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: P639002

Luminaire Tested: GWS-SA4F-830-U-T4W-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:	P639002
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-52)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4F-830-U-T4W-W
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	26797.2 lumens
Efficiency:	N/A
Efficacy:	118.9 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G4

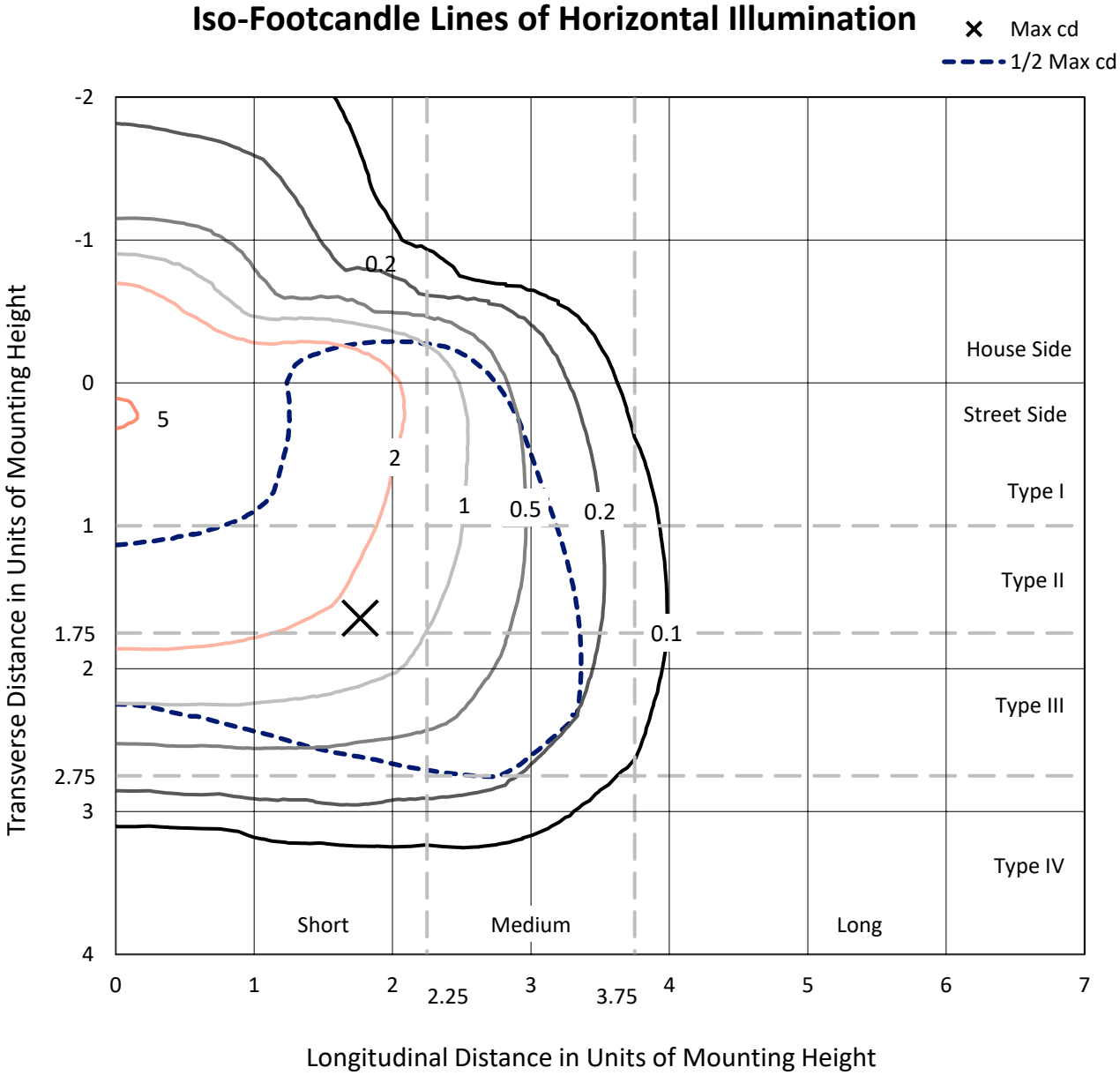
Input Watts (W):	225.3
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination



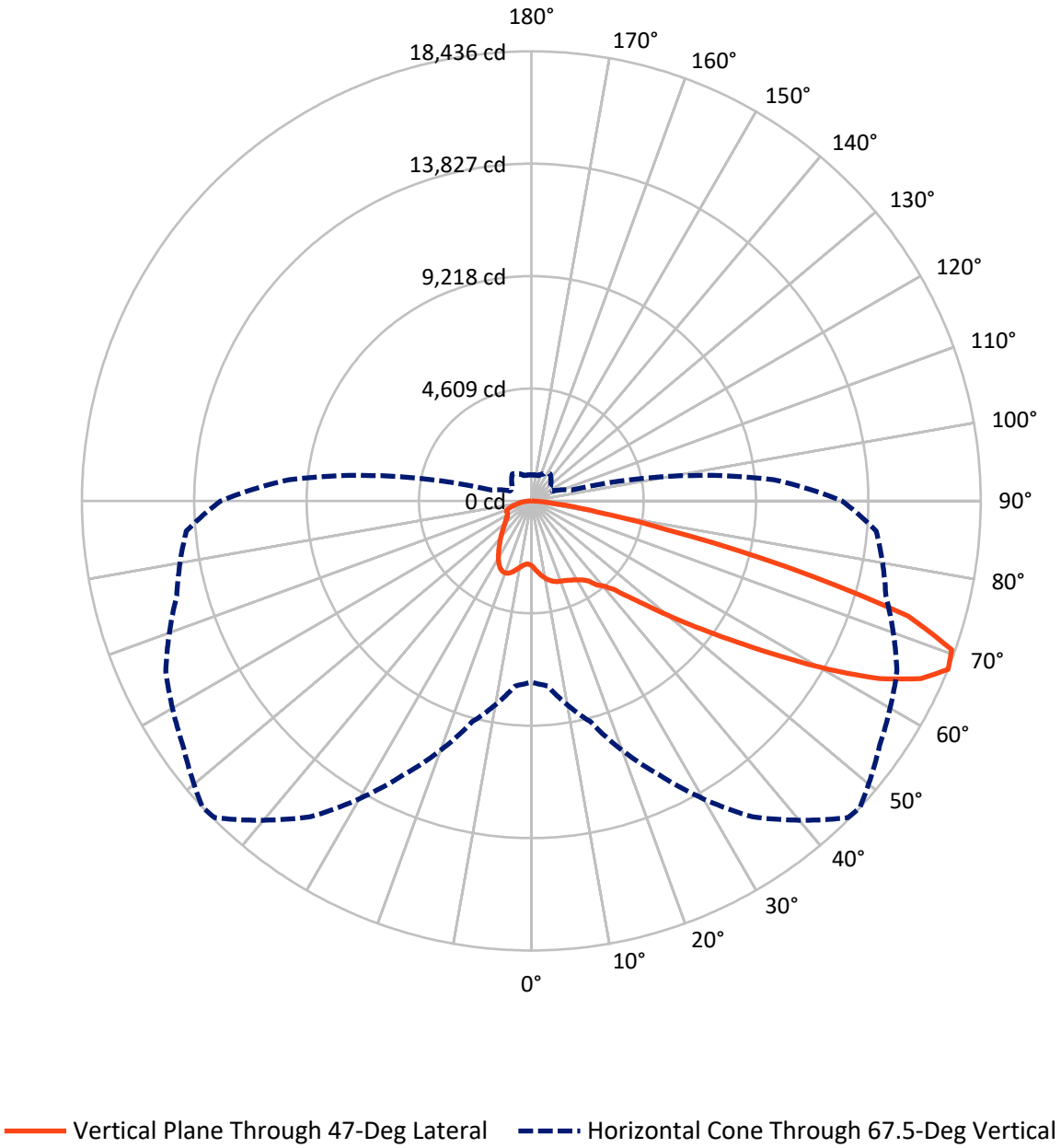
Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

Luminous Intensity Polar Plot



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

Scaled Data Report

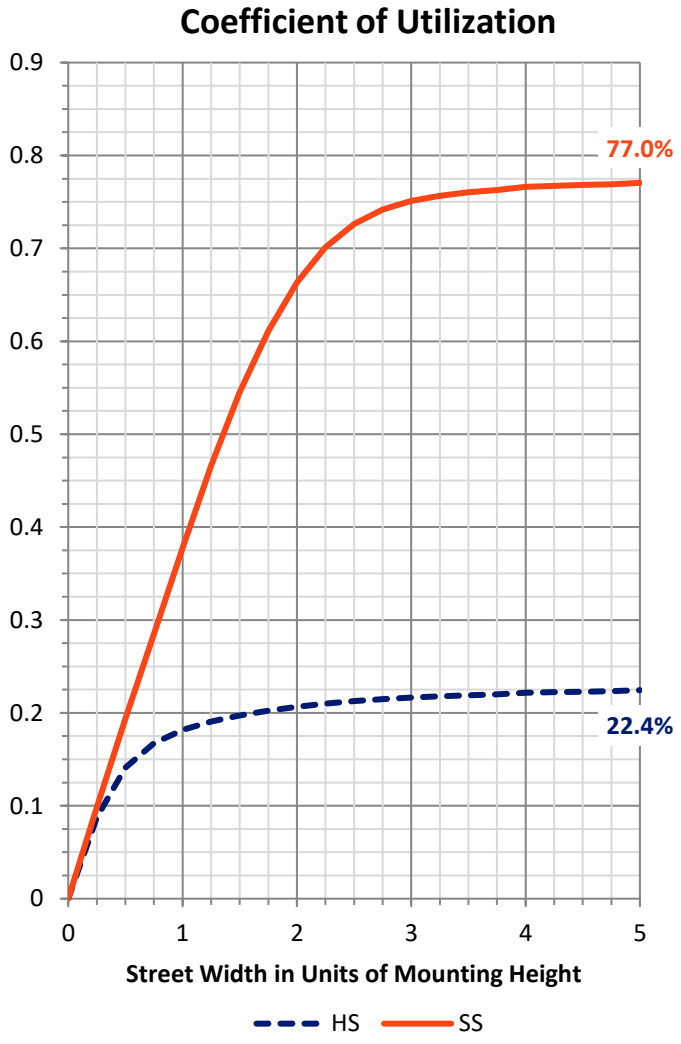
REPORT NUMBER: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6107.3	0.0	6107.3
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	20689.9	0.0	20689.9
	% Fixture	77.2	0.0	77.2
Total	Lumens	26797.2	0.0	26797.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.5	1.0
10°-20°	904.5	3.4
20°-30°	1537.4	5.7
30°-40°	2252.2	8.4
40°-50°	3431.5	12.8
50°-60°	6139.6	22.9
60°-70°	8192.6	30.6
70°-80°	3704.9	13.8
80°-90°	363.0	1.4
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°	26797.2	100.0
0°-180°	26797.2	100.0



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

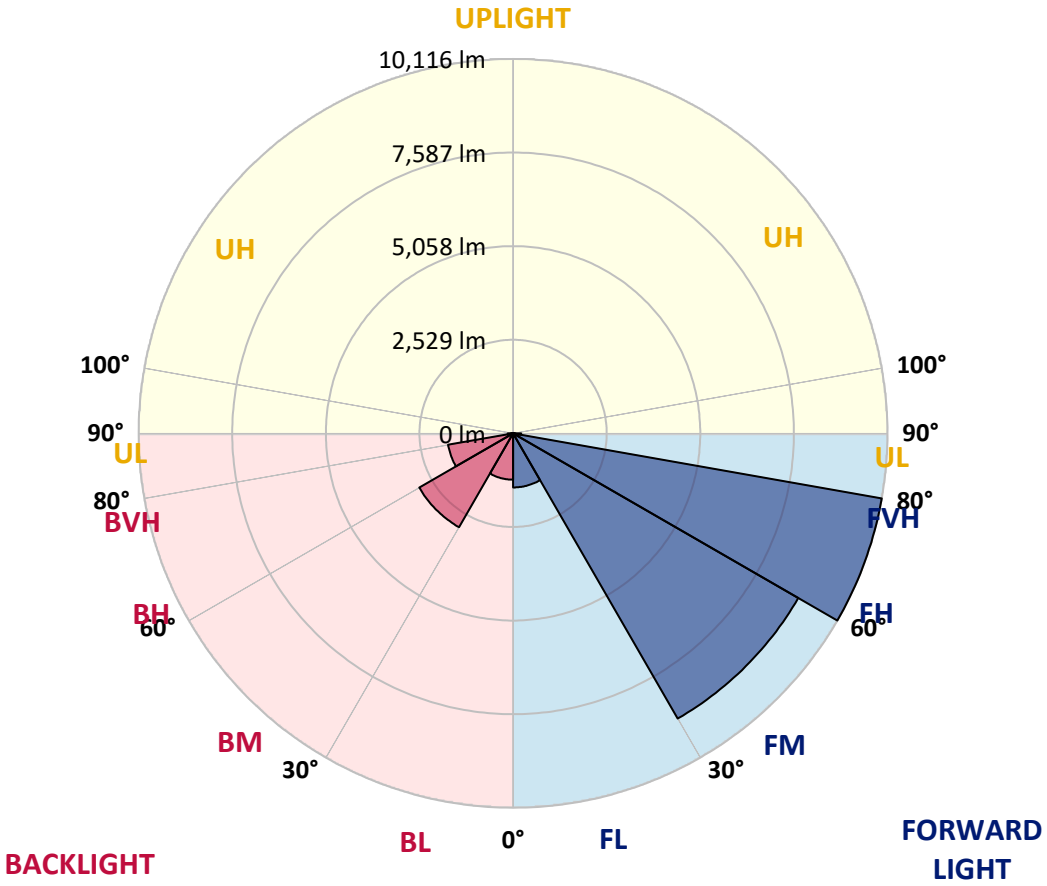
Scaled Data Report

REPORT NUMBER: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1461.4	5.5			
FM	(30°-60°)	8896.9	33.2			
FH	(60°-80°)	10115.6	37.7			G4/12000
FVH	(80°-90°)	215.9	0.8			G2/225
BL	(0°-30°)	1252.0	4.7	B3/2500		
BM	(30°-60°)	2926.3	10.9	B3/5000		
BH	(60°-80°)	1781.9	6.6	B3/2500		G3/2500
BVH	(80°-90°)	147.1	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: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	*2656.5*	2656.5	2656.5	2656.5	2656.5
2.5°	2832.8	2842.5	2840.5	2825.0	2815.3	2797.9	*2799.8*	2772.7	2732.0	2704.9	2673.9
5°	3082.7	3098.2	3078.8	3053.7	3014.9	2958.7	*2952.9*	2890.9	2813.4	2759.1	2703.0
7.5°	3299.7	3309.4	3286.2	3243.5	3187.4	3111.8	*3098.2*	3024.6	2927.7	2842.5	2761.1
10°	3468.3	3479.9	3448.9	3392.7	3319.1	3243.5	*3233.9*	3158.3	3055.6	2954.8	2852.1
12.5°	3611.7	3615.6	3582.6	3507.1	3427.6	3350.1	*3340.4*	3270.7	3175.7	3073.0	2960.7
15°	3695.0	3696.9	3656.3	3572.9	3497.4	3429.6	*3423.7*	3363.7	3276.5	3179.6	3059.5
17.5°	3689.2	3693.1	3664.0	3590.4	3524.5	3483.8	*3478.0*	3439.2	3371.4	3284.2	3164.1
20°	3617.5	3621.4	3602.0	3553.6	3518.7	3507.1	*3509.0*	3497.4	3456.7	3385.0	3262.9
22.5°	3561.3	3567.1	3549.7	3514.8	3510.9	3538.1	*3543.9*	3549.7	3530.3	3466.4	3348.2
25°	3588.4	3598.1	3571.0	3522.6	3530.3	3590.4	*3602.0*	3621.4	3605.9	3551.6	3448.9
27.5°	3776.4	3782.2	3712.4	3613.6	3590.4	3654.3	*3671.8*	3702.8	3691.1	3640.8	3561.3
30°	4212.3	4208.5	4059.3	3817.1	3720.2	3745.4	*3758.9*	3803.5	3807.4	3774.4	3698.9
32.5°	4826.6	4807.2	4576.6	4191.0	3910.1	3848.1	*3863.6*	3923.6	3968.2	3933.3	3830.6
35°	5475.7	5458.2	5204.4	4752.9	4260.8	4045.7	*4028.3*	4074.8	4142.6	4045.7	3898.5
37.5°	6093.8	6066.6	5807.0	5249.0	4692.9	4392.5	*4367.4*	4320.8	4280.2	4094.2	3981.8
40°	6779.7	6748.7	6522.0	5890.3	5169.5	4658.0	*4594.1*	4410.0	4373.2	4255.0	4198.8
42.5°	7512.1	7512.1	7324.1	6702.2	5745.0	5037.8	*4954.4*	4677.4	4716.1	4638.6	4572.7
45°	8244.5	8265.8	8116.6	7519.8	6514.2	5754.7	*5621.0*	5227.6	5320.7	5285.8	5252.8
47.5°	8868.4	8909.1	8880.0	8354.9	7455.9	6626.6	*6423.1*	6014.3	6213.9	6297.2	6390.2
50°	9540.7	9585.3	9556.2	9348.9	8558.4	7682.6	*7500.5*	7078.1	7421.0	7671.0	7975.2
52.5°	10538.6	10602.6	10360.4	10280.9	9897.3	8882.0	*8719.2*	8238.7	8860.6	9275.3	9953.5
55°	11381.5	11379.5	11294.3	11476.4	11335.0	10348.7	*10168.5*	9732.6	10527.0	10966.8	11958.9
57.5°	11772.9	11819.4	12111.9	12627.3	12910.2	12141.0	*11968.6*	11522.9	12315.4	12544.0	13615.5
60°	11974.4	12032.5	12598.3	13617.5	14378.9	14098.0	*14030.2*	13462.4	13908.1	13881.0	15012.5
62.5°	11691.5	11807.7	12716.5	14070.9	15427.2	16064.6	*16043.3*	15185.0	15262.5	14997.0	15878.6
65°	10393.3	10519.2	11945.3	13844.2	16025.9	17560.5	*17566.3*	16744.7	16303.0	15539.6	15733.3
67.5°	*7432.6*	*7612.8*	*9376.0*	*12387.1*	*15814.7*	*18368.5*	*18436.3*	*17452.0*	*16547.1*	*15059.0*	*14206.5*
70°	4051.5	4183.3	5564.8	9004.0	13912.0	18174.7	*18300.6*	17111.0	15469.8	13026.5	10935.8
72.5°	1840.7	1883.3	2588.6	4940.9	9503.9	15644.2	*16171.2*	15270.2	12704.8	9622.1	6954.0
75°	842.9	862.2	1127.7	2363.9	4966.1	10468.9	*10838.9*	11373.7	8841.3	6076.3	3625.3
77.5°	529.0	534.8	641.3	1081.2	2476.3	5225.7	*5615.2*	6771.9	5177.3	3007.2	1515.2
80°	312.0	317.8	399.1	585.2	1162.6	2391.0	*2761.1*	2677.8	2433.6	1298.2	689.8
82.5°	156.9	162.8	230.6	333.3	633.6	951.4	*1119.9*	1125.7	906.8	703.3	389.5
85°	56.2	58.1	75.6	131.8	269.3	313.9	*350.7*	428.2	443.7	408.8	187.9
87.5°	0.0	0.0	1.9	3.9	7.8	31.0	*32.9*	62.0	129.8	145.3	75.6
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: P639002
CATALOG NUMBER: GWS-SA4F-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5	2656.5
2.5°	2664.2	2635.1	2625.4	2615.8	2600.3	2594.4	2582.8	2571.2	2571.2	2559.6	2553.8
5°	2677.8	2639.0	2613.8	2602.2	2592.5	2598.3	2598.3	2602.2	2615.8	2608.0	2611.9
7.5°	2726.2	2681.6	2646.8	2637.1	2637.1	2660.3	2675.8	2695.2	2720.4	2724.3	2724.3
10°	2811.5	2759.1	2722.3	2716.5	2726.2	2759.1	2782.4	2805.6	2836.6	2838.6	2842.5
12.5°	2904.5	2852.1	2815.3	2823.1	2832.8	2875.4	2900.6	2920.0	2951.0	2951.0	2949.0
15°	3001.3	2943.2	2912.2	2927.7	2956.8	3005.2	3009.1	3011.0	3026.5	3022.7	3020.7
17.5°	3102.1	3040.1	3016.8	3040.1	3071.1	3094.3	3075.0	3047.8	3042.0	3034.3	3030.4
20°	3200.9	3137.0	3127.3	3144.7	3154.4	3135.0	3075.0	3024.6	3001.3	2989.7	2985.8
22.5°	3286.2	3231.9	3226.1	3226.1	3177.7	3109.8	3020.7	2952.9	2921.9	2906.4	2902.5
25°	3386.9	3336.5	3326.9	3274.5	3150.5	3026.5	2906.4	2844.4	2819.2	2811.5	2813.4
27.5°	3505.1	3470.2	3439.2	3290.0	3073.0	2879.3	2743.6	2716.5	2706.8	2716.5	2722.3
30°	3650.4	3615.6	3545.8	3270.7	2949.0	2687.5	2557.6	2555.7	2584.8	2609.9	2613.8
32.5°	3768.6	3753.1	3638.8	3208.7	2774.6	2476.3	2365.8	2373.6	2425.9	2460.8	2466.6
35°	3861.6	3886.8	3716.3	3106.0	2567.3	2276.7	2189.5	2193.4	2222.4	2270.9	2272.8
37.5°	3993.4	4078.6	3786.1	2949.0	2329.0	2104.2	2024.8	1995.7	1991.9	2005.4	2009.3
40°	4258.8	4386.7	3836.4	2720.4	2098.4	1949.2	1860.1	1803.9	1755.5	1718.7	1707.0
42.5°	4659.9	4807.2	3865.5	2443.3	1893.0	1796.2	1695.4	1623.7	1538.5	1461.0	1433.8
45°	5396.2	5444.7	3865.5	2148.8	1710.9	1652.8	1552.0	1466.8	1358.3	1267.2	1247.8
47.5°	6574.3	6419.3	3869.4	1864.0	1550.1	1526.8	1439.6	1342.8	1222.6	1147.1	1135.4
50°	8349.1	7804.7	3948.8	1627.6	1416.4	1420.3	1356.3	1249.8	1141.2	1085.1	1075.4
52.5°	10360.4	9511.7	4162.0	1453.2	1304.0	1333.1	1298.2	1195.5	1098.6	1050.2	1040.5
55°	12251.4	11081.1	4344.1	1329.2	1209.1	1259.4	1257.5	1162.6	1075.4	1026.9	1021.1
57.5°	13859.7	12156.5	4317.0	1228.4	1127.7	1191.6	1220.7	1141.2	1059.9	1019.2	1013.4
60°	14859.5	12726.2	3931.4	1135.4	1065.7	1143.2	1199.4	1135.4	1067.6	1057.9	1059.9
62.5°	15293.5	12621.5	3191.2	1065.7	1025.0	1119.9	1222.6	1176.1	1139.3	1162.6	1176.1
65°	14619.2	11722.5	2348.4	1013.4	986.2	1125.7	1276.9	1240.1	1139.3	1154.8	1160.6
67.5°	*12747.5*	*9978.6*	*1697.3*	*961.0*	*937.8*	*1143.2*	*1354.4*	*1230.4*	*1073.4*	*1073.4*	*1061.8*
70°	9186.2	7176.9	1232.3	908.7	889.4	1118.0	1358.3	1164.5	997.9	992.1	963.0
72.5°	5528.0	4233.7	961.0	850.6	815.7	992.1	1273.0	1087.0	924.2	875.8	840.9
75°	2871.5	2121.7	806.0	786.7	699.5	840.9	1164.5	966.9	790.5	747.9	728.5
77.5°	1230.4	992.1	691.7	701.4	581.3	707.2	939.7	837.0	701.4	647.2	629.7
80°	606.5	563.8	546.4	561.9	465.0	546.4	809.9	732.4	594.8	532.8	507.7
82.5°	346.8	329.4	393.3	399.1	331.3	457.3	684.0	620.0	492.2	424.3	383.6
85°	160.8	172.4	238.3	240.3	205.4	313.9	447.6	348.8	261.6	217.0	207.3
87.5°	63.9	75.6	104.6	102.7	60.1	58.1	38.8	21.3	17.4	15.5	13.6
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

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

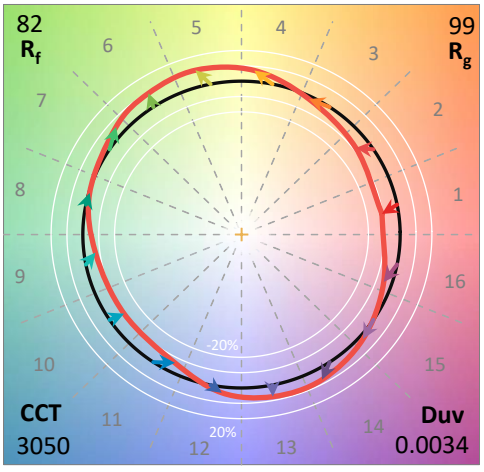
Test Information

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

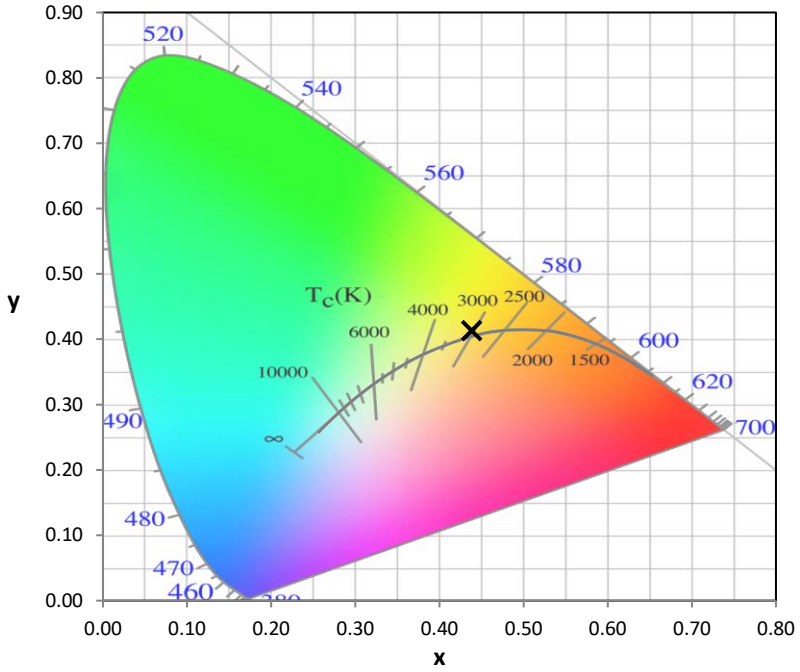
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

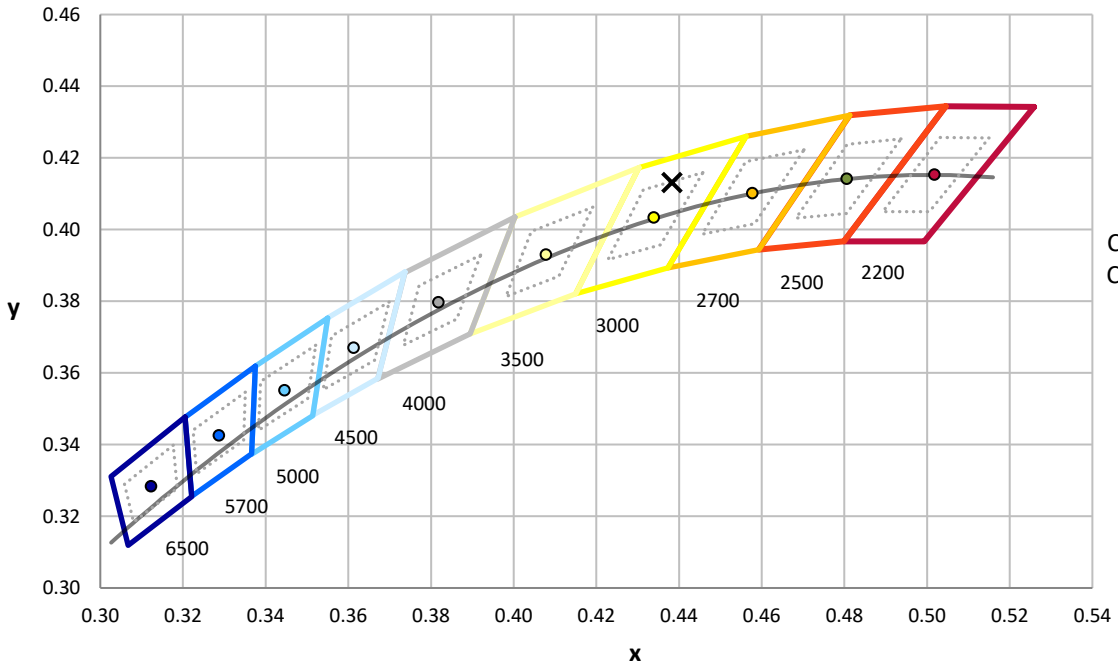
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

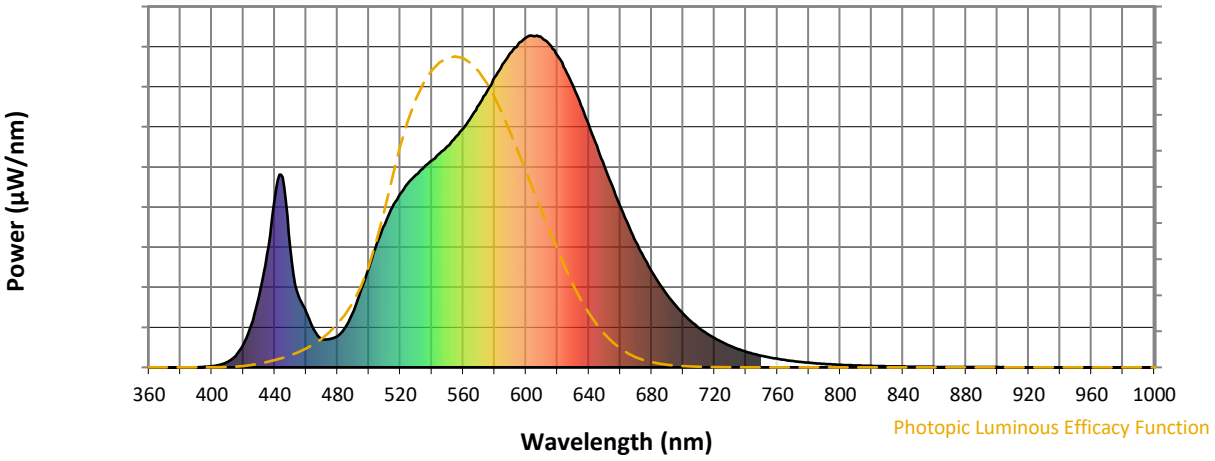


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

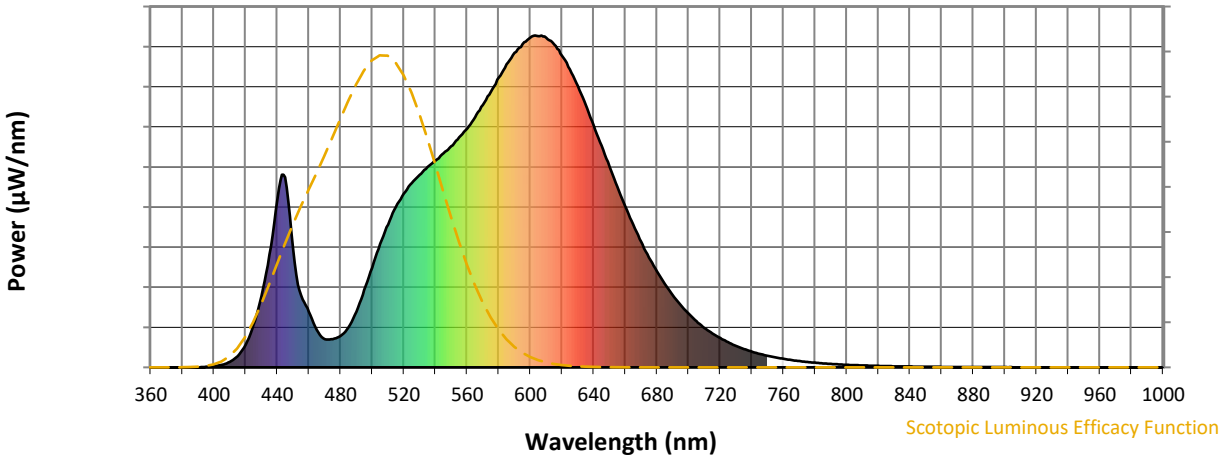


Photopic Lumens: NR

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

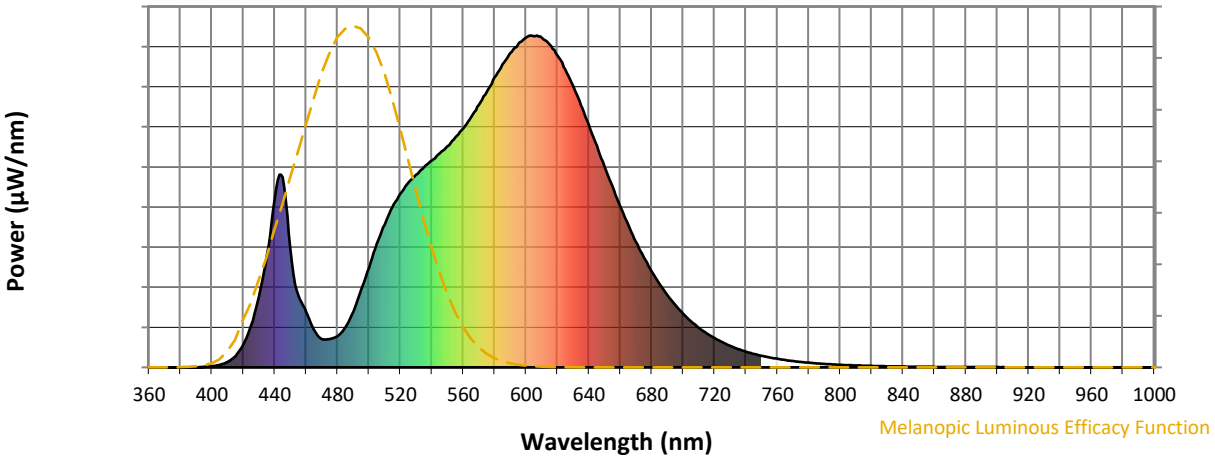


Scotopic Lumens: NR **S/P: 1.27**

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			

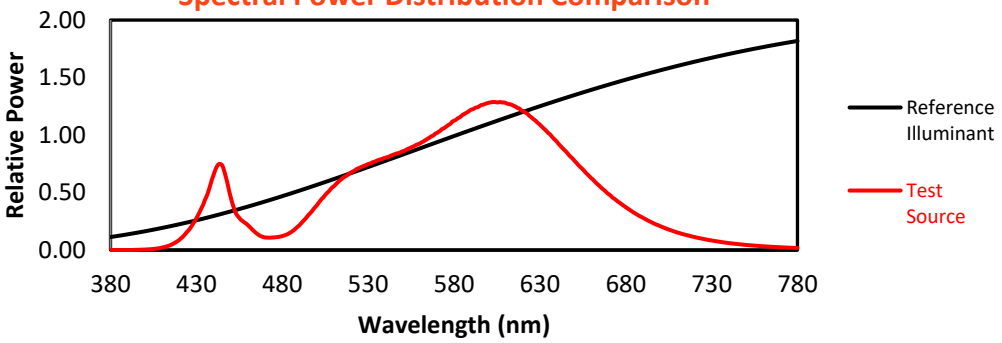
REPORT NUMBER: SP1-2408-195-9

TM-30-18

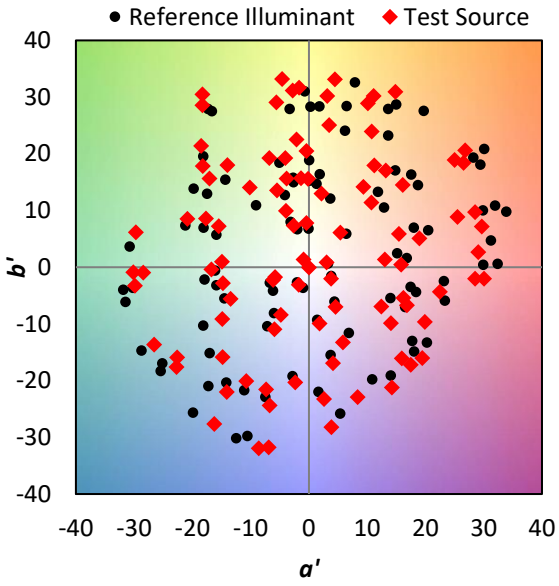
Summary

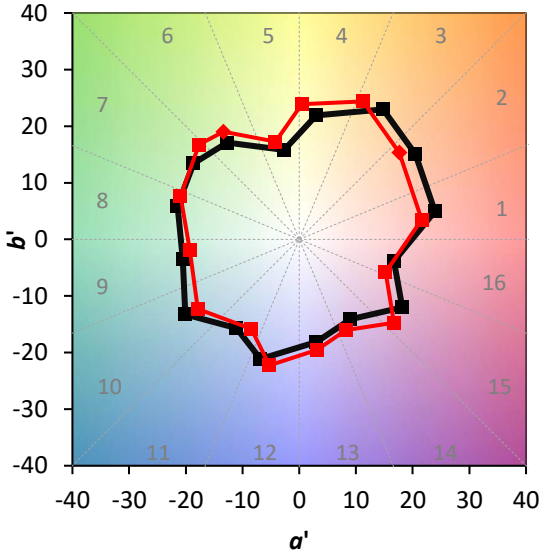
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

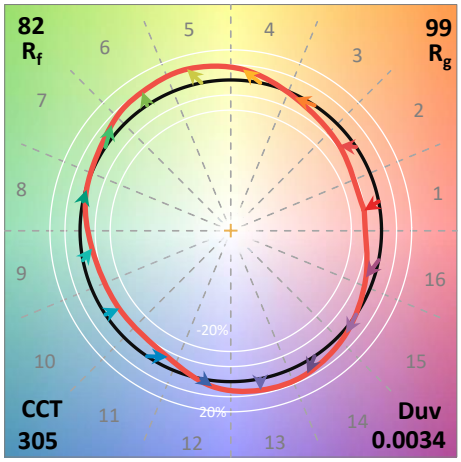
Spectral Power Distribution Comparison

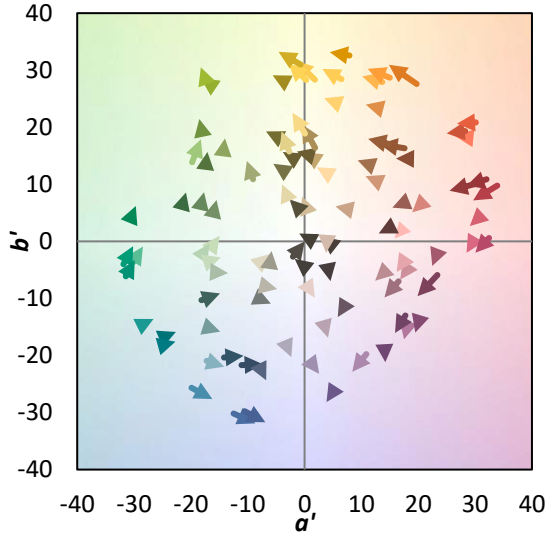


Color Vector Graphics







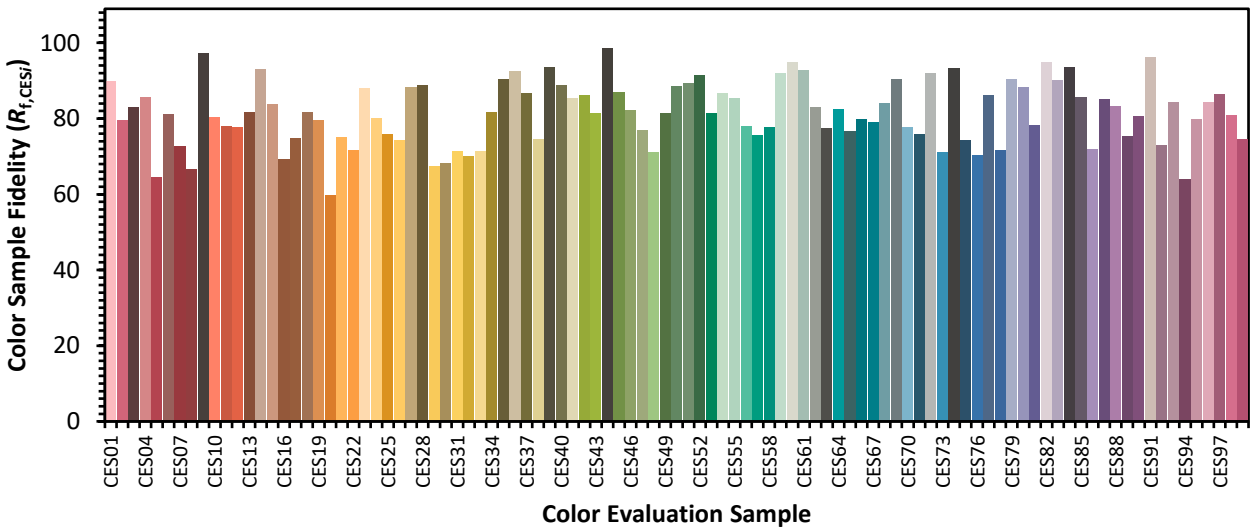


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

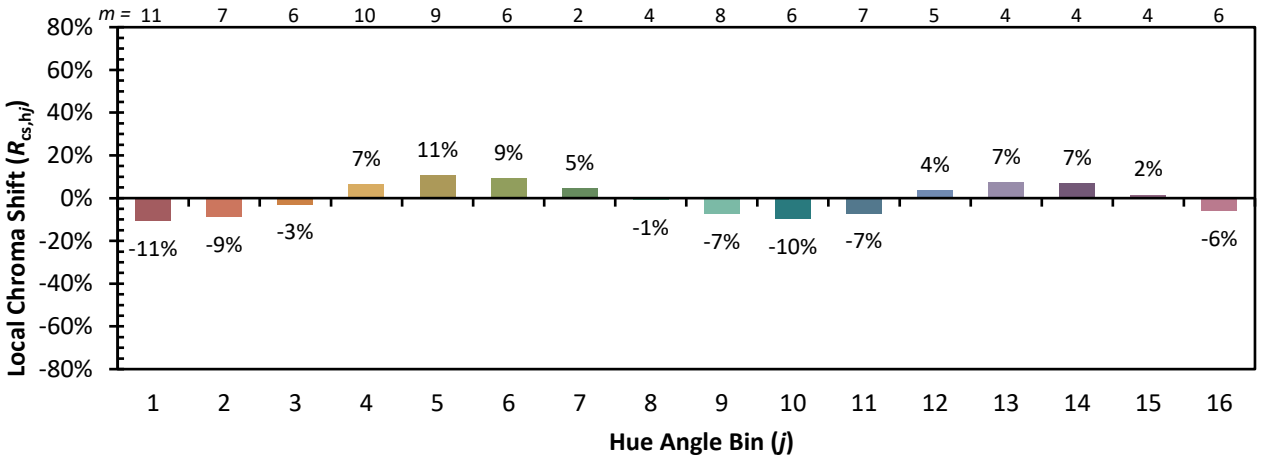
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

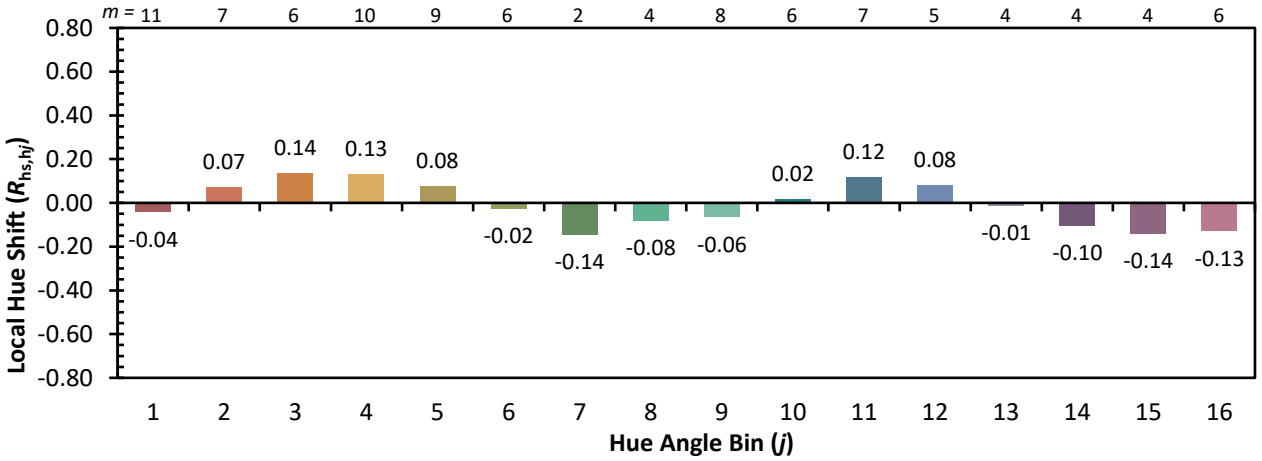


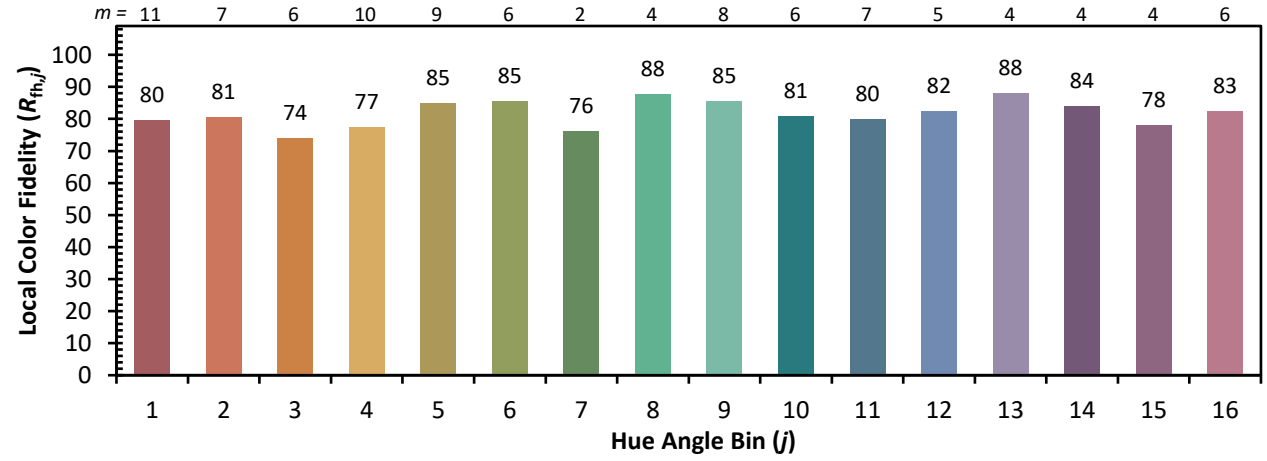
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



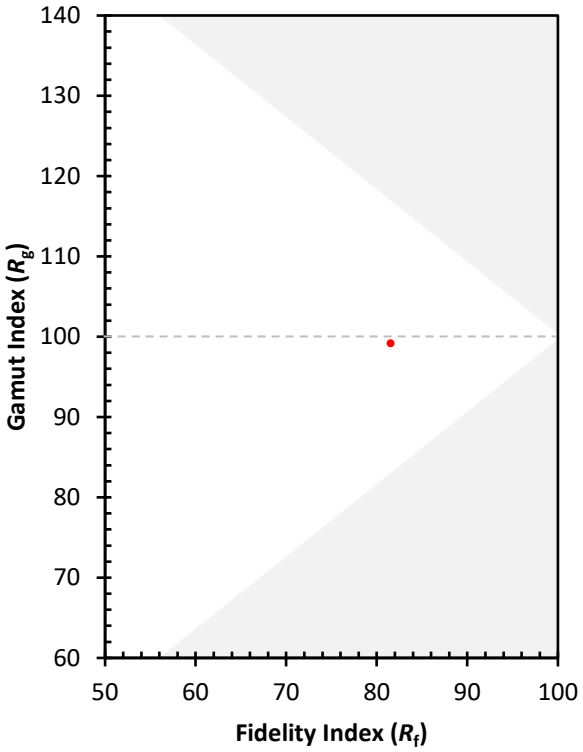


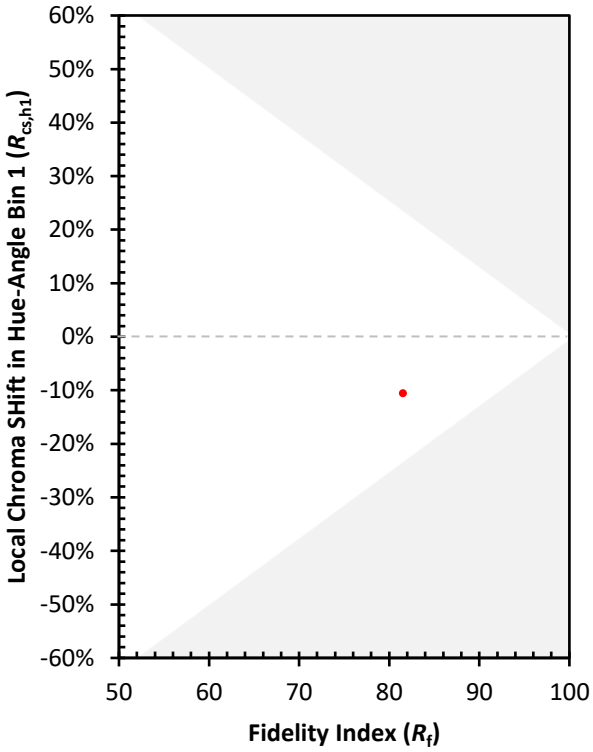


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)