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: P637972

Luminaire Tested: GWS-SA4D-830-U-RW-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:	P637972
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-51)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-RW-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE 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:	17149.2 lumens
Efficiency:	N/A
Efficacy:	105.8 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B4 - U0 - G1

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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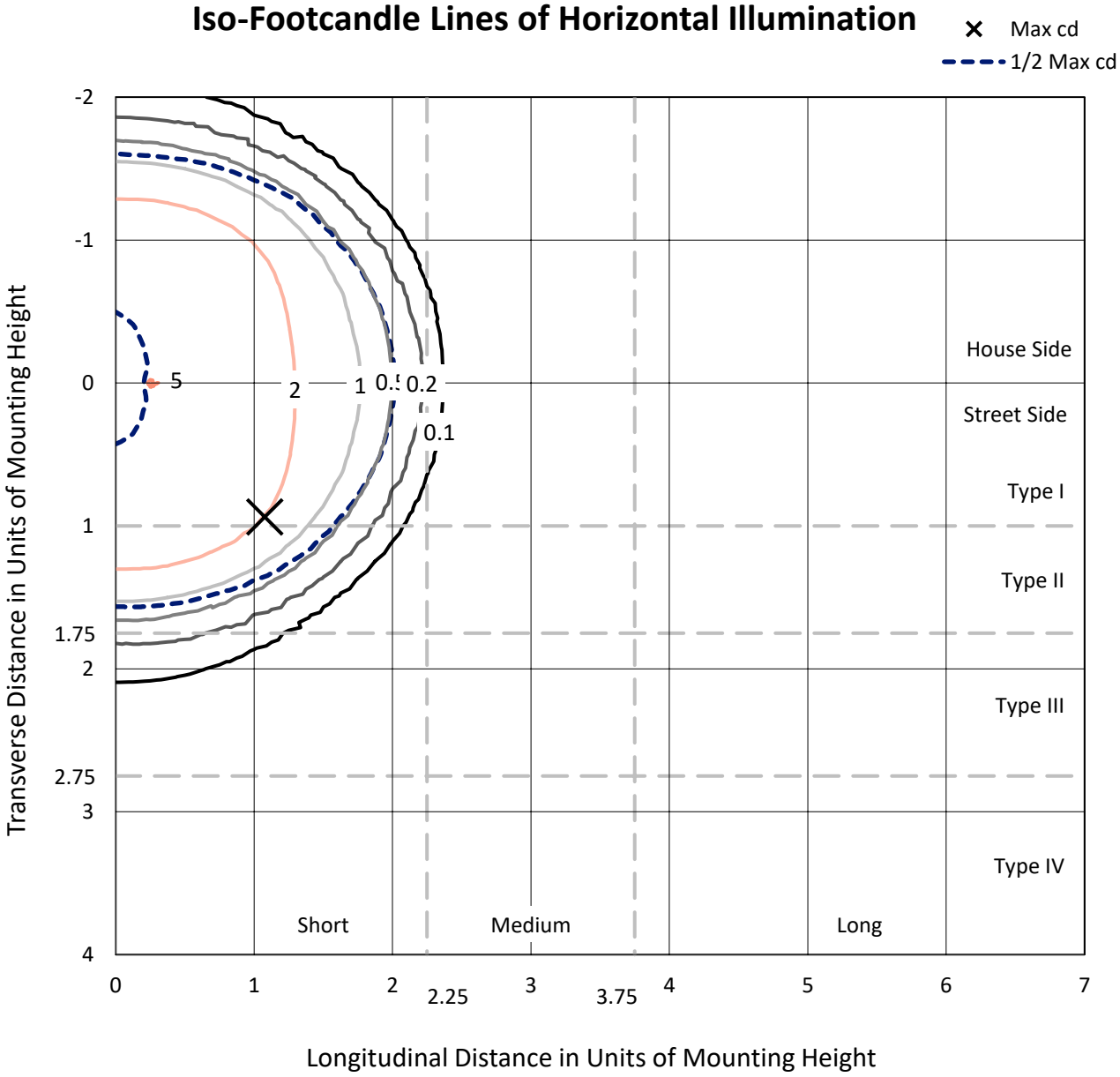
Scaled Data Report

REPORT NUMBER: P637972
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type V - Short - N/A

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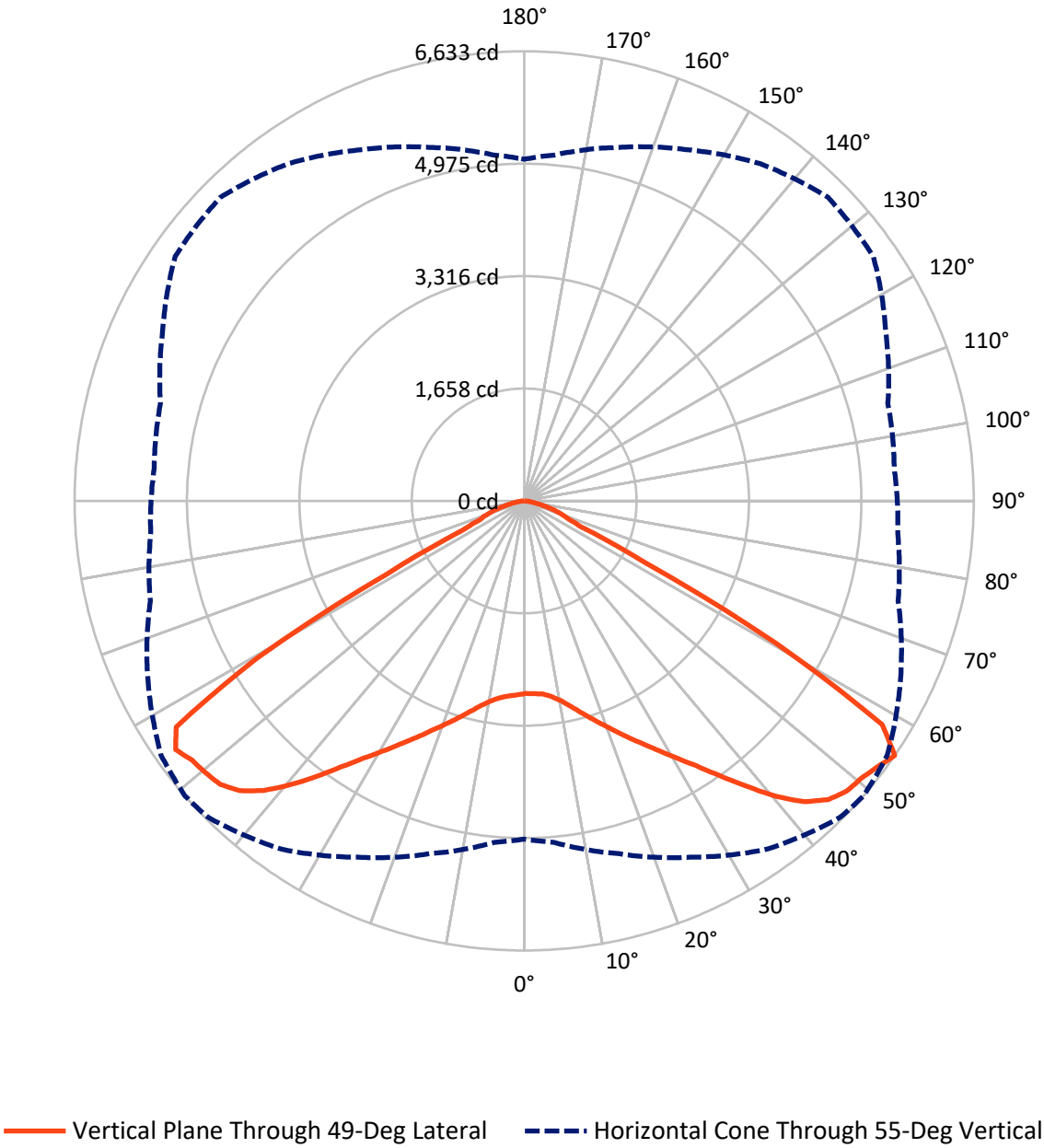
Luminous Intensity Polar Plot



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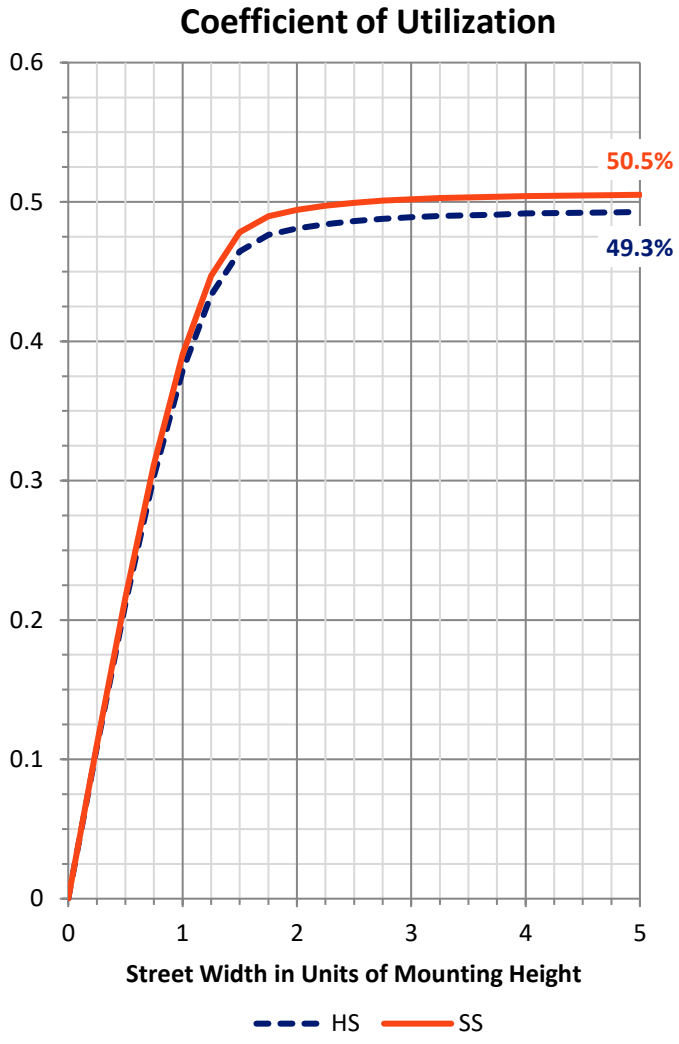
REPORT NUMBER: P637972
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8490.5	0.0	8490.5
	% Fixture	49.5	0.0	49.5
Street Side	Lumens	8658.7	0.0	8658.7
	% Fixture	50.5	0.0	50.5
Total	Lumens	17149.2	0.0	17149.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.1	1.6
10°-20°	914.1	5.3
20°-30°	1741.1	10.2
30°-40°	2951.5	17.2
40°-50°	4441.8	25.9
50°-60°	4861.9	28.4
60°-70°	1537.4	9.0
70°-80°	369.0	2.2
80°-90°	55.4	0.3
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°	17149.2	100.0
0°-180°	17149.2	100.0



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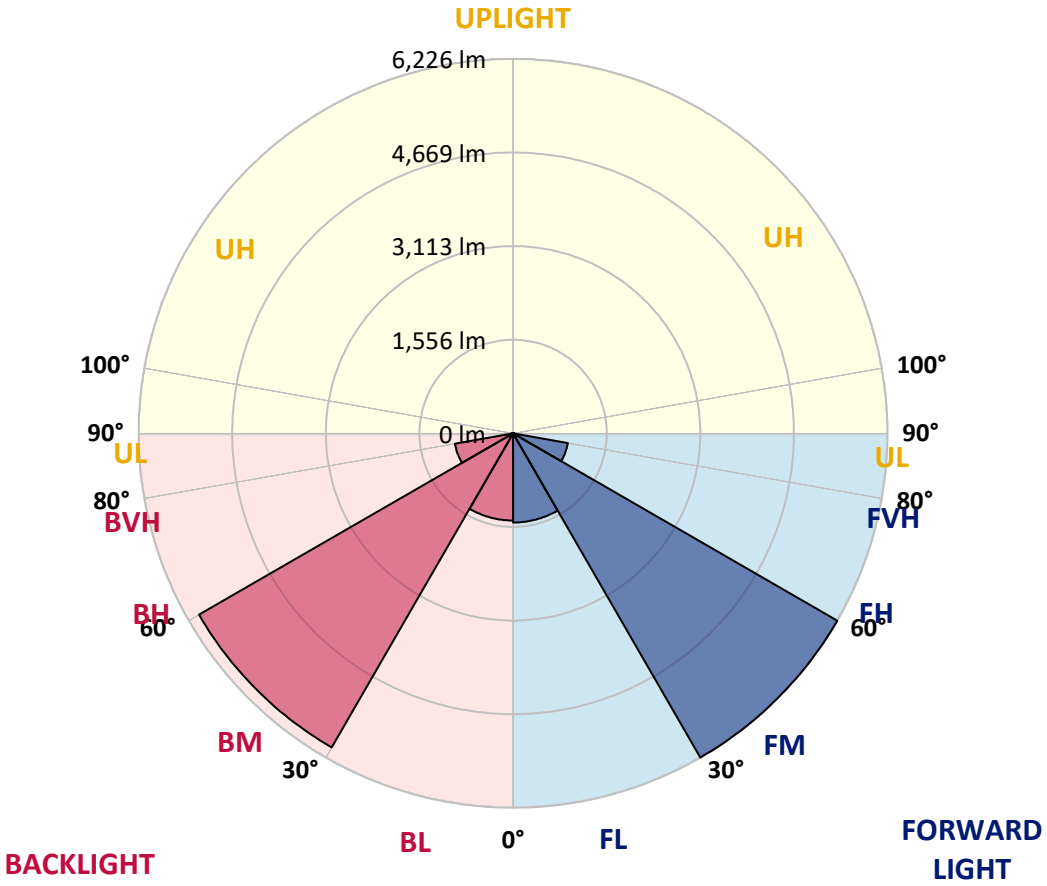
REPORT NUMBER: P637972
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1482.7	8.6			
FM	(30°-60°)	6225.6	36.3			
FH	(60°-80°)	924.7	5.4			G1/1800
FVH	(80°-90°)	25.6	0.1			G1/100
BL	(0°-30°)	1449.6	8.5	B3/2500		
BM	(30°-60°)	6029.6	35.2	B4/8500		
BH	(60°-80°)	981.6	5.7	B2/1000		G1/1800
BVH	(80°-90°)	29.7	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G1
Type V Short



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Scaled Data Report

REPORT NUMBER: P637972
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	49°	55°	65°	75°	85°
0°	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	*2840.9*	2840.9	2840.9	2840.9	2840.9
2.5°	2799.0	2801.8	2807.4	2817.2	2826.9	2840.9	*2846.4*	2853.4	2852.0	2860.4	2860.4
5°	2785.1	2789.3	2797.6	2811.6	2828.3	2854.8	*2861.8*	2878.5	2895.3	2916.2	2923.2
7.5°	2801.8	2807.4	2817.2	2839.5	2864.6	2899.4	*2913.4*	2941.3	2973.4	3011.0	3026.4
10°	2833.9	2840.9	2857.6	2893.9	2934.3	2987.3	*2999.9*	3034.7	3086.3	3137.9	3168.6
12.5°	2870.2	2881.3	2912.0	2969.2	3029.1	3098.9	*3118.4*	3161.6	3217.4	3284.4	3326.2
15°	2912.0	2921.8	2969.2	3050.1	3143.5	3235.6	*3257.9*	3299.7	3362.5	3428.0	3486.6
17.5°	2999.9	3016.6	3072.4	3165.8	3274.6	3383.4	*3408.5*	3455.9	3506.1	3557.7	3613.5
20°	3119.8	3133.7	3204.9	3320.6	3448.9	3547.9	*3573.1*	3614.9	3638.6	3665.1	3712.5
22.5°	3239.7	3259.3	3340.1	3476.8	3627.4	3734.8	*3754.4*	3793.4	3776.7	3768.3	3799.0
25°	3389.0	3415.5	3495.0	3644.2	3797.6	3930.1	*3945.4*	3978.9	3951.0	3907.8	3906.4
27.5°	3574.4	3598.2	3680.4	3833.8	3985.9	4123.9	*4153.2*	4197.8	4136.5	4083.5	4045.8
30°	3794.8	3810.1	3900.8	4064.0	4220.2	4351.3	*4388.9*	4433.5	4387.5	4299.7	4262.0
32.5°	4051.4	4072.3	4176.9	4348.5	4487.9	4619.0	*4656.7*	4712.5	4662.3	4563.2	4515.8
35°	4359.6	4380.5	4490.7	4677.6	4819.9	4955.1	*4981.6*	5027.7	4964.9	4850.5	4812.9
37.5°	4694.3	4720.8	4860.3	5037.4	5186.6	5344.2	*5345.6*	5359.6	5270.3	5128.1	5086.2
40°	5070.9	5105.8	5245.2	5429.3	5609.2	5737.5	*5736.1*	5697.1	5546.5	5326.1	5262.0
42.5°	5443.3	5471.1	5612.0	5801.7	5981.6	6102.9	*6066.7*	5971.8	5754.3	5454.4	5369.3
45°	5712.4	5733.3	5881.2	6094.5	6277.2	6352.6	*6287.0*	6172.6	5878.4	5535.3	5409.8
47.5°	5839.3	5867.2	6016.5	6228.4	6434.8	6478.1	*6400.0*	6292.6	5950.9	5610.6	5441.9
50°	5771.0	5807.3	5976.0	6172.6	6405.6	6494.8	*6439.0*	6331.6	6027.6	5684.5	5499.0
52.5°	5593.9	5628.7	5842.1	6080.6	6344.2	6521.3	*6519.9*	6432.1	6115.5	5705.4	5501.8
55°	*4988.6*	*5056.9*	*5388.9*	*5800.3*	*6268.9*	*6599.4*	*6632.9*	*6539.4*	*6129.4*	*5711.0*	*5531.1*
57.5°	3246.7	3366.6	3681.8	4217.4	5157.4	6002.5	*6228.4*	6250.7	6029.0	5687.3	5536.7
60°	1355.6	1451.8	1701.5	2057.1	2833.9	3839.4	*4277.3*	4716.7	5246.6	5439.1	5485.1
62.5°	842.4	850.7	875.8	956.7	1216.1	1707.0	*1988.7*	2400.2	3188.1	3859.0	4168.6
65°	760.1	764.3	769.8	764.3	776.8	836.8	*912.1*	1055.7	1376.5	1709.8	2105.9
67.5°	669.4	675.0	679.2	675.0	679.2	682.0	*690.3*	702.9	761.5	808.9	845.1
70°	541.1	549.5	556.5	553.7	570.4	570.4	*578.8*	588.5	617.8	652.7	677.8
72.5°	412.8	405.8	414.2	417.0	432.3	440.7	*453.3*	464.4	497.9	518.8	550.9
75°	267.8	260.8	273.3	280.3	301.2	312.4	*323.6*	334.7	358.4	372.4	403.0
77.5°	145.0	143.6	156.2	166.0	188.3	202.2	*210.6*	219.0	238.5	242.7	262.2
80°	83.7	83.7	92.0	99.0	113.0	128.3	*136.7*	143.6	157.6	161.8	170.1
82.5°	46.0	46.0	50.2	54.4	65.5	73.9	*80.9*	86.5	99.0	103.2	107.4
85°	22.3	20.9	23.7	26.5	30.7	34.9	*39.0*	41.8	51.6	54.4	60.0
87.5°	2.8	2.8	2.8	4.2	5.6	8.4	*9.8*	9.8	15.3	18.1	20.9
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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Scaled Data Report

REPORT NUMBER: P637972
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9	2840.9
2.5°	2868.8	2850.6	2861.8	2866.0	2866.0	2861.8	2843.7	2838.1	2829.7	2817.2	2817.2
5°	2932.9	2919.0	2921.8	2914.8	2898.0	2877.1	2843.7	2826.9	2813.0	2797.6	2796.2
7.5°	3043.1	3025.0	3022.2	2995.7	2951.0	2906.4	2856.2	2825.5	2804.6	2785.1	2783.7
10°	3186.7	3170.0	3149.1	3096.1	3030.5	2965.0	2896.7	2854.8	2824.1	2796.2	2794.8
12.5°	3347.1	3327.6	3288.5	3210.4	3128.2	3064.0	2985.9	2921.8	2875.7	2838.1	2831.1
15°	3521.5	3493.6	3426.6	3334.6	3253.7	3185.3	3101.7	3009.6	2939.9	2879.9	2872.9
17.5°	3655.3	3619.1	3546.6	3460.1	3393.1	3324.8	3216.0	3100.3	2999.9	2924.5	2913.4
20°	3747.4	3718.1	3635.8	3571.7	3532.6	3472.6	3345.7	3214.6	3101.7	3006.8	3001.3
22.5°	3832.5	3797.6	3716.7	3679.0	3679.0	3638.6	3517.3	3362.5	3230.0	3119.8	3105.8
25°	3928.7	3891.0	3829.7	3825.5	3845.0	3826.9	3680.4	3514.5	3359.7	3235.6	3213.2
27.5°	4062.6	4020.7	3984.5	4009.6	4037.5	4017.9	3854.8	3662.3	3499.1	3373.6	3354.1
30°	4275.9	4224.3	4190.9	4221.6	4275.9	4218.8	4041.6	3838.0	3673.5	3535.4	3525.6
32.5°	4524.2	4465.6	4430.8	4479.6	4528.4	4439.1	4263.4	4068.1	3895.2	3750.2	3733.4
35°	4822.6	4748.7	4697.1	4762.7	4812.9	4725.0	4550.7	4365.2	4172.7	4022.1	3999.8
37.5°	5087.6	4998.4	4963.5	5055.5	5122.5	5065.3	4875.6	4701.3	4490.7	4326.2	4316.4
40°	5280.1	5192.2	5167.1	5319.1	5436.3	5422.3	5252.2	5052.8	4854.7	4665.0	4646.9
42.5°	5363.8	5302.4	5308.0	5513.0	5694.3	5783.5	5631.5	5418.2	5227.1	5030.4	5017.9
45°	5381.9	5344.2	5388.9	5645.5	5884.0	6066.7	5937.0	5758.4	5542.3	5352.6	5347.0
47.5°	5401.4	5380.5	5448.8	5720.8	6003.9	6215.9	6143.4	5959.3	5740.3	5554.8	5540.9
50°	5447.4	5439.1	5515.8	5773.8	6061.1	6256.3	6174.0	5991.3	5766.8	5584.1	5550.6
52.5°	5461.4	5447.4	5557.6	5856.1	6155.9	6254.9	6077.8	5839.3	5613.4	5409.8	5374.9
55°	*5504.6*	*5479.5*	*5554.8*	*5886.7*	*6287.0*	*6335.8*	*6072.2*	*5715.2*	*5400.0*	*5122.5*	*5040.2*
57.5°	5515.8	5487.9	5536.7	5836.5	6144.8	6101.5	5337.3	4612.1	4017.9	3709.7	3744.6
60°	5455.8	5464.2	5380.5	5347.0	4928.6	4351.3	3267.6	2612.1	2051.5	1814.4	1866.0
62.5°	4153.2	4188.1	3902.2	3393.1	2609.4	2068.2	1368.1	1062.7	899.5	857.7	864.7
65°	2096.1	2143.6	1846.5	1527.1	1135.2	917.7	793.5	768.4	760.1	750.3	750.3
67.5°	829.8	843.8	832.6	779.6	725.2	705.7	700.1	697.3	687.6	682.0	683.4
70°	666.6	677.8	661.1	627.6	605.3	603.9	601.1	595.5	588.5	588.5	592.7
72.5°	543.9	555.1	531.4	510.4	493.7	481.1	474.2	470.0	460.2	460.2	464.4
75°	400.3	407.2	387.7	384.9	366.8	354.2	343.1	337.5	324.9	319.4	323.6
77.5°	266.4	265.0	255.2	255.2	248.2	232.9	220.4	207.8	191.1	179.9	182.7
80°	172.9	172.9	168.8	168.8	161.8	149.2	133.9	121.3	111.6	103.2	103.2
82.5°	110.2	108.8	107.4	106.0	103.2	90.7	79.5	71.1	64.2	58.6	60.0
85°	61.4	61.4	58.6	58.6	53.0	46.0	40.4	34.9	30.7	29.3	29.3
87.5°	20.9	20.9	19.5	19.5	16.7	12.6	9.8	8.4	7.0	5.6	7.0
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

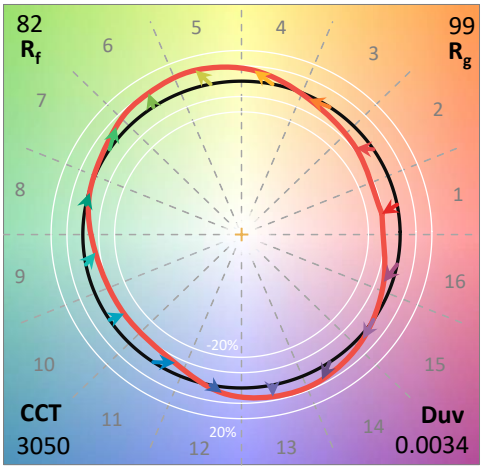
Test Information

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

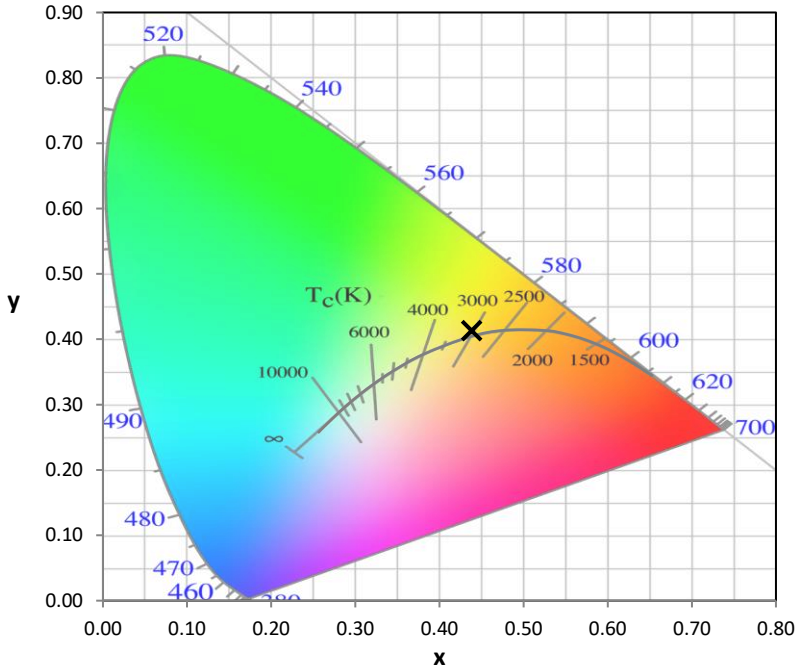
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

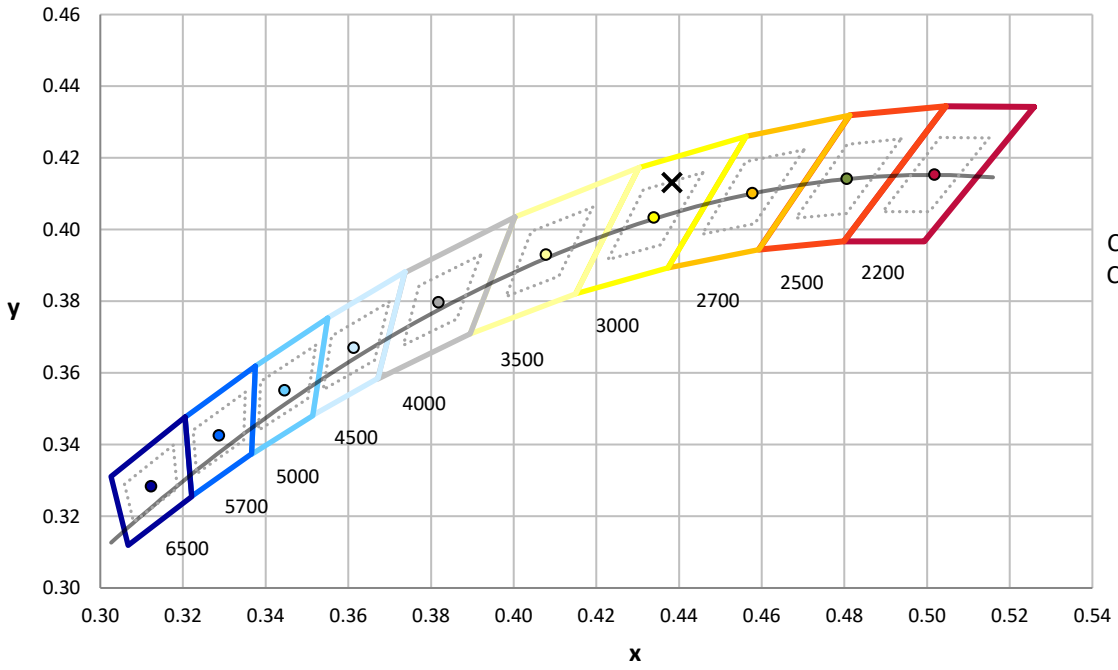
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

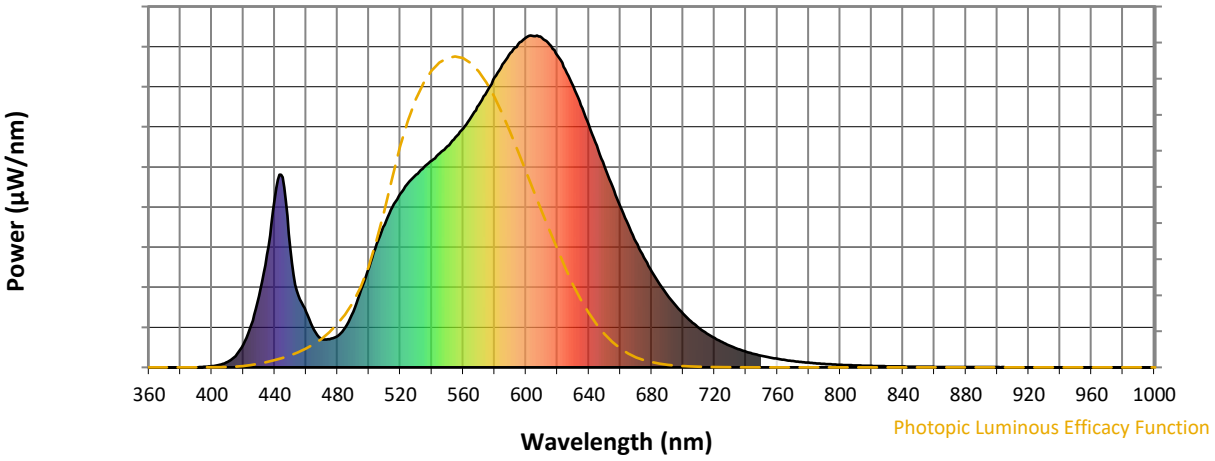


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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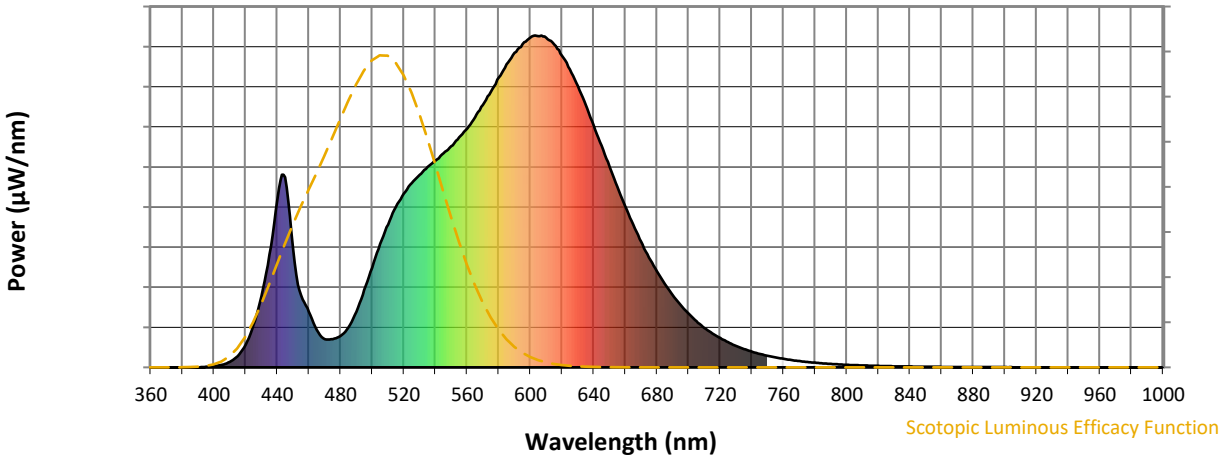
Scotopic Flux vs. Wavelength



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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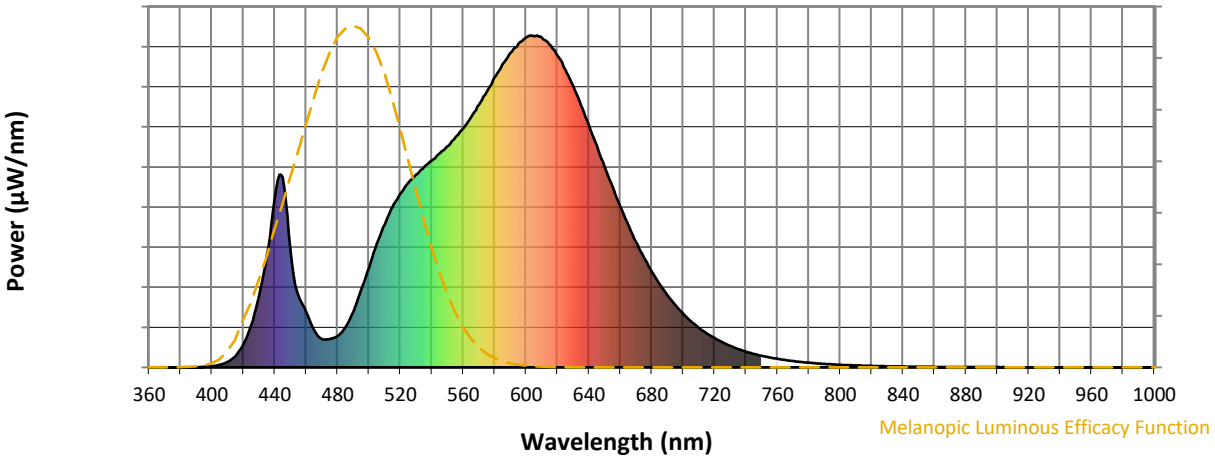
Melanopic Flux vs. Wavelength



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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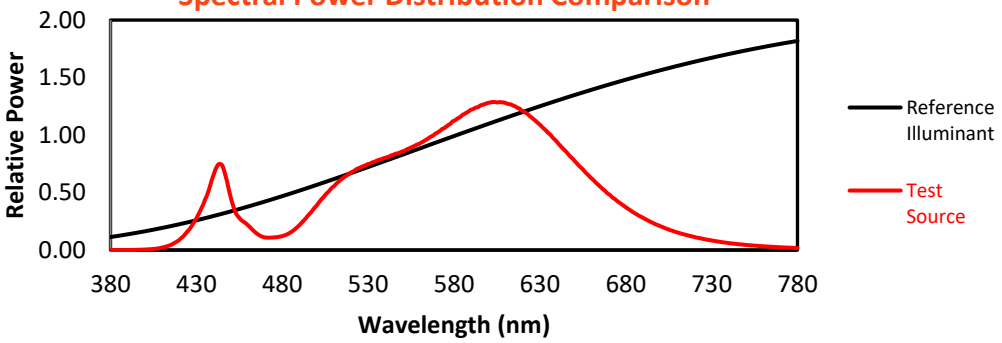
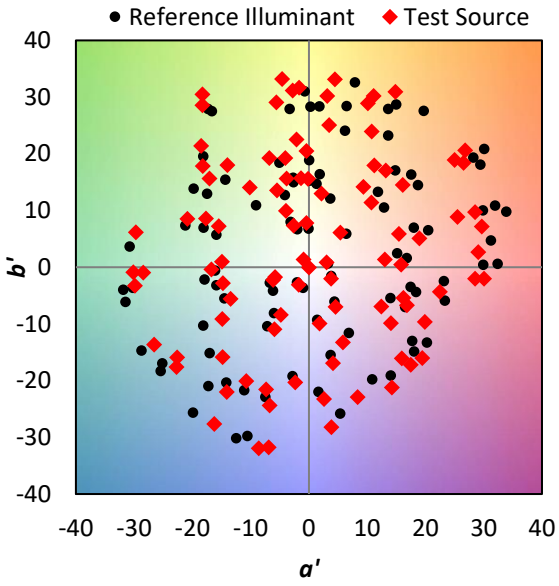
Summary

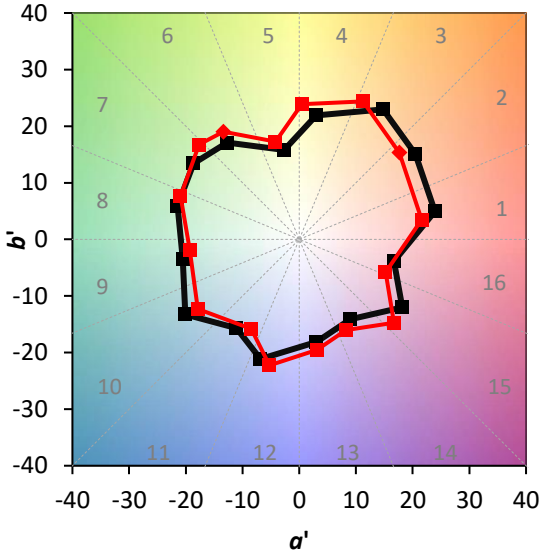
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

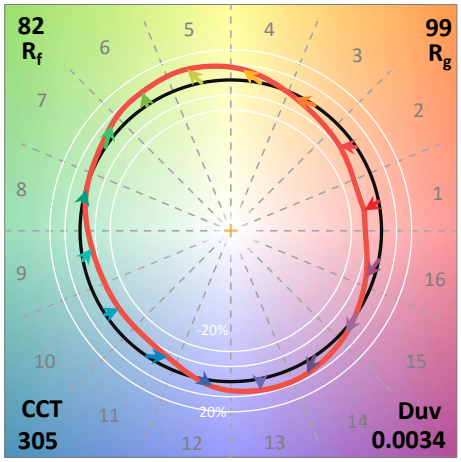
Spectral Power Distribution Comparison

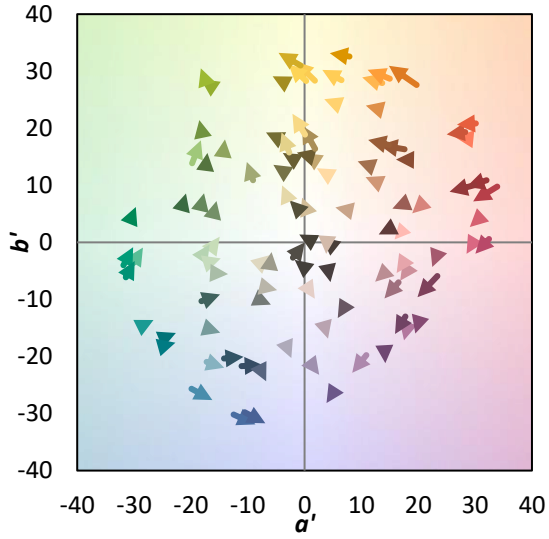


Color Vector Graphics









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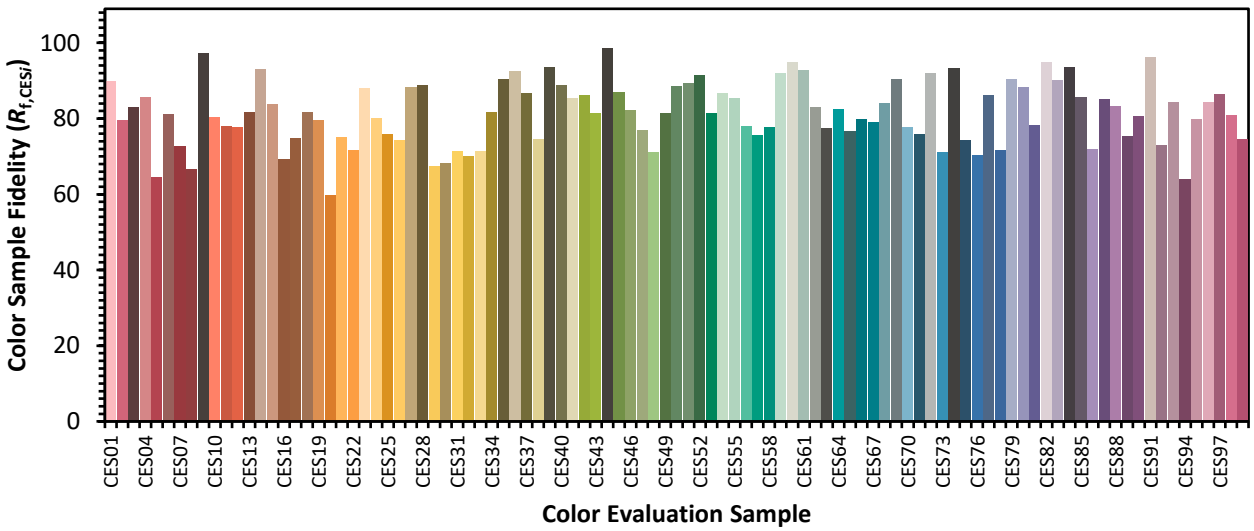
Individual Sample Fidelity Index ($R_{f,i}$)

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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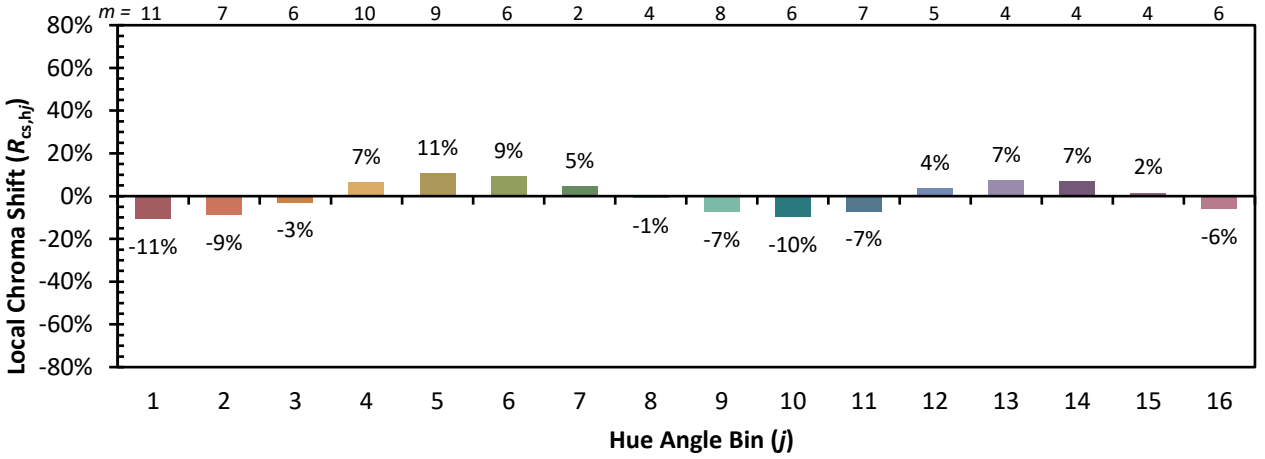
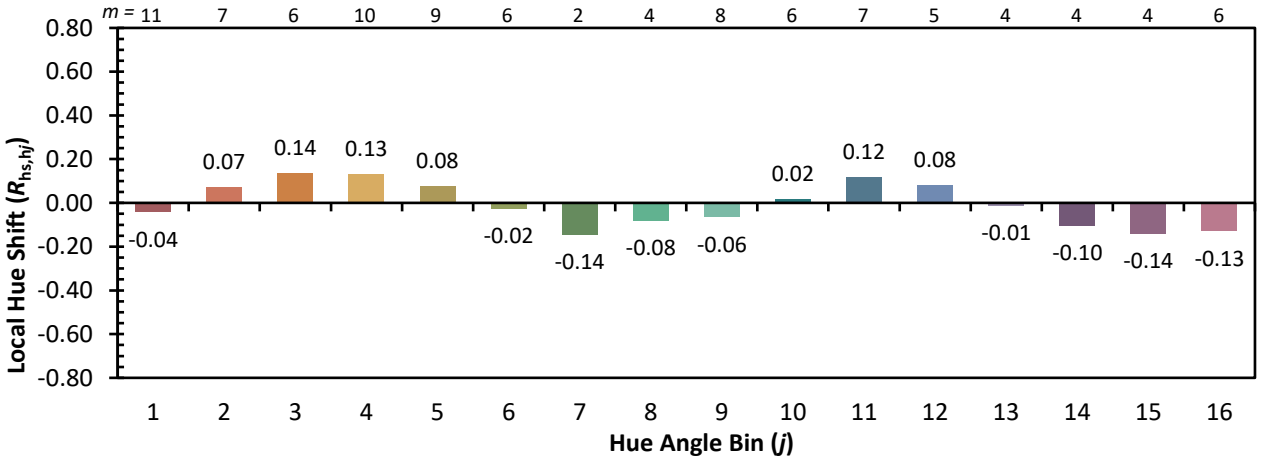
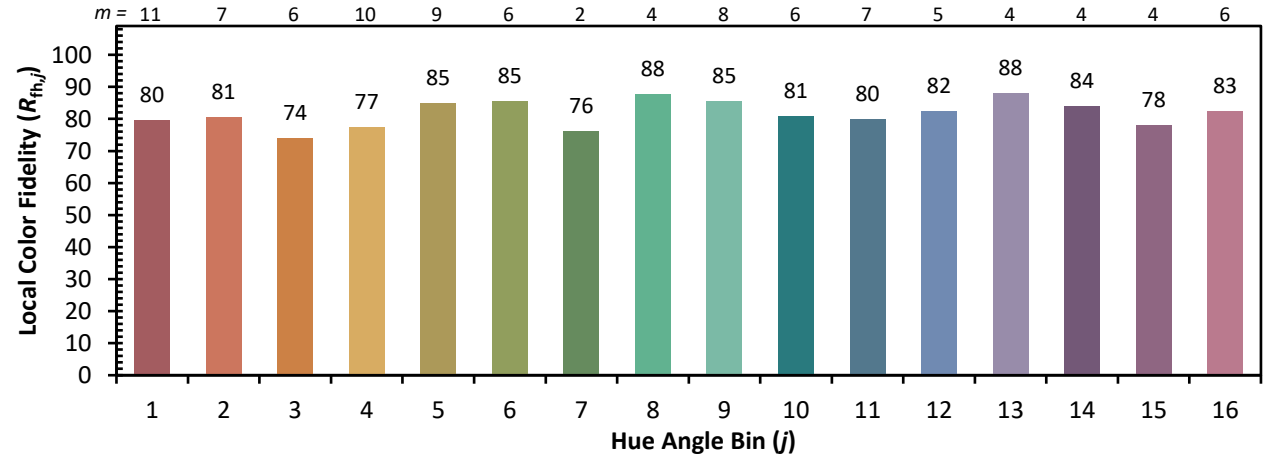
Color Rendition by Hue-Angle Bin







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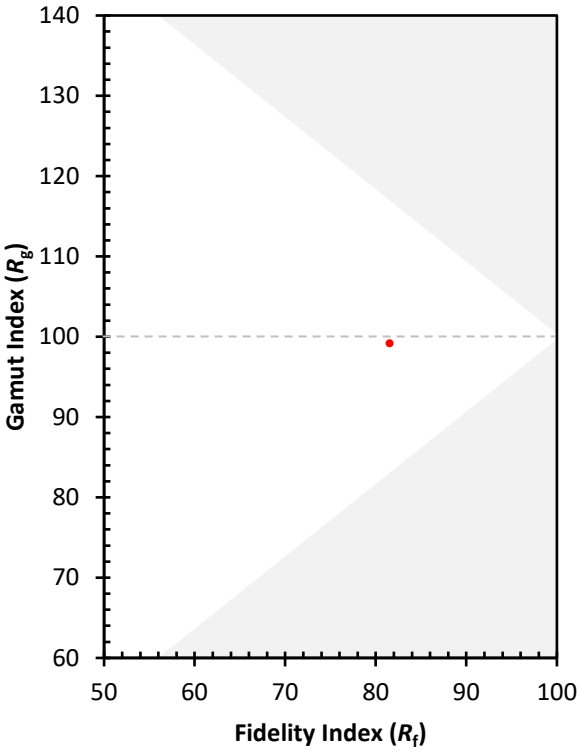
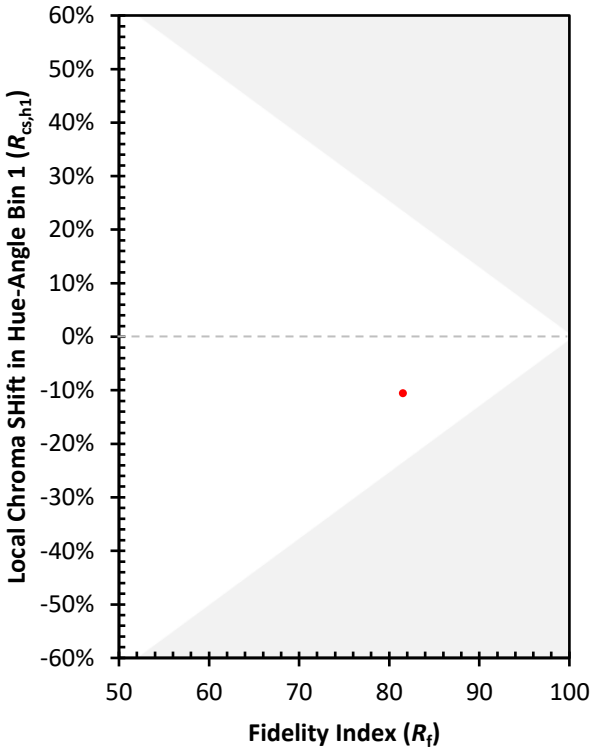
Measure Comparisons





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