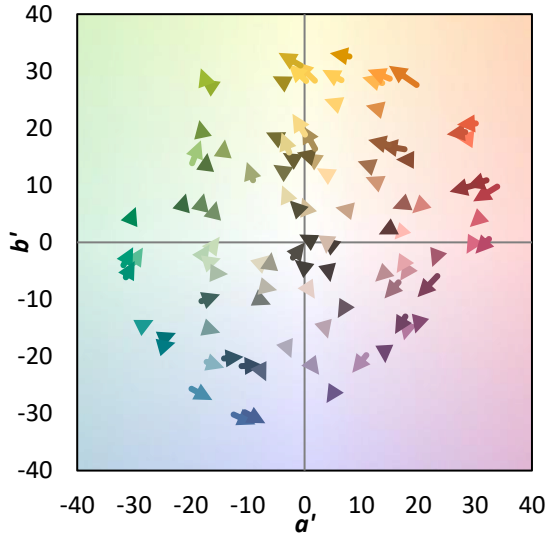


Color Vector Graphics









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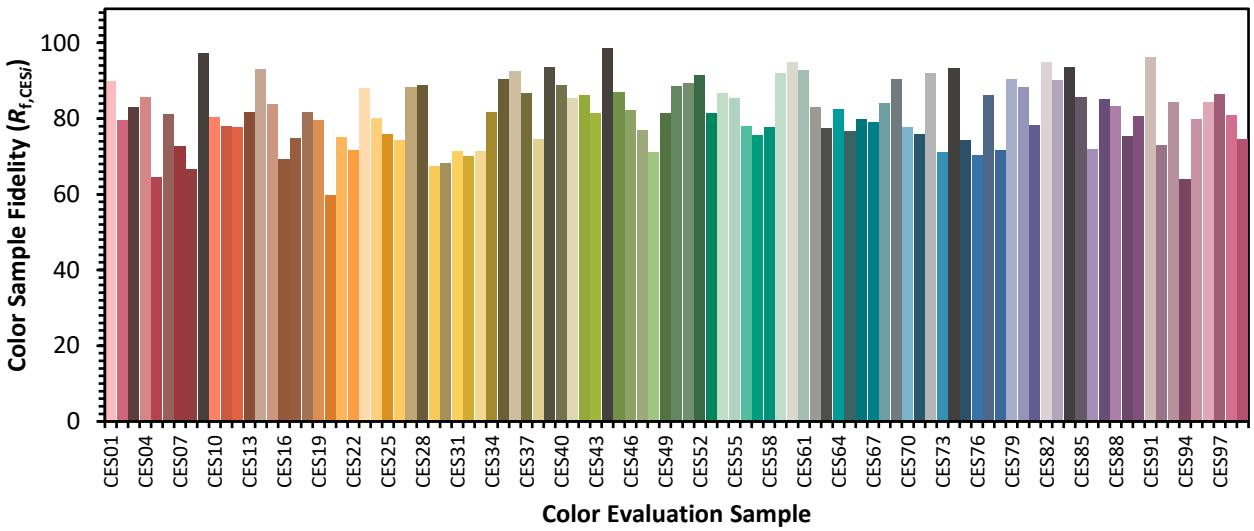
Individual Sample Fidelity Index ($R_{f,i}$)

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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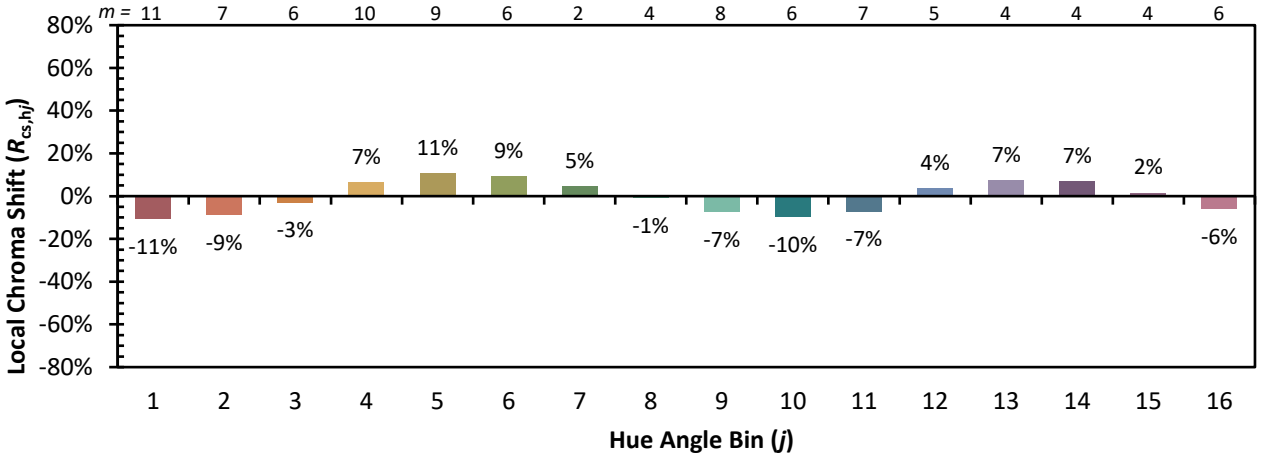
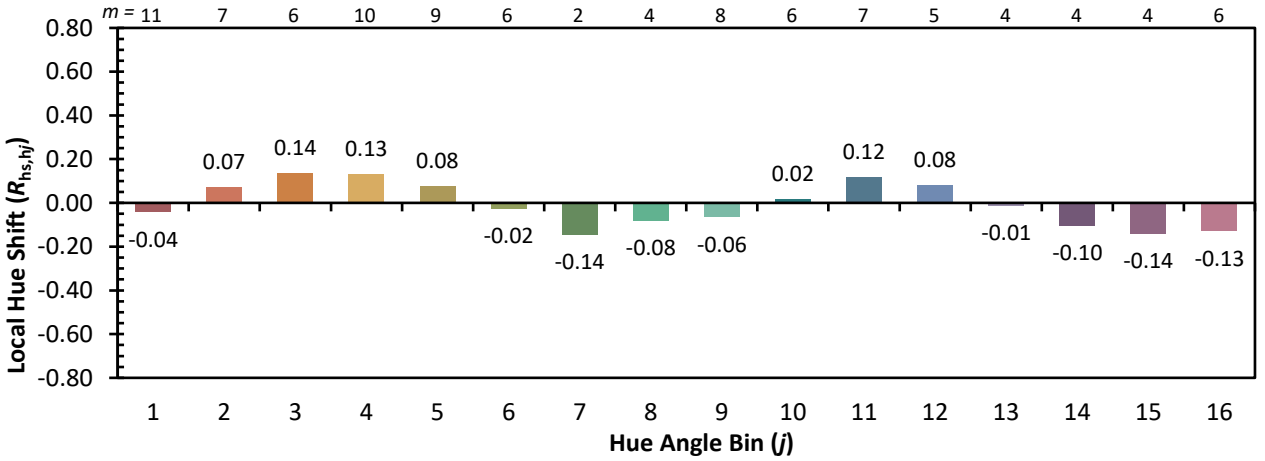
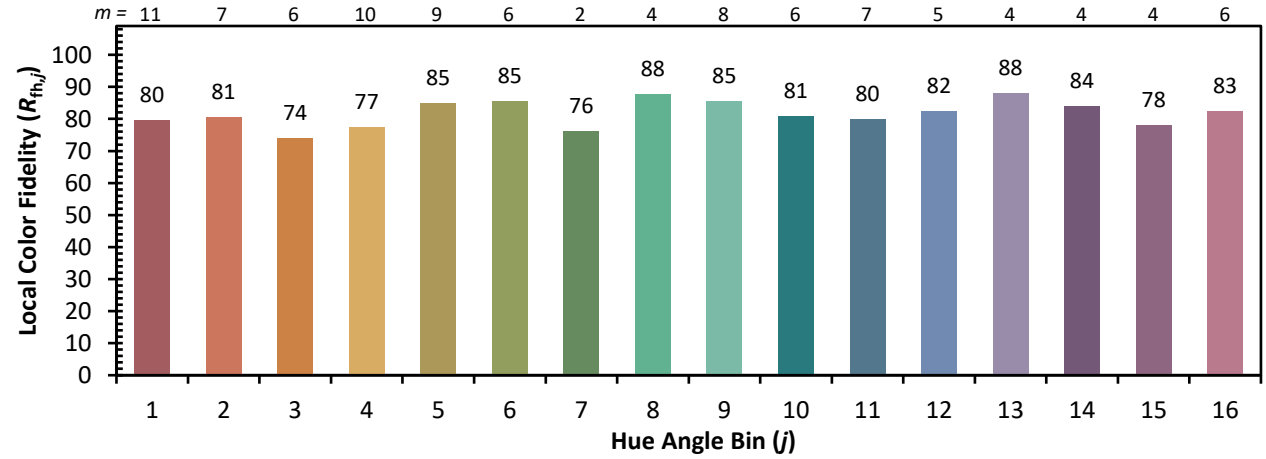
Color Rendition by Hue-Angle Bin







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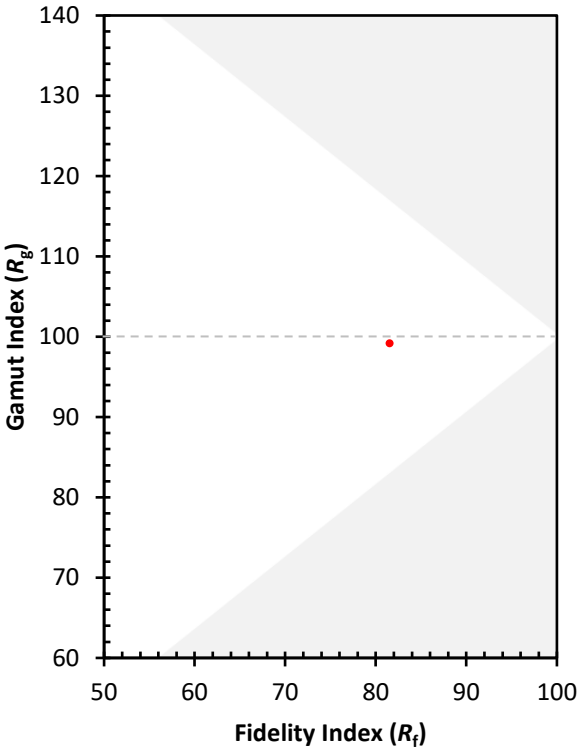
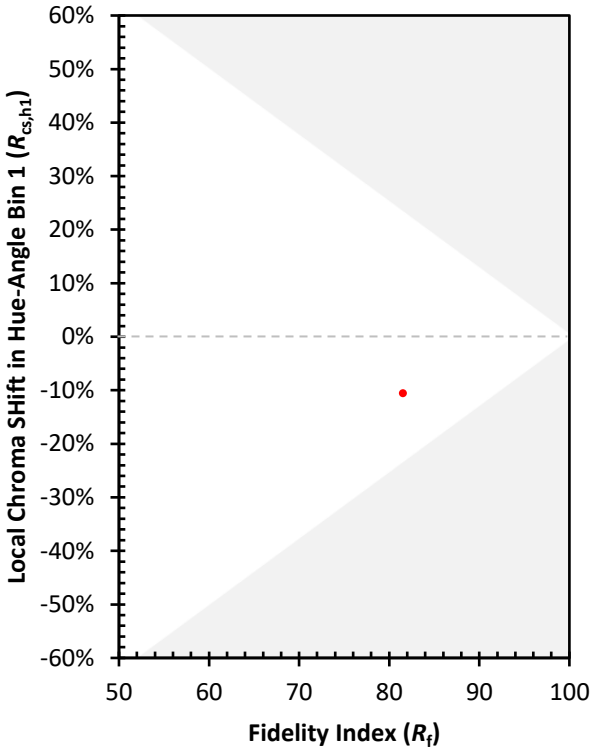
Measure Comparisons





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