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: P640479

Luminaire Tested: GWS-SA5D-830-U-T3-W

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:	P640479
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-23)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5D-830-U-T3-W
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23880.4 lumens
Efficiency:	N/A
Efficacy:	116.7 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G4

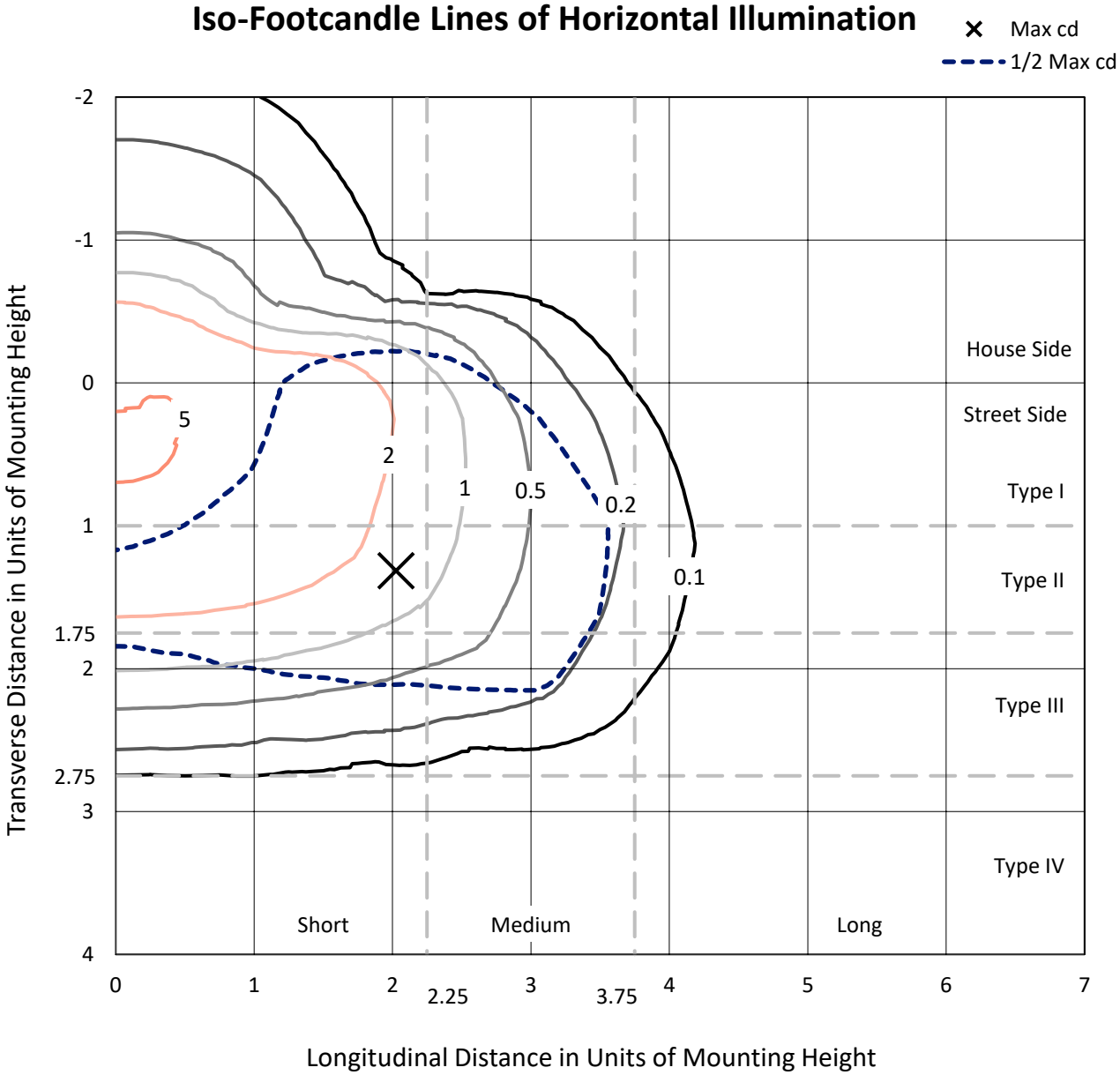
Input Watts (W):	204.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

Iso-Footcandle Lines of Horizontal Illumination



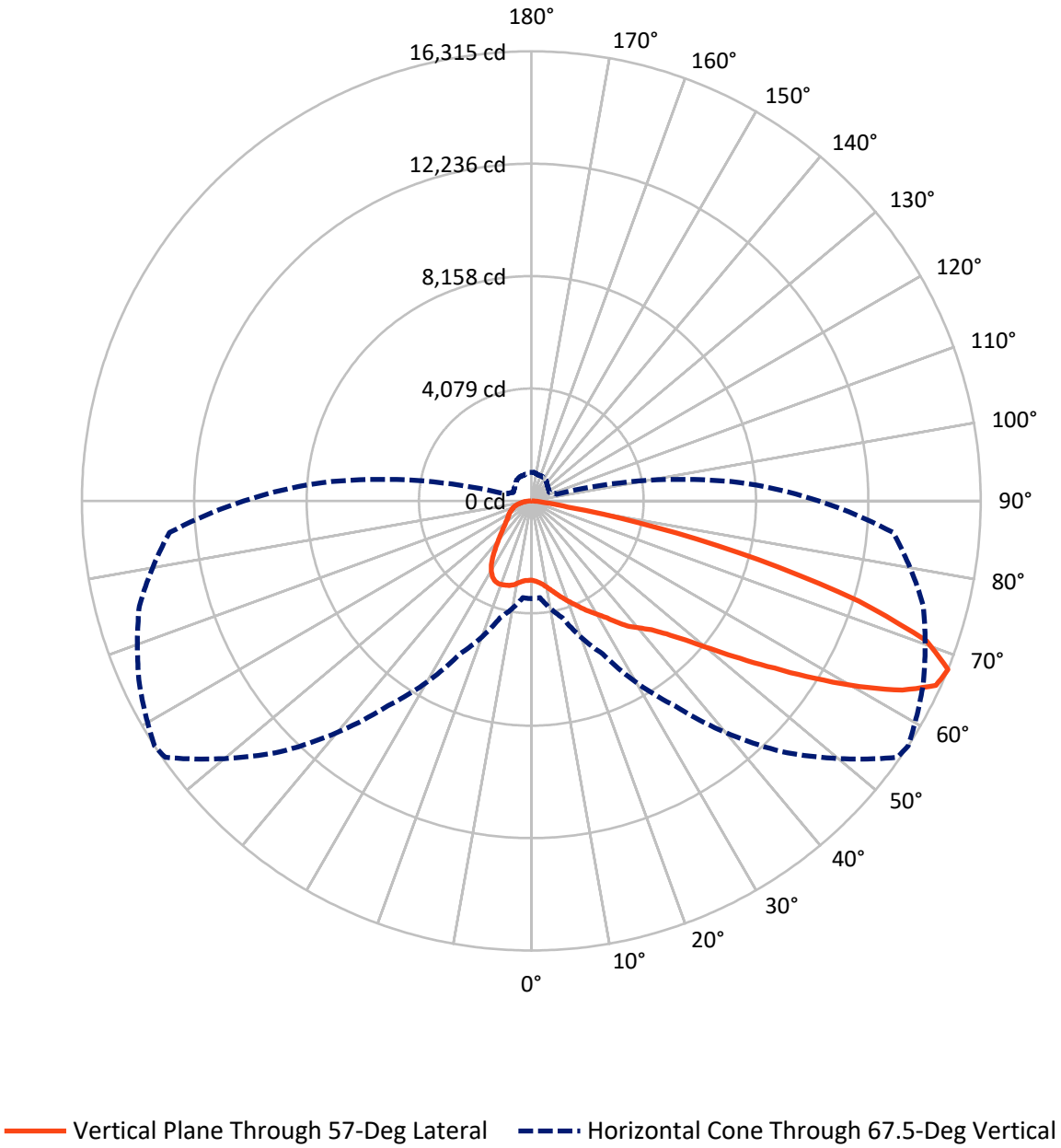
Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

Luminous Intensity Polar Plot



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

Scaled Data Report

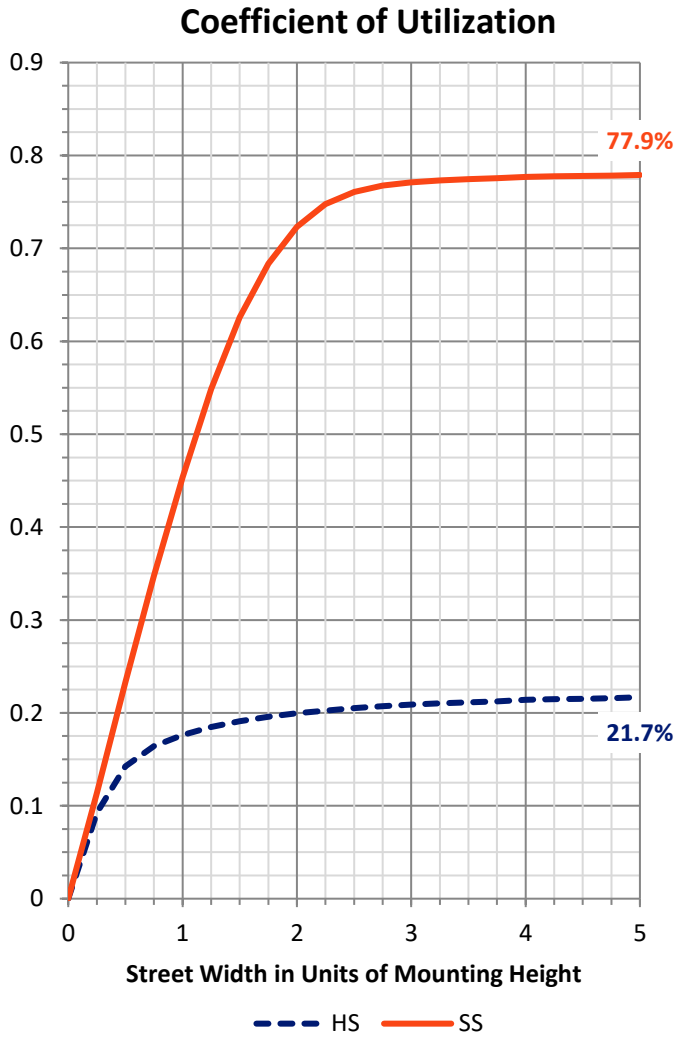
REPORT NUMBER: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5250.4	0.0	5250.4
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	18630.0	0.0	18630.0
	% Fixture	78.0	0.0	78.0
Total	Lumens	23880.4	0.0	23880.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.4	1.2
10°-20°	944.8	4.0
20°-30°	1684.3	7.1
30°-40°	2448.8	10.3
40°-50°	3544.2	14.8
50°-60°	5546.6	23.2
60°-70°	6470.4	27.1
70°-80°	2701.0	11.3
80°-90°	254.9	1.1
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°	23880.4	100.0
0°-180°	23880.4	100.0



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

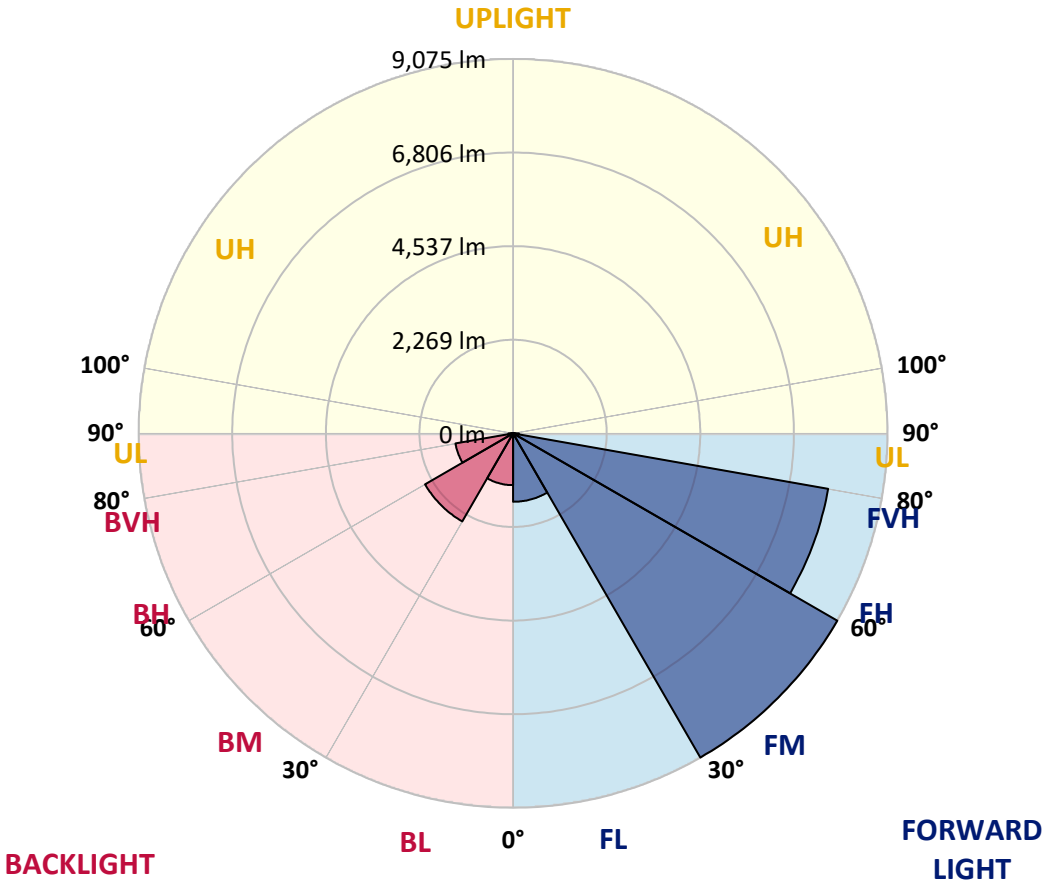
Scaled Data Report

REPORT NUMBER: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1658.7	6.9			
FM	(30°-60°)	9074.9	38.0			
FH	(60°-80°)	7754.4	32.5			G4/12000
FVH	(80°-90°)	142.0	0.6			G2/225
BL	(0°-30°)	1255.7	5.3	B3/2500		
BM	(30°-60°)	2464.7	10.3	B2/2500		
BH	(60°-80°)	1417.1	5.9	B3/2500		G3/2500
BVH	(80°-90°)	112.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
Type III Short



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

Scaled Data Report

REPORT NUMBER: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4
2.5°	2918.5	2915.1	2913.4	2923.6	2920.2	2918.5	2918.5	2916.8	2913.4	2899.7	2880.8
5°	2998.9	2992.0	2985.2	2993.8	2986.9	2980.1	2978.4	2974.9	2963.0	2942.4	2913.4
7.5°	3082.7	3075.9	3077.6	3082.7	3077.6	3074.2	3069.0	3065.6	3046.8	3014.3	2974.9
10°	3200.8	3200.8	3204.2	3209.3	3211.0	3205.9	3195.6	3190.5	3168.2	3127.2	3072.4
12.5°	3371.8	3368.4	3368.4	3365.0	3370.1	3365.0	3354.7	3346.2	3318.8	3265.8	3187.1
15°	3597.6	3584.0	3572.0	3549.7	3542.9	3524.1	3527.5	3522.4	3496.7	3424.9	3325.6
17.5°	3838.8	3837.1	3818.3	3773.8	3729.4	3698.6	3705.4	3703.7	3690.0	3592.5	3465.9
20°	4051.0	4059.5	4042.4	4008.2	3948.3	3890.2	3886.7	3895.3	3878.2	3780.7	3604.5
22.5°	4288.8	4281.9	4264.8	4220.3	4175.9	4114.3	4093.7	4086.9	4080.1	3968.9	3746.5
25°	4514.6	4535.1	4512.9	4471.8	4403.4	4336.7	4319.6	4326.4	4307.6	4160.5	3898.7
27.5°	4800.3	4808.8	4795.1	4738.7	4680.5	4586.4	4553.9	4553.9	4547.1	4340.1	4018.5
30°	5104.8	5128.7	5104.8	5058.6	4998.7	4863.6	4793.4	4786.6	4766.1	4524.8	4158.8
32.5°	5411.0	5428.1	5411.0	5366.5	5298.1	5180.1	5079.1	5063.7	5036.4	4726.7	4302.5
35°	5683.0	5698.4	5695.0	5705.2	5648.8	5500.0	5438.4	5431.5	5359.7	4990.2	4497.5
37.5°	5980.7	5999.5	5973.8	5994.4	5972.1	5831.8	5813.0	5778.8	5676.2	5238.2	4702.8
40°	6319.4	6336.5	6295.4	6304.0	6278.3	6199.6	6103.8	6057.6	5905.4	5506.8	5026.1
42.5°	6682.1	6721.4	6740.2	6724.8	6665.0	6620.5	6452.8	6394.7	6268.1	5990.9	5558.1
45°	7207.2	7265.4	7292.8	7253.4	7227.8	7164.5	6959.2	6889.1	6822.3	6673.5	6300.6
47.5°	7773.5	7826.5	7913.8	7930.9	7951.4	7903.5	7614.4	7546.0	7557.9	7540.8	7214.1
50°	8225.1	8269.6	8466.3	8676.8	8851.2	8864.9	8495.4	8421.9	8486.9	8541.6	8314.1
52.5°	8553.6	8592.9	8853.0	9287.5	9682.7	9975.2	9576.6	9492.8	9545.8	9669.0	9564.6
55°	8820.5	8875.2	9147.2	9814.4	10613.3	11075.2	10820.3	10714.2	10692.0	10844.2	10904.1
57.5°	8960.7	8977.8	9359.3	10226.7	11295.9	12154.6	12265.8	12146.1	11934.0	12017.8	12329.1
60°	8640.8	8669.9	9191.7	10332.7	11834.7	13225.6	13783.2	13684.0	13232.4	13278.6	13622.4
62.5°	7756.4	7797.4	8425.3	9828.1	11879.2	13940.6	15184.3	15121.0	14515.4	14265.7	14368.3
65°	6221.9	6235.6	6885.6	8579.2	10994.8	14029.6	16161.1	16145.7	15411.8	14826.8	14387.1
67.5°	3548.0	3524.1	4393.1	6119.2	9073.6	12873.1	16224.4	16315.1	15702.7	14734.4	13189.6
70°	1537.9	1541.4	1941.7	3019.4	5872.9	10404.6	15069.7	15225.4	14861.0	13196.5	10493.5
72.5°	711.7	721.9	894.7	1307.0	2507.9	6454.5	12288.1	12428.4	12115.3	10562.0	7634.9
75°	503.0	511.5	597.0	749.3	1153.0	2514.8	8220.0	8514.2	8666.5	7900.1	5031.2
77.5°	381.5	393.5	436.2	520.1	711.7	891.3	3932.9	4634.3	5520.5	4914.9	2591.7
80°	242.9	242.9	289.1	347.3	434.5	463.6	1135.9	1346.3	2701.2	2025.5	1017.9
82.5°	164.2	169.4	196.7	220.7	249.8	263.5	487.6	520.1	780.1	689.4	419.1
85°	87.2	90.7	102.6	100.9	119.8	104.4	205.3	203.6	285.7	313.1	159.1
87.5°	0.0	0.0	1.7	1.7	3.4	5.1	22.2	24.0	59.9	95.8	53.0
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: P640479
CATALOG NUMBER: GWS-SA5D-830-U-T3-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4	2877.4
2.5°	2891.1	2870.6	2880.8	2877.4	2887.7	2887.7	2868.9	2863.7	2865.5	2844.9	2838.1
5°	2916.8	2892.8	2898.0	2891.1	2901.4	2909.9	2901.4	2901.4	2911.6	2896.2	2887.7
7.5°	2974.9	2947.6	2947.6	2939.0	2951.0	2957.8	2951.0	2961.3	2980.1	2964.7	2956.1
10°	3067.3	3034.8	3036.5	3026.3	3031.4	3028.0	3000.6	2992.0	2997.2	2983.5	2976.6
12.5°	3187.1	3142.6	3142.6	3122.1	3110.1	3074.2	3017.7	2997.2	3000.6	2988.6	2983.5
15°	3301.7	3260.6	3252.1	3211.0	3156.3	3089.6	3038.2	3024.5	3028.0	3016.0	3007.4
17.5°	3436.8	3383.8	3353.0	3277.7	3176.8	3108.4	3057.1	3024.5	2997.2	2969.8	2963.0
20°	3561.7	3495.0	3438.5	3322.2	3199.0	3105.0	3009.2	2928.7	2862.0	2826.1	2817.6
22.5°	3690.0	3604.5	3505.3	3353.0	3197.3	3043.4	2867.2	2745.7	2646.5	2593.4	2603.7
25°	3811.5	3703.7	3568.6	3382.1	3142.6	2906.5	2667.0	2485.7	2372.8	2331.7	2319.7
27.5°	3912.4	3779.0	3626.7	3368.4	3029.7	2709.8	2393.3	2191.4	2081.9	2035.8	2023.8
30°	4025.3	3874.8	3710.5	3305.1	2851.8	2434.3	2083.7	1919.4	1840.7	1796.3	1798.0
32.5°	4155.3	3997.9	3828.6	3183.6	2624.2	2136.7	1828.8	1715.8	1652.6	1608.1	1601.2
35°	4329.8	4174.1	3907.3	3000.6	2335.1	1863.0	1654.3	1561.9	1483.2	1425.0	1413.1
37.5°	4545.4	4439.3	3915.8	2756.0	2025.5	1674.8	1529.4	1430.2	1334.4	1257.4	1248.8
40°	4914.9	4793.4	3845.7	2449.7	1762.0	1553.3	1425.0	1310.4	1199.2	1113.7	1101.7
42.5°	5441.8	5192.0	3695.1	2104.2	1563.6	1457.5	1325.8	1180.4	1067.5	1007.6	999.1
45°	6112.4	5636.8	3469.3	1779.1	1416.5	1363.4	1221.5	1069.2	1009.3	966.6	958.0
47.5°	6933.5	6155.2	3209.3	1526.0	1301.9	1277.9	1115.4	1031.6	978.5	942.6	934.1
50°	7915.5	6815.5	2995.5	1327.5	1199.2	1178.7	1081.2	1009.3	966.6	937.5	930.6
52.5°	9036.0	7549.4	2891.1	1185.5	1110.3	1089.7	1069.2	1004.2	968.3	946.0	937.5
55°	10199.3	8322.6	2793.6	1076.0	1035.0	1047.0	1070.9	1021.3	993.9	964.8	956.3
57.5°	11323.2	9048.0	2554.1	990.5	980.2	1026.4	1079.5	1038.4	1005.9	976.8	966.6
60°	12098.2	9444.9	2148.7	922.1	939.2	1000.8	1057.2	1012.7	971.7	959.7	954.6
62.5°	12306.9	9397.0	1667.9	851.9	889.6	944.3	999.1	970.0	927.2	946.0	947.7
65°	11819.3	8883.8	1252.2	783.5	824.6	870.8	939.2	927.2	911.8	963.1	964.8
67.5°	*10438.8*	*7623.0*	*954.6*	*723.6*	*757.8*	*814.3*	*920.4*	*970.0*	*973.4*	*1038.4*	*1031.6*
70°	7898.4	5695.0	747.6	667.2	706.5	814.3	980.2	1002.5	961.4	1021.3	1007.6
72.5°	5460.6	3758.4	636.4	617.6	643.2	776.7	978.5	978.5	934.1	934.1	908.4
75°	3392.4	2210.2	554.3	554.3	554.3	679.2	951.2	901.5	822.9	786.9	766.4
77.5°	1674.8	1074.3	465.3	482.4	463.6	568.0	776.7	737.3	689.4	651.8	638.1
80°	715.1	537.2	376.4	395.2	372.9	427.7	615.9	607.3	561.1	511.5	496.1
82.5°	328.5	277.1	301.1	309.6	272.0	321.6	449.9	449.9	424.3	355.8	330.2
85°	140.3	147.1	208.7	208.7	171.1	181.3	241.2	229.2	205.3	167.7	154.0
87.5°	47.9	71.9	106.1	92.4	35.9	15.4	8.6	3.4	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

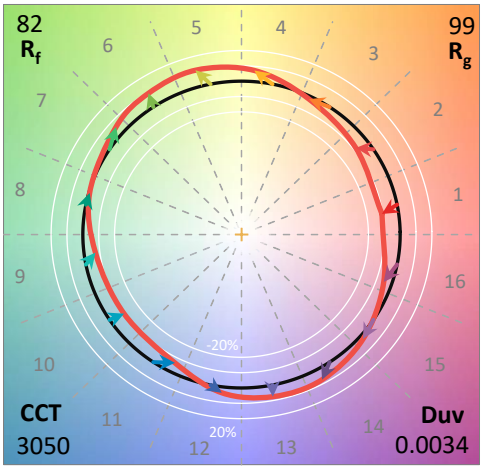
Test Information

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

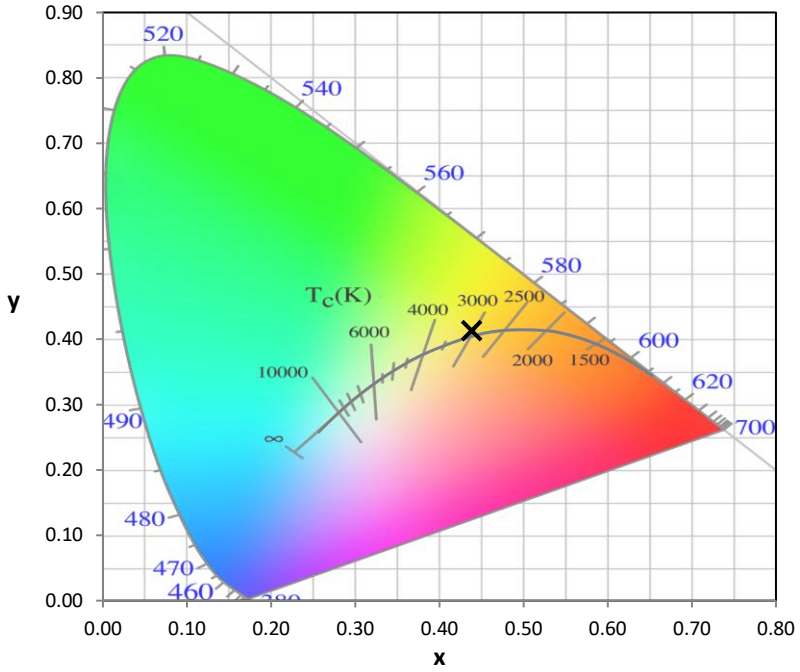
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

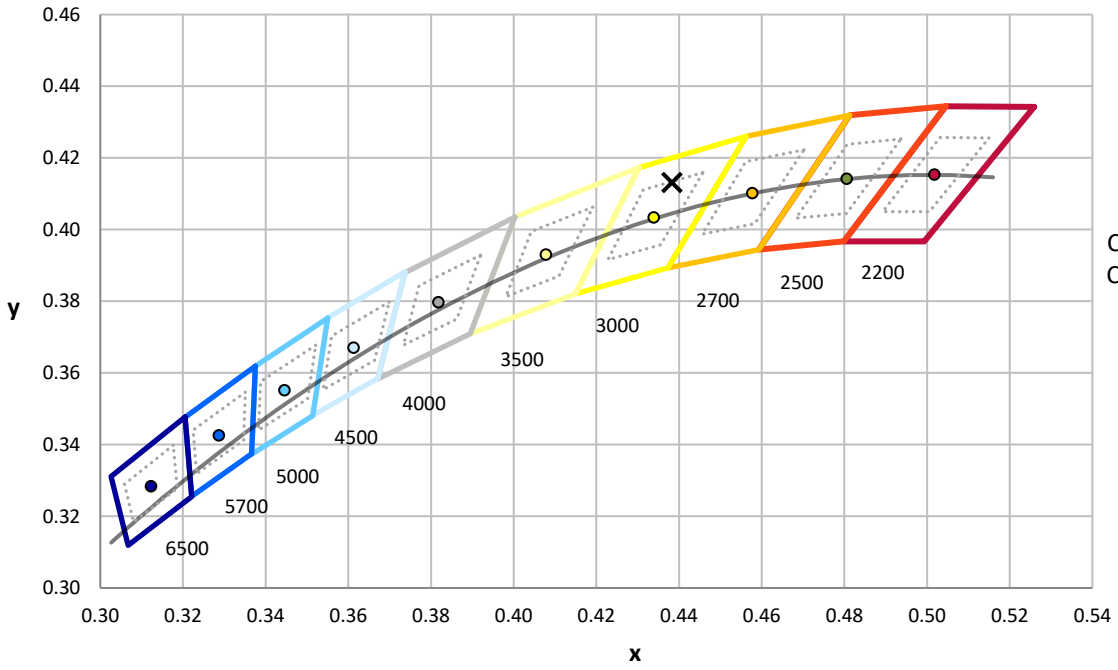
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

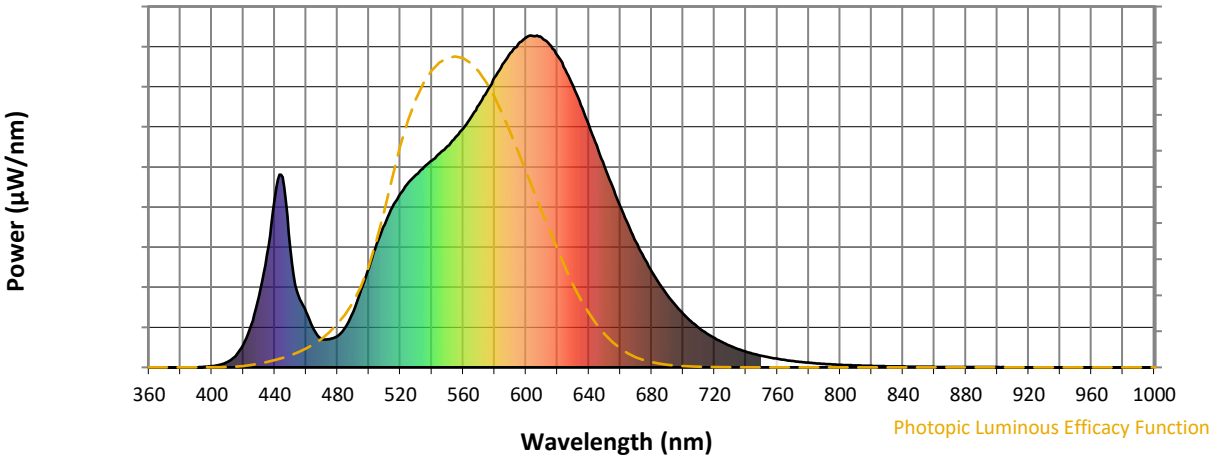


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

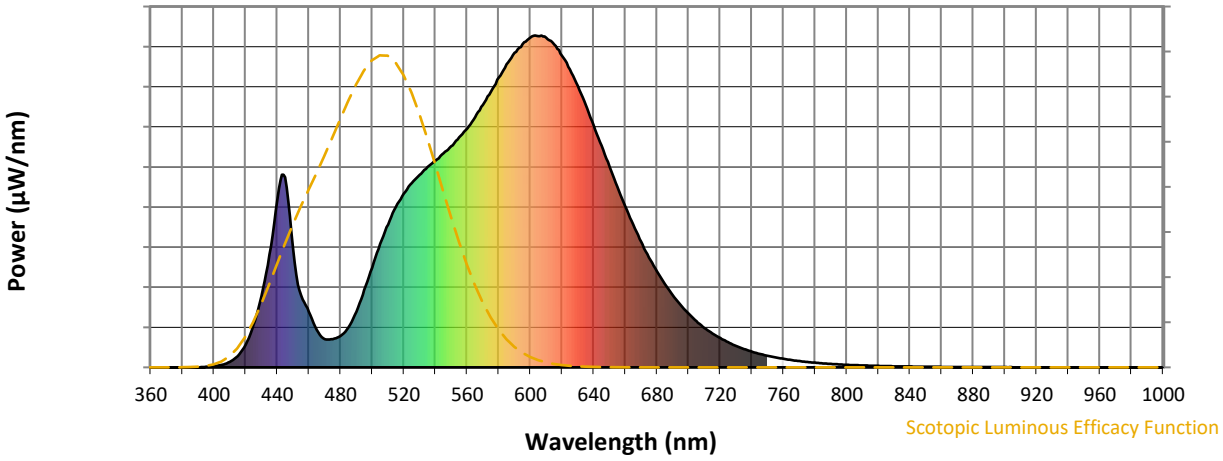


Photopic Lumens: NR

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

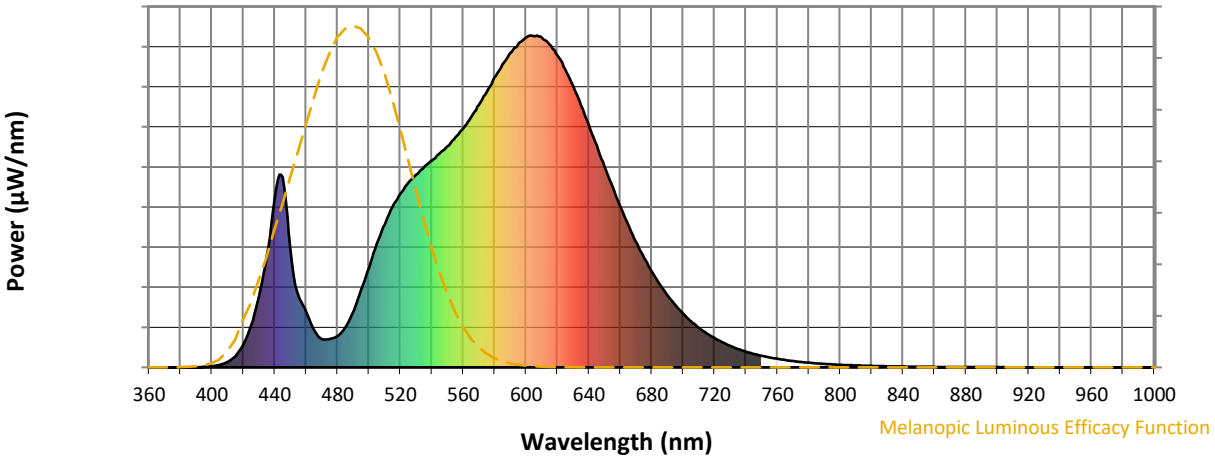


Scotopic Lumens: NR **S/P: 1.27**

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			

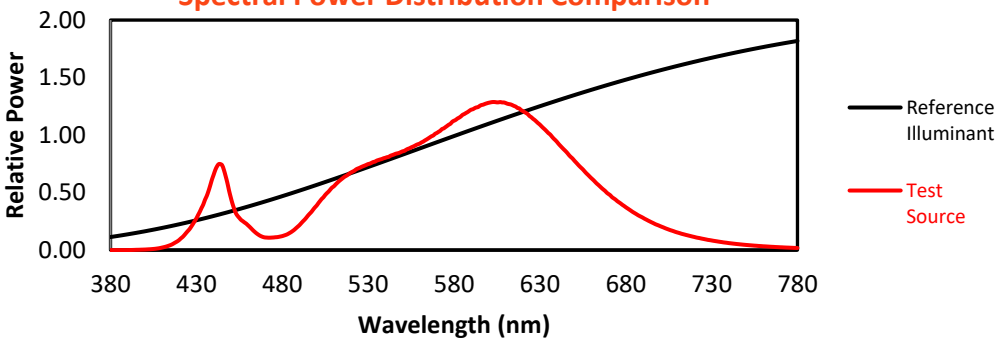
REPORT NUMBER: SP1-2408-195-9

TM-30-18

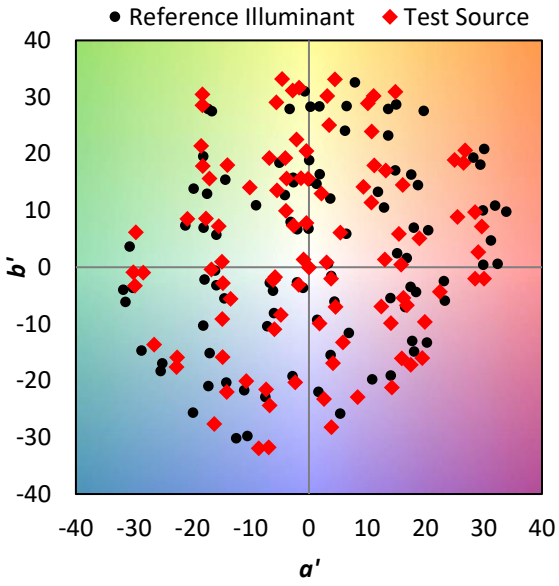
Summary

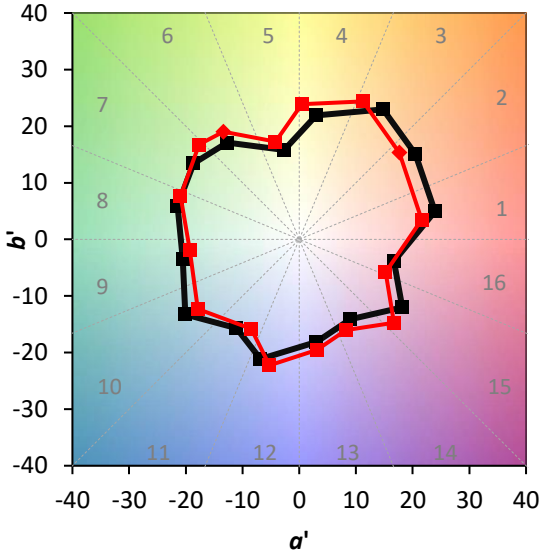
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

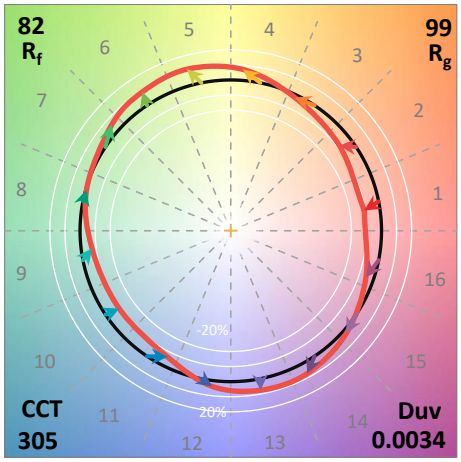
Spectral Power Distribution Comparison

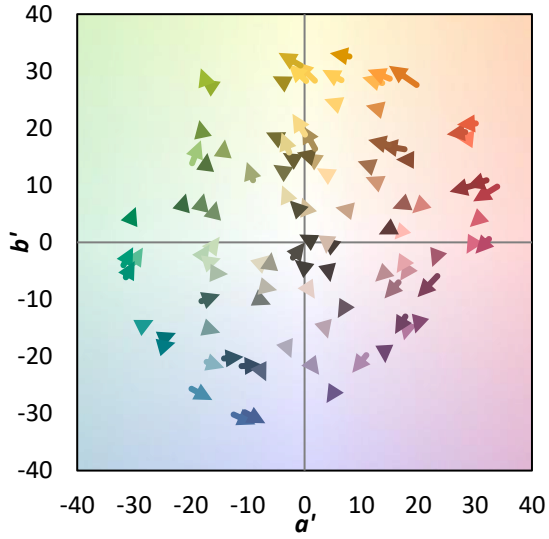


Color Vector Graphics







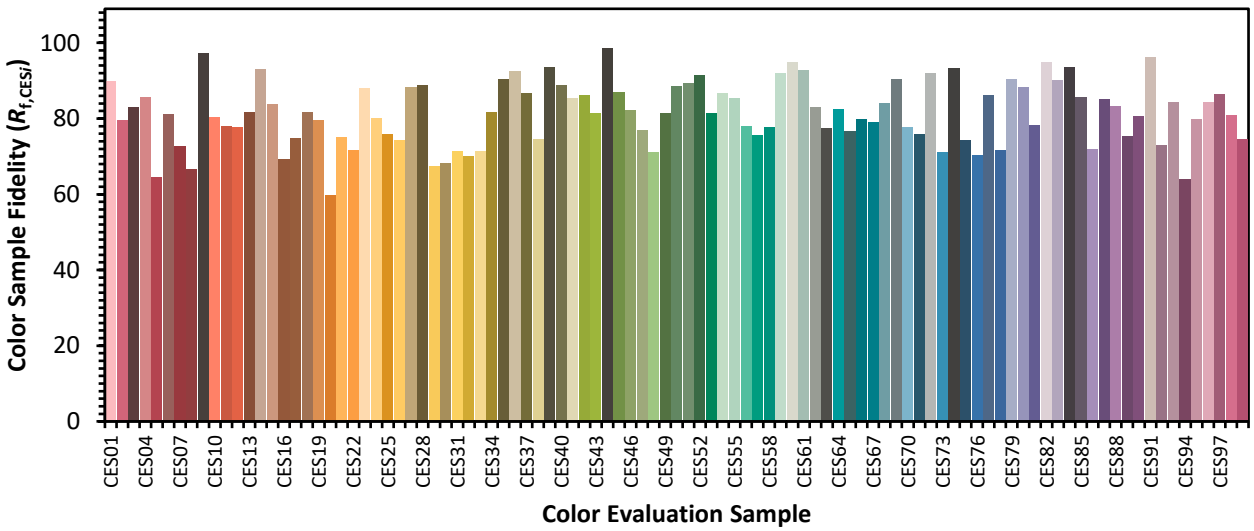


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

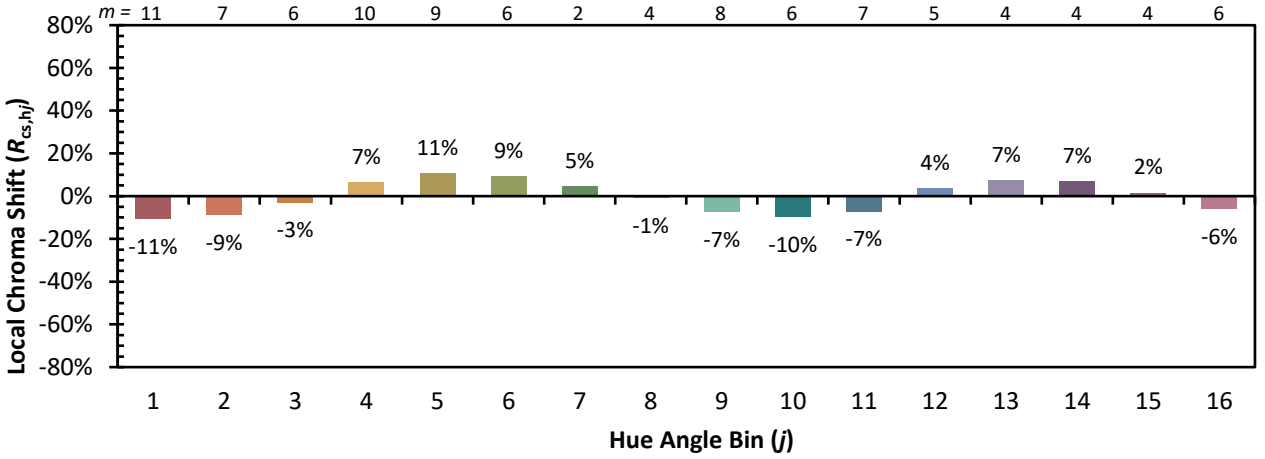
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

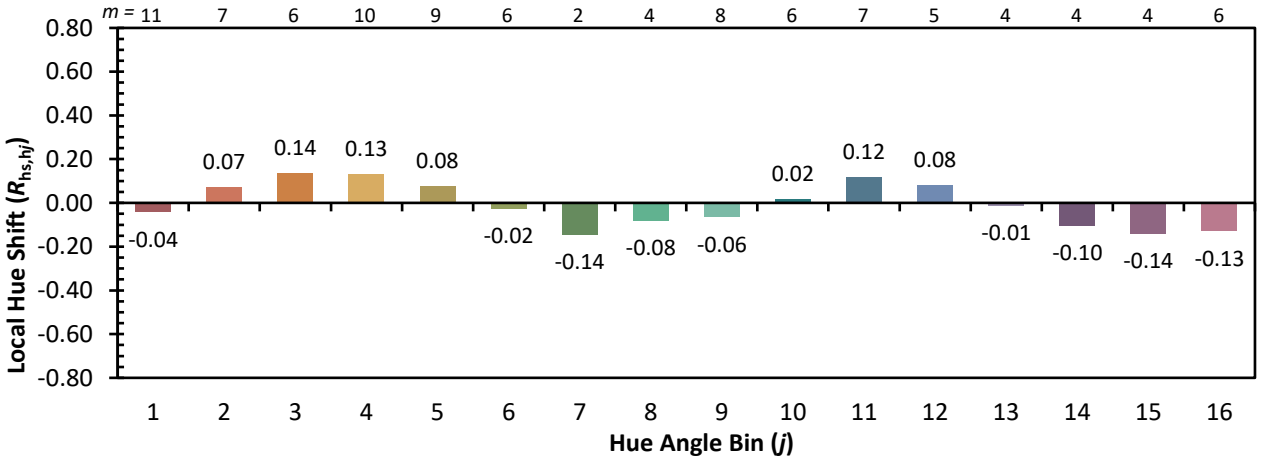


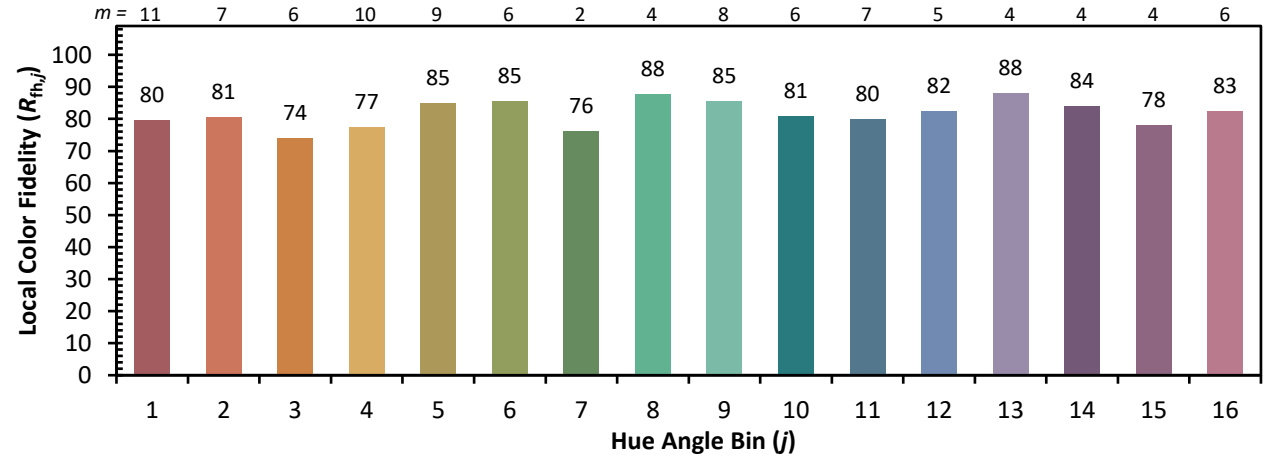
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



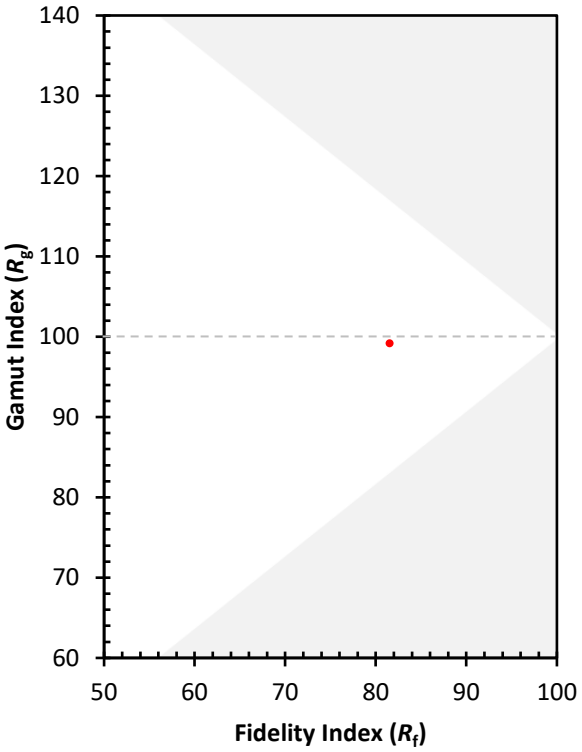


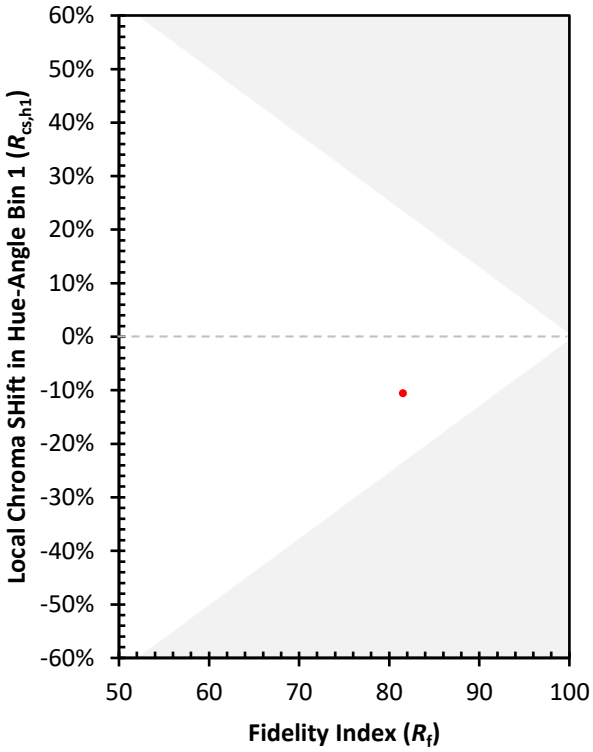


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)