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: P641447

Luminaire Tested: GWS-SA5F-830-U-SL4-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:	P641447
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-36)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5F-830-U-SL4-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	26124.4 lumens
Efficiency:	N/A
Efficacy:	84.2 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U0 - G4

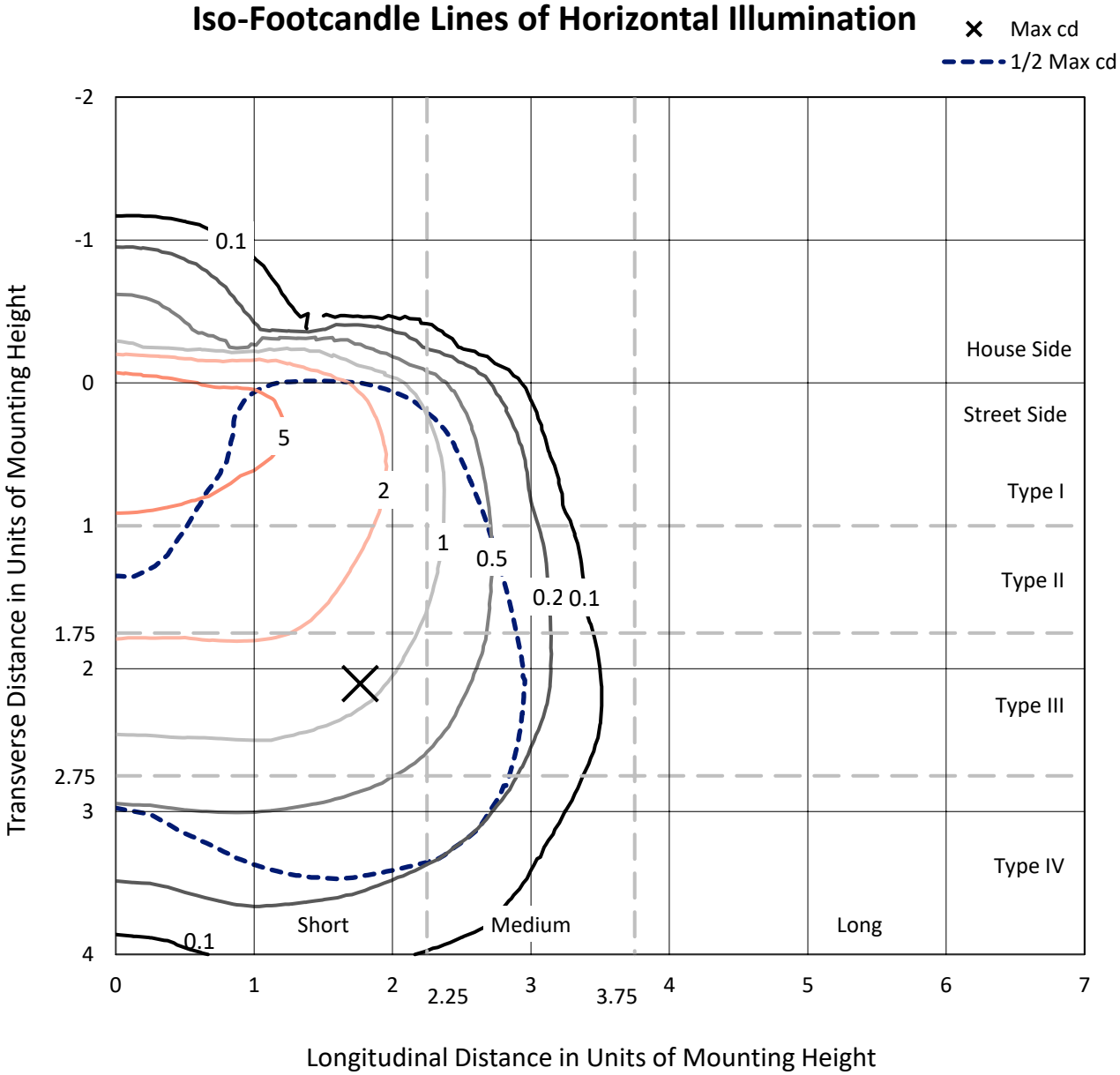
Input Watts (W):	310.3
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



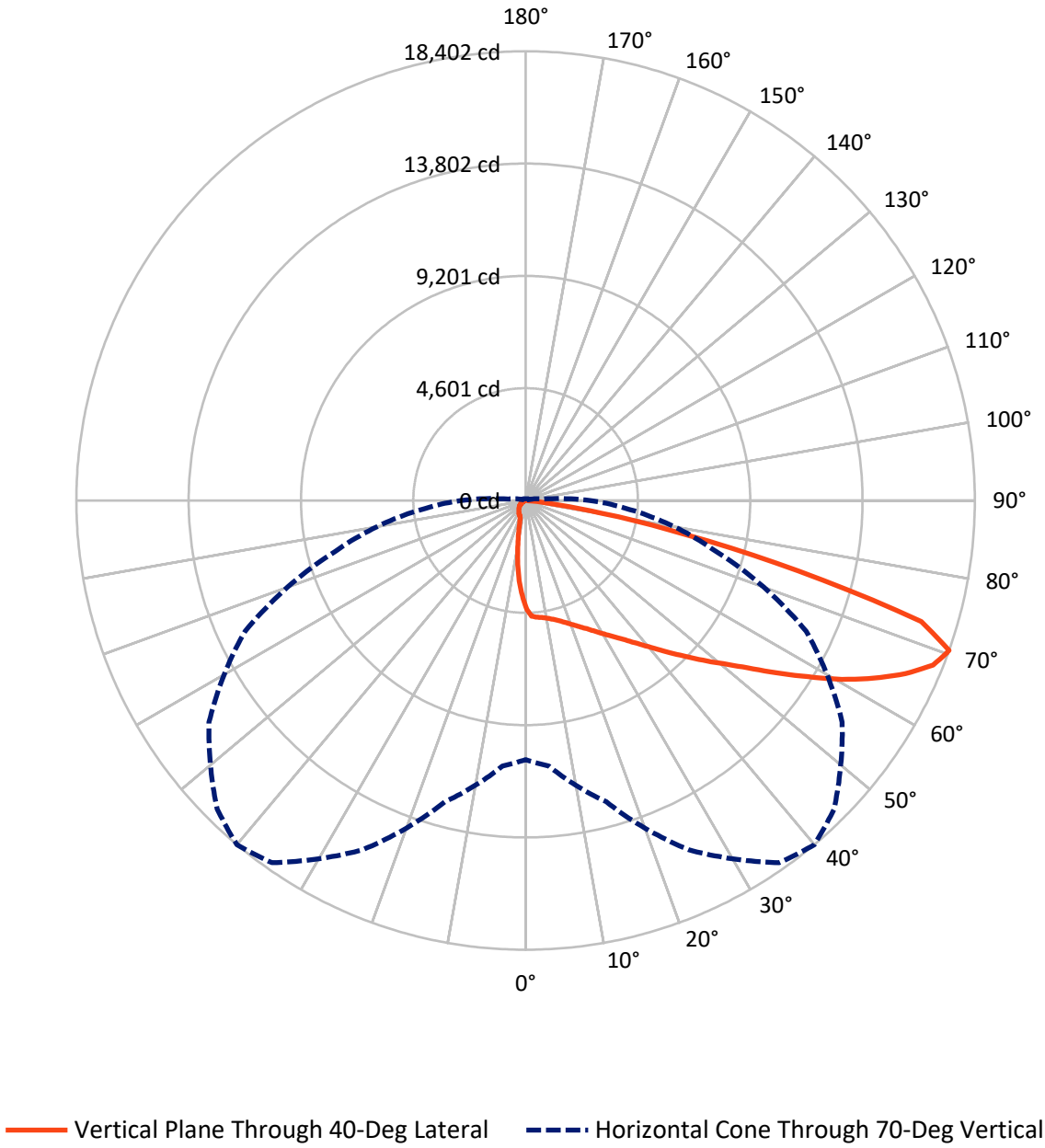
Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

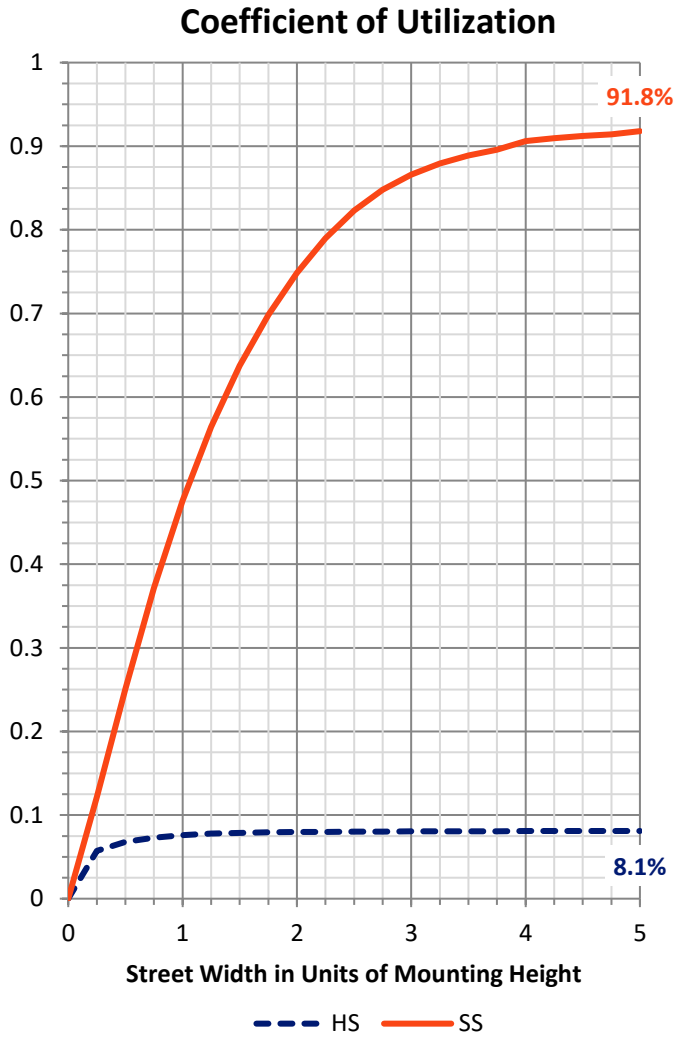
REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2136.3	0.0	2136.3
	% Fixture	8.2	0.0	8.2
Street Side	Lumens	23988.1	0.0	23988.1
	% Fixture	91.8	0.0	91.8
Total	Lumens	26124.4	0.0	26124.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.7	1.4
10°-20°	950.3	3.6
20°-30°	1590.4	6.1
30°-40°	2498.0	9.6
40°-50°	3951.2	15.1
50°-60°	5763.8	22.1
60°-70°	7145.0	27.4
70°-80°	3615.0	13.8
80°-90°	236.0	0.9
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°	26124.4	100.0
0°-180°	26124.4	100.0



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

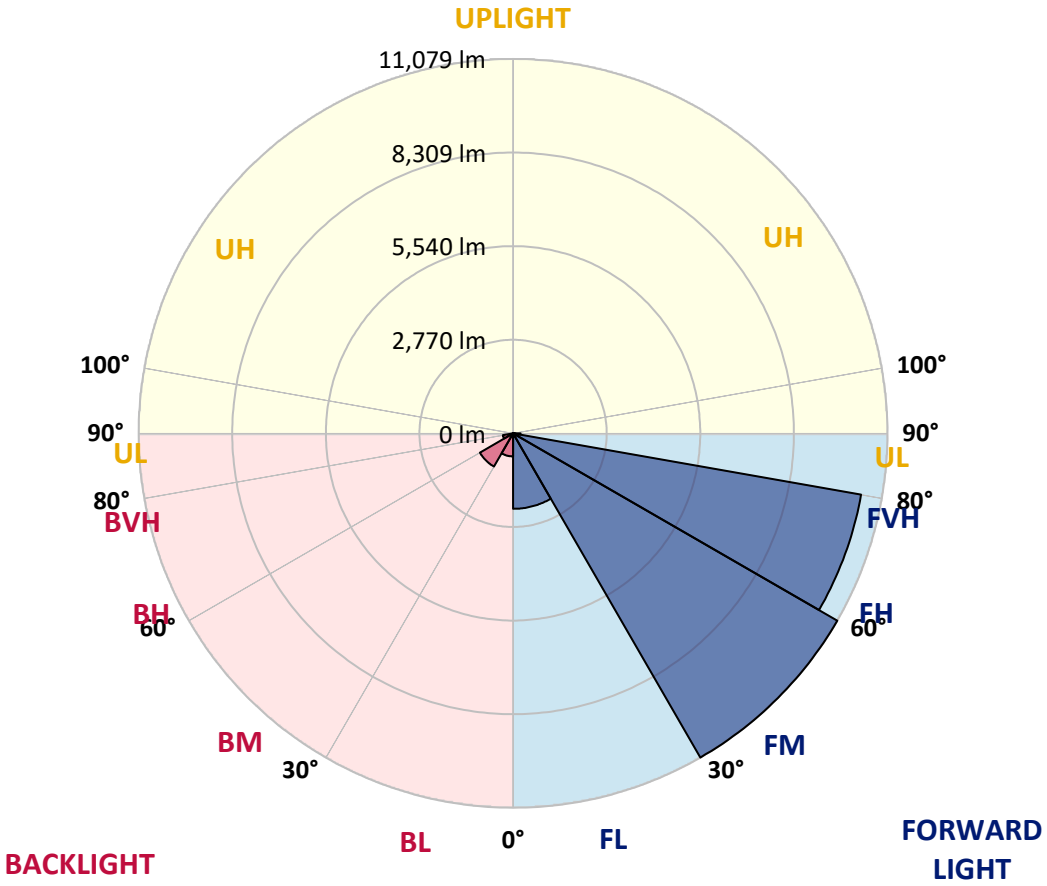
Scaled Data Report

REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2233.2	8.5			
FM	(30°-60°)	11079.1	42.4			
FH	(60°-80°)	10455.4	40.0			G4/12000
FVH	(80°-90°)	220.4	0.8			G2/225
BL	(0°-30°)	682.2	2.6	B2/1000		
BM	(30°-60°)	1133.9	4.3	B2/2500		
BH	(60°-80°)	304.6	1.2	B1/500		G1/500
BVH	(80°-90°)	15.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0
2.5°	4765.8	4782.4	4780.0	4787.2	4770.5	4744.4	4739.6	4704.0	4639.8	4559.0	4468.7
5°	4863.2	4882.2	4868.0	4860.8	4829.9	4801.4	4794.3	4756.3	4682.6	4573.2	4416.4
7.5°	4946.4	4951.2	4941.7	4925.0	4879.9	4841.8	4815.7	4763.4	4675.4	4566.1	4385.5
10°	4960.7	4958.3	4963.1	4965.4	4936.9	4903.6	4882.2	4810.9	4699.2	4582.7	4387.8
12.5°	4944.0	4944.0	4974.9	5010.6	5010.6	4994.0	4972.6	4908.4	4777.7	4639.8	4435.4
15°	4965.4	4972.6	5032.0	5098.5	5119.9	5103.3	5093.8	5027.2	4891.7	4739.6	4520.9
17.5°	5041.5	5048.6	5143.7	5243.5	5269.7	5250.7	5231.7	5165.1	5020.1	4853.7	4618.4
20°	5153.2	5172.2	5293.5	5421.8	5445.6	5421.8	5383.8	5291.1	5146.1	4977.3	4711.1
22.5°	5357.6	5369.5	5500.2	5635.7	5647.6	5609.6	5552.5	5424.2	5272.1	5108.0	4815.7
25°	5628.6	5645.2	5776.0	5906.7	5875.8	5818.8	5740.3	5595.3	5421.8	5262.6	4948.8
27.5°	5951.9	5970.9	6099.2	6213.3	6132.5	6066.0	5978.0	5797.4	5621.5	5476.5	5119.9
30°	6301.3	6317.9	6432.0	6534.2	6427.3	6348.8	6244.2	6058.8	5880.6	5771.2	5362.4
32.5°	6638.8	6636.4	6745.8	6829.0	6719.6	6657.8	6562.7	6375.0	6232.3	6184.8	5723.7
35°	6952.6	6952.6	7042.9	7126.1	7047.6	7014.4	6926.4	6776.7	6695.8	6752.9	6206.2
37.5°	7268.7	7252.1	7337.6	7430.3	7423.2	7425.6	7375.7	7304.3	7309.1	7511.1	6869.4
40°	7530.2	7523.0	7622.9	7744.1	7839.2	7915.2	7884.3	7910.5	8060.2	8438.1	7717.9
42.5°	7739.3	7756.0	7884.3	8076.9	8316.9	8471.4	8492.8	8599.8	8984.8	9569.6	8675.8
45°	7979.4	7981.8	8160.0	8454.8	8837.5	9082.3	9167.9	9443.6	9990.3	10743.8	9726.4
47.5°	8274.1	8245.6	8445.3	8858.9	9412.7	9774.0	9926.1	10270.8	11117.0	11889.5	10582.1
50°	8599.8	8547.5	8773.3	9336.6	10056.8	10508.5	10817.5	11321.4	12234.1	12830.7	11219.2
52.5°	8977.7	8927.8	9184.5	9885.7	10829.3	11378.4	11775.4	12284.0	13192.0	13548.6	11599.5
55°	9457.9	9407.9	9678.9	10544.1	11742.1	12455.2	12871.1	13299.0	14083.4	14078.6	11875.2
57.5°	9990.3	9921.4	10296.9	11376.0	12880.7	13622.3	14045.4	14254.5	14760.8	14489.8	12060.6
60°	10601.2	10539.4	11059.9	12367.2	14195.1	14882.0	15148.3	15062.7	15317.0	14732.3	11996.4
62.5°	11152.6	11124.1	11770.6	13417.8	15447.7	16027.7	16101.4	15728.2	15725.9	14737.0	11563.8
65°	11725.5	11780.1	12740.4	14627.7	16707.5	17097.3	16971.4	16389.0	15889.9	14154.7	10285.0
67.5°	11939.4	12098.6	13379.8	15721.1	17701.1	18005.3	17784.3	16719.4	15207.7	12196.1	7832.0
70°	10617.8	10917.3	12776.1	15782.9	18112.3	18402.3	17872.2	15830.4	12678.6	8079.2	4290.4
72.5°	8074.5	8423.9	10646.3	12923.4	16289.2	16950.0	16044.4	12897.3	8171.9	3539.3	1440.4
75°	4518.6	4896.5	7929.5	9731.2	10936.3	11540.1	11207.3	8274.1	3620.1	924.6	430.2
77.5°	1528.4	1654.4	3689.0	6020.8	7218.8	6676.8	5652.4	4109.7	1331.1	351.8	228.2
80°	905.6	953.2	1373.9	2997.3	3798.4	3149.4	2486.3	1518.9	677.4	187.8	159.3
82.5°	271.0	320.9	758.2	1112.4	1488.0	927.0	784.4	867.6	351.8	102.2	133.1
85°	0.0	0.0	161.6	344.7	389.8	152.1	152.1	492.0	64.2	42.8	97.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	11.9	7.1	9.5	21.4
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

Scaled Data Report

REPORT NUMBER: P641447
CATALOG NUMBER: GWS-SA5F-830-U-SL4-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0	4433.0
2.5°	4404.5	4321.3	4223.8	4131.1	4043.2	3929.1	3874.4	3807.9	3750.8	3719.9	3736.6
5°	4316.5	4185.8	3986.1	3784.1	3579.7	3387.1	3213.6	3097.2	2992.6	2937.9	2949.8
7.5°	4240.5	4064.6	3753.2	3422.8	3094.8	2764.4	2495.8	2286.6	2125.0	2058.4	2046.5
10°	4207.2	3986.1	3546.4	3071.0	2567.1	2122.6	1742.3	1511.7	1347.7	1266.9	1281.2
12.5°	4223.8	3945.7	3370.5	2726.4	2072.7	1554.5	1190.8	974.5	858.1	810.5	798.7
15°	4271.4	3936.2	3213.6	2374.6	1599.7	1086.3	822.4	734.5	710.7	706.0	706.0
17.5°	4326.0	3938.6	3052.0	2018.0	1214.6	805.8	703.6	686.9	679.8	675.1	677.4
20°	4380.7	3938.6	2866.6	1656.7	912.7	696.4	670.3	658.4	651.3	648.9	648.9
22.5°	4447.3	3938.6	2659.8	1321.6	732.1	660.8	639.4	632.3	625.1	622.8	620.4
25°	4528.1	3941.0	2431.6	1034.0	665.5	629.9	613.3	606.1	599.0	594.2	594.2
27.5°	4644.5	3960.0	2179.7	805.8	627.5	601.4	587.1	580.0	572.8	565.7	565.7
30°	4813.3	4007.5	1896.8	665.5	591.9	570.5	556.2	551.5	544.3	537.2	534.8
32.5°	5065.3	4090.7	1604.4	596.6	558.6	537.2	520.6	515.8	508.7	501.5	499.2
35°	5417.1	4242.8	1319.2	553.8	515.8	494.4	484.9	482.5	473.0	465.9	465.9
37.5°	5932.8	4490.0	1045.9	511.0	480.1	463.5	451.6	446.9	437.4	430.2	427.8
40°	6562.7	4810.9	812.9	477.8	446.9	430.2	418.3	411.2	399.3	389.8	385.1
42.5°	7366.1	5203.1	641.8	442.1	416.0	399.3	389.8	375.6	358.9	344.7	342.3
45°	8202.8	5607.2	530.1	408.8	387.4	373.2	361.3	342.3	318.5	301.9	297.1
47.5°	8844.6	5859.2	463.5	373.2	356.5	344.7	330.4	306.6	278.1	259.1	254.3
50°	9303.4	5897.2	413.6	339.9	330.4	318.5	297.1	268.6	237.7	218.7	213.9
52.5°	9529.2	5726.1	373.2	309.0	301.9	290.0	263.8	232.9	199.7	180.6	175.9
55°	9631.4	5402.8	335.1	282.9	273.3	259.1	230.6	197.3	164.0	147.4	142.6
57.5°	9591.0	4925.0	301.9	256.7	244.8	228.2	197.3	161.6	135.5	118.8	116.5
60°	9291.5	4254.7	268.6	230.6	216.3	197.3	166.4	133.1	109.3	97.5	95.1
62.5°	8644.9	3422.8	235.3	199.7	190.2	171.1	142.6	109.3	90.3	83.2	80.8
65°	7321.0	2419.7	202.0	168.8	164.0	145.0	118.8	90.3	78.4	73.7	71.3
67.5°	5262.6	1471.3	171.1	145.0	140.2	123.6	99.8	78.4	71.3	68.9	68.9
70°	*2645.5*	*696.4*	*135.5*	*118.8*	*118.8*	*102.2*	*85.6*	*71.3*	*68.9*	*66.6*	*66.6*
72.5°	898.5	297.1	102.2	92.7	97.5	87.9	73.7	66.6	66.6	66.6	66.6
75°	306.6	156.9	71.3	66.6	71.3	71.3	64.2	64.2	66.6	66.6	66.6
77.5°	199.7	104.6	49.9	45.2	54.7	54.7	54.7	59.4	64.2	64.2	64.2
80°	164.0	57.0	33.3	30.9	40.4	40.4	45.2	54.7	59.4	59.4	59.4
82.5°	140.2	35.7	19.0	21.4	28.5	30.9	38.0	45.2	52.3	54.7	54.7
85°	95.1	19.0	14.3	16.6	19.0	23.8	30.9	38.0	42.8	47.5	47.5
87.5°	26.1	7.1	9.5	11.9	11.9	16.6	23.8	28.5	33.3	35.7	35.7
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

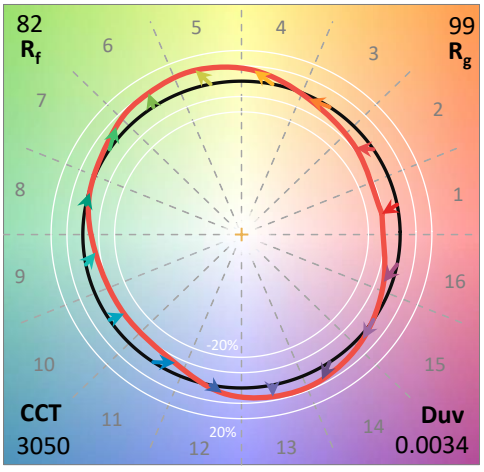
Test Information

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

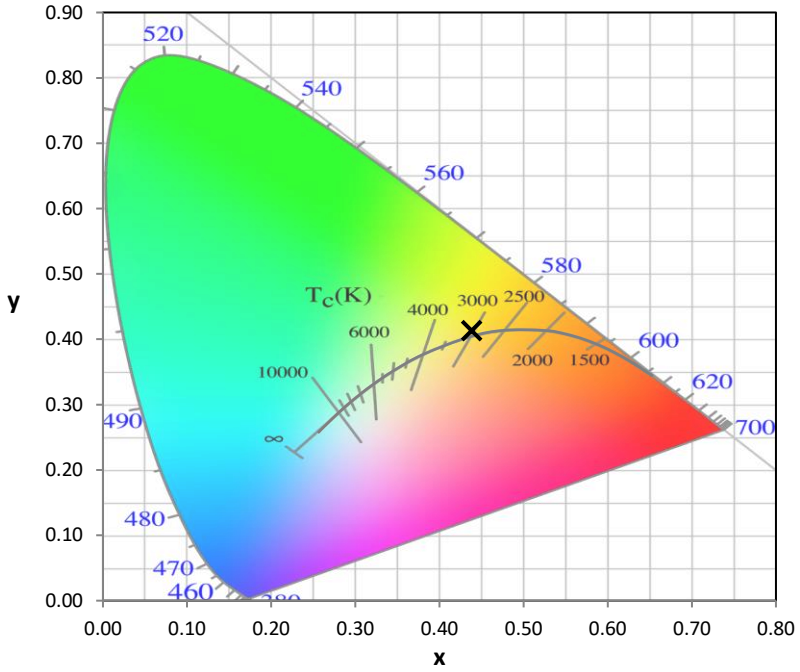
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

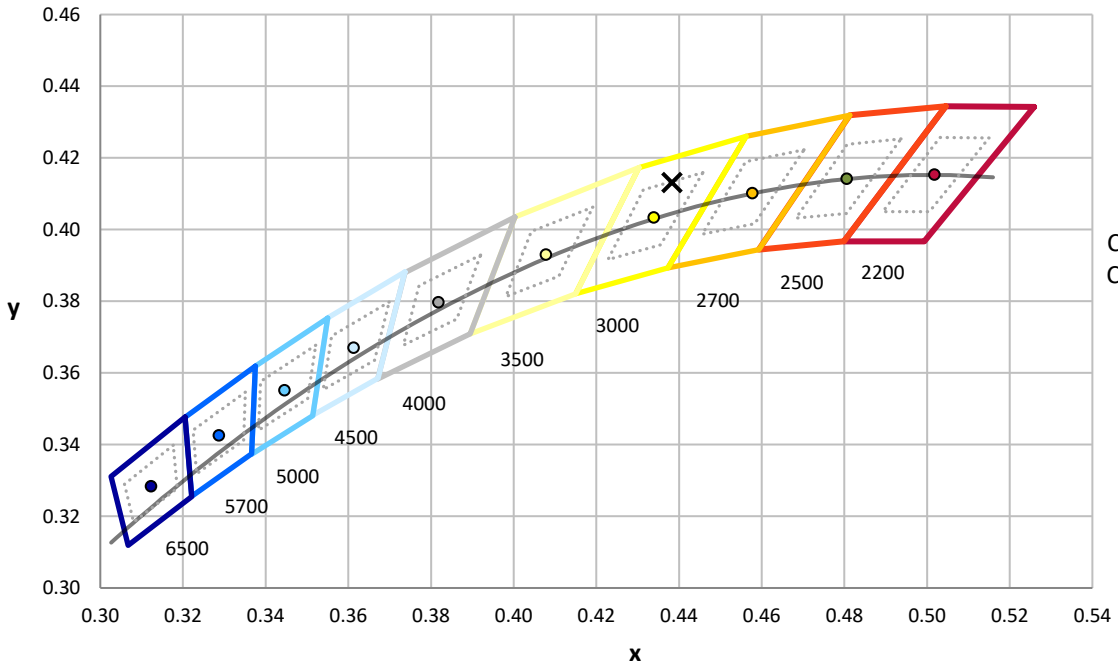
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

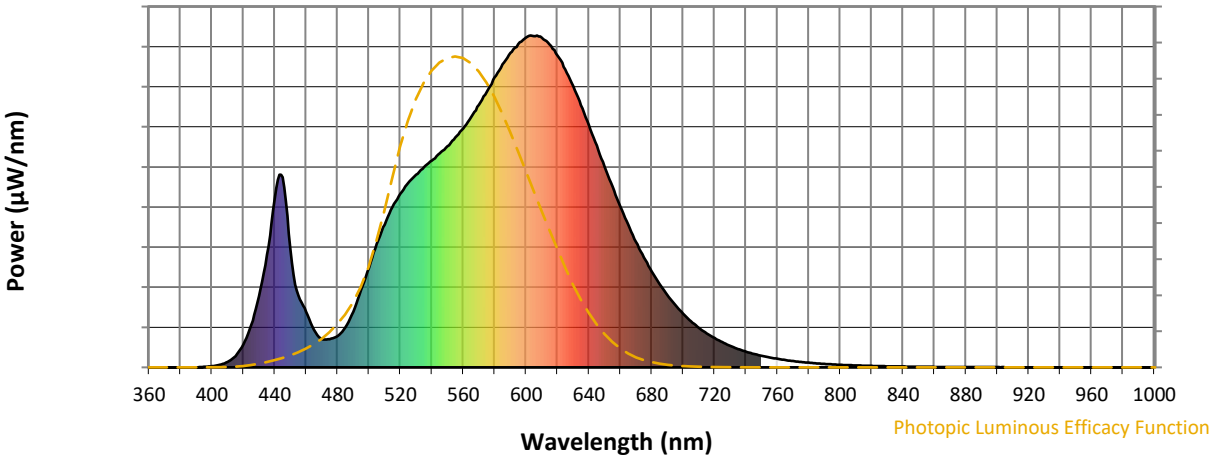


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

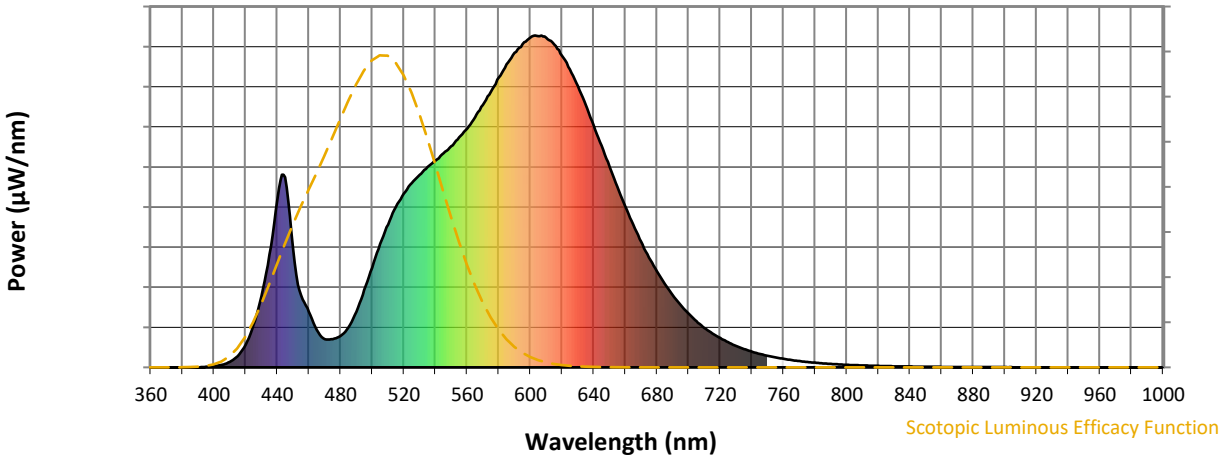


Photopic Lumens: NR

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

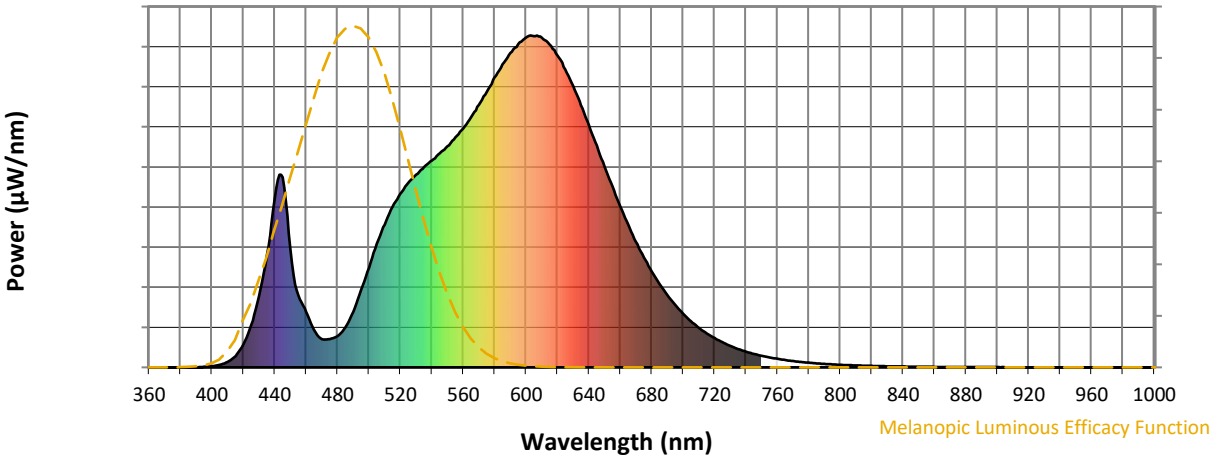


Scotopic Lumens: NR **S/P: 1.27**

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			

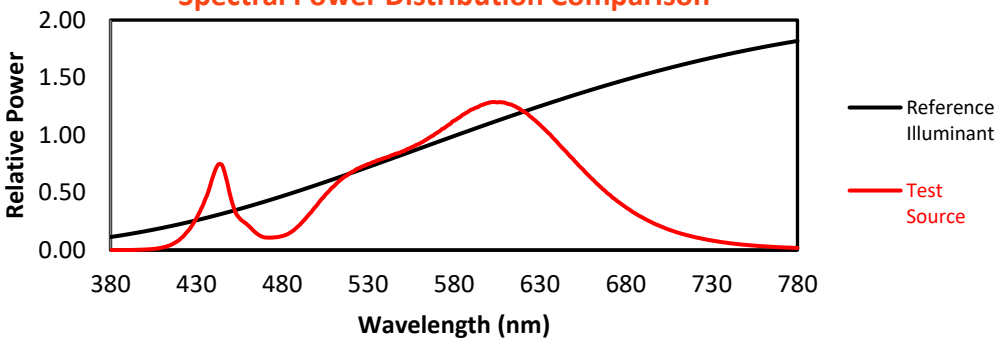
REPORT NUMBER: SP1-2408-195-9

TM-30-18

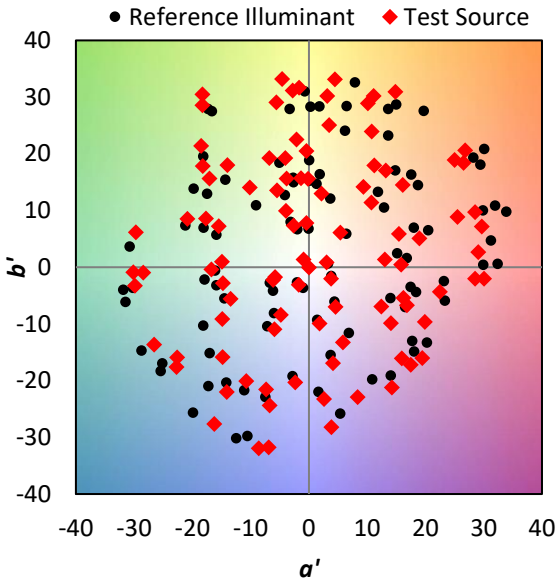
Summary

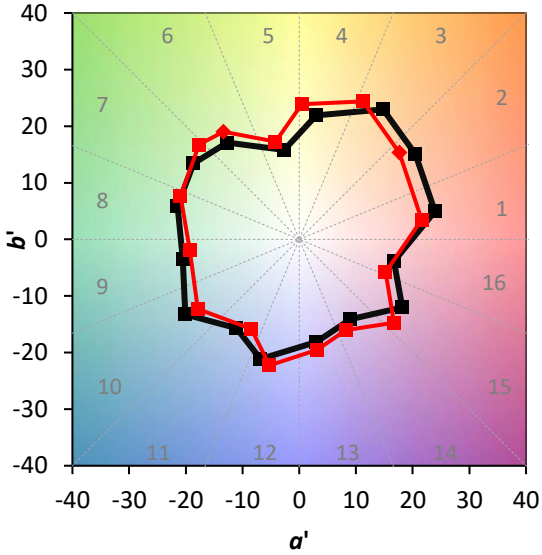
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

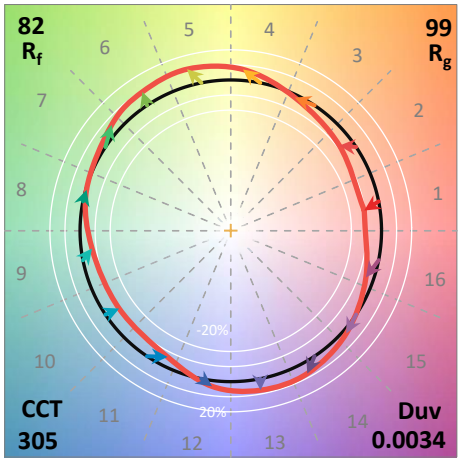
Spectral Power Distribution Comparison

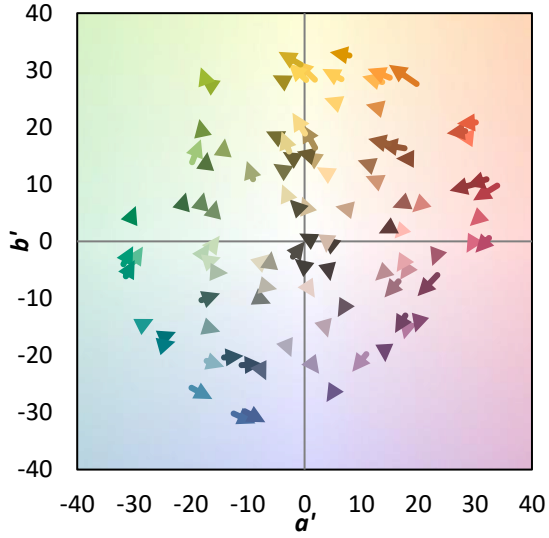


Color Vector Graphics







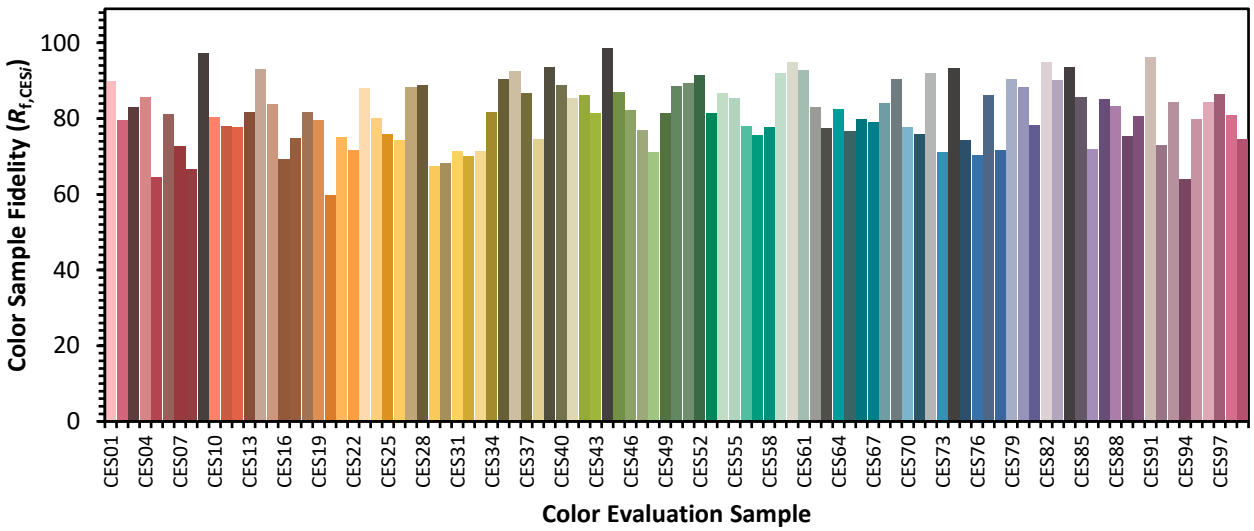


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

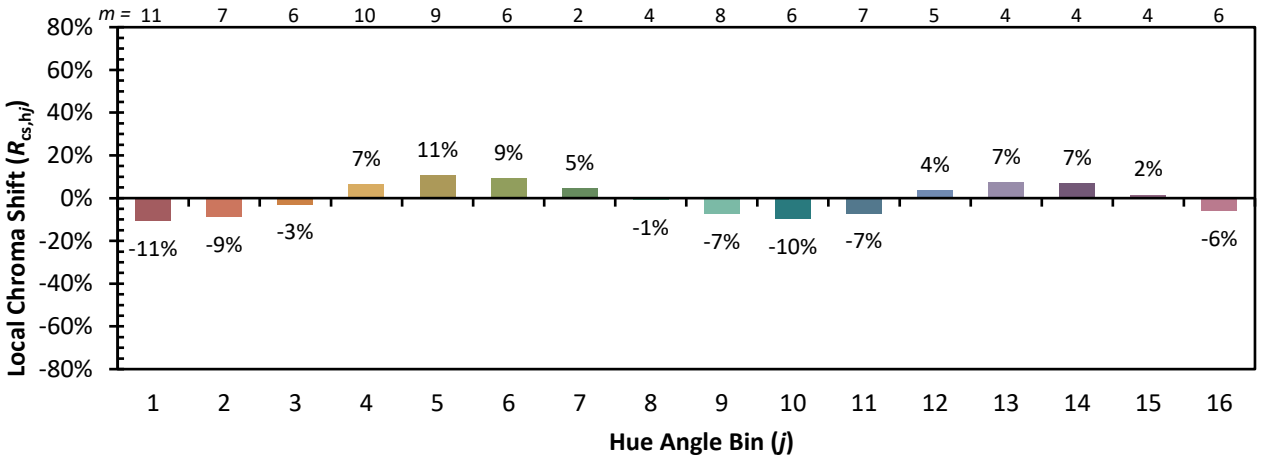
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

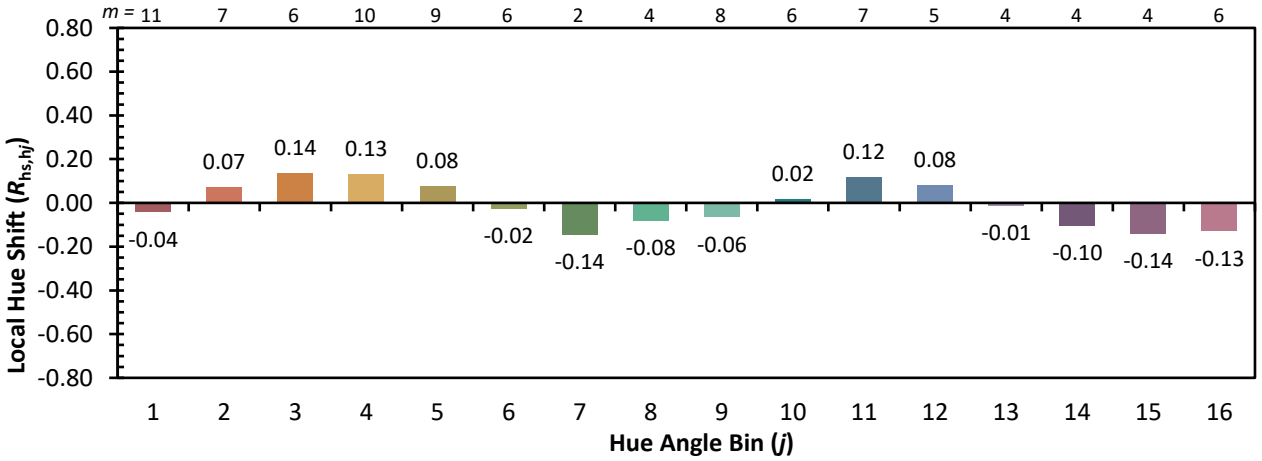


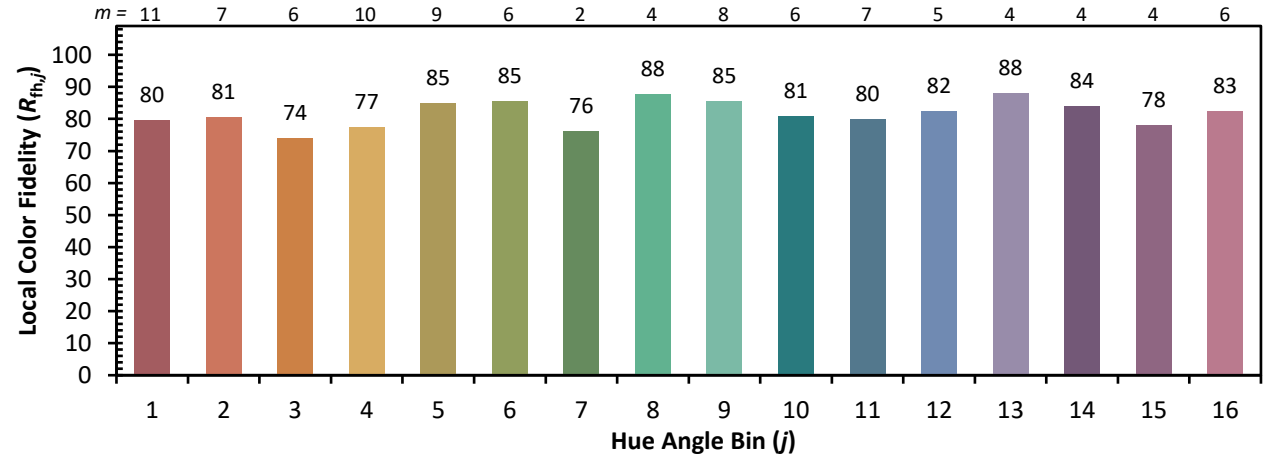
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



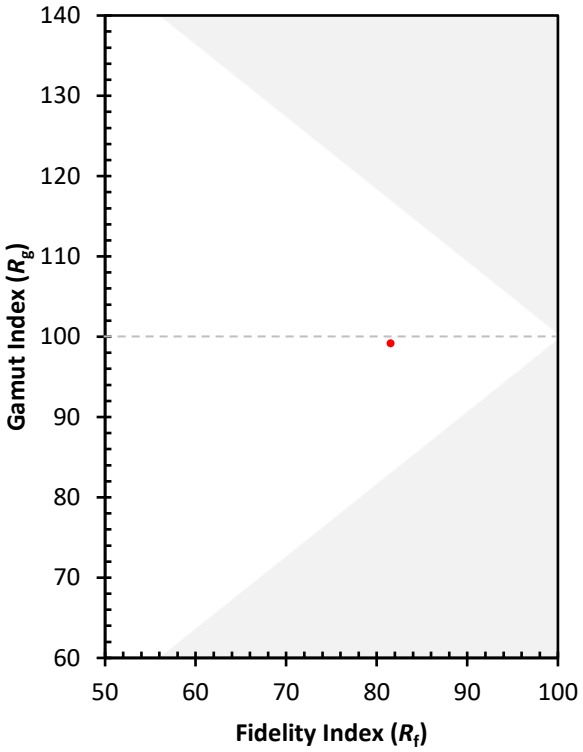


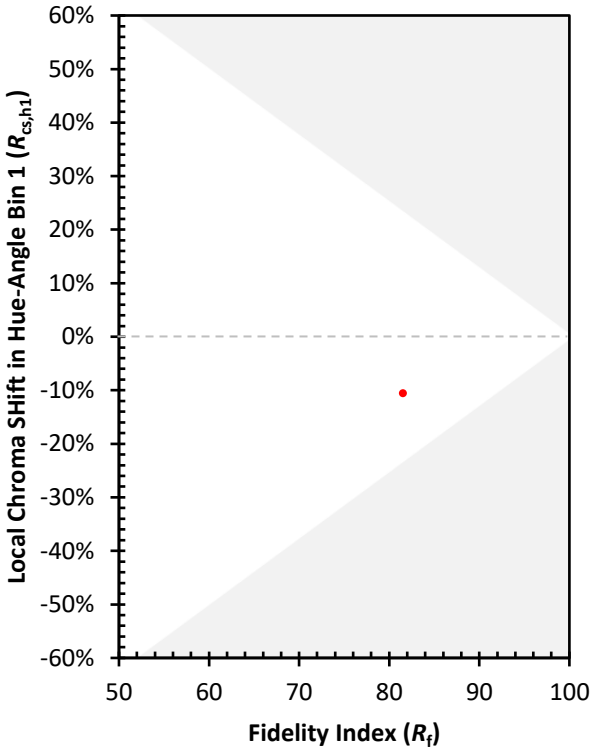


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)