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: P640942

Luminaire Tested: GWS-SA5E-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:	P640942
	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-SA5E-830-U-RW-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	26289 lumens
Efficiency:	N/A
Efficacy:	97.5 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B5 - U0 - G1

Input Watts (W):	269.6
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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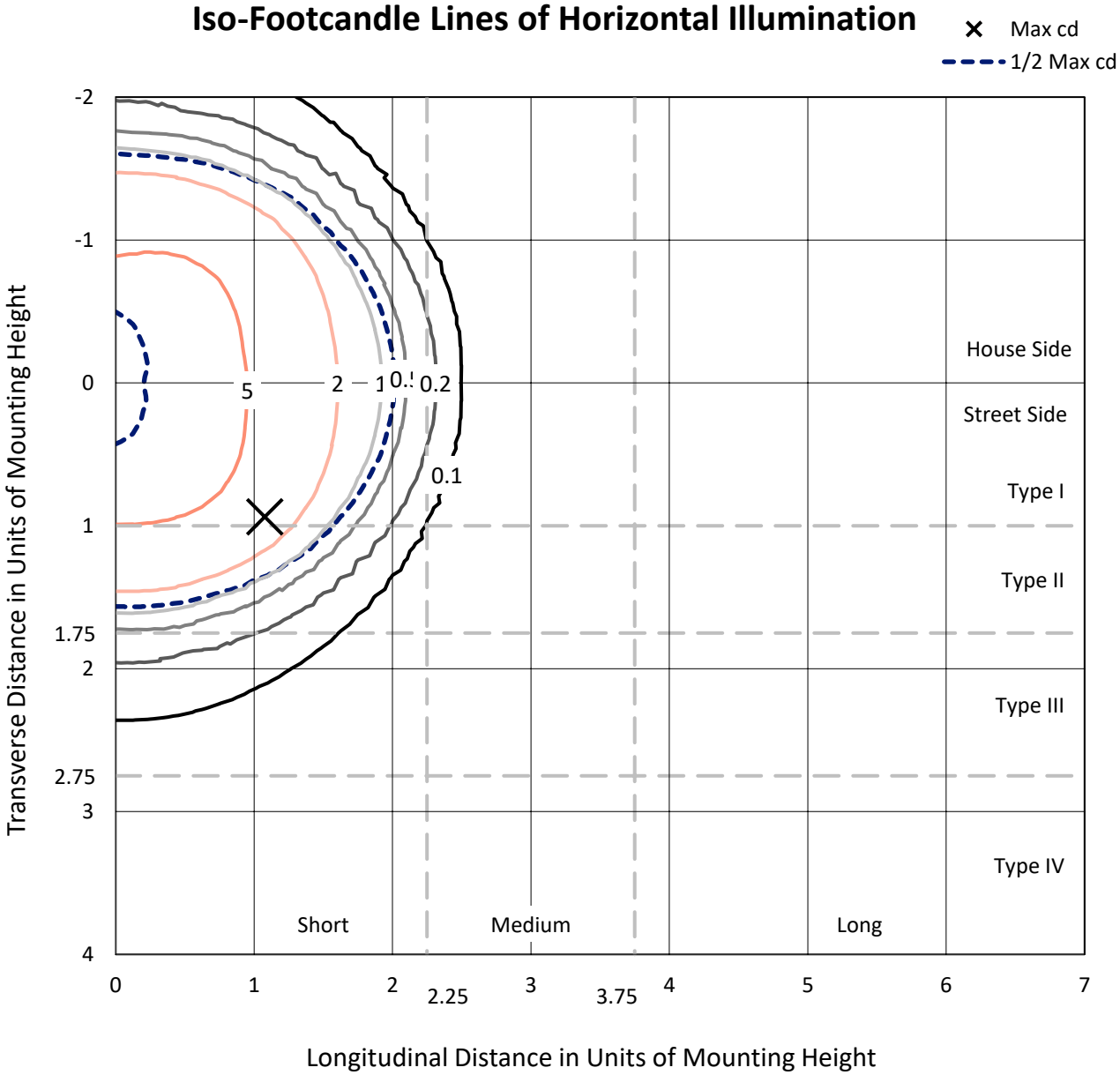
Scaled Data Report

REPORT NUMBER: P640942
CATALOG NUMBER: GWS-SA5E-830-U-RW-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
Type V - Short - N/A

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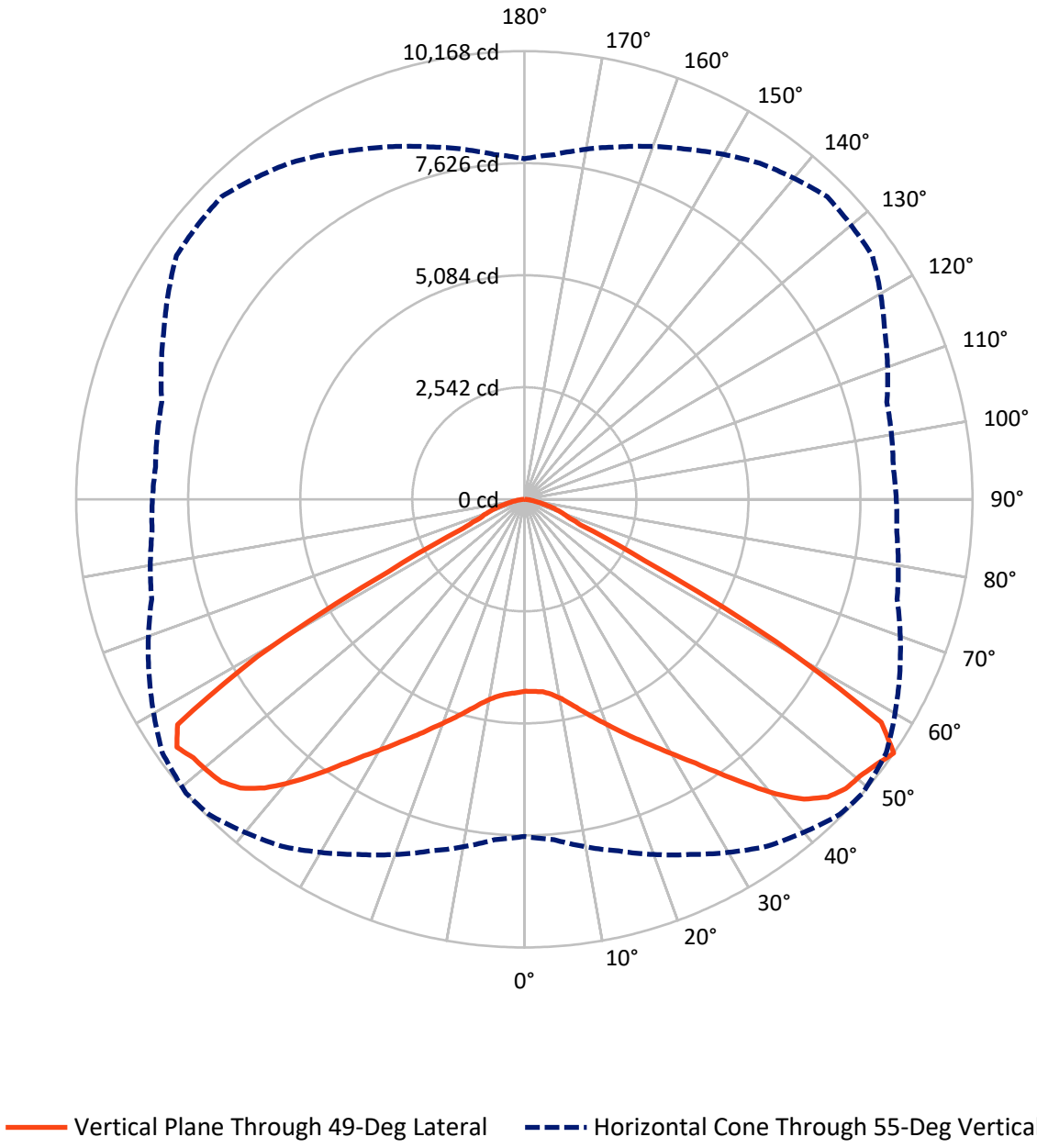
Luminous Intensity Polar Plot



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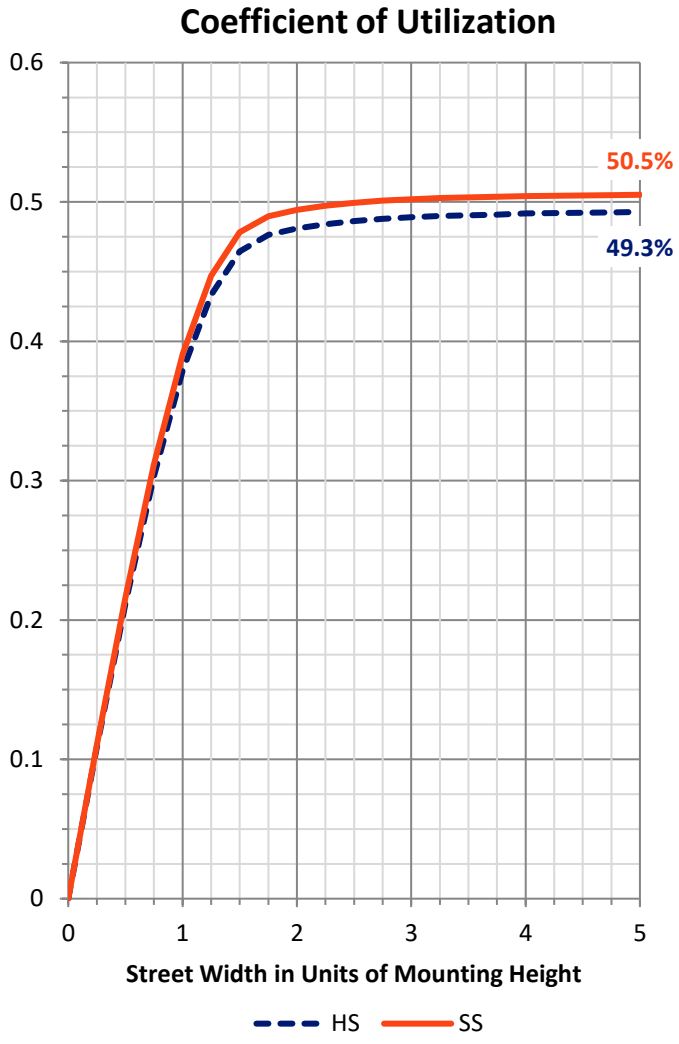
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13015.5	0.0	13015.5
	% Fixture	49.5	0.0	49.5
Street Side	Lumens	13273.5	0.0	13273.5
	% Fixture	50.5	0.0	50.5
Total	Lumens	26289.0	0.0	26289.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.8	1.6
10°-20°	1401.3	5.3
20°-30°	2669.0	10.2
30°-40°	4524.5	17.2
40°-50°	6809.0	25.9
50°-60°	7453.2	28.4
60°-70°	2356.7	9.0
70°-80°	565.6	2.2
80°-90°	84.9	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°	26289.0	100.0
0°-180°	26289.0	100.0



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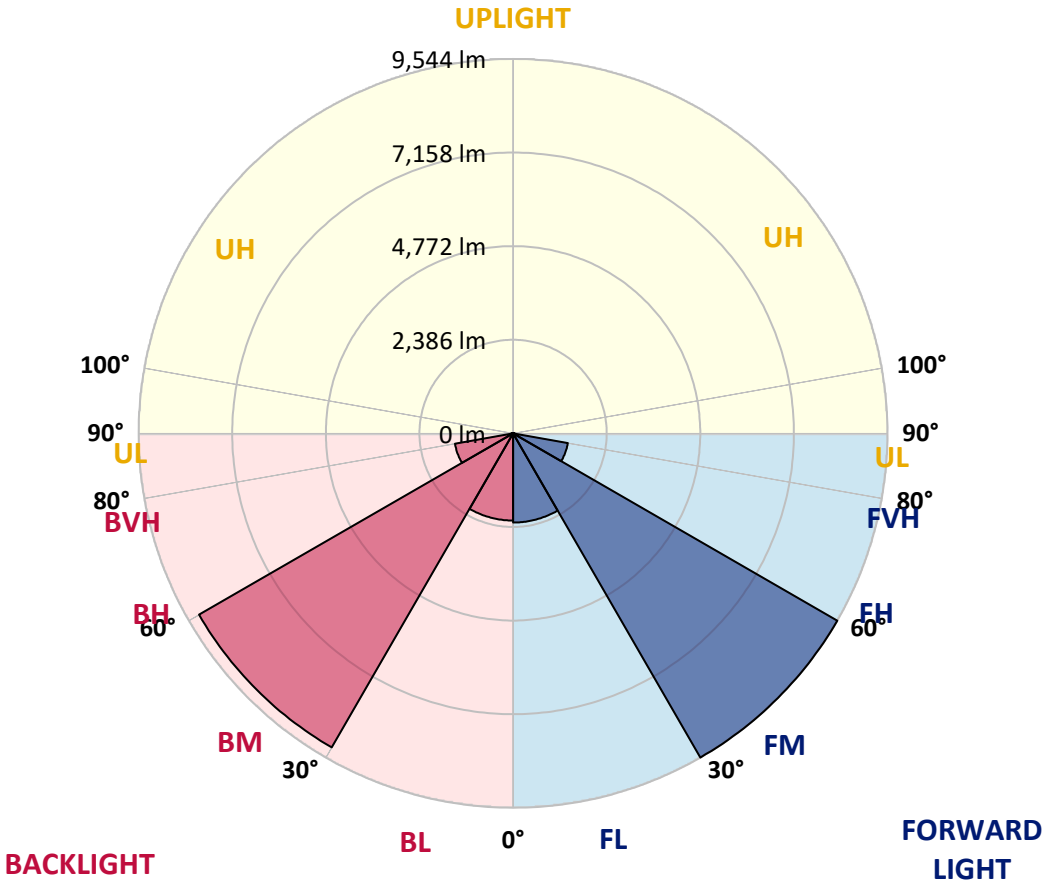
REPORT NUMBER: P640942
CATALOG NUMBER: GWS-SA5E-830-U-RW-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2272.9	8.6			
FM	(30°-60°)	9543.6	36.3			
FH	(60°-80°)	1417.6	5.4			G1/1800
FVH	(80°-90°)	39.3	0.1			G1/100
BL	(0°-30°)	2222.1	8.5	B3/2500		
BM	(30°-60°)	9243.1	35.2	B5		
BH	(60°-80°)	1504.7	5.7	B3/2500		G1/1800
BVH	(80°-90°)	45.6	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G1
Type V Short



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Scaled Data Report

REPORT NUMBER: P640942
CATALOG NUMBER: GWS-SA5E-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	49°	55°	65°	75°	85°
0°	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	*4354.9*	4354.9	4354.9	4354.9	4354.9
2.5°	4290.8	4295.1	4303.6	4318.6	4333.6	4354.9	*4363.5*	4374.2	4372.0	4384.9	4384.9
5°	4269.4	4275.8	4288.7	4310.0	4335.7	4376.3	*4387.0*	4412.7	4438.3	4470.4	4481.1
7.5°	4295.1	4303.6	4318.6	4352.8	4391.3	4444.7	*4466.1*	4508.9	4558.0	4615.8	4639.3
10°	4344.2	4354.9	4380.6	4436.2	4498.2	4579.4	*4598.7*	4652.1	4731.2	4810.3	4857.3
12.5°	4399.8	4416.9	4464.0	4551.6	4643.6	4750.4	*4780.4*	4846.7	4932.2	5034.8	5098.9
15°	4464.0	4478.9	4551.6	4675.6	4818.9	4960.0	*4994.2*	5058.3	5154.5	5255.0	5344.8
17.5°	4598.7	4624.3	4709.8	4853.1	5019.8	5186.6	*5225.1*	5297.8	5374.7	5453.8	5539.3
20°	4782.5	4803.9	4912.9	5090.4	5287.1	5438.9	*5477.3*	5541.5	5577.8	5618.4	5691.1
22.5°	4966.4	4996.3	5120.3	5329.8	5560.7	5725.3	*5755.3*	5815.1	5789.5	5776.6	5823.7
25°	5195.1	5235.8	5357.6	5586.4	5821.5	6024.6	*6048.2*	6099.5	6056.7	5990.4	5988.3
27.5°	5479.5	5515.8	5642.0	5877.1	6110.2	6321.8	*6366.7*	6435.1	6341.1	6259.8	6202.1
30°	5817.3	5840.8	5979.7	6229.9	6469.3	6670.3	*6728.0*	6796.4	6725.9	6591.2	6533.5
32.5°	6210.6	6242.7	6403.1	6666.0	6879.8	7080.8	*7138.5*	7224.0	7147.0	6995.3	6922.6
35°	6683.1	6715.2	6884.1	7170.6	7388.6	7596.0	*7636.6*	7707.2	7611.0	7435.7	7377.9
37.5°	7196.2	7236.8	7450.6	7722.1	7950.9	8192.5	*8194.6*	8216.0	8079.2	7861.1	7797.0
40°	7773.5	7826.9	8040.7	8322.9	8598.7	8795.4	*8793.2*	8733.4	8502.5	8164.7	8066.4
42.5°	8344.3	8387.0	8603.0	8893.7	9169.5	9355.5	*9299.9*	9154.6	8821.0	8361.4	8231.0
45°	8756.9	8789.0	9015.6	9342.7	9622.8	9738.2	*9637.7*	9462.4	9011.3	8485.4	8293.0
47.5°	8951.4	8994.2	9223.0	9547.9	9864.3	9930.6	*9810.9*	9646.3	9122.5	8600.8	8342.1
50°	8846.7	8902.3	9161.0	9462.4	9819.4	9956.3	*9870.8*	9706.1	9240.1	8714.1	8429.8
52.5°	8575.2	8628.6	8955.7	9321.3	9725.4	9996.9	*9994.8*	9860.1	9374.8	8746.2	8434.1
55°	*7647.3*	*7752.1*	*8260.9*	*8891.6*	*9609.9*	*10116.6*	*10167.9*	*10024.7*	*9396.1*	*8754.8*	*8479.0*
57.5°	4977.1	5160.9	5644.1	6465.1	7906.0	9201.6	*9547.9*	9582.1	9242.2	8718.4	8487.5
60°	2078.1	2225.6	2608.3	3153.4	4344.2	5885.7	*6557.0*	7230.4	8042.8	8337.9	8408.4
62.5°	1291.3	1304.1	1342.6	1466.6	1864.3	2616.8	*3048.7*	3679.4	4887.3	5915.6	6390.2
65°	1165.2	1171.6	1180.1	1171.6	1190.8	1282.7	*1398.2*	1618.4	2110.1	2621.1	3228.3
67.5°	1026.2	1034.8	1041.2	1034.8	1041.2	1045.4	*1058.3*	1077.5	1167.3	1240.0	1295.6
70°	829.5	842.3	853.0	848.8	874.4	874.4	*887.2*	902.2	947.1	1000.5	1039.0
72.5°	632.8	622.1	635.0	639.2	662.8	675.6	*694.8*	711.9	763.2	795.3	844.5
75°	410.5	399.8	419.0	429.7	461.8	478.9	*496.0*	513.1	549.4	570.8	617.9
77.5°	222.3	220.2	239.4	254.4	288.6	310.0	*322.8*	335.7	365.6	372.0	401.9
80°	128.3	128.3	141.1	151.8	173.2	196.7	*209.5*	220.2	241.6	248.0	260.8
82.5°	70.6	70.6	77.0	83.4	100.5	113.3	*124.0*	132.6	151.8	158.2	164.6
85°	34.2	32.1	36.3	40.6	47.0	53.4	*59.9*	64.1	79.1	83.4	91.9
87.5°	4.3	4.3	4.3	6.4	8.6	12.8	*15.0*	15.0	23.5	27.8	32.1
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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REPORT NUMBER: P640942
CATALOG NUMBER: GWS-SA5E-830-U-RW-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9	4354.9
2.5°	4397.7	4369.9	4387.0	4393.4	4393.4	4387.0	4359.2	4350.7	4337.8	4318.6	4318.6
5°	4496.0	4474.7	4478.9	4468.2	4442.6	4410.5	4359.2	4333.6	4312.2	4288.7	4286.5
7.5°	4664.9	4637.1	4632.9	4592.2	4523.8	4455.4	4378.4	4331.4	4299.3	4269.4	4267.3
10°	4885.1	4859.5	4827.4	4746.2	4645.7	4545.2	4440.4	4376.3	4329.3	4286.5	4284.4
12.5°	5131.0	5101.1	5041.2	4921.5	4795.3	4697.0	4577.3	4478.9	4408.4	4350.7	4340.0
15°	5398.2	5355.5	5252.9	5111.8	4987.8	4883.0	4754.7	4613.6	4506.7	4414.8	4404.1
17.5°	5603.5	5547.9	5436.7	5304.2	5201.5	5096.8	4930.0	4752.6	4598.7	4483.2	4466.1
20°	5744.6	5699.7	5573.5	5475.2	5415.3	5323.4	5128.9	4927.9	4754.7	4609.3	4600.8
22.5°	5875.0	5821.5	5697.5	5639.8	5639.8	5577.8	5391.8	5154.5	4951.4	4782.5	4761.1
25°	6022.5	5964.8	5870.7	5864.3	5894.2	5866.4	5642.0	5387.5	5150.2	4960.0	4925.8
27.5°	6227.7	6163.6	6108.0	6146.5	6189.3	6159.3	5909.2	5614.2	5364.0	5171.6	5141.7
30°	6554.8	6475.7	6424.4	6471.5	6554.8	6467.2	6195.7	5883.5	5631.3	5419.6	5404.6
32.5°	6935.4	6845.6	6792.2	6867.0	6941.8	6805.0	6535.6	6236.3	5971.2	5748.9	5723.2
35°	7392.9	7279.6	7200.5	7301.0	7377.9	7243.3	6976.0	6691.7	6396.6	6165.7	6131.5
37.5°	7799.1	7662.3	7608.8	7749.9	7852.6	7764.9	7474.1	7206.9	6884.1	6631.8	6616.8
40°	8094.1	7959.5	7921.0	8154.0	8333.6	8312.2	8051.4	7745.7	7442.1	7151.3	7123.5
42.5°	8222.4	8128.4	8136.9	8451.2	8729.1	8865.9	8632.9	8305.8	8012.9	7711.5	7692.2
45°	8250.2	8192.5	8260.9	8654.3	9019.9	9299.9	9101.1	8827.4	8496.1	8205.3	8196.8
47.5°	8280.1	8248.1	8352.8	8769.7	9203.7	9528.7	9417.5	9135.3	8799.7	8515.3	8493.9
50°	8350.7	8337.9	8455.5	8851.0	9291.4	9590.7	9464.5	9184.5	8840.3	8560.2	8508.9
52.5°	8372.1	8350.7	8519.6	8977.1	9436.8	9588.5	9317.0	8951.4	8605.1	8293.0	8239.5
55°	*8438.3*	*8399.9*	*8515.3*	*9024.1*	*9637.7*	*9712.5*	*9308.5*	*8761.2*	*8278.0*	*7852.6*	*7726.4*
57.5°	8455.5	8412.7	8487.5	8947.2	9419.7	9353.4	8181.8	7070.1	6159.3	5686.9	5740.3
60°	8363.5	8376.3	8248.1	8196.8	7555.4	6670.3	5009.1	4004.3	3144.9	2781.4	2860.5
62.5°	6366.7	6420.2	5981.9	5201.5	4000.0	3170.5	2097.3	1629.1	1379.0	1314.8	1325.5
65°	3213.3	3286.0	2830.6	2341.0	1740.3	1406.7	1216.5	1178.0	1165.2	1150.2	1150.2
67.5°	1272.1	1293.4	1276.3	1195.1	1111.7	1081.8	1073.2	1069.0	1054.0	1045.4	1047.6
70°	1021.9	1039.0	1013.4	962.1	927.9	925.7	921.4	912.9	902.2	902.2	908.6
72.5°	833.8	850.9	814.5	782.5	756.8	737.6	726.9	720.5	705.5	705.5	711.9
75°	613.6	624.3	594.3	590.1	562.3	543.0	525.9	517.4	498.1	489.6	496.0
77.5°	408.3	406.2	391.2	391.2	380.5	357.0	337.8	318.5	292.9	275.8	280.1
80°	265.1	265.1	258.7	258.7	248.0	228.8	205.2	186.0	171.0	158.2	158.2
82.5°	168.9	166.8	164.6	162.5	158.2	139.0	121.9	109.0	98.3	89.8	91.9
85°	94.1	94.1	89.8	89.8	81.2	70.6	62.0	53.4	47.0	44.9	44.9
87.5°	32.1	32.1	29.9	29.9	25.7	19.2	15.0	12.8	10.7	8.6	10.7
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

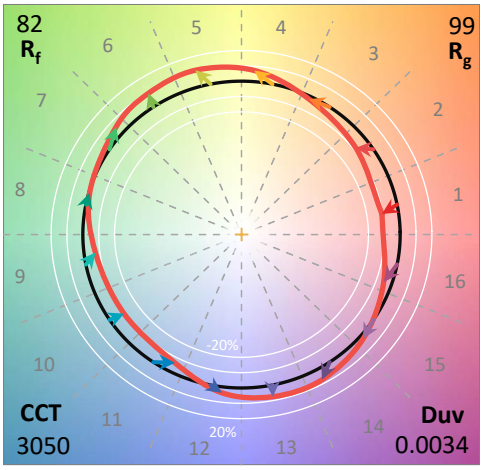
Test Information

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

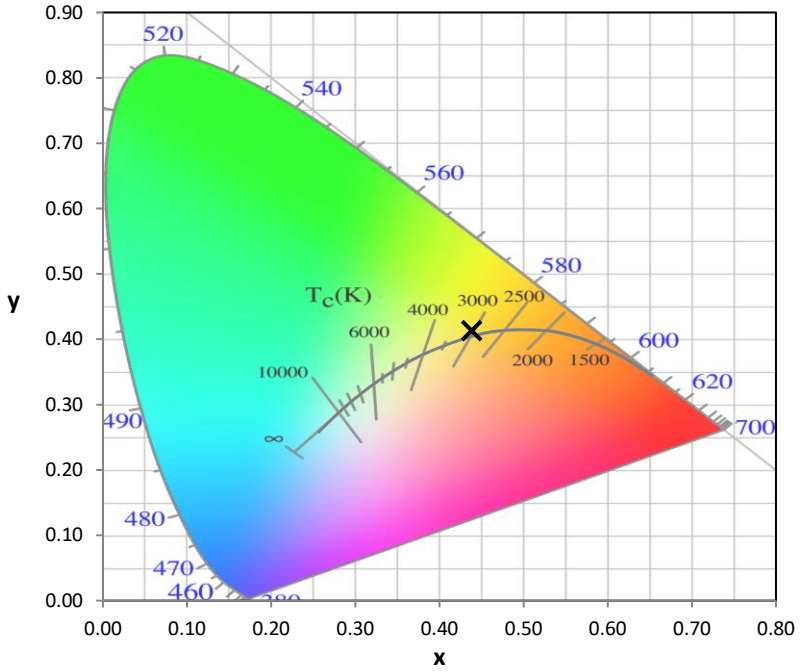
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

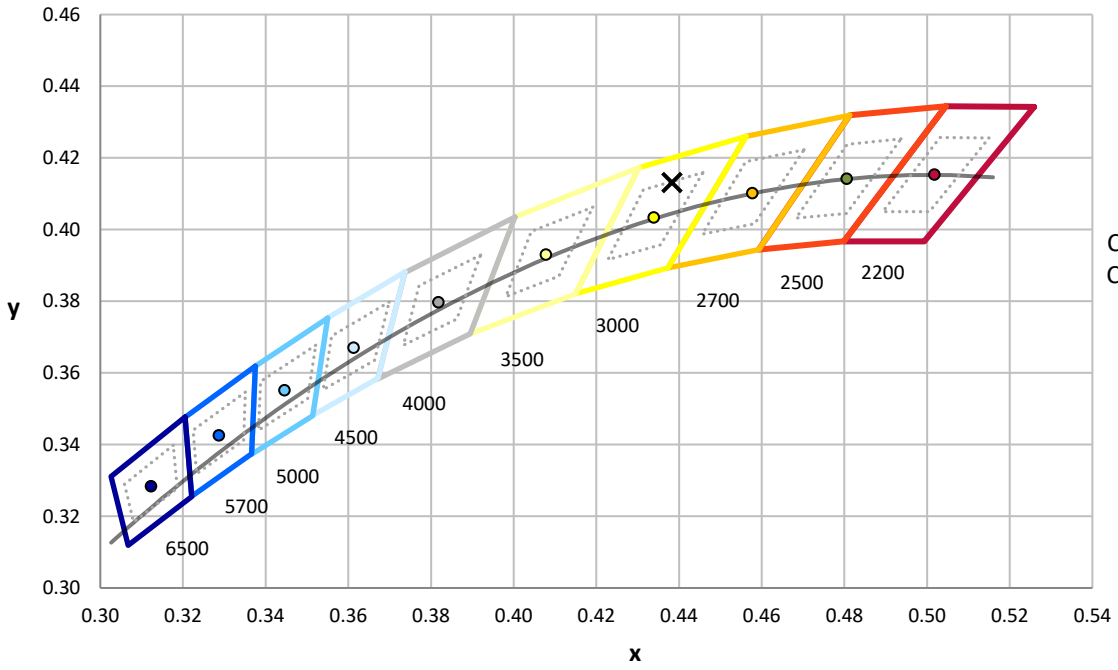
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

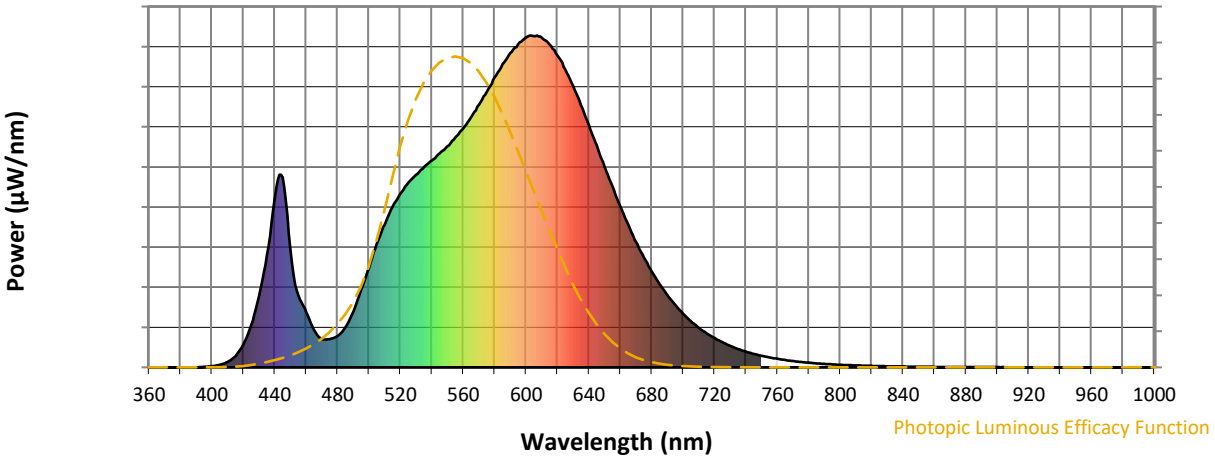


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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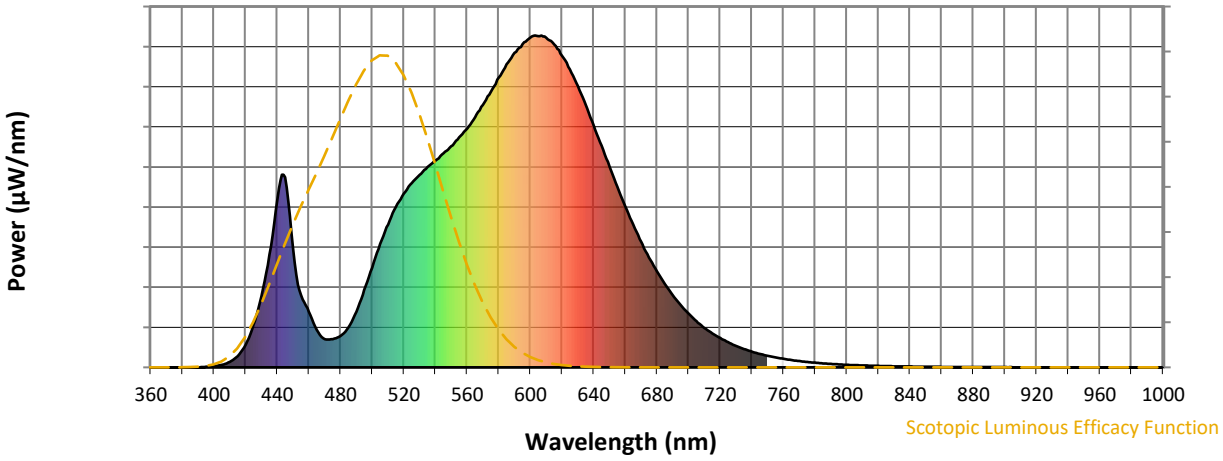
Scotopic Flux vs. Wavelength



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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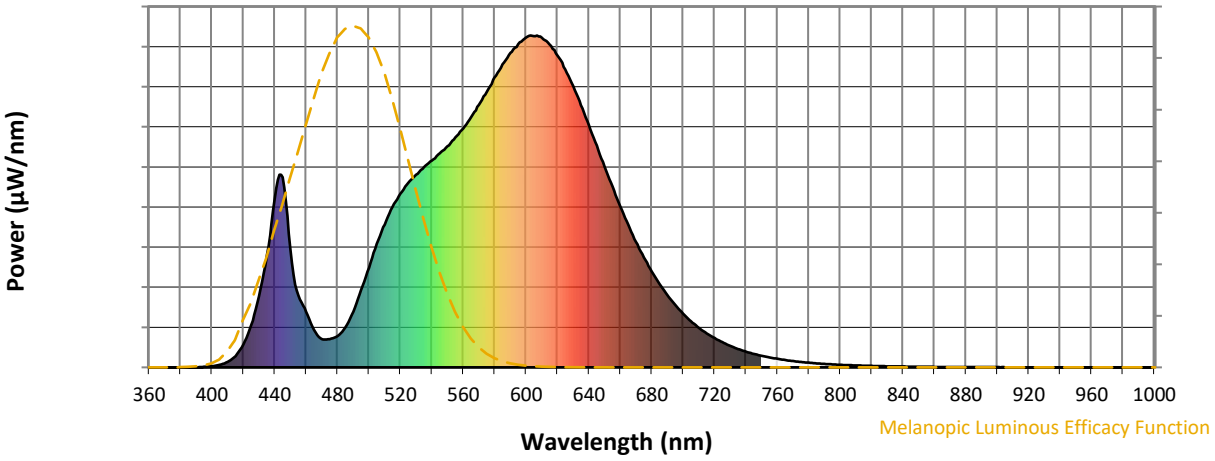
Melanopic Flux vs. Wavelength



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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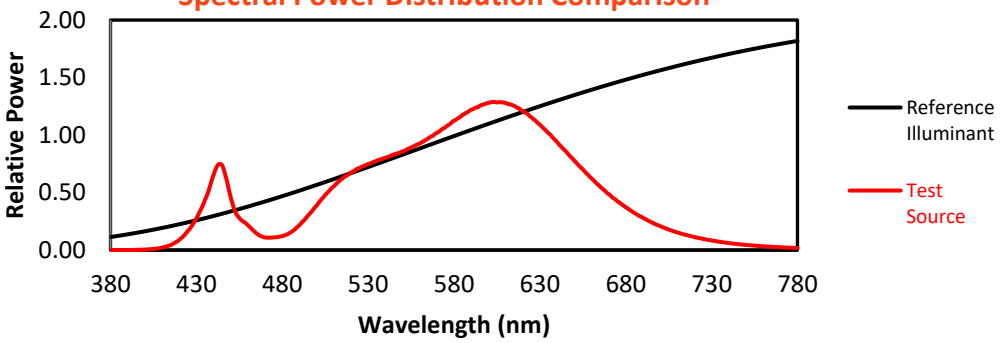
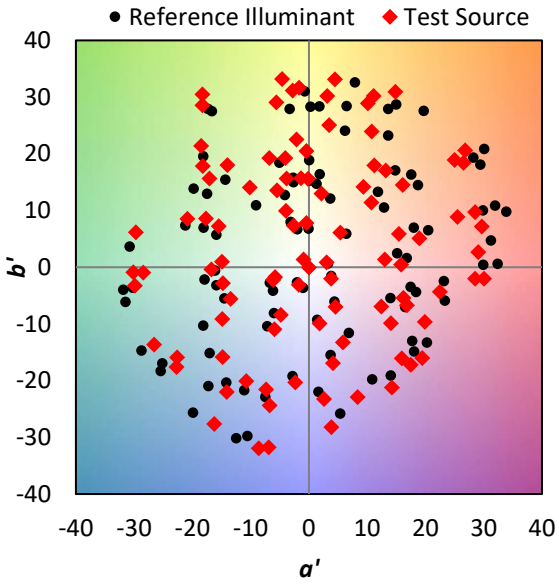
Summary

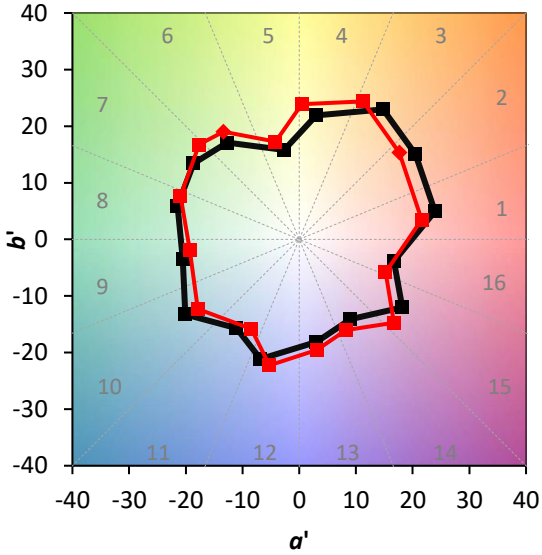
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

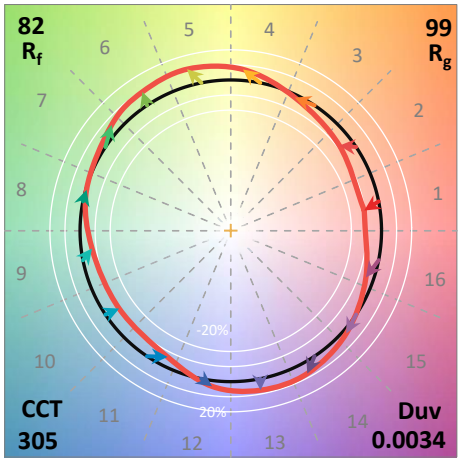
Spectral Power Distribution Comparison

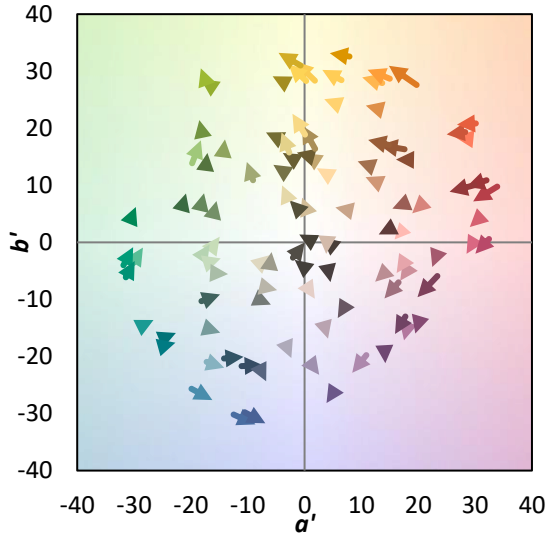


Color Vector Graphics









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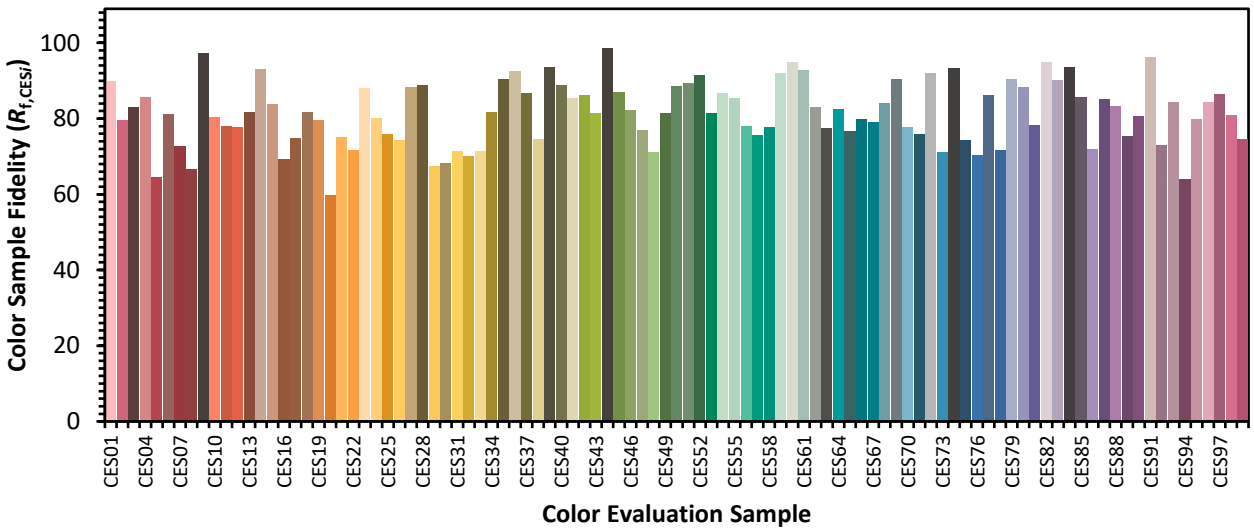
Individual Sample Fidelity Index ($R_{f,i}$)

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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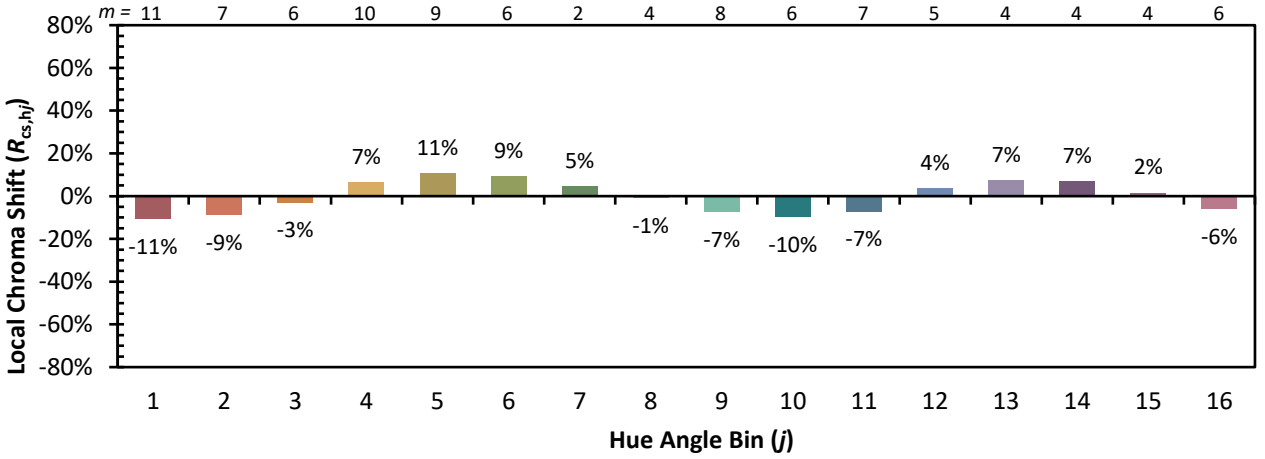
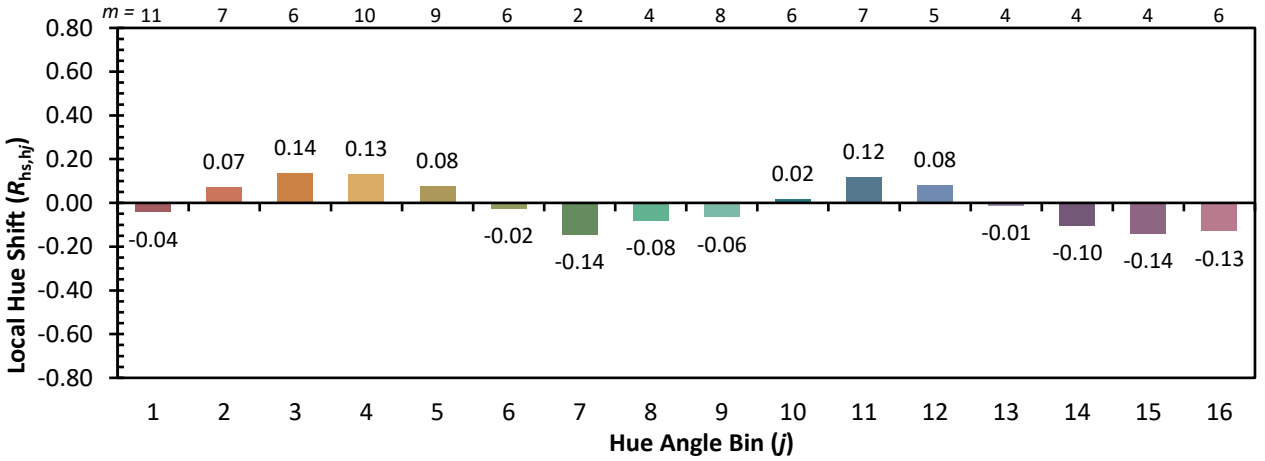
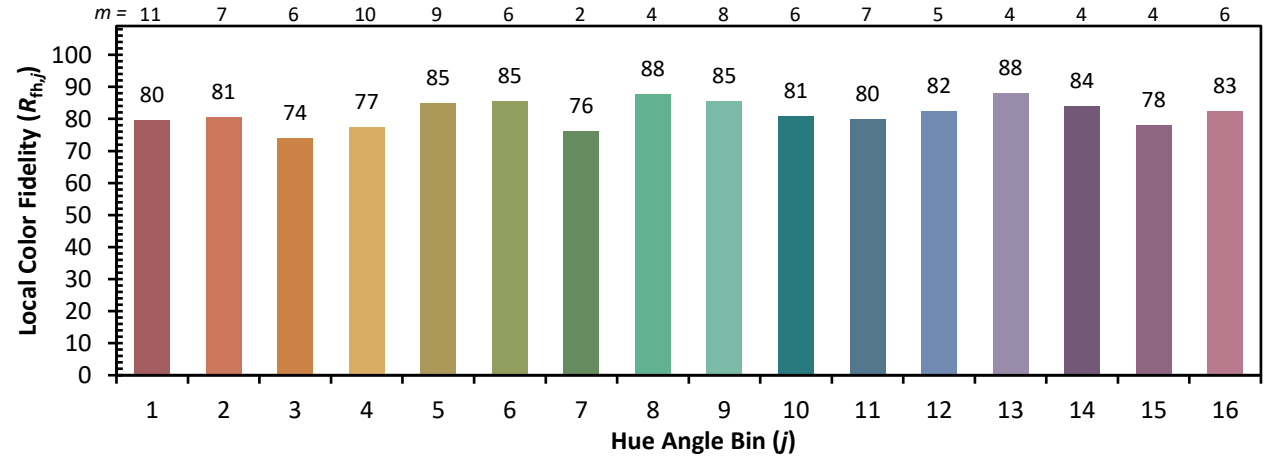
Color Rendition by Hue-Angle Bin







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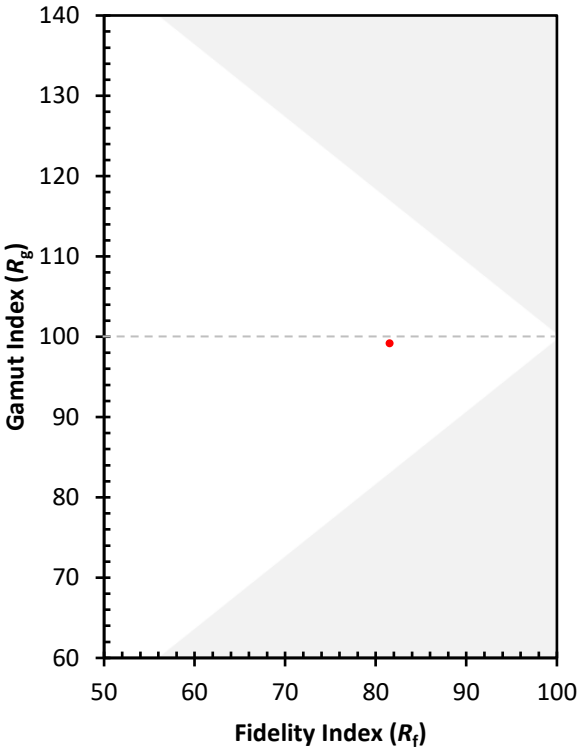
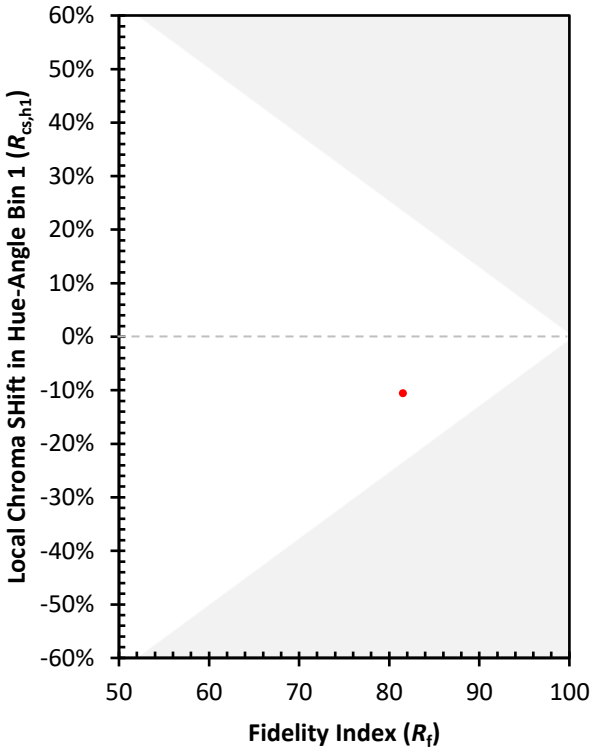
Measure Comparisons





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