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: P637976

Luminaire Tested: GWS-SA4D-830-U-SL2-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:	P637976
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-30)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-SL2-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15421.3 lumens
Efficiency:	N/A
Efficacy:	95.1 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G3

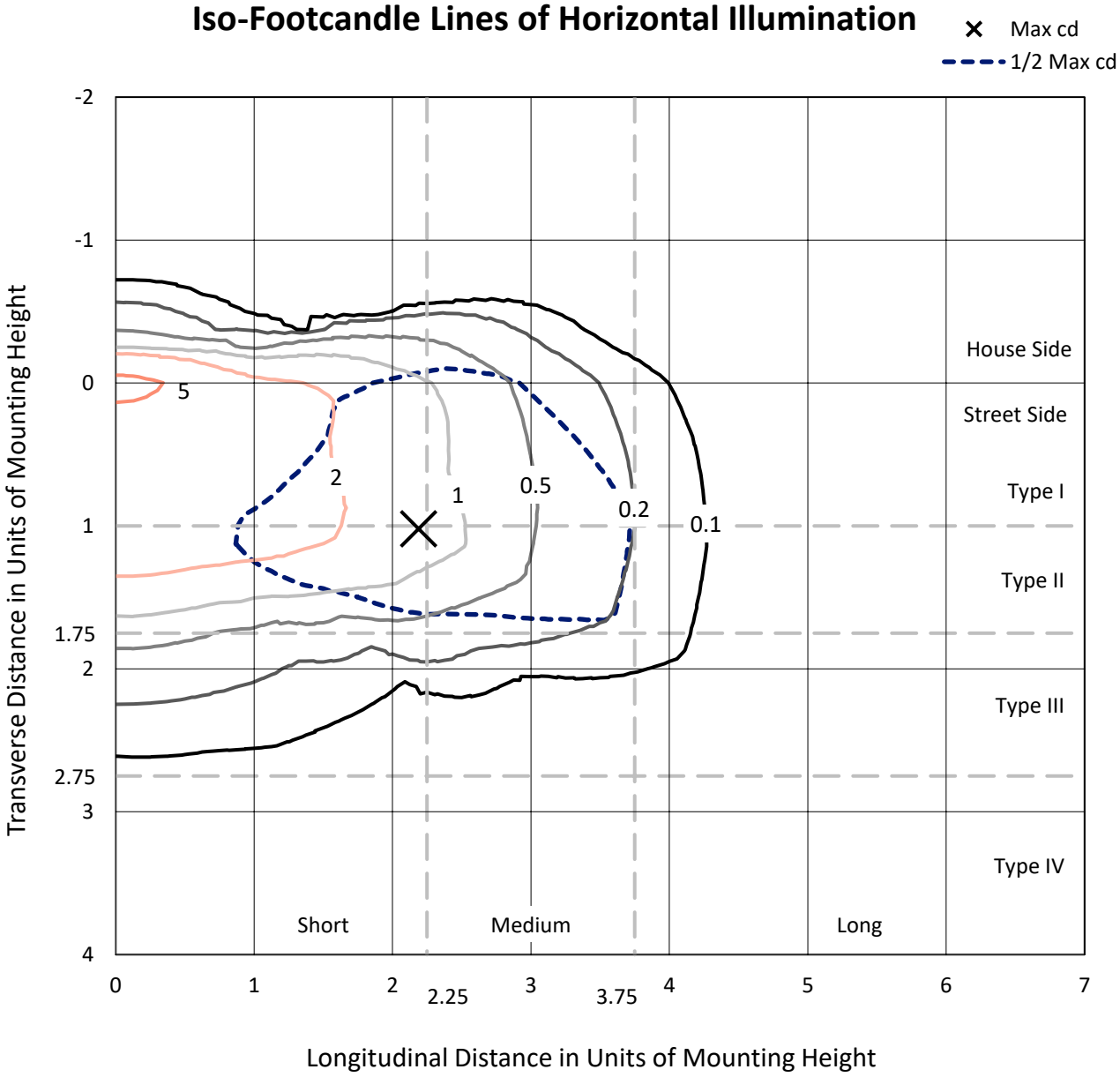
Input Watts (W):	162.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



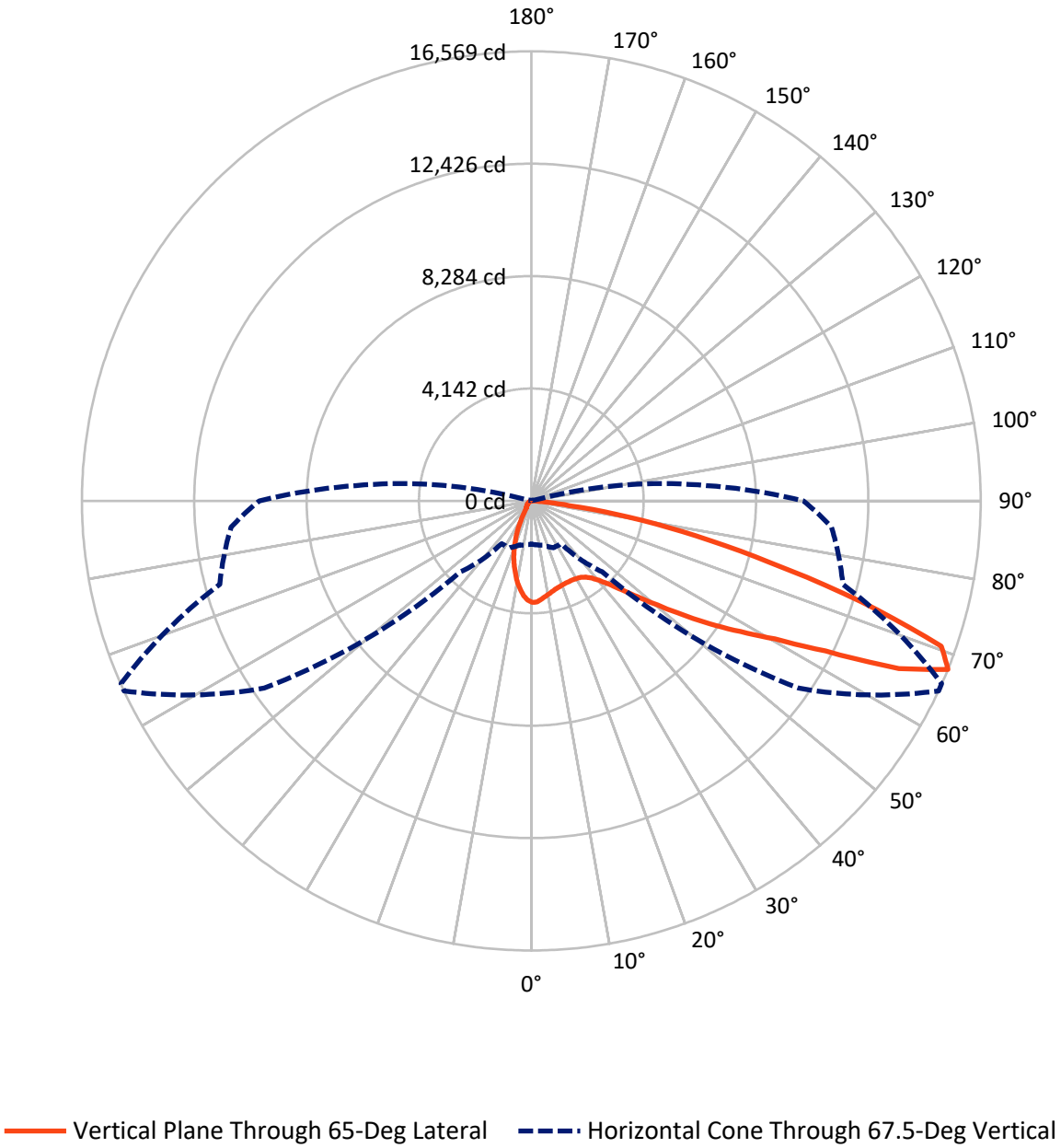
Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

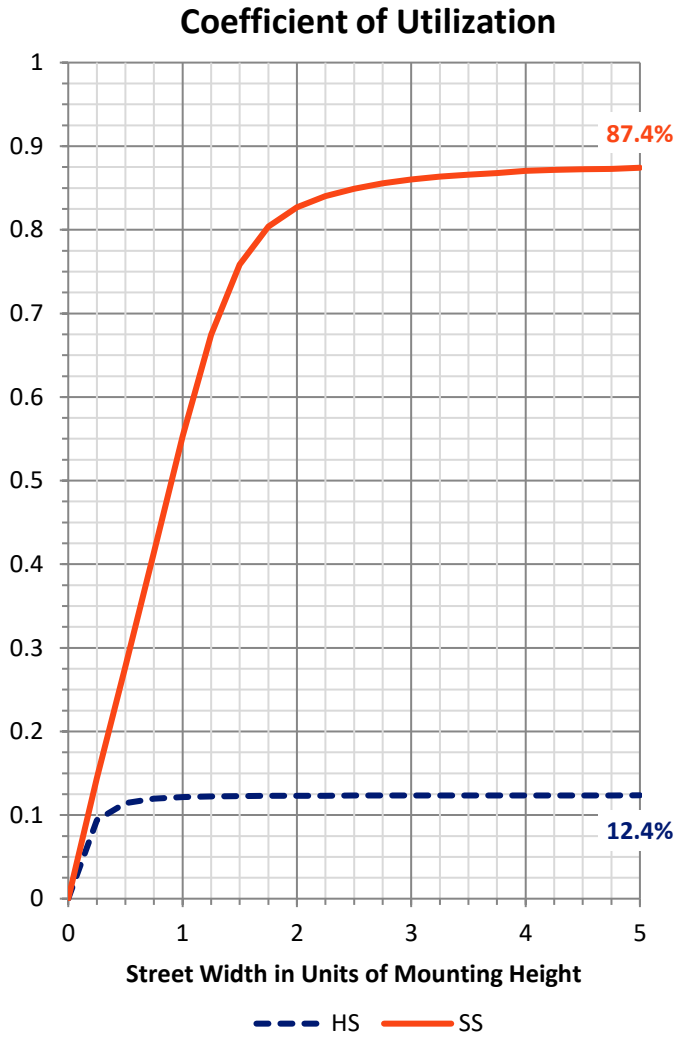
REPORT NUMBER: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1925.7	0.0	1925.7
	% Fixture	12.5	0.0	12.5
Street Side	Lumens	13495.6	0.0	13495.6
	% Fixture	87.5	0.0	87.5
Total	Lumens	15421.3	0.0	15421.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.6	2.0
10°-20°	698.3	4.5
20°-30°	997.8	6.5
30°-40°	1451.7	9.4
40°-50°	2273.6	14.7
50°-60°	3546.9	23.0
60°-70°	3896.1	25.3
70°-80°	2073.5	13.4
80°-90°	172.6	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°	15421.3	100.0
0°-180°	15421.3	100.0



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

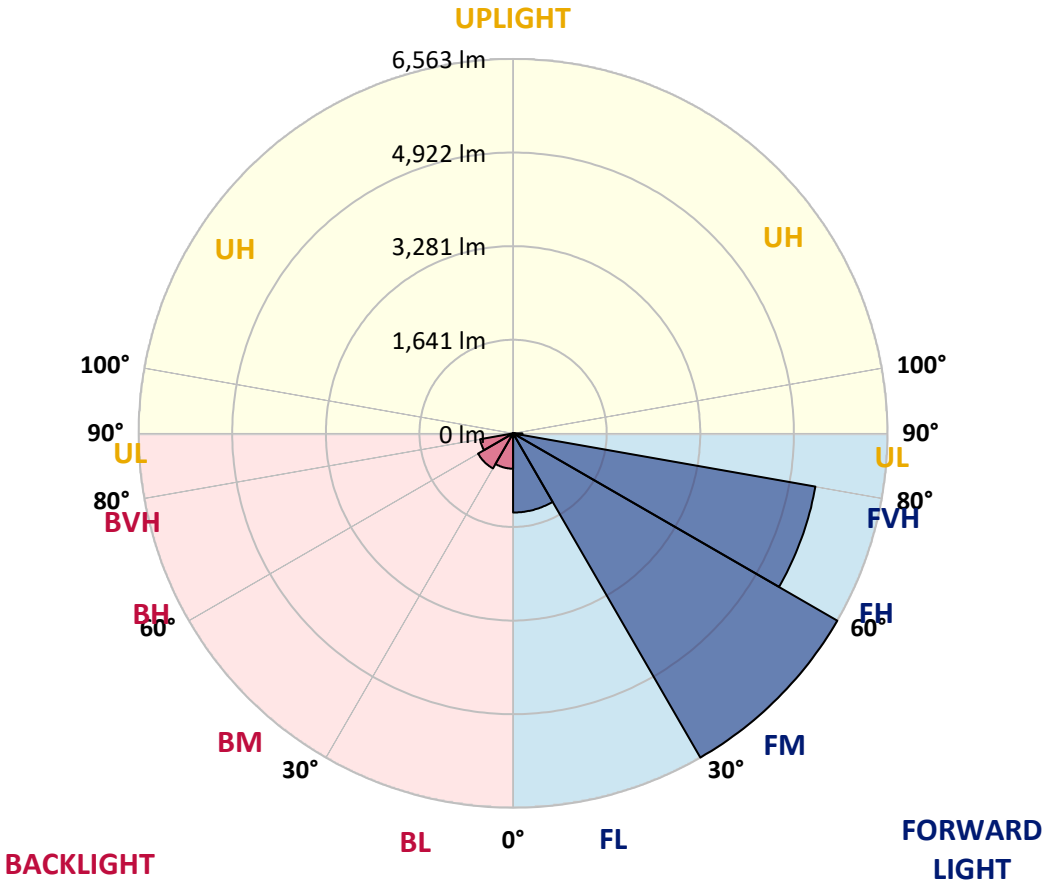
Scaled Data Report

REPORT NUMBER: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1387.8	9.0			
FM	(30°-60°)	6563.0	42.6			
FH	(60°-80°)	5381.4	34.9			G3/7500
FVH	(80°-90°)	163.4	1.1			G2/225
BL	(0°-30°)	618.9	4.0	B2/1000		
BM	(30°-60°)	709.3	4.6	B1/1000		
BH	(60°-80°)	588.2	3.8	B2/1000		G2/1000
BVH	(80°-90°)	9.2	0.1			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 II Short



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

Scaled Data Report

REPORT NUMBER: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2
2.5°	3610.5	3621.6	3606.3	3643.9	3650.9	3692.7	3716.4	3733.2	3731.8	3752.7	3752.7
5°	3398.5	3409.6	3401.3	3441.7	3473.8	3539.3	3593.7	3656.5	3659.3	3723.4	3747.1
7.5°	3218.6	3220.0	3220.0	3270.2	3312.0	3392.9	3473.8	3570.0	3581.2	3680.2	3742.9
10°	3070.8	3075.0	3076.4	3133.5	3179.5	3277.2	3380.4	3496.1	3508.7	3642.5	3740.2
12.5°	2969.0	2970.4	2975.9	3035.9	3086.1	3187.9	3292.5	3425.0	3441.7	3599.3	3727.6
15°	2920.2	2917.4	2920.2	2970.4	3020.6	3118.2	3225.6	3367.8	3385.9	3563.0	3729.0
17.5°	2917.4	2913.2	2910.4	2948.1	2980.1	3066.6	3175.4	3330.2	3349.7	3546.3	3744.3
20°	2957.8	2955.0	2941.1	2957.8	2964.8	3035.9	3143.3	3300.9	3320.4	3543.5	3777.8
22.5°	3063.8	3056.8	3035.9	3020.6	2982.9	3024.8	3121.0	3280.0	3302.3	3550.5	3821.0
25°	3221.4	3218.6	3192.1	3154.4	3058.2	3041.5	3122.4	3280.0	3300.9	3558.9	3867.1
27.5°	3458.5	3441.7	3408.3	3342.7	3204.6	3107.0	3150.3	3288.3	3309.2	3570.0	3904.7
30°	3699.7	3698.3	3687.2	3620.2	3415.2	3232.5	3208.8	3310.6	3330.2	3579.8	3939.6
32.5°	3949.3	3953.5	3981.4	3929.8	3705.3	3419.4	3314.8	3356.7	3370.6	3599.3	3970.2
35°	4186.4	4194.8	4268.7	4286.8	4058.1	3702.5	3487.7	3448.7	3450.1	3642.5	4010.7
37.5°	4413.7	4441.6	4560.1	4648.0	4497.4	4045.6	3737.4	3604.9	3593.7	3729.0	4072.1
40°	4671.7	4724.7	4873.9	5023.1	4975.7	4498.8	4077.6	3844.7	3821.0	3888.0	4182.2
42.5°	4957.6	5014.8	5212.8	5422.0	5444.3	5046.8	4503.0	4194.8	4154.3	4155.7	4388.6
45°	5264.4	5341.1	5571.2	5872.4	6007.7	5657.6	5027.3	4667.5	4627.1	4567.1	4720.5
47.5°	5667.4	5734.3	5956.1	6303.3	6562.7	6313.1	5714.8	5275.5	5201.6	5113.8	5236.5
50°	6014.6	6073.2	6264.3	6699.4	7239.0	7158.2	6494.4	6035.6	5964.4	5815.2	5917.0
52.5°	6091.3	6137.4	6313.1	6802.6	7756.4	8225.0	7449.6	6954.6	6904.4	6628.2	6667.3
55°	5746.9	5816.6	5974.2	6518.1	7891.7	9268.1	8689.4	7990.7	7886.1	7445.4	7515.2
57.5°	4876.7	5000.8	5148.6	5855.7	7524.9	9823.1	10421.4	9088.2	8993.4	8232.0	8233.4
60°	3574.2	3674.6	3773.6	4420.7	6654.7	9785.5	11993.0	10321.0	10148.1	8874.8	8851.1
62.5°	2599.4	2651.0	2649.6	2879.7	4569.9	9141.2	12818.6	12178.5	11775.5	9562.3	9427.1
65°	2044.4	2043.0	2103.0	2178.3	2552.0	7056.4	12920.4	14890.9	14455.8	10484.1	10202.4
67.5°	1591.2	1621.8	1681.8	1903.5	1917.5	3692.7	12025.1	16568.5	16560.1	11891.2	11110.3
70°	1227.2	1269.0	1354.1	1677.6	1771.1	2066.7	8997.6	16037.2	16172.5	12520.2	10467.4
72.5°	787.9	785.1	910.6	1355.5	1701.3	1722.3	4975.7	12739.1	12892.5	11340.4	8463.5
75°	440.7	443.5	514.6	829.8	1585.6	1620.5	2464.1	9084.0	9205.3	8841.4	6502.7
77.5°	172.9	178.5	241.3	436.5	1045.9	1447.5	1464.3	6194.5	6212.7	5479.1	3988.4
80°	69.7	73.9	122.7	270.5	637.3	974.8	1045.9	3649.5	3575.6	2121.1	1160.3
82.5°	20.9	22.3	48.8	153.4	333.3	693.1	705.6	1400.1	1322.0	456.0	295.6
85°	1.4	1.4	11.2	47.4	118.5	174.3	470.0	456.0	404.4	114.4	131.1
87.5°	0.0	0.0	1.4	1.4	2.8	5.6	50.2	83.7	85.1	20.9	58.6
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: P637976
CATALOG NUMBER: GWS-SA4D-830-U-SL2-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2	3740.2
2.5°	3752.7	3702.5	3698.3	3659.3	3620.2	3571.4	3514.2	3472.4	3443.1	3391.5	3381.8
5°	3747.1	3680.2	3617.4	3505.9	3381.8	3247.9	3130.7	3022.0	2953.6	2907.6	2888.1
7.5°	3736.0	3650.9	3505.9	3295.3	3087.5	2853.2	2670.5	2503.2	2388.8	2321.9	2292.6
10°	3727.6	3613.2	3377.6	3058.2	2736.1	2412.6	2135.0	1886.8	1748.8	1640.0	1621.8
12.5°	3710.9	3558.9	3213.0	2780.7	2365.1	1935.6	1581.4	1277.4	1066.8	972.0	938.5
15°	3694.1	3501.7	3048.5	2487.9	1960.7	1430.8	1001.3	708.4	563.4	518.8	516.0
17.5°	3691.3	3450.1	2870.0	2210.3	1536.8	937.1	570.4	458.8	428.1	417.0	417.0
20°	3699.7	3406.9	2694.2	1891.0	1119.8	570.4	425.3	397.4	379.3	369.6	369.6
22.5°	3708.1	3362.2	2525.5	1568.9	743.3	417.0	375.1	351.4	330.5	319.3	313.8
25°	3713.7	3313.4	2338.6	1245.3	485.3	362.6	329.1	298.4	273.3	259.4	259.4
27.5°	3712.3	3254.9	2150.4	928.8	376.5	322.1	281.7	249.6	224.5	209.2	210.6
30°	3701.1	3190.7	1955.1	648.5	329.1	281.7	241.3	207.8	182.7	170.1	168.7
32.5°	3692.7	3122.4	1729.2	456.0	295.6	246.8	205.0	172.9	152.0	142.2	140.8
35°	3683.0	3055.4	1514.5	347.2	266.4	213.4	172.9	146.4	129.7	121.3	121.3
37.5°	3685.8	2985.7	1281.6	298.4	237.1	185.5	147.8	125.5	111.6	103.2	101.8
40°	3729.0	2943.9	1052.9	270.5	210.6	160.4	128.3	108.8	94.8	86.5	85.1
42.5°	3836.4	2945.3	833.9	249.6	186.9	136.7	111.6	93.4	80.9	71.1	69.7
45°	4051.1	3003.8	640.1	227.3	161.8	118.5	96.2	79.5	66.9	58.6	57.2
47.5°	4402.6	3178.2	485.3	207.8	140.8	103.2	82.3	66.9	55.8	48.8	47.4
50°	4961.8	3493.3	382.1	184.1	118.5	89.3	69.7	55.8	46.0	39.0	37.7
52.5°	5633.9	3966.1	327.7	163.2	101.8	78.1	60.0	46.0	37.7	32.1	30.7
55°	6406.5	4530.9	302.6	142.2	86.5	66.9	48.8	37.7	30.7	26.5	23.7
57.5°	7114.9	5039.9	301.2	121.3	73.9	57.2	40.4	32.1	26.5	20.9	19.5
60°	7805.2	5465.2	283.1	100.4	64.1	47.4	34.9	26.5	22.3	18.1	16.7
62.5°	8431.4	5811.0	237.1	80.9	54.4	39.0	29.3	23.7	19.5	15.3	15.3
65°	9217.9	6251.7	181.3	65.5	44.6	32.1	25.1	20.9	18.1	13.9	13.9
67.5°	*10030.9*	*6484.6*	*129.7*	*54.4*	*36.3*	*27.9*	*22.3*	*19.5*	*15.3*	*12.6*	*12.6*
70°	9085.4	5479.1	93.4	44.6	30.7	23.7	19.5	18.1	15.3	12.6	11.2
72.5°	7095.4	3950.7	69.7	34.9	26.5	22.3	18.1	16.7	13.9	11.2	11.2
75°	5261.6	2303.8	53.0	27.9	20.9	18.1	18.1	16.7	13.9	11.2	9.8
77.5°	2860.2	803.3	40.4	22.3	16.7	13.9	15.3	15.3	12.6	9.8	8.4
80°	757.2	220.3	27.9	16.7	13.9	11.2	11.2	13.9	11.2	8.4	8.4
82.5°	220.3	64.1	19.5	13.9	11.2	9.8	9.8	9.8	8.4	7.0	5.6
85°	107.4	23.7	13.9	11.2	9.8	8.4	7.0	7.0	5.6	4.2	4.2
87.5°	47.4	9.8	11.2	9.8	9.8	7.0	5.6	4.2	4.2	2.8	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

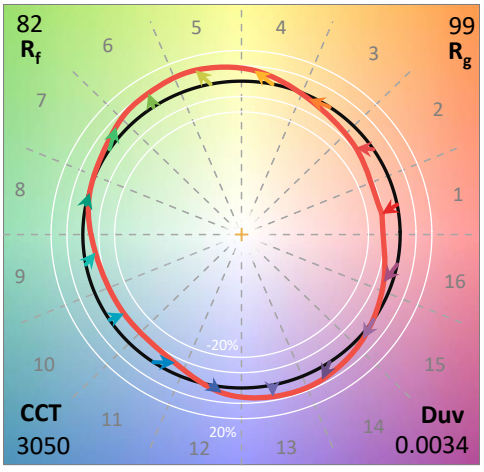
Test Information

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

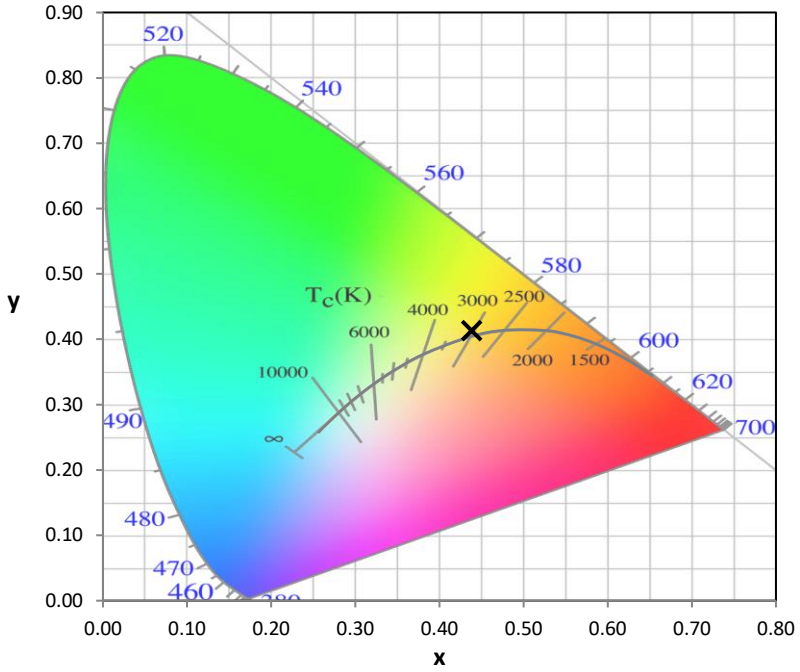
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

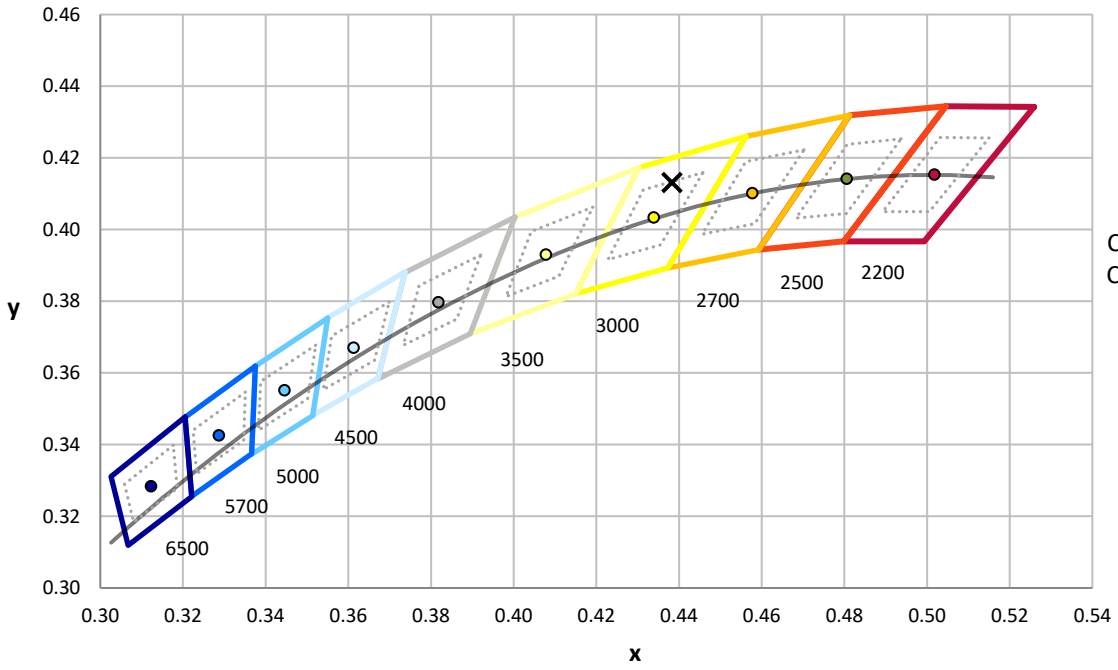
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

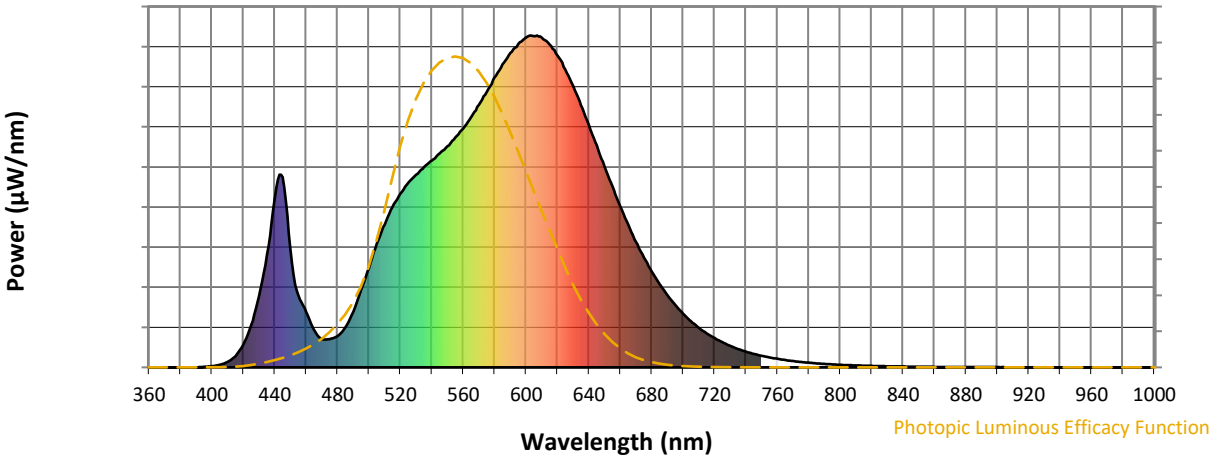


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

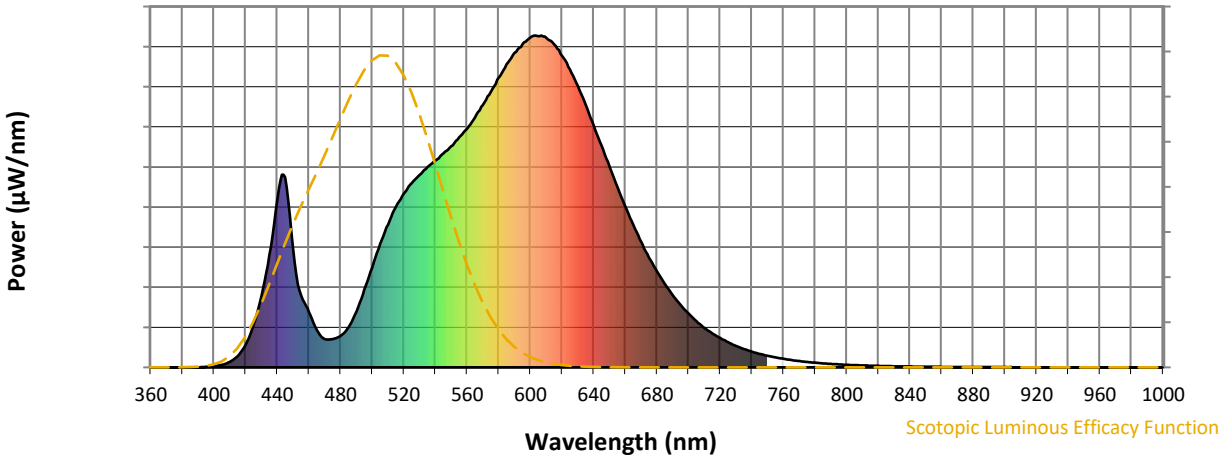


Photopic Lumens: NR

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

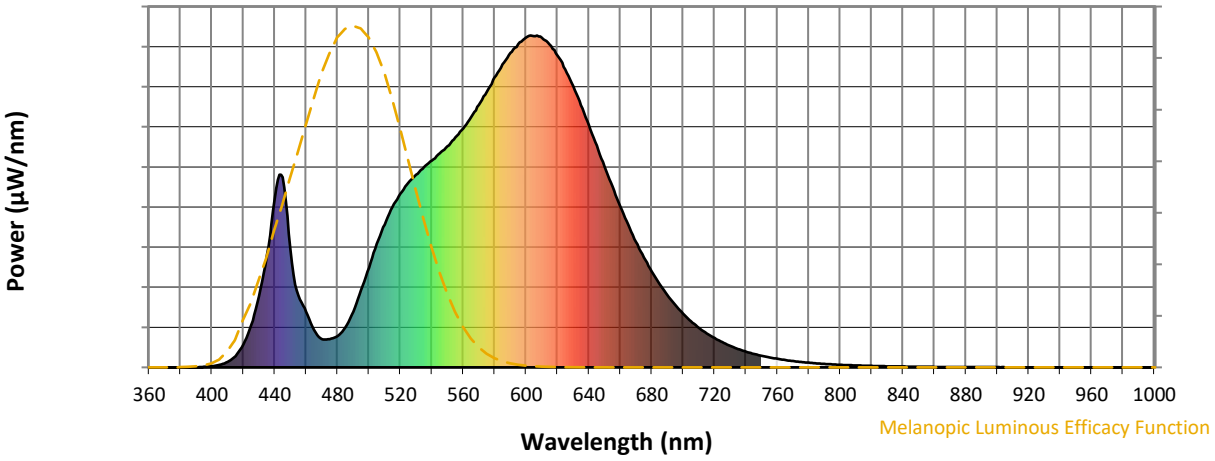


Scotopic Lumens: NR **S/P: 1.27**

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			

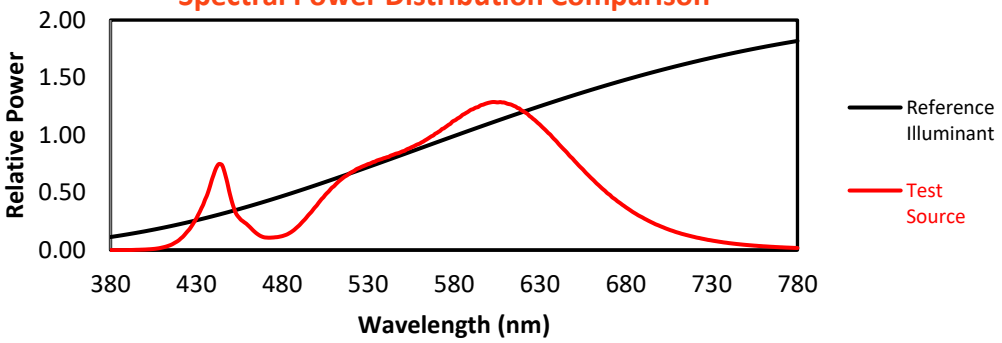
REPORT NUMBER: SP1-2408-195-9

TM-30-18

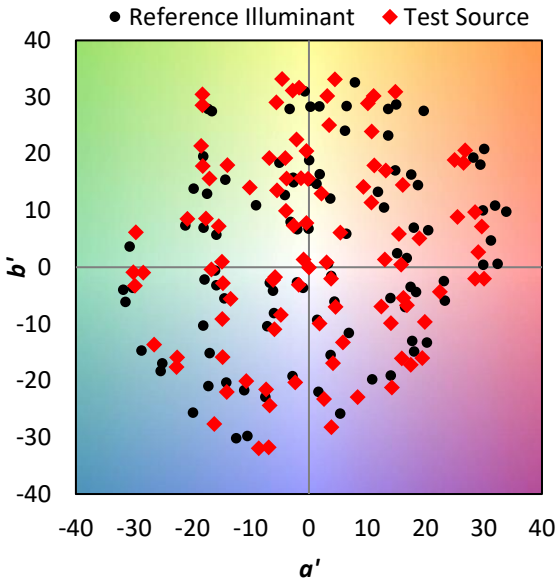
Summary

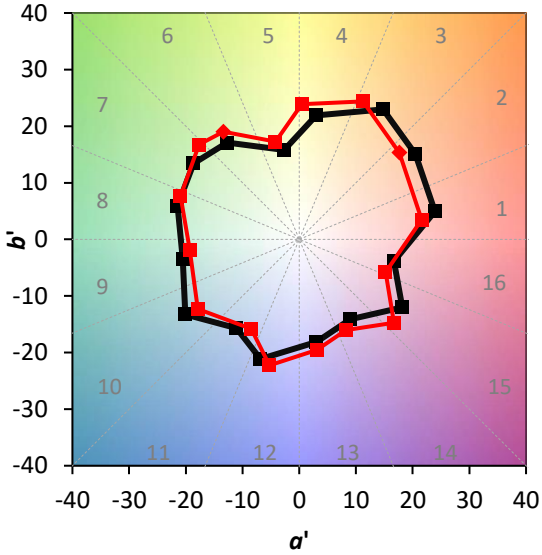
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

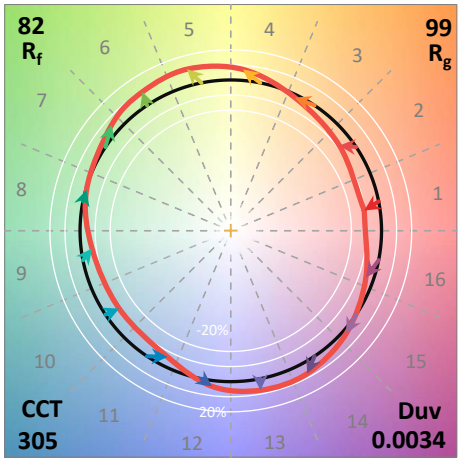
Spectral Power Distribution Comparison

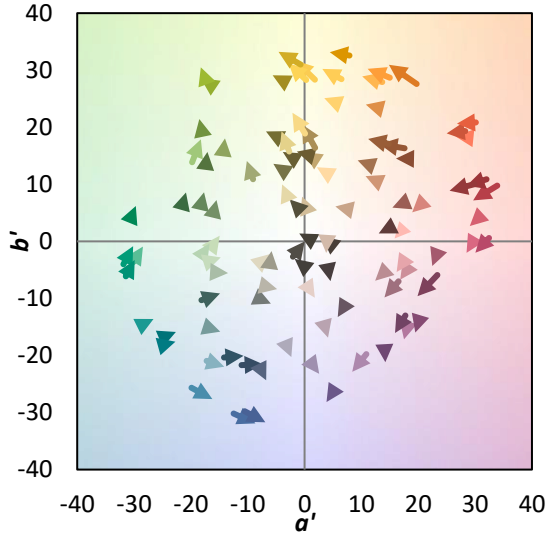


Color Vector Graphics







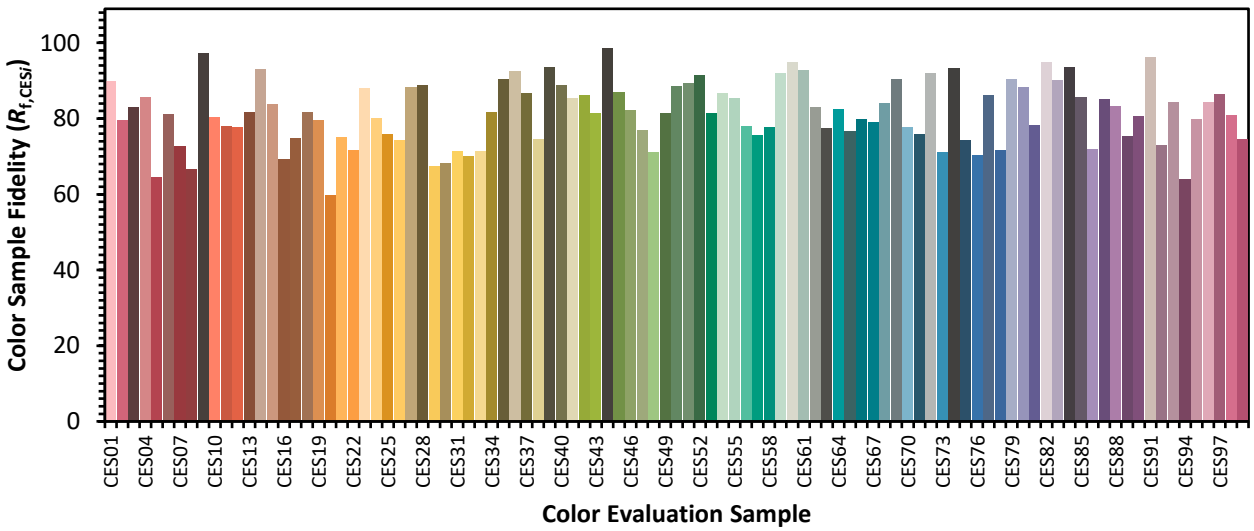


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

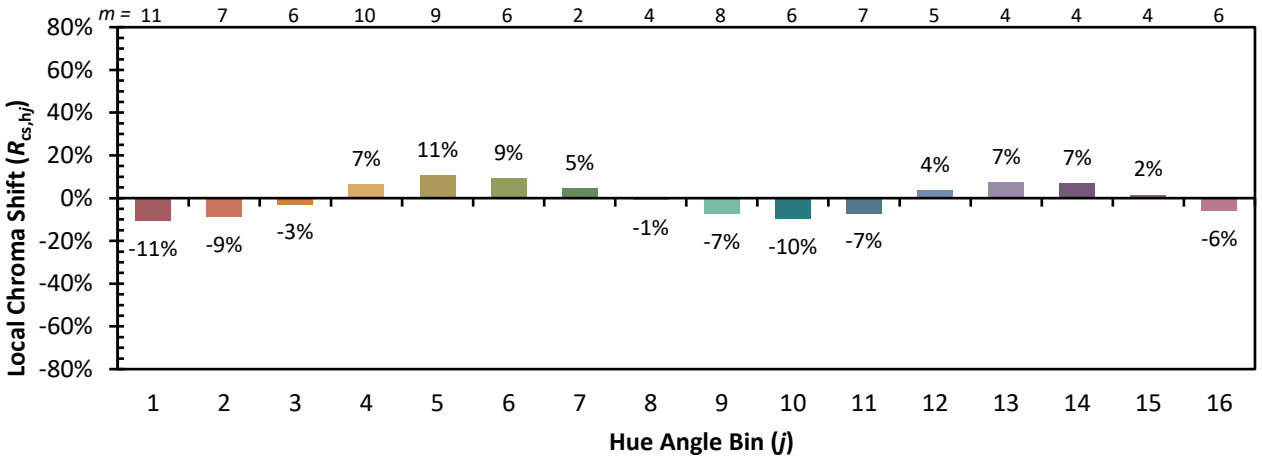
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

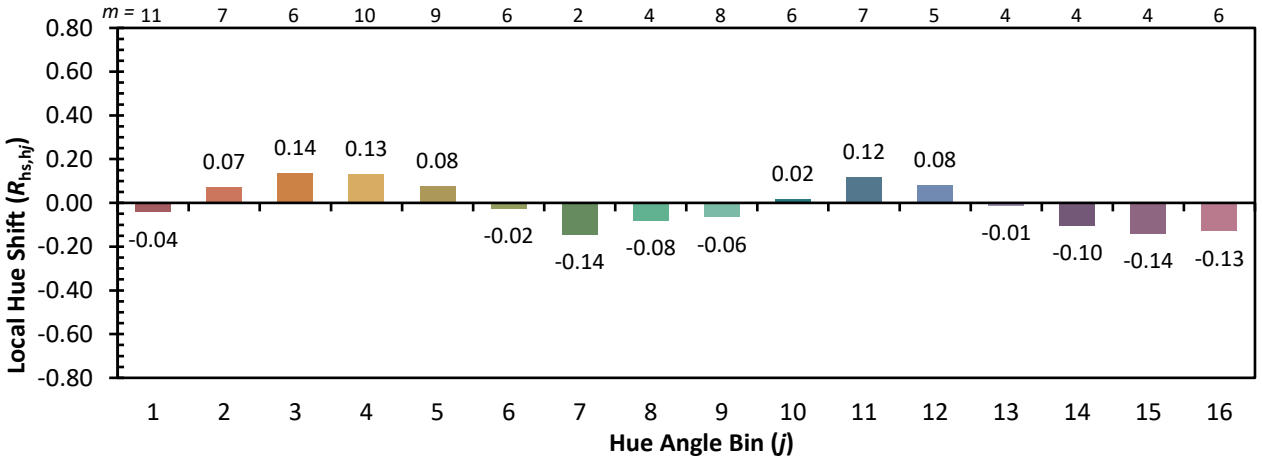


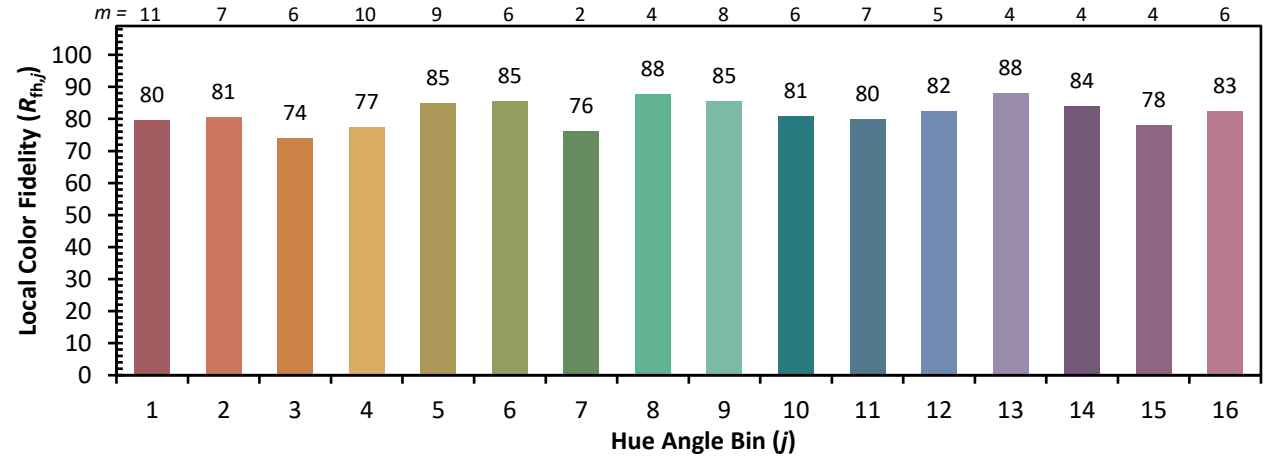
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



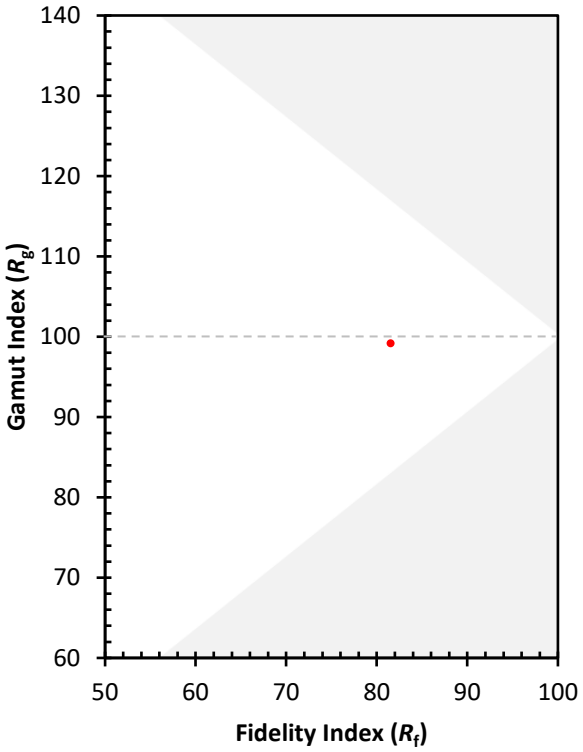


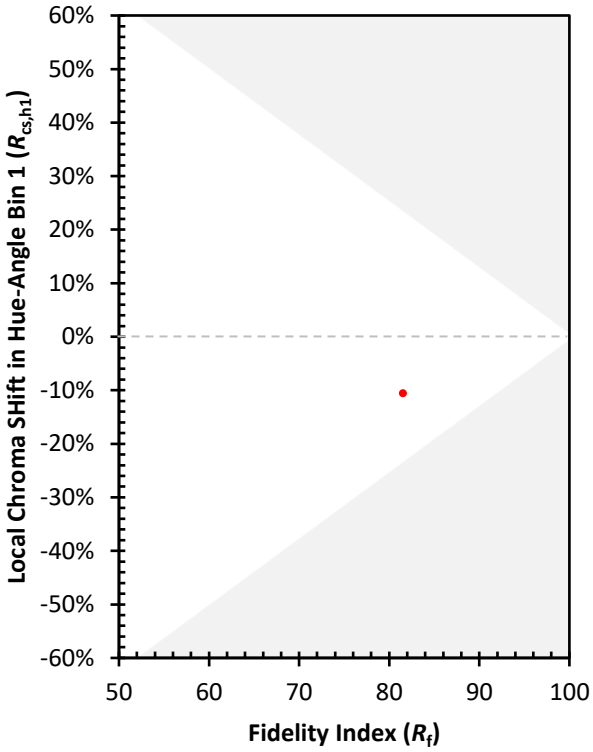


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)