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: P638988

Luminaire Tested: GWS-SA4F-830-U-T2R-W-GRSWH

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:	P638988
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-13)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4F-830-U-T2R-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23788.1 lumens
Efficiency:	N/A
Efficacy:	105.6 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G2

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

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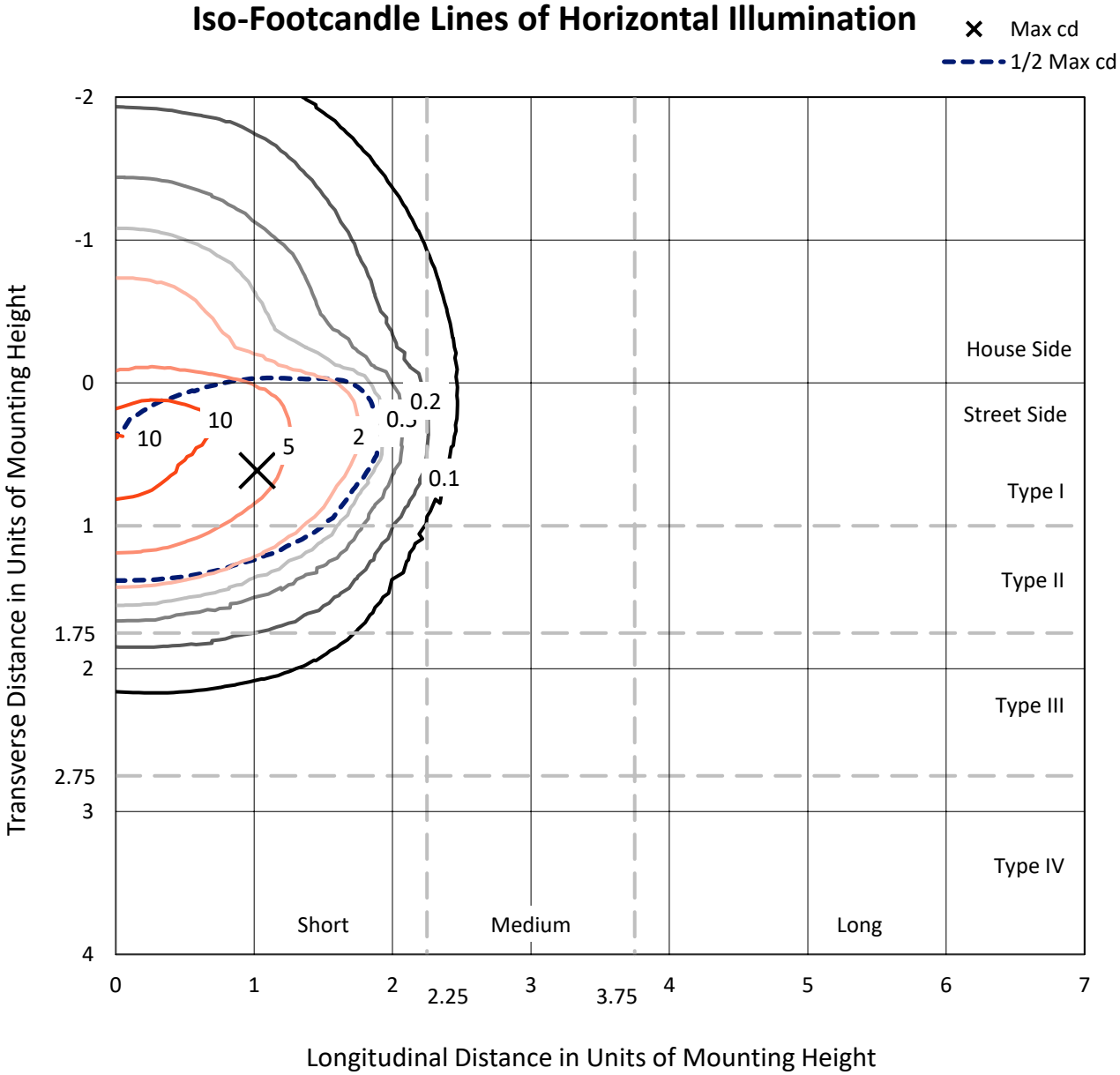
Scaled Data Report

REPORT NUMBER: P638988
CATALOG NUMBER: GWS-SA4F-830-U-T2R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
Type II - Short - N/A

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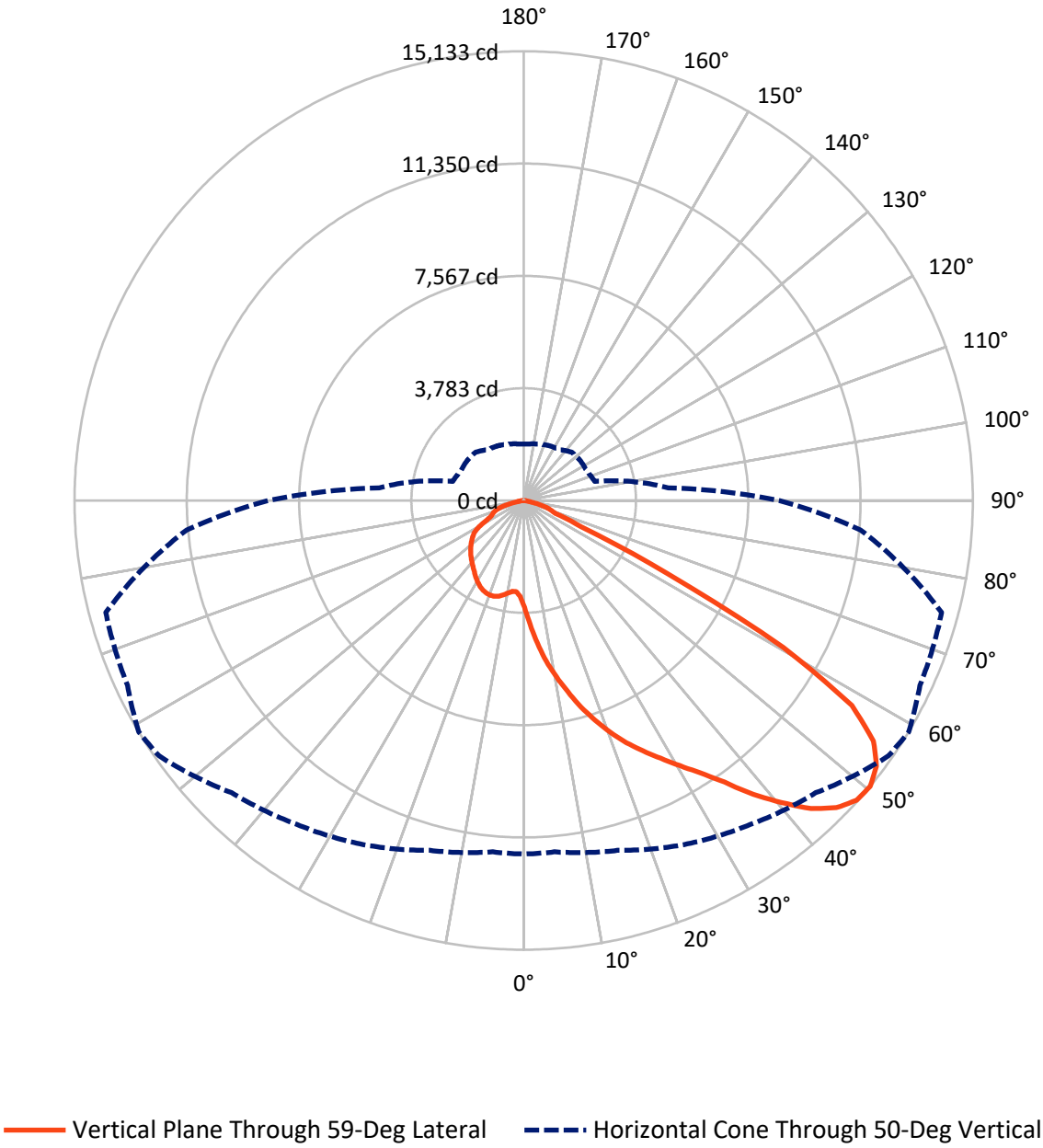
Luminous Intensity Polar Plot



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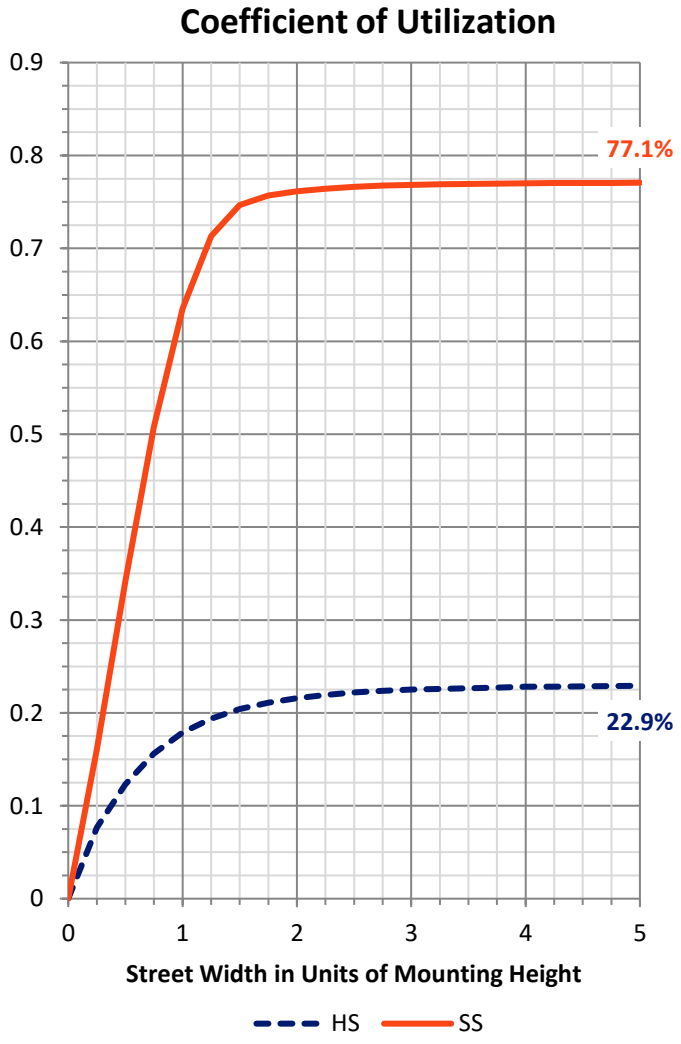
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5471.7	0.0	5471.7
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	18316.4	0.0	18316.4
	% Fixture	77.0	0.0	77.0
Total	Lumens	23788.1	0.0	23788.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.3	1.7
10°-20°	1467.7	6.2
20°-30°	2779.3	11.7
30°-40°	4608.9	19.4
40°-50°	6296.0	26.5
50°-60°	5715.2	24.0
60°-70°	1903.2	8.0
70°-80°	555.1	2.3
80°-90°	58.3	0.2
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°	23788.1	100.0
0°-180°	23788.1	100.0



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REPORT NUMBER: P638988
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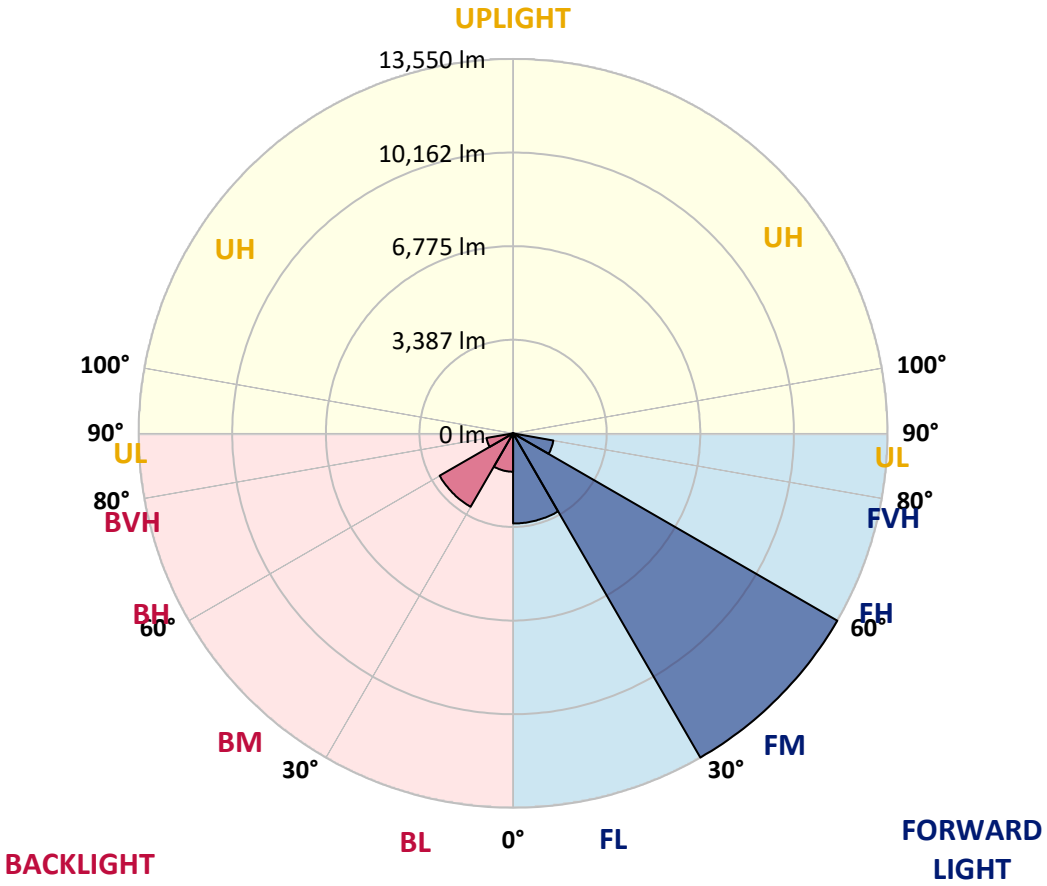
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	3261.9	13.7			
FM	(30°-60°)	13550.0	57.0			
FH	(60°-80°)	1481.7	6.2			G1/1800
FVH	(80°-90°)	22.8	0.1			G1/100
BL	(0°-30°)	1389.4	5.8	B3/2500		
BM	(30°-60°)	3070.2	12.9	B3/5000		
BH	(60°-80°)	976.7	4.1	B2/1000		G2/1000
BVH	(80°-90°)	35.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type II Short



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REPORT NUMBER: P638988
CATALOG NUMBER: GWS-SA4F-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	*3604.1*	3604.1	3604.1	3604.1
2.5°	4669.8	4704.7	4650.4	4654.3	4518.6	4456.6	4282.2	*4179.6*	4111.7	3921.8	3749.4
5°	5611.5	5570.8	5528.2	5503.0	5384.8	5218.1	5001.1	*4828.7*	4669.8	4297.8	3939.3
7.5°	6188.9	6167.6	6138.5	6123.0	6006.8	5832.4	5615.4	*5468.1*	5237.5	4733.7	4169.9
10°	6679.1	6654.0	6636.5	6648.1	6553.2	6440.8	6204.4	*6035.8*	5776.2	5194.9	4448.9
12.5°	7058.9	7072.5	7078.3	7140.3	7099.6	7031.8	6787.7	*6609.4*	6320.7	5681.2	4776.4
15°	7359.3	7355.4	7423.2	7541.4	7607.3	7564.7	7369.0	*7219.8*	6867.1	6159.9	5129.0
17.5°	7429.0	7432.9	7539.5	7746.8	7961.9	8066.5	7956.1	*7777.8*	7429.0	6632.6	5495.2
20°	7485.2	7493.0	7603.4	7839.8	8153.7	8446.3	8463.7	*8335.9*	8035.5	7144.2	5867.3
22.5°	7839.8	7857.3	7886.3	8035.5	8318.4	8688.5	8892.0	*8864.8*	8612.9	7680.9	6268.4
25°	8771.8	8719.5	8578.1	8535.4	8643.9	8944.3	9291.1	*9343.4*	9219.4	8271.9	6700.5
27.5°	9922.8	9866.6	9657.3	9436.5	9202.0	9306.6	9676.7	*9833.7*	9835.6	8923.0	7134.5
30°	10967.2	10922.6	10752.1	10436.3	10031.3	9880.2	10153.4	*10364.6*	10490.5	9674.8	7628.6
32.5°	11860.5	11819.8	11589.2	11331.5	10936.2	10632.0	10730.8	*10934.3*	11228.8	10647.5	8242.8
35°	12612.3	12571.6	12350.7	12091.1	11724.8	11542.7	11507.8	*11647.3*	12029.1	11662.8	8948.2
37.5°	13222.7	13182.0	12951.4	12707.2	12428.2	12439.8	12492.2	*12560.0*	12778.9	12749.9	9701.9
40°	13617.9	13575.3	13410.6	13236.2	13059.9	13199.4	13459.1	*13377.7*	13493.9	13627.6	10395.6
42.5°	13794.3	13740.0	13645.1	13606.3	13552.1	13769.1	14269.0	*14187.6*	14048.1	14212.8	10911.0
45°	13617.9	13571.4	13569.5	13687.7	13813.6	14092.7	14829.0	*14763.1*	14410.4	14495.7	11219.1
47.5°	13077.3	13036.6	13147.1	13457.1	13767.1	14174.1	15078.9	*15090.6*	14668.2	14613.9	11418.7
50°	*11908.9*	*11881.8*	*12201.5*	*12788.6*	*13323.4*	*13920.2*	*14999.5*	*15133.2*	*14730.2*	*14577.1*	*11393.5*
52.5°	9533.3	9659.3	10354.9	11335.4	12374.0	13474.6	14705.0	*14879.4*	14431.8	14334.9	11257.9
55°	6526.1	6584.2	7279.8	8711.8	10358.8	12509.6	14028.7	*14298.1*	14079.1	14294.2	11399.3
57.5°	3379.3	3425.8	3974.2	5245.3	7026.0	9886.0	12151.1	*13034.7*	13368.0	14499.6	11839.2
60°	1387.4	1426.1	1652.8	2267.1	3544.0	5756.8	8744.7	*10054.6*	10837.4	13242.0	10513.8
62.5°	1007.6	1027.0	1135.5	1352.5	1856.3	2821.2	4948.8	*5431.3*	5981.6	8299.0	6675.3
65°	848.7	870.0	957.2	1089.0	1354.4	1730.3	2114.0	*2125.6*	2342.6	3381.2	2474.4
67.5°	711.1	730.5	808.0	920.4	1094.8	1228.5	1135.5	*1137.4*	1133.5	1226.5	1185.9
70°	554.2	569.7	647.2	767.3	858.4	788.6	887.5	*982.4*	941.7	978.5	1034.7
72.5°	405.0	422.4	490.2	581.3	558.0	561.9	718.9	*815.8*	792.5	833.2	885.5
75°	292.6	304.2	339.1	290.7	306.2	370.1	505.7	*558.0*	581.3	616.2	662.7
77.5°	94.9	94.9	106.6	133.7	166.6	205.4	257.7	*279.0*	313.9	352.7	385.6
80°	48.4	50.4	60.1	73.6	93.0	118.2	151.1	*160.8*	178.3	199.6	213.1
82.5°	23.3	25.2	29.1	36.8	48.4	62.0	83.3	*93.0*	104.6	118.2	127.9
85°	5.8	5.8	7.8	11.6	15.5	23.3	31.0	*36.8*	46.5	56.2	62.0
87.5°	0.0	0.0	0.0	0.0	0.0	1.9	5.8	*7.8*	9.7	11.6	15.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0

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Scaled Data Report

REPORT NUMBER: P638988
CATALOG NUMBER: GWS-SA4F-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1
2.5°	3671.9	3563.4	3423.9	3305.7	3197.2	3113.8	3042.1	3007.3	2974.3	2951.1	2958.8
5°	3772.6	3586.6	3327.0	3146.8	3036.3	2980.1	2941.4	2922.0	2918.1	2902.6	2896.8
7.5°	3919.9	3654.4	3307.6	3125.5	3051.8	3022.8	3001.5	2989.8	2995.6	2980.1	2974.3
10°	4102.0	3766.8	3356.0	3195.2	3131.3	3110.0	3086.7	3071.2	3063.5	3040.2	3036.3
12.5°	4328.8	3906.3	3443.2	3284.3	3220.4	3183.6	3152.6	3125.5	3108.0	3079.0	3071.2
15°	4572.9	4061.4	3545.9	3371.5	3296.0	3241.7	3191.3	3150.7	3119.6	3080.9	3075.1
17.5°	4838.4	4224.1	3631.2	3431.6	3334.7	3263.0	3189.4	3129.3	3086.7	3036.3	3030.5
20°	5115.4	4388.8	3695.1	3460.7	3336.7	3239.8	3141.0	3061.5	3007.3	2956.9	2953.0
22.5°	5402.2	4540.0	3733.9	3452.9	3305.7	3185.5	3067.3	2978.2	2914.3	2854.2	2850.3
25°	5690.9	4685.3	3743.6	3421.9	3243.7	3104.1	2985.9	2881.3	2809.6	2741.8	2734.1
27.5°	5983.5	4807.4	3720.3	3359.9	3160.3	3009.2	2891.0	2788.3	2714.7	2646.9	2635.2
30°	6295.5	4912.0	3669.9	3278.5	3063.5	2908.4	2792.2	2714.7	2644.9	2577.1	2565.5
32.5°	6628.8	5003.1	3598.3	3179.7	2951.1	2807.7	2722.4	2652.7	2582.9	2522.8	2511.2
35°	7026.0	5063.1	3491.7	3051.8	2846.4	2734.1	2675.9	2594.5	2509.3	2443.4	2437.6
37.5°	7436.8	5109.6	3363.8	2929.8	2755.4	2691.4	2643.0	2532.5	2426.0	2346.5	2336.8
40°	7834.0	5148.4	3204.9	2815.4	2672.0	2660.4	2594.5	2457.0	2272.9	2183.8	2176.0
42.5°	8204.1	5160.0	3038.3	2693.4	2596.5	2590.7	2517.0	2303.9	2162.4	2106.2	2098.5
45°	8457.9	5150.3	2865.8	2579.0	2520.9	2489.9	2412.4	2193.4	2106.2	2055.9	2046.2
47.5°	8645.9	5099.9	2672.0	2458.9	2435.7	2393.0	2226.4	2123.7	2042.3	1991.9	1982.2
50°	*8612.9*	*4890.7*	*2476.3*	*2342.6*	*2333.0*	*2296.1*	*2090.7*	*2036.5*	*1964.8*	*1910.5*	*1902.8*
52.5°	8442.4	4493.5	2276.8	2214.8	2234.1	2162.4	1993.9	1931.9	1869.9	1807.8	1794.3
55°	8485.1	4206.7	2125.6	2090.7	2125.6	1962.9	1885.4	1819.5	1761.3	1701.3	1689.6
57.5°	8671.1	3923.8	1964.8	1957.0	1993.9	1809.8	1745.8	1662.5	1579.2	1530.8	1530.8
60°	7281.8	2860.0	1681.9	1701.3	1784.6	1685.8	1629.6	1544.3	1453.3	1410.6	1410.6
62.5°	4305.5	1794.3	1395.1	1373.8	1426.1	1488.1	1519.1	1449.4	1340.9	1284.7	1286.6
65°	1897.0	1306.0	1230.4	1213.0	1197.5	1240.1	1325.4	1331.2	1216.9	1151.0	1152.9
67.5°	1168.4	1182.0	1151.0	1137.4	1123.8	1116.1	1108.3	1112.2	1081.2	1021.2	1019.2
70°	1054.1	1090.9	1069.6	1058.0	1040.5	1027.0	980.5	904.9	852.6	837.1	854.5
72.5°	906.8	957.2	945.6	939.8	918.5	885.5	823.5	749.9	687.9	649.1	656.9
75°	684.0	724.7	730.5	732.4	709.2	678.2	614.2	552.2	498.0	457.3	467.0
77.5°	393.3	416.6	422.4	428.2	410.8	399.2	356.5	312.0	282.9	240.3	251.9
80°	219.0	228.6	228.6	230.6	220.9	207.3	178.3	153.1	139.5	120.1	122.1
82.5°	131.8	135.6	137.6	139.5	133.7	120.1	98.8	81.4	73.6	63.9	62.0
85°	63.9	67.8	67.8	69.8	60.1	52.3	40.7	31.0	27.1	19.4	21.3
87.5°	15.5	17.4	17.4	15.5	13.6	9.7	5.8	1.9	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

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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

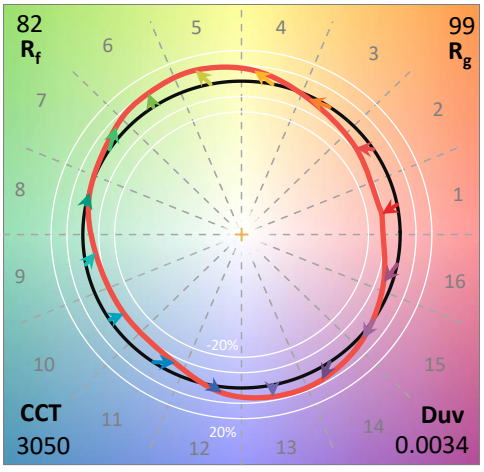
Test Information

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

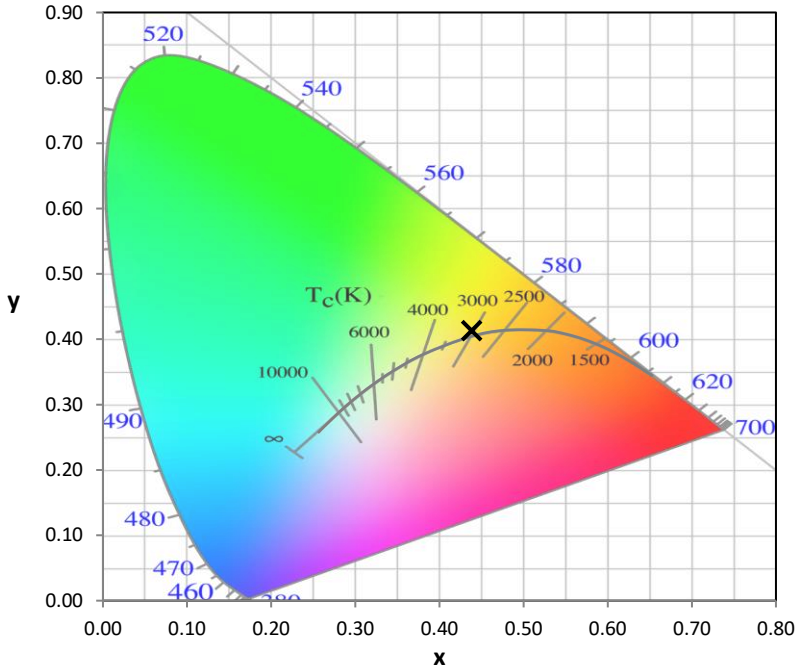
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

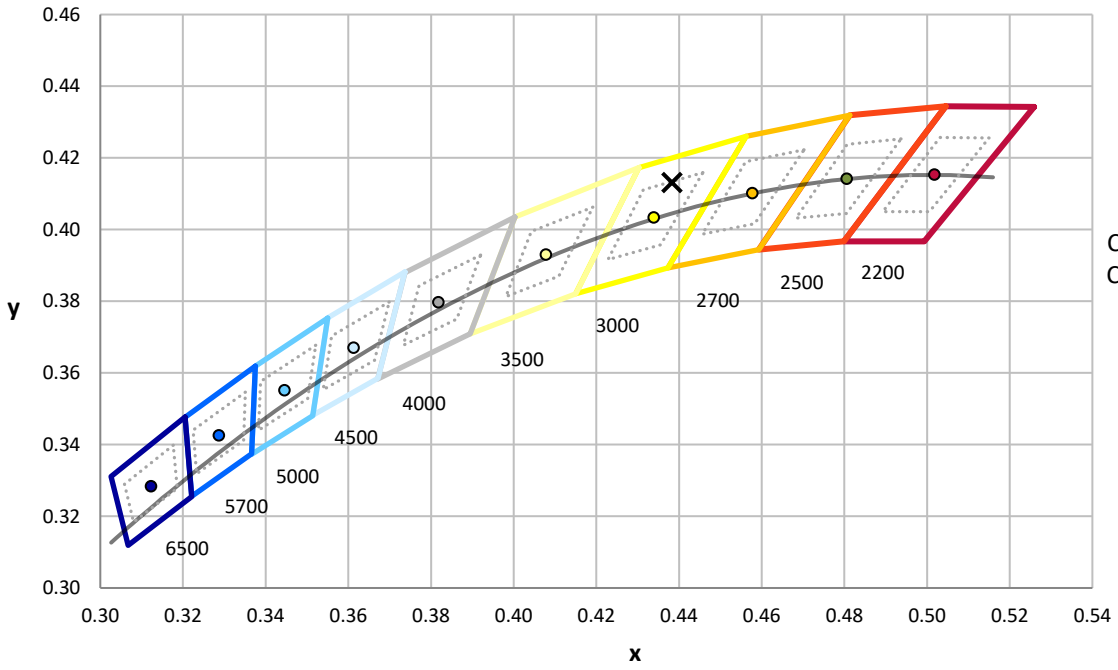
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

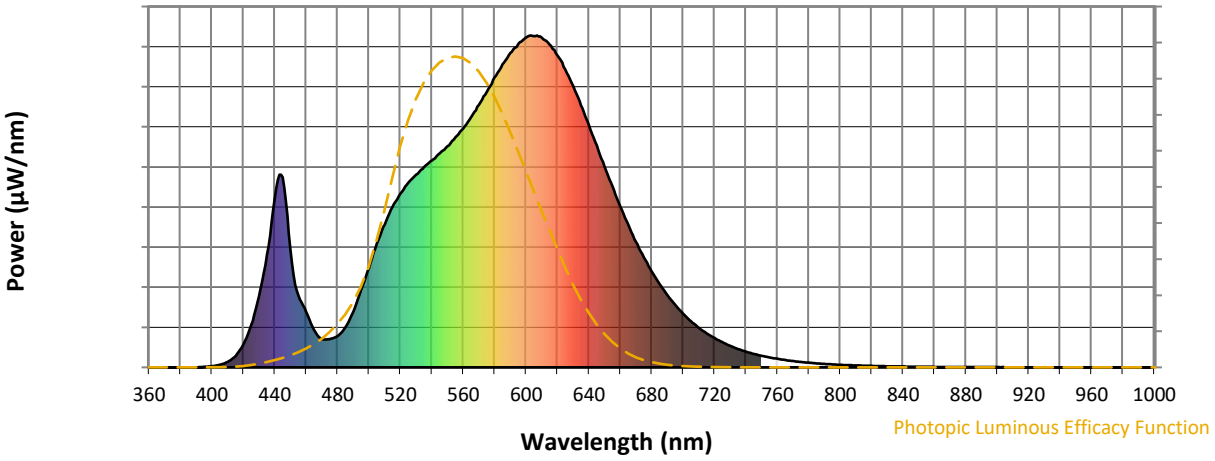


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

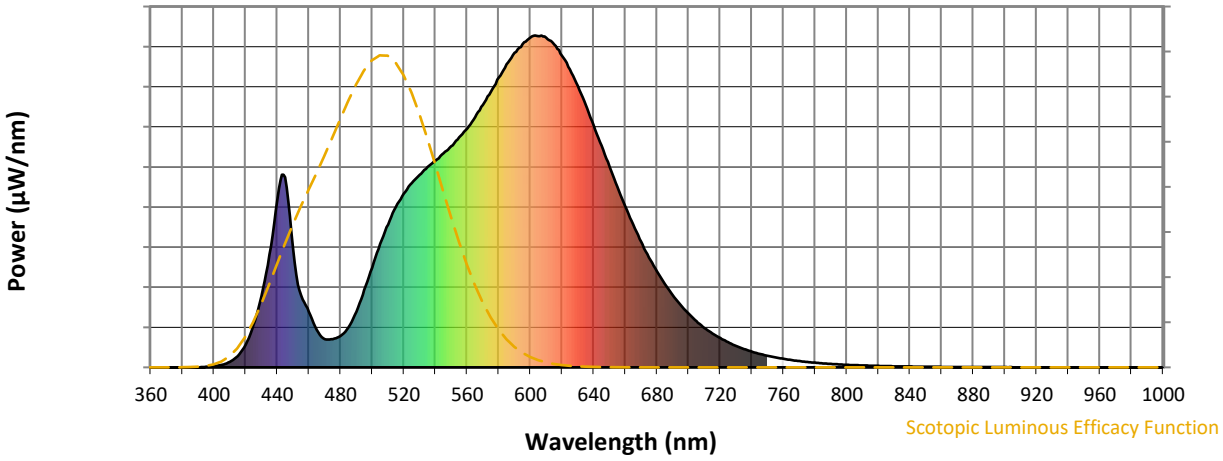


Photopic Lumens: NR

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

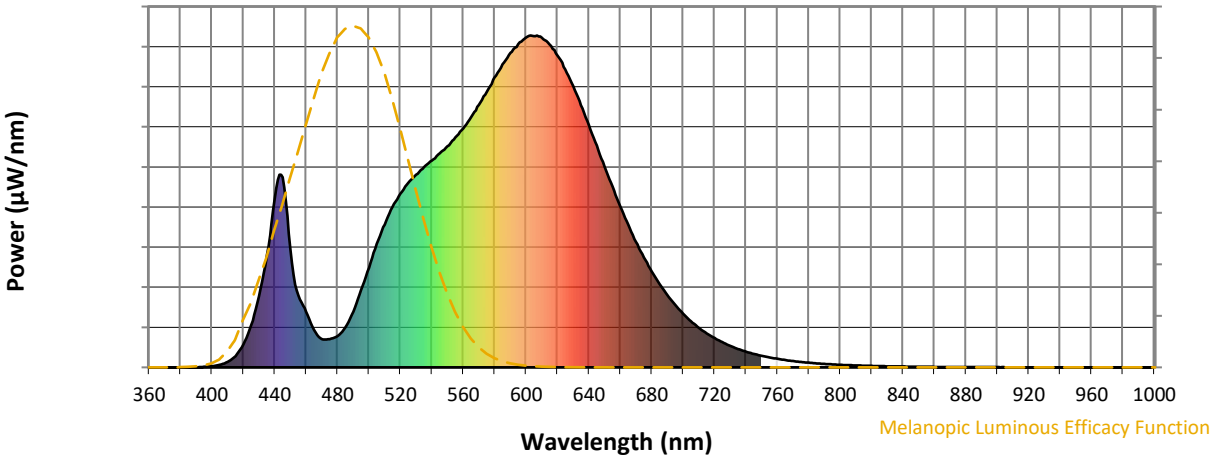


Scotopic Lumens: NR **S/P: 1.27**

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			

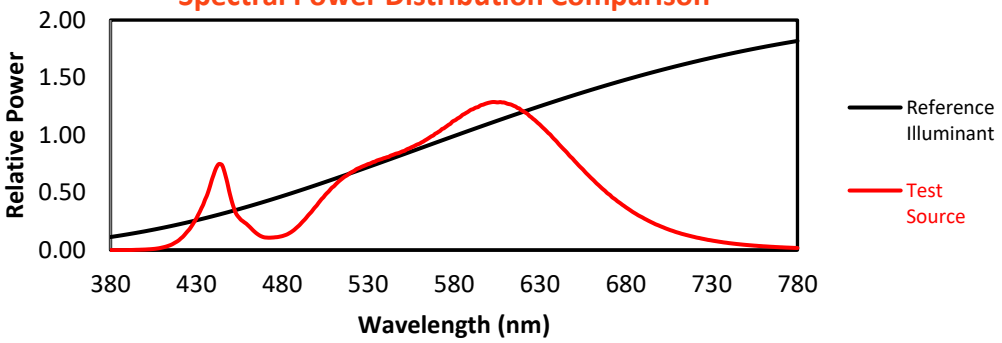
REPORT NUMBER: SP1-2408-195-9

TM-30-18

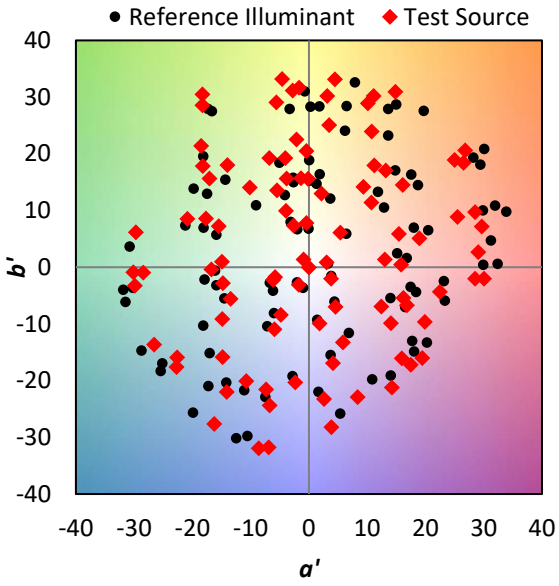
Summary

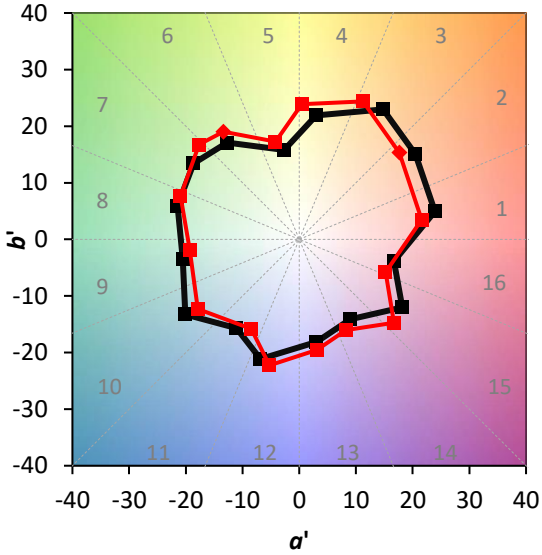
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

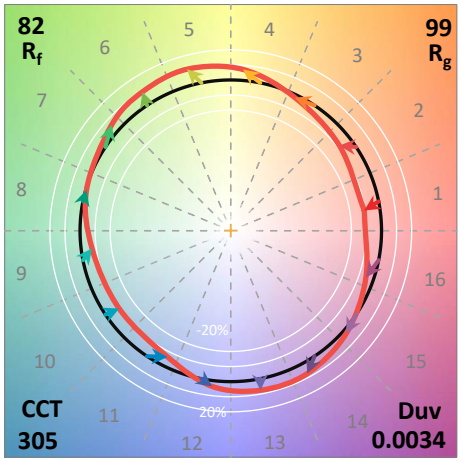
Spectral Power Distribution Comparison

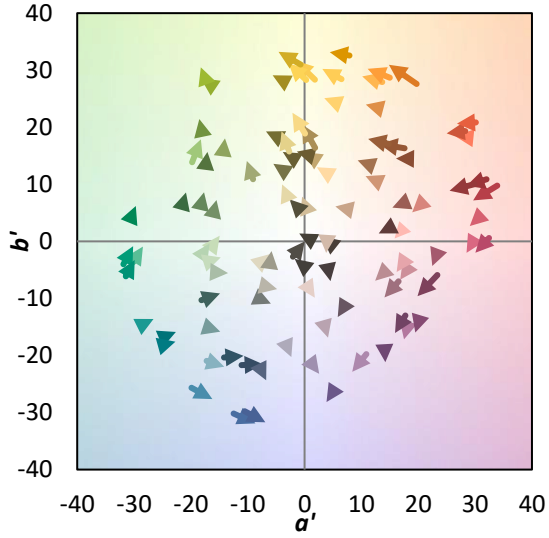


Color Vector Graphics







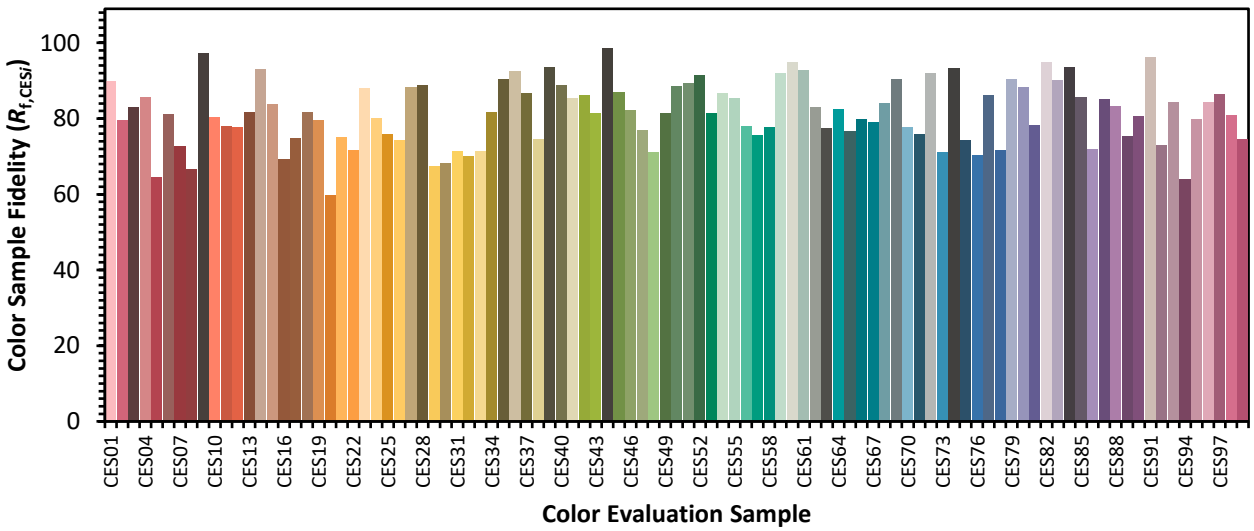


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

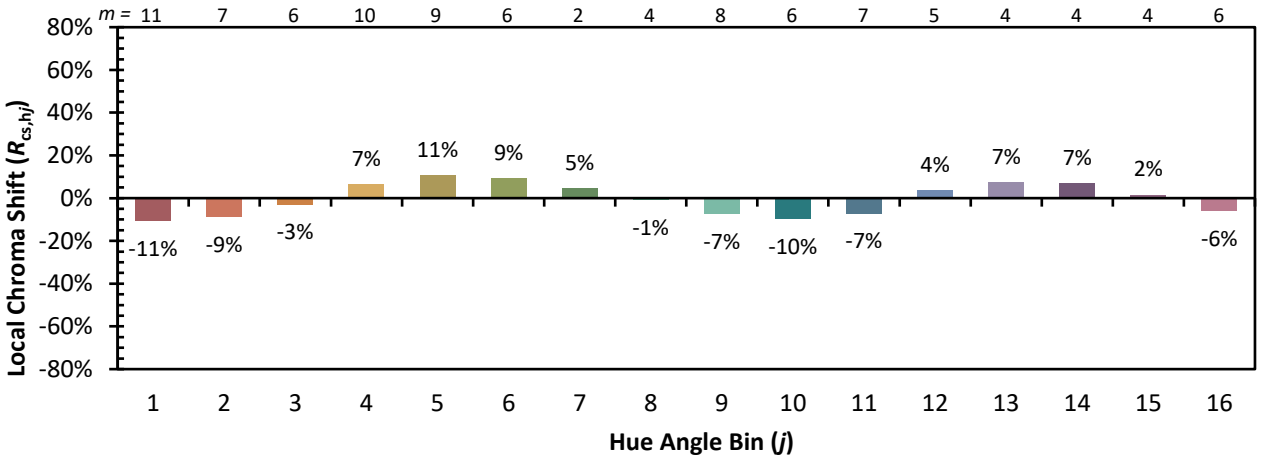
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

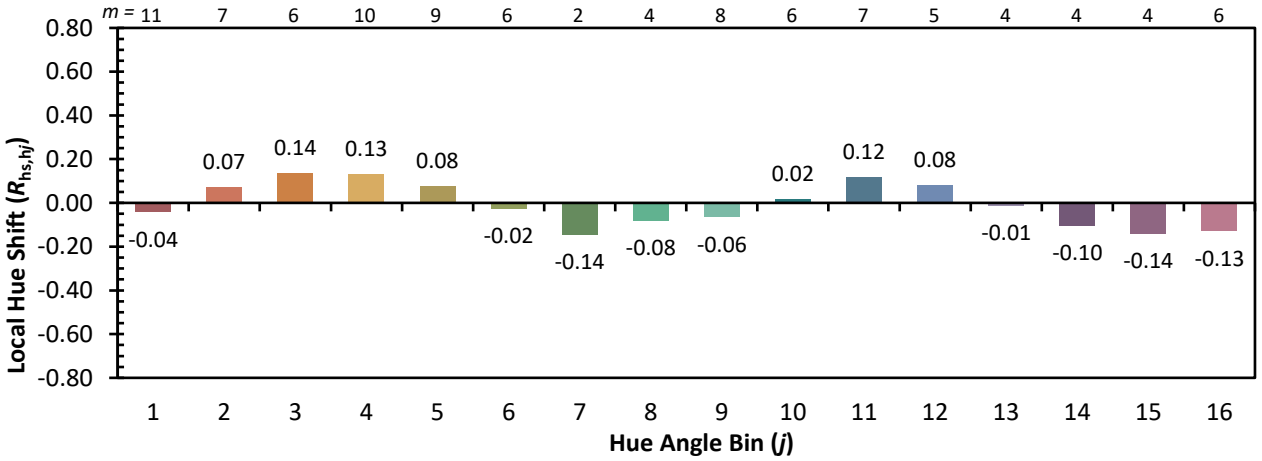


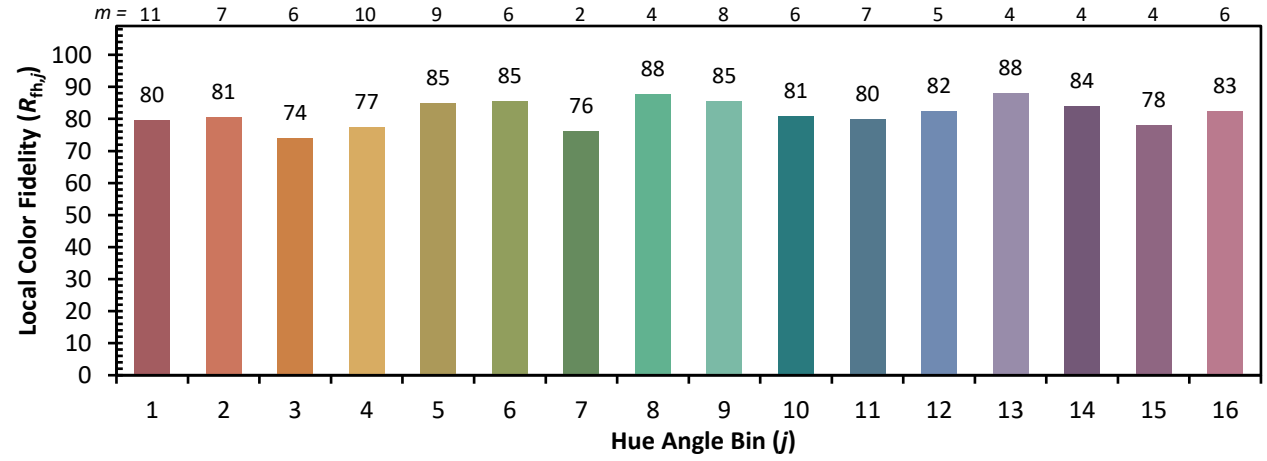
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



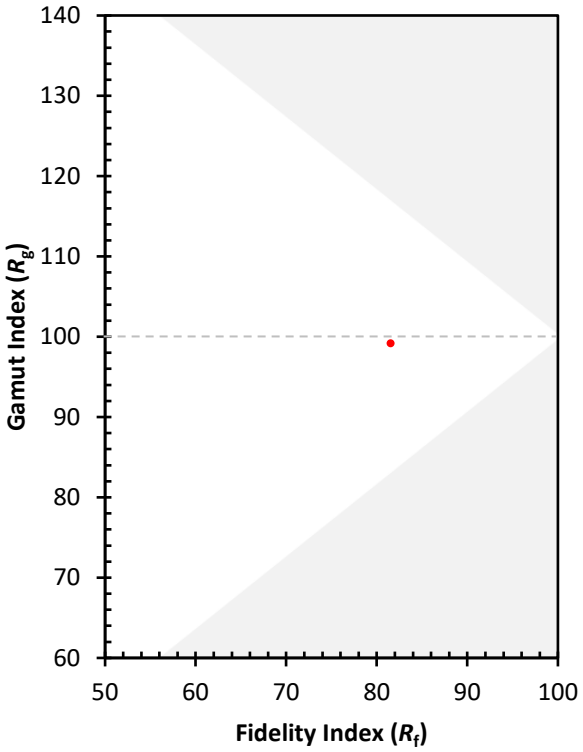


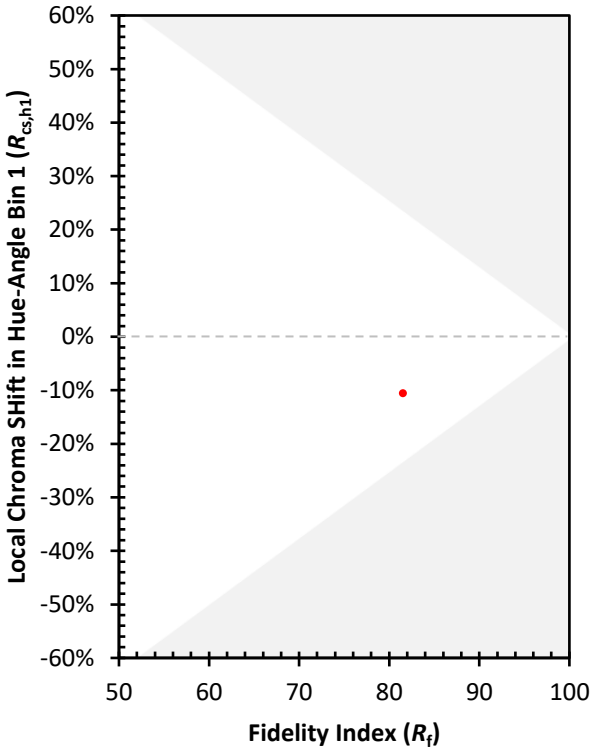


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





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