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: P636495

Luminaire Tested: GWS-SA3F-830-U-SL3-W-HSS

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:	P636495
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-34)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA3F-830-U-SL3-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(48) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15731.3 lumens
Efficiency:	N/A
Efficacy:	85.9 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G3

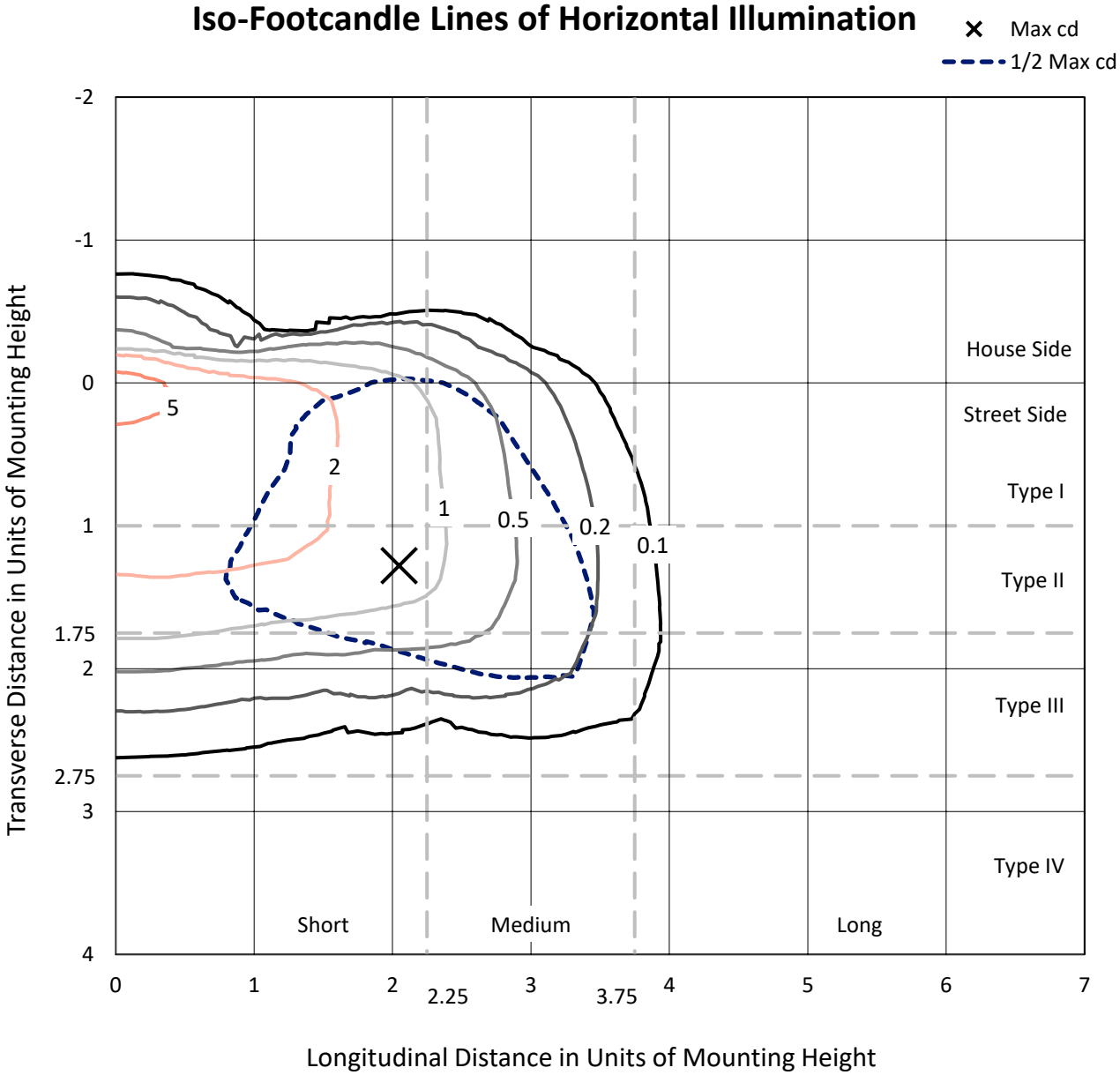
Input Watts (W):	183.2
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



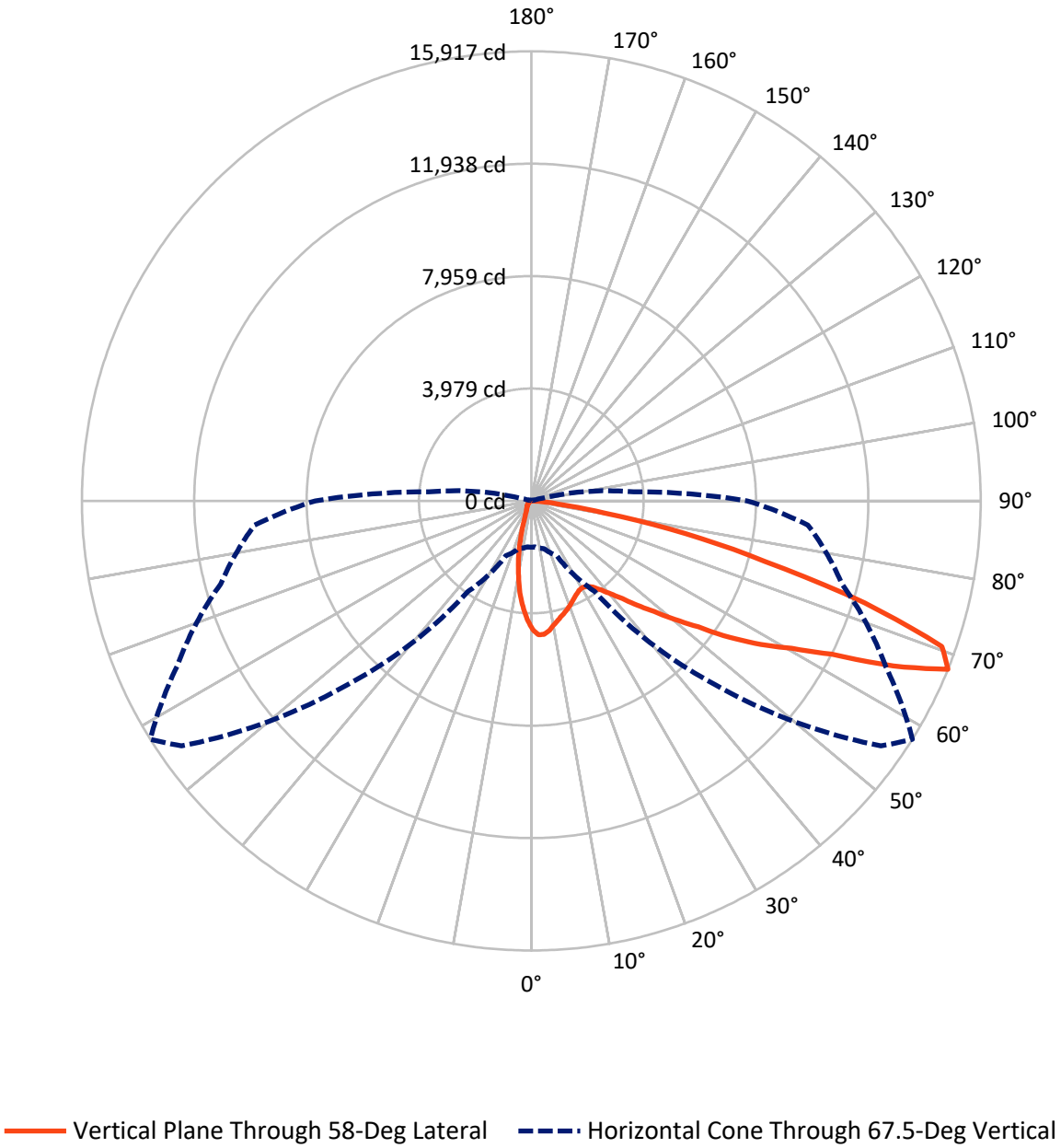
Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

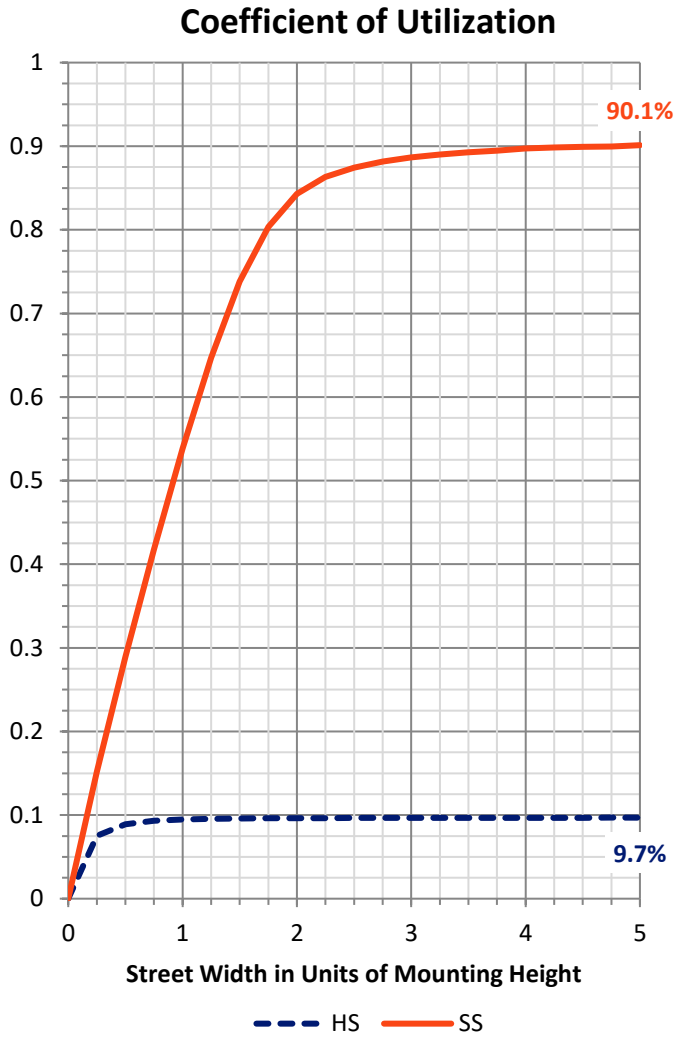
REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1536.8	0.0	1536.8
	% Fixture	9.8	0.0	9.8
Street Side	Lumens	14194.5	0.0	14194.5
	% Fixture	90.2	0.0	90.2
Total	Lumens	15731.3	0.0	15731.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.7	2.3
10°-20°	767.6	4.9
20°-30°	1035.1	6.6
30°-40°	1454.5	9.2
40°-50°	2246.4	14.3
50°-60°	3592.3	22.8
60°-70°	4253.5	27.0
70°-80°	1881.6	12.0
80°-90°	131.5	0.8
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°	15731.3	100.0
0°-180°	15731.3	100.0



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

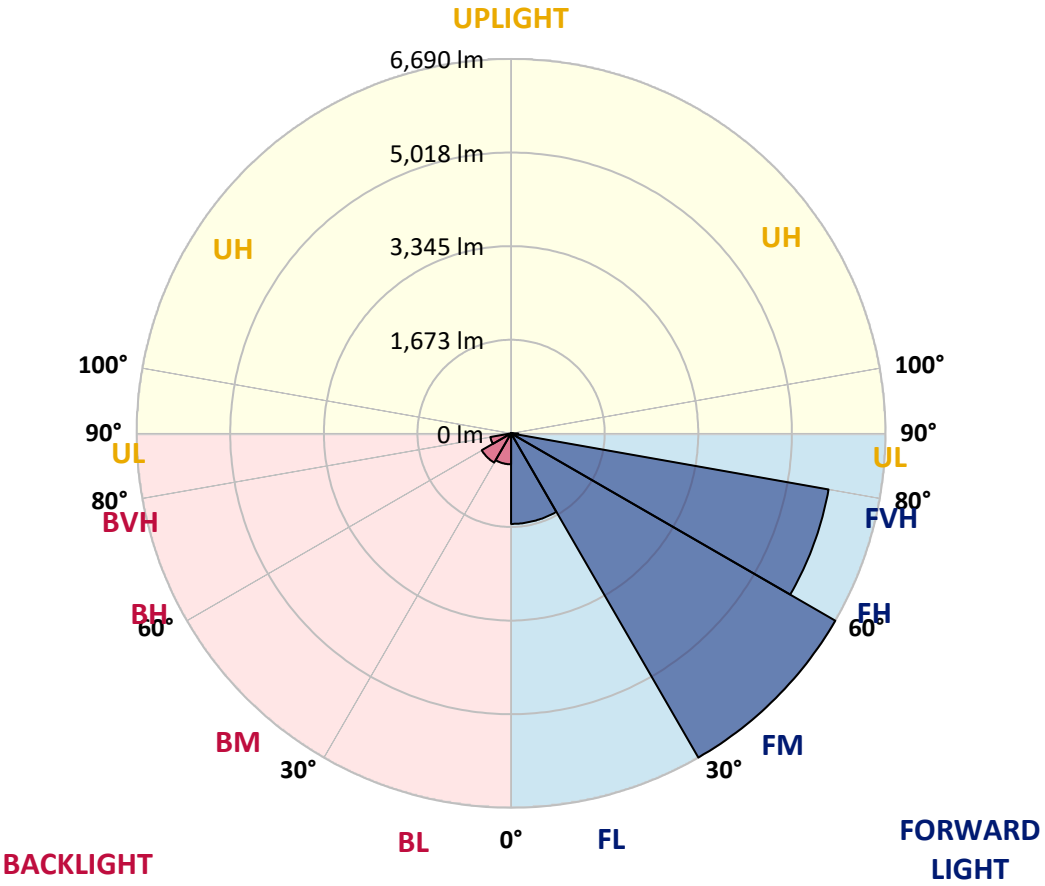
Scaled Data Report

REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1618.4	10.3			
FM	(30°-60°)	6690.2	42.5			
FH	(60°-80°)	5760.0	36.6			G3/7500
FVH	(80°-90°)	125.9	0.8			G2/225
BL	(0°-30°)	553.0	3.5	B2/1000		
BM	(30°-60°)	603.0	3.8	B1/1000		
BH	(60°-80°)	375.2	2.4	B1/500		G1/500
BVH	(80°-90°)	5.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
Type III Short



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

Scaled Data Report

REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6
2.5°	4773.0	4781.3	4792.4	4806.4	4803.6	4791.1	4775.7	4740.9	4718.6	4649.0	4564.1
5°	4619.8	4618.4	4646.2	4672.7	4720.0	4745.1	4779.9	4747.9	4736.8	4653.2	4515.4
7.5°	4320.4	4335.8	4367.8	4409.5	4477.8	4551.6	4635.1	4625.4	4658.8	4603.1	4431.8
10°	4026.7	4018.3	4068.4	4131.1	4235.5	4330.2	4451.3	4449.9	4537.6	4532.1	4337.1
12.5°	3769.1	3767.7	3806.7	3877.7	4000.2	4132.5	4296.8	4300.9	4409.5	4454.1	4256.4
15°	3551.9	3554.7	3592.2	3666.0	3792.7	3954.3	4145.0	4179.8	4302.3	4392.8	4177.0
17.5°	3397.3	3398.7	3421.0	3485.0	3609.0	3781.6	4011.3	4058.7	4216.0	4346.9	4113.0
20°	3326.3	3320.7	3324.9	3356.9	3453.0	3610.3	3874.9	3936.2	4136.7	4314.9	4054.5
22.5°	3336.1	3327.7	3308.2	3304.0	3347.2	3466.9	3730.1	3805.3	4050.3	4295.4	4001.6
25°	3422.4	3404.3	3376.4	3334.7	3318.0	3377.8	3603.4	3681.4	3969.6	4296.8	3961.2
27.5°	3554.7	3535.2	3500.3	3444.7	3379.2	3354.2	3517.1	3590.9	3912.5	4328.8	3941.7
30°	3723.1	3707.8	3674.4	3607.6	3519.8	3416.8	3499.0	3560.2	3884.6	4394.2	3950.1
32.5°	3922.2	3911.1	3883.2	3822.0	3721.7	3564.4	3560.2	3607.6	3906.9	4488.9	3982.1
35°	4114.4	4118.6	4119.9	4086.5	3979.3	3788.6	3728.7	3745.4	3998.8	4630.9	4054.5
37.5°	4321.8	4312.1	4362.2	4385.9	4282.8	4079.6	3989.1	3990.5	4174.2	4841.2	4191.0
40°	4479.2	4482.0	4590.6	4688.0	4644.9	4448.5	4319.0	4317.7	4444.4	5129.4	4410.9
42.5°	4626.8	4644.9	4805.0	4972.1	5031.9	4857.9	4764.6	4729.8	4823.1	5519.2	4740.9
45°	4784.1	4810.5	5034.7	5272.8	5430.1	5327.1	5253.3	5267.2	5278.4	5973.2	5185.1
47.5°	4967.9	4984.6	5261.7	5597.2	5891.0	5864.5	5868.7	5852.0	5846.4	6545.4	5772.7
50°	5190.7	5229.6	5548.5	5949.5	6350.5	6525.9	6584.4	6591.4	6500.8	7169.2	6381.1
52.5°	5664.1	5711.4	5984.3	6335.2	6851.7	7220.7	7458.8	7411.4	7272.2	7773.4	7048.0
55°	6222.4	6258.6	6521.7	6885.1	7464.3	7982.3	8547.6	8528.1	8187.0	8409.8	7596.6
57.5°	6275.3	6315.7	6723.6	7280.6	8251.0	8923.5	9518.1	9580.7	9080.9	8860.9	8086.7
60°	5680.8	5762.9	6319.8	7068.9	8551.8	10189.2	10581.8	10594.3	9736.7	9319.0	8685.4
62.5°	4553.0	4591.9	5153.1	6130.5	8088.1	10927.1	12206.7	11942.1	10579.0	10027.7	9633.6
65°	2386.5	2545.2	3033.9	4115.8	6559.3	10669.5	14161.5	14089.1	12093.9	11042.7	10371.6
67.5°	1637.4	1636.0	1751.6	2145.6	3911.1	9186.7	15120.8	15917.3	13845.5	11390.8	9836.9
70°	1246.1	1250.3	1353.4	1609.5	2025.9	6115.2	14068.2	15429.9	14171.3	10342.3	7955.8
72.5°	827.1	835.4	1006.7	1300.4	1617.9	2997.7	10932.7	12345.9	11924.0	8306.7	5600.0
75°	494.3	501.2	623.8	945.4	1438.3	1677.8	6946.4	8535.1	8207.9	5725.3	3001.9
77.5°	203.3	208.9	320.2	589.0	1052.6	1303.2	3841.5	5584.7	4916.4	2276.5	820.1
80°	84.9	87.7	154.6	412.1	758.8	817.3	1779.4	2624.6	2014.7	490.1	250.6
82.5°	30.6	32.0	57.1	227.0	472.0	615.4	898.1	1037.3	568.1	160.1	135.1
85°	1.4	1.4	13.9	76.6	179.6	174.0	513.8	497.1	188.0	66.8	80.8
87.5°	0.0	0.0	1.4	1.4	2.8	7.0	48.7	86.3	40.4	16.7	34.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P636495
CATALOG NUMBER: GWS-SA3F-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6	4537.6
2.5°	4508.4	4434.6	4353.9	4278.7	4158.9	4087.9	4000.2	3961.2	3905.5	3891.6	3900.0
5°	4416.5	4289.8	4096.3	3920.8	3693.9	3511.5	3327.7	3249.7	3149.5	3082.6	3054.8
7.5°	4287.0	4121.3	3819.2	3500.3	3188.5	2855.7	2602.3	2435.2	2283.4	2199.9	2183.2
10°	4156.1	3940.3	3507.3	3050.6	2567.5	2169.3	1826.8	1573.3	1367.3	1274.0	1201.6
12.5°	4021.1	3752.4	3189.9	2593.9	2032.8	1489.8	1066.5	820.1	672.5	614.0	623.8
15°	3897.2	3571.4	2875.2	2137.2	1431.3	899.5	589.0	497.1	462.3	451.1	449.7
17.5°	3778.8	3400.1	2561.9	1693.1	944.0	551.4	451.1	428.8	419.1	413.5	413.5
20°	3671.6	3235.8	2255.6	1275.4	609.8	437.2	408.0	396.8	388.5	384.3	384.3
22.5°	3571.4	3077.1	1956.2	902.2	449.7	392.6	374.5	363.4	353.7	348.1	348.1
25°	3480.9	2933.7	1670.8	621.0	387.1	359.2	339.7	327.2	310.5	300.7	300.7
27.5°	3415.4	2805.6	1396.5	452.5	349.5	323.0	300.7	284.0	265.9	254.8	252.0
30°	3376.4	2697.0	1119.4	371.8	314.7	288.2	263.2	242.3	221.4	210.2	208.9
32.5°	3354.2	2596.7	866.0	324.4	285.4	254.8	227.0	204.7	183.8	171.3	169.9
35°	3362.5	2518.7	648.8	292.4	257.6	225.6	194.9	172.7	154.6	143.4	140.6
37.5°	3434.9	2483.9	487.3	267.3	233.9	200.5	168.5	147.6	130.9	122.5	121.1
40°	3575.5	2490.9	382.9	247.8	214.4	175.4	144.8	125.3	112.8	105.8	104.4
42.5°	3794.1	2549.4	316.1	231.1	193.5	153.2	125.3	110.0	97.5	90.5	89.1
45°	4119.9	2670.5	275.7	211.6	171.3	132.3	108.6	94.7	83.5	75.2	73.8
47.5°	4591.9	2880.8	249.2	193.5	151.8	114.2	93.3	79.4	69.6	62.7	61.3
50°	5094.6	3132.8	227.0	175.4	135.1	98.9	79.4	65.4	57.1	50.1	48.7
52.5°	5630.6	3404.3	210.2	158.7	119.7	84.9	66.8	54.3	45.9	39.0	37.6
55°	6145.8	3677.2	190.8	147.6	101.6	72.4	55.7	44.6	36.2	30.6	30.6
57.5°	6647.0	3927.8	169.9	129.5	83.5	61.3	45.9	36.2	29.2	25.1	23.7
60°	7245.8	4274.5	146.2	110.0	69.6	51.5	37.6	29.2	23.7	19.5	19.5
62.5°	8135.5	4635.1	125.3	91.9	58.5	43.2	30.6	23.7	19.5	16.7	15.3
65°	8426.5	4440.2	105.8	75.2	47.3	34.8	25.1	20.9	16.7	15.3	13.9
67.5°	*7649.5*	*3639.6*	*87.7*	*61.3*	*39.0*	*29.2*	*22.3*	*18.1*	*15.3*	*13.9*	*12.5*
70°	5969.0	2582.8	68.2	45.9	32.0	23.7	19.5	16.7	13.9	12.5	12.5
72.5°	4060.1	1527.4	54.3	34.8	26.5	20.9	16.7	15.3	13.9	12.5	11.1
75°	1999.4	543.0	41.8	26.5	20.9	18.1	15.3	13.9	12.5	11.1	11.1
77.5°	538.8	150.4	32.0	20.9	16.7	13.9	13.9	13.9	12.5	9.7	9.7
80°	182.4	62.7	23.7	15.3	13.9	11.1	9.7	12.5	11.1	9.7	8.4
82.5°	100.2	30.6	16.7	12.5	9.7	8.4	8.4	8.4	8.4	7.0	7.0
85°	64.0	16.7	11.1	9.7	9.7	7.0	5.6	5.6	4.2	4.2	4.2
87.5°	29.2	9.7	9.7	8.4	8.4	7.0	4.2	2.8	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

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

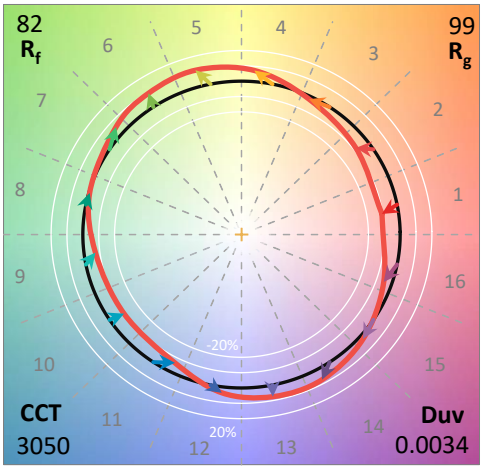
Test Information

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

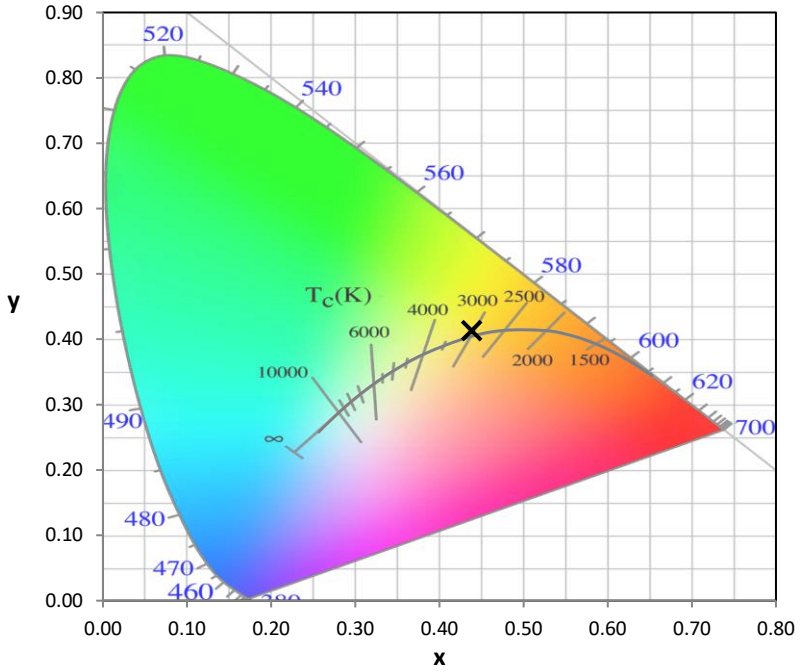
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

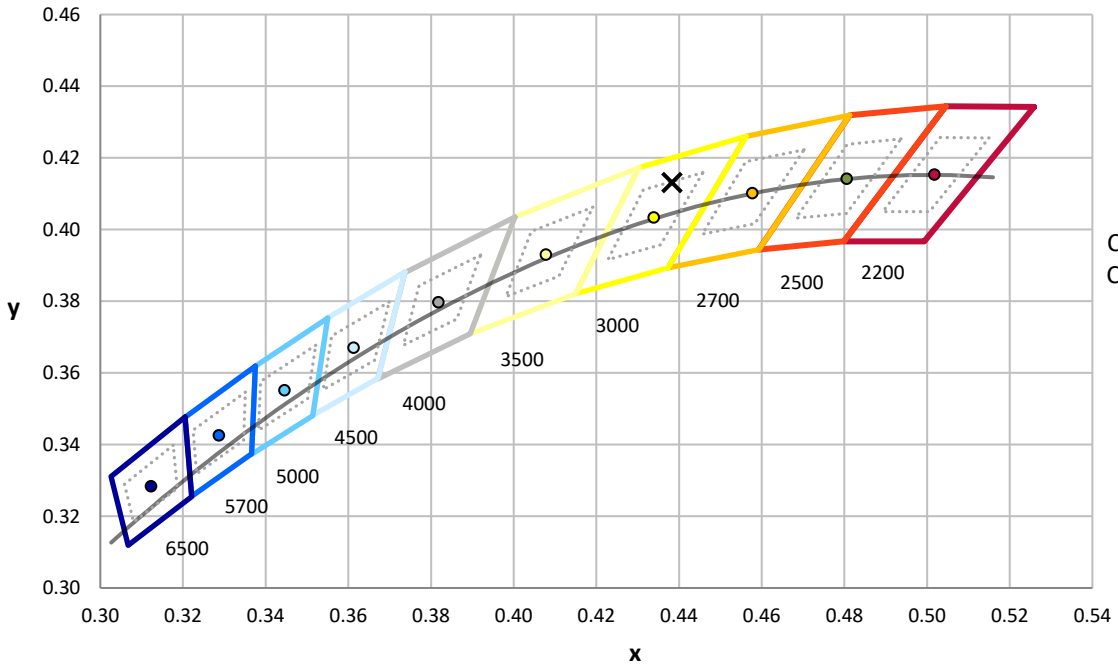
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

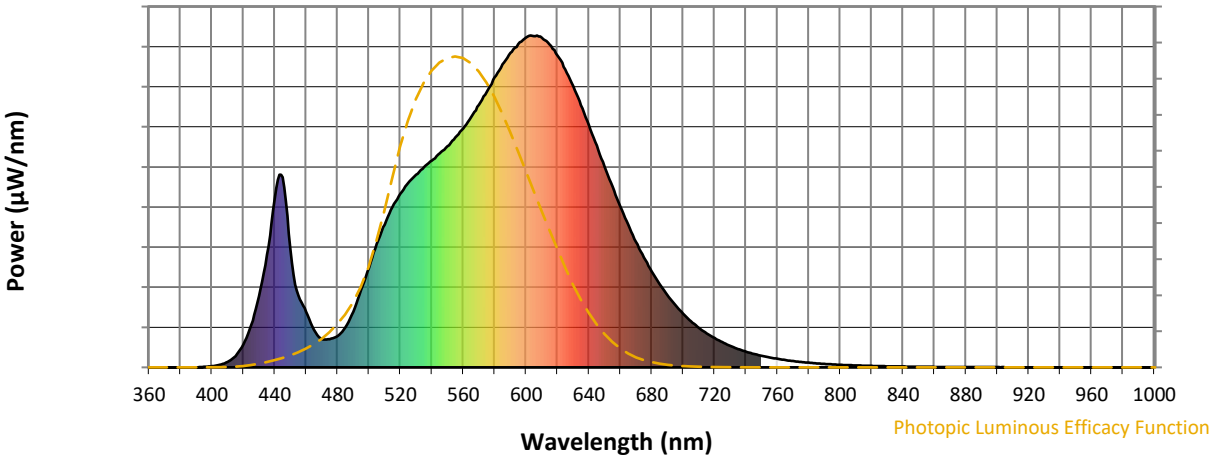


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

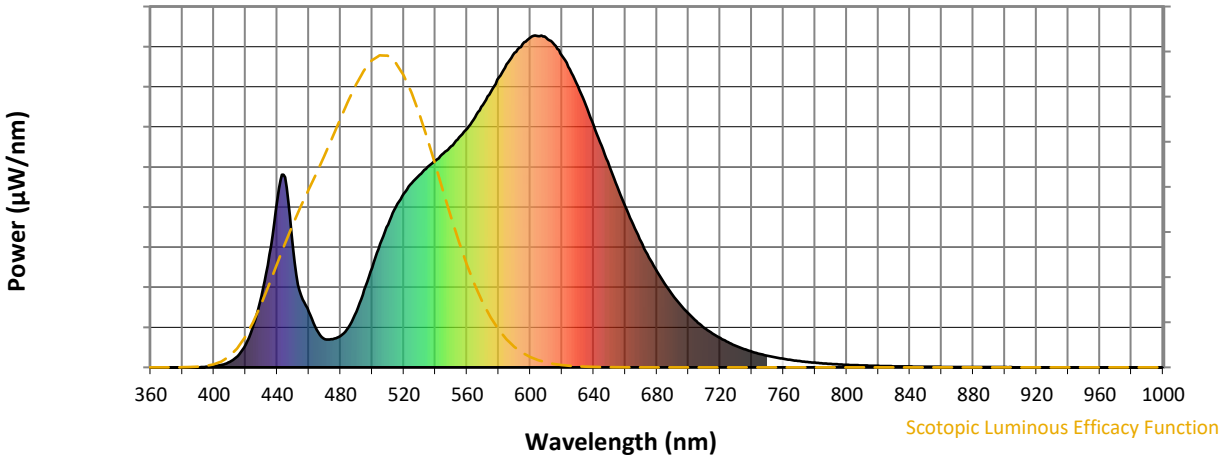


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

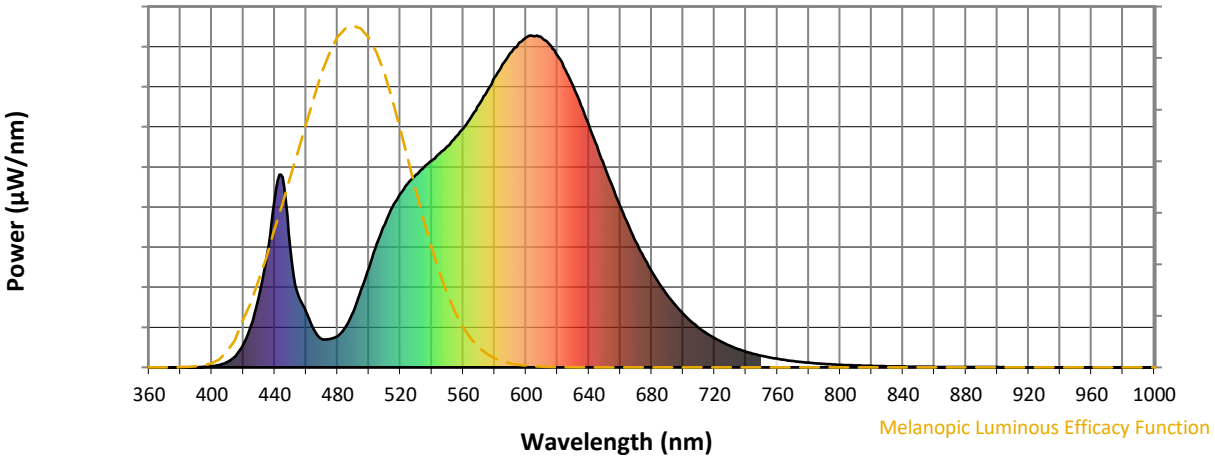


Scotopic Lumens: NR **S/P: 1.27**

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			

REPORT NUMBER: SP1-2408-195-9

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			

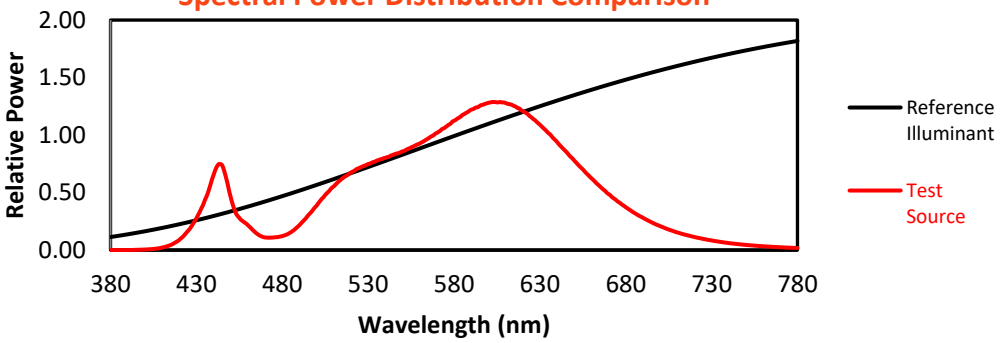
REPORT NUMBER: SP1-2408-195-9

TM-30-18

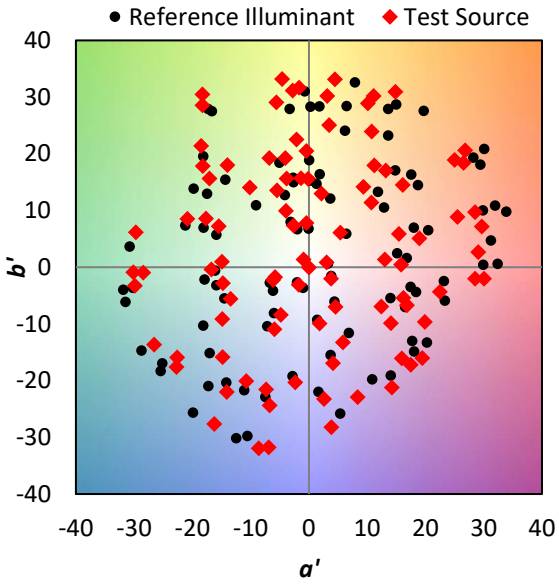
Summary

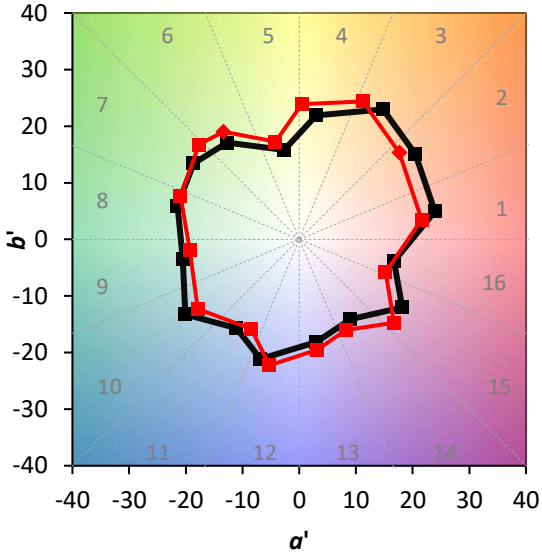
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

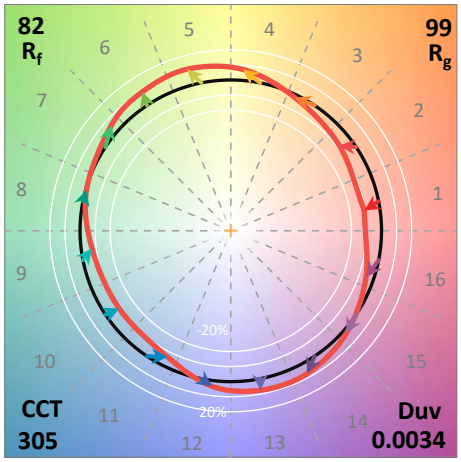
Spectral Power Distribution Comparison

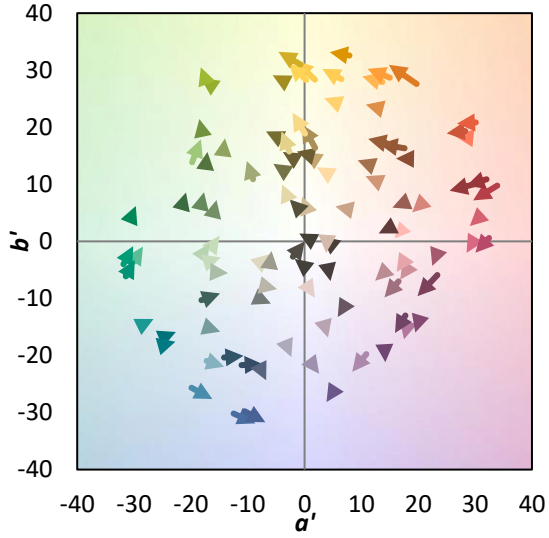


Color Vector Graphics







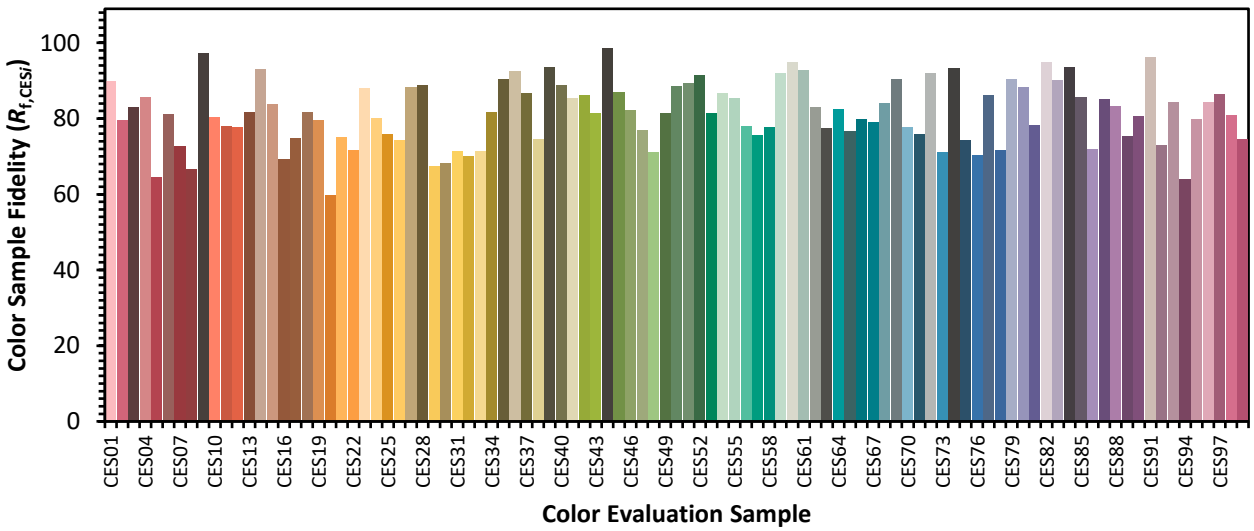


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

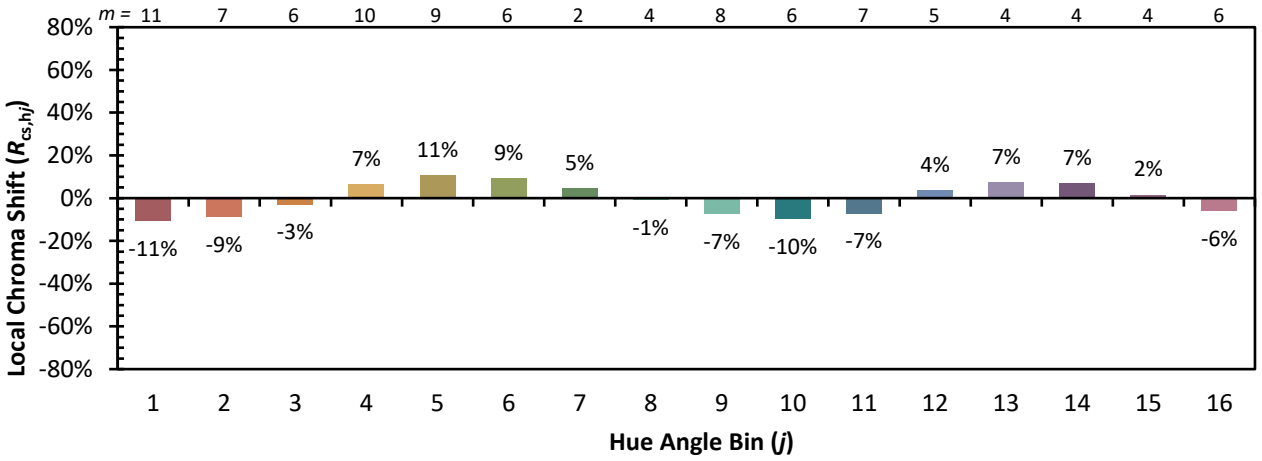
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	

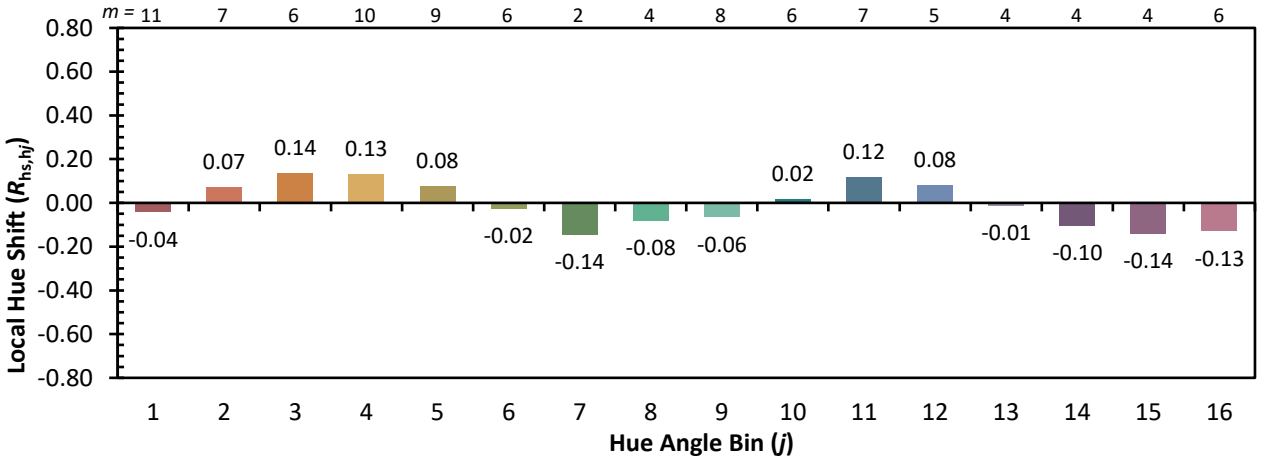


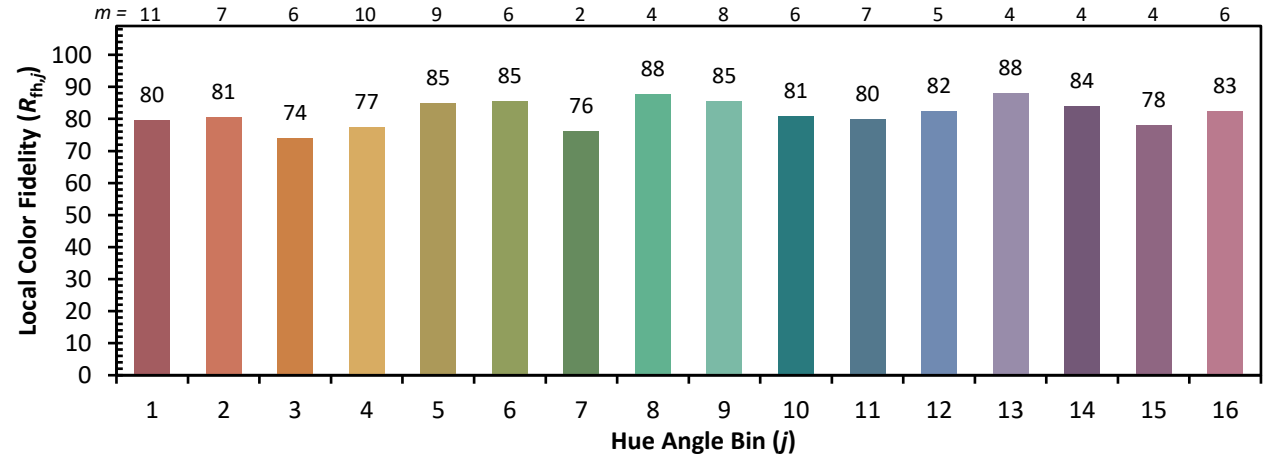
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



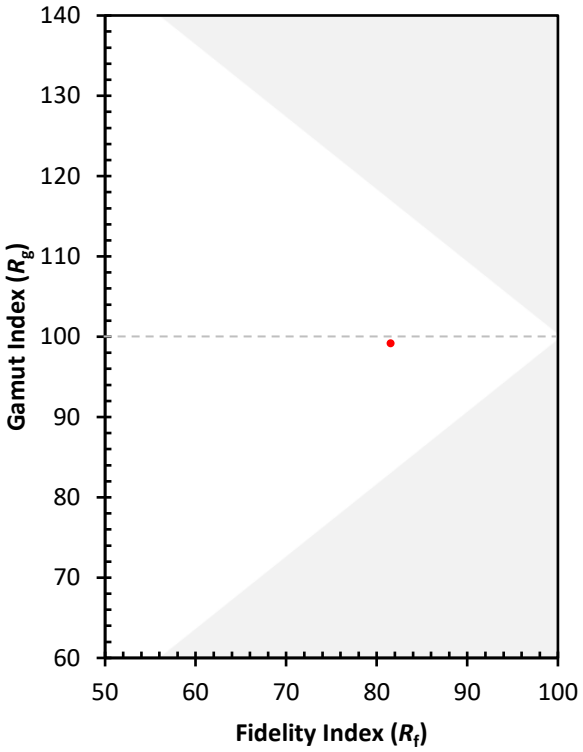


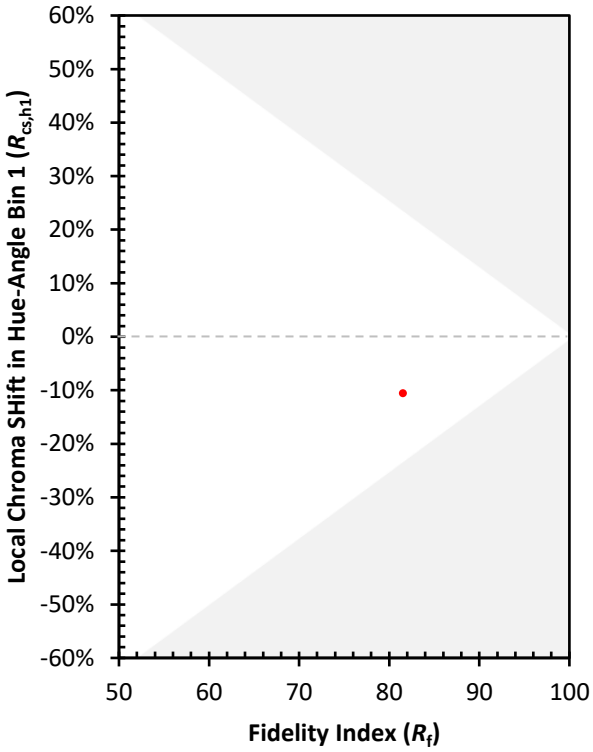


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)