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: P638012

Luminaire Tested: GWS-SA4D-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:	P638012
	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-SA4D-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:	19287.1 lumens
Efficiency:	N/A
Efficacy:	119.0 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - 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

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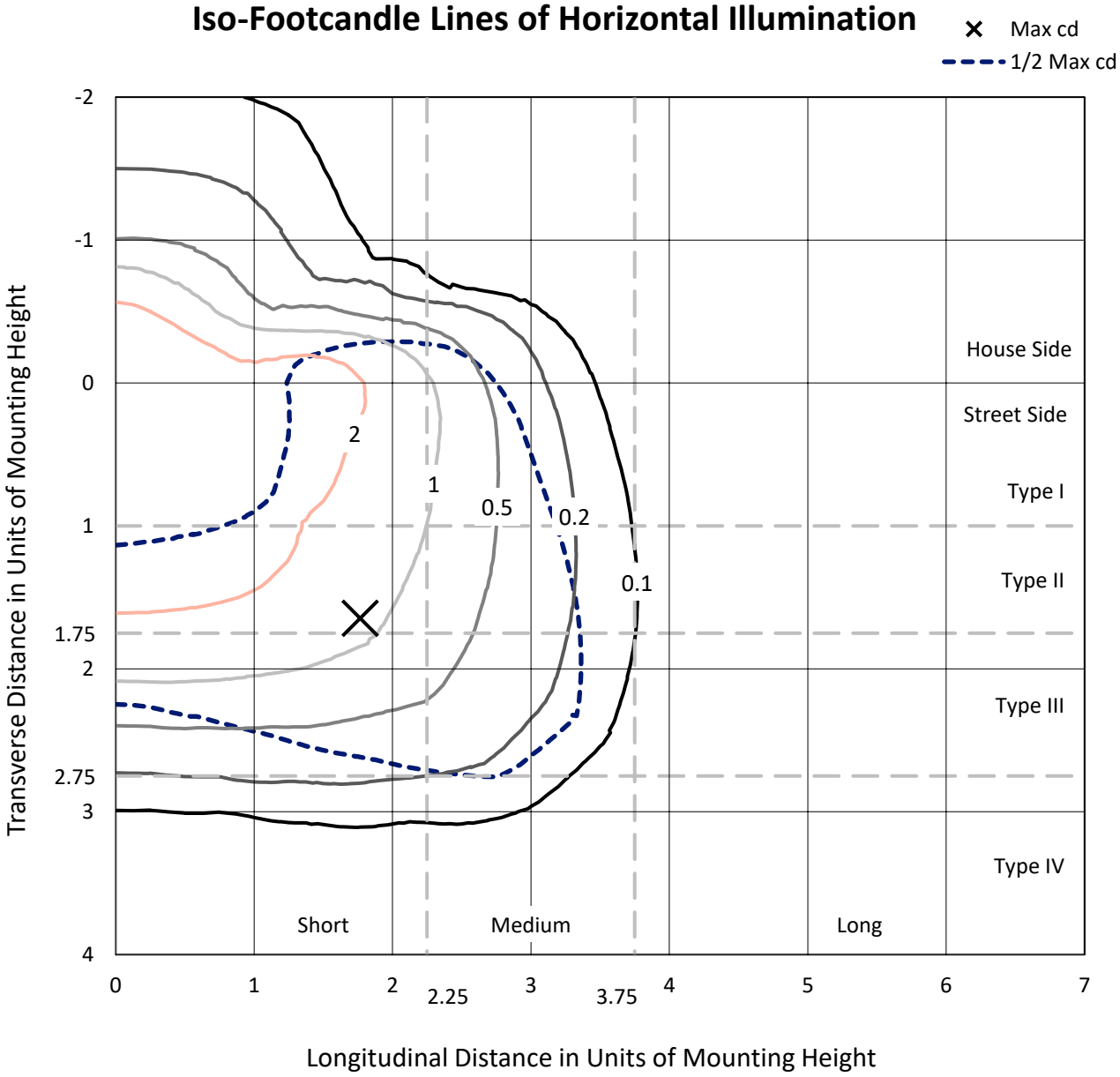
Scaled Data Report

REPORT NUMBER: P638012
CATALOG NUMBER: GWS-SA4D-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
Type III - Short - N/A

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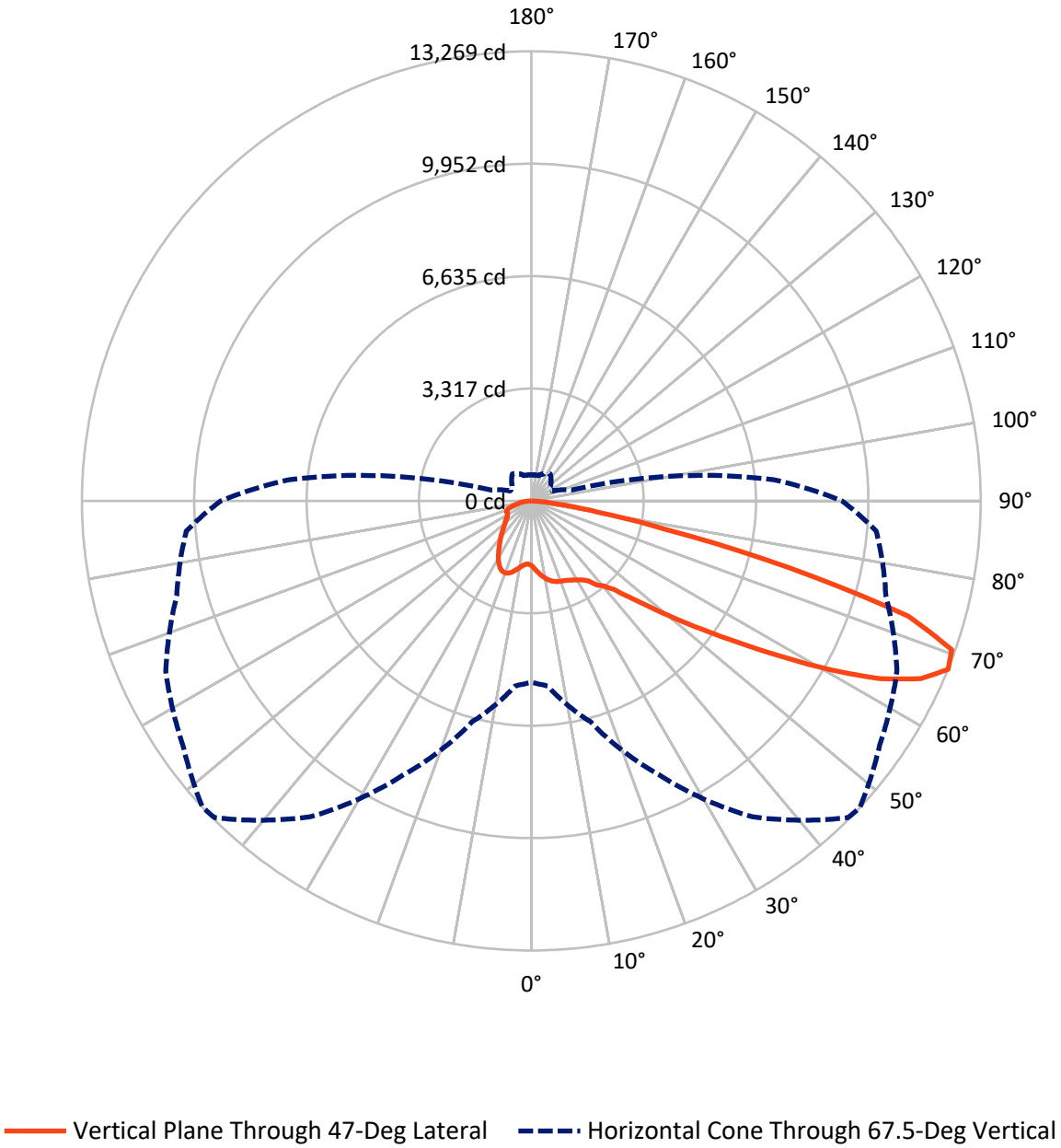
Luminous Intensity Polar Plot



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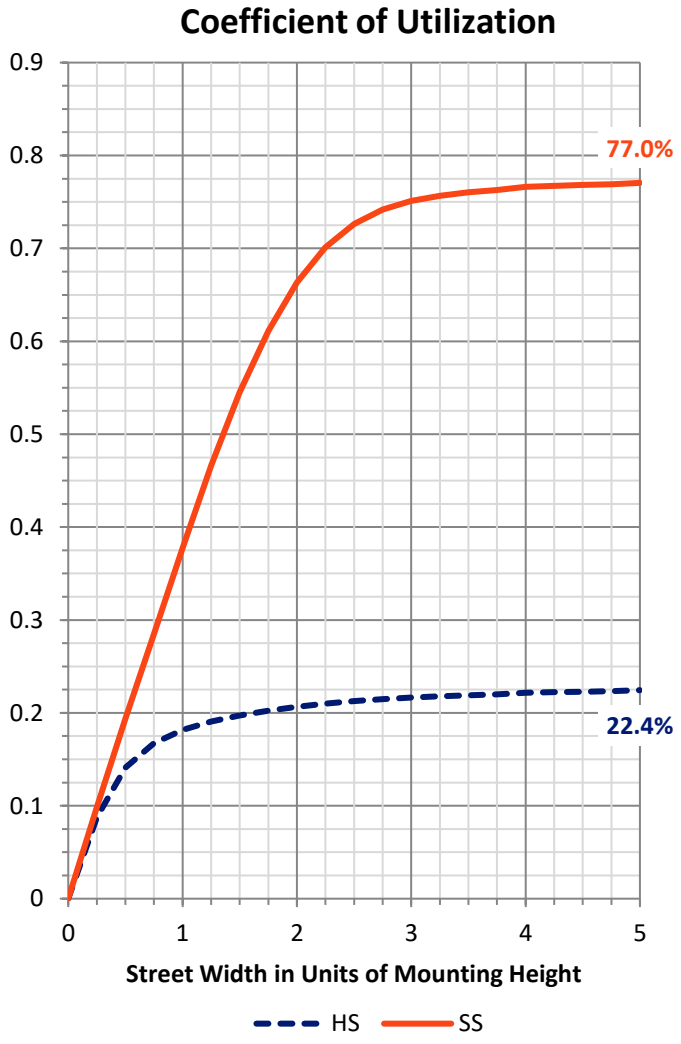
REPORT NUMBER: P638012
CATALOG NUMBER: GWS-SA4D-830-U-T4W-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4395.7	0.0	4395.7
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	14891.4	0.0	14891.4
	% Fixture	77.2	0.0	77.2
Total	Lumens	19287.1	0.0	19287.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	1.0
10°-20°	651.0	3.4
20°-30°	1106.6	5.7
30°-40°	1621.0	8.4
40°-50°	2469.8	12.8
50°-60°	4418.9	22.9
60°-70°	5896.6	30.6
70°-80°	2666.6	13.8
80°-90°	261.2	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°	19287.1	100.0
0°-180°	19287.1	100.0



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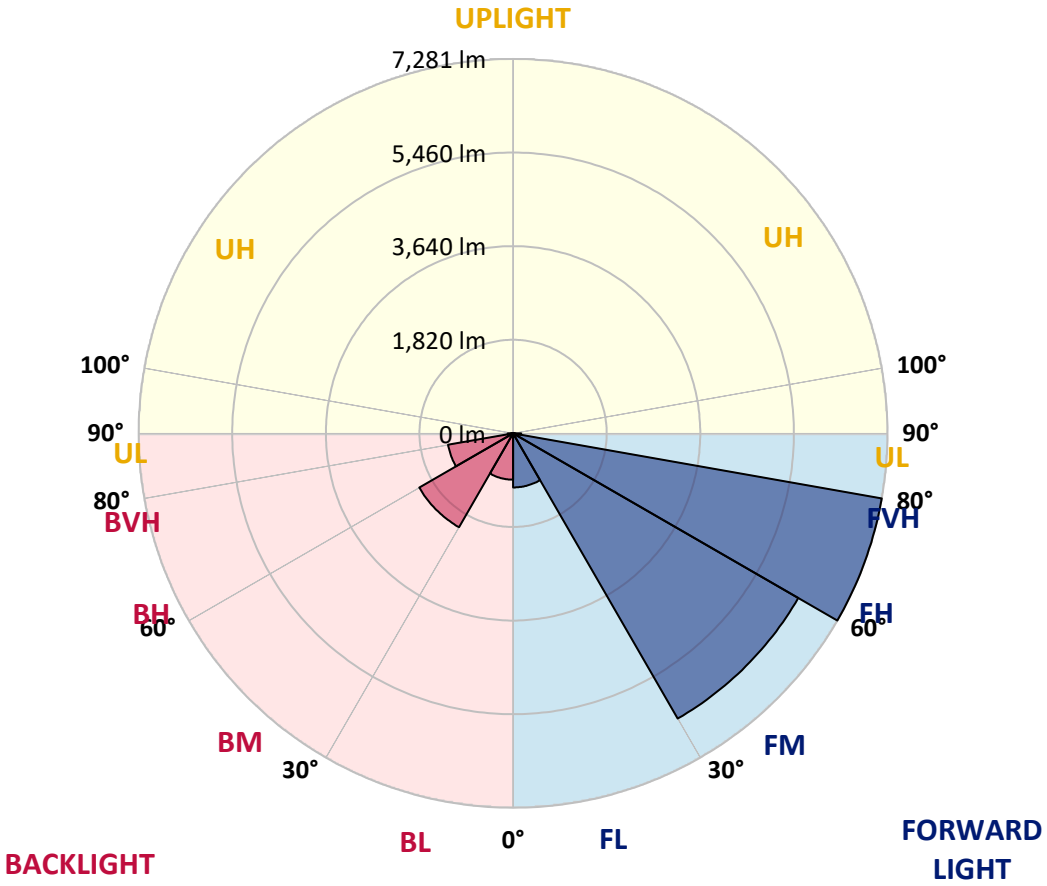
REPORT NUMBER: P638012
CATALOG NUMBER: GWS-SA4D-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1051.8	5.5			
FM	(30°-60°)	6403.5	33.2			
FH	(60°-80°)	7280.7	37.7			G3/7500
FVH	(80°-90°)	155.4	0.8			G2/225
BL	(0°-30°)	901.1	4.7	B2/1000		
BM	(30°-60°)	2106.2	10.9	B2/2500		
BH	(60°-80°)	1282.5	6.6	B3/2500		G3/2500
BVH	(80°-90°)	105.9	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-G3
Type III Short



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Scaled Data Report

REPORT NUMBER: P638012
CATALOG NUMBER: GWS-SA4D-830-U-T4W-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	*1912.0*	1912.0	1912.0	1912.0	1912.0
2.5°	2038.9	2045.8	2044.4	2033.3	2026.3	2013.8	*2015.2*	1995.6	1966.4	1946.8	1924.5
5°	2218.8	2229.9	2216.0	2197.8	2170.0	2129.5	*2125.3*	2080.7	2024.9	1985.9	1945.4
7.5°	2375.0	2381.9	2365.2	2334.5	2294.1	2239.7	*2229.9*	2176.9	2107.2	2045.8	1987.3
10°	2496.3	2504.7	2482.3	2441.9	2388.9	2334.5	*2327.5*	2273.2	2199.2	2126.7	2052.8
12.5°	2599.5	2602.3	2578.6	2524.2	2467.0	2411.2	*2404.2*	2354.0	2285.7	2211.8	2130.9
15°	2659.5	2660.8	2631.6	2571.6	2517.2	2468.4	*2464.2*	2421.0	2358.2	2288.5	2202.0
17.5°	2655.3	2658.1	2637.1	2584.1	2536.7	2507.4	*2503.3*	2475.4	2426.6	2363.8	2277.3
20°	2603.7	2606.5	2592.5	2557.7	2532.5	2524.2	*2525.6*	2517.2	2487.9	2436.3	2348.5
22.5°	2563.2	2567.4	2554.9	2529.8	2527.0	2546.5	*2550.7*	2554.9	2540.9	2494.9	2409.8
25°	2582.8	2589.7	2570.2	2535.3	2540.9	2584.1	*2592.5*	2606.5	2595.3	2556.3	2482.3
27.5°	2718.0	2722.2	2672.0	2600.9	2584.1	2630.2	*2642.7*	2665.0	2656.7	2620.4	2563.2
30°	3031.8	3029.0	2921.6	2747.3	2677.6	2695.7	*2705.5*	2737.6	2740.3	2716.6	2662.2
32.5°	3473.9	3459.9	3294.0	3016.5	2814.3	2769.6	*2780.8*	2824.0	2856.1	2831.0	2757.1
35°	3941.1	3928.5	3745.8	3420.9	3066.7	2911.9	*2899.3*	2932.8	2981.6	2911.9	2805.9
37.5°	4385.9	4366.4	4179.5	3777.9	3377.7	3161.5	*3143.4*	3109.9	3080.6	2946.7	2865.9
40°	4879.6	4857.3	4694.1	4239.5	3720.7	3352.6	*3306.5*	3174.1	3147.6	3062.5	3022.0
42.5°	5406.8	5406.8	5271.5	4823.8	4134.9	3625.9	*3565.9*	3366.5	3394.4	3338.6	3291.2
45°	5933.9	5949.3	5841.9	5412.3	4688.6	4141.9	*4045.7*	3762.6	3829.5	3804.4	3780.7
47.5°	6383.0	6412.3	6391.3	6013.4	5366.3	4769.4	*4623.0*	4328.8	4472.4	4532.4	4599.3
50°	6866.9	6899.0	6878.0	6728.8	6159.8	5529.5	*5398.4*	5094.4	5341.2	5521.1	5740.1
52.5°	7585.1	7631.1	7456.8	7399.6	7123.5	6392.7	*6275.6*	5929.7	6377.4	6675.8	7163.9
55°	8191.7	8190.3	8129.0	8260.1	8158.3	7448.4	*7318.7*	7004.9	7576.7	7893.3	8607.3
57.5°	8473.4	8506.9	8717.5	9088.4	9292.1	8738.4	*8614.3*	8293.5	8863.9	9028.5	9799.7
60°	8618.5	8660.3	9067.5	9801.1	10349.1	10146.9	*10098.1*	9689.5	10010.3	9990.7	10805.2
62.5°	8414.9	8498.5	9152.6	10127.4	11103.6	11562.4	*11547.1*	10929.3	10985.1	10794.0	11428.5
65°	7480.5	7571.1	8597.6	9964.2	11534.5	12639.0	*12643.2*	12051.9	11734.0	11184.5	11323.9
67.5°	*5349.6*	*5479.3*	*6748.3*	*8915.5*	*11382.5*	*13220.6*	*13269.4*	*12560.9*	*11909.7*	*10838.6*	*10225.0*
70°	2916.1	3010.9	4005.2	6480.6	10013.0	13081.1	*13171.8*	12315.5	11134.3	9375.7	7871.0
72.5°	1324.8	1355.5	1863.2	3556.2	6840.4	11259.8	*11639.1*	10990.6	9144.2	6925.5	5005.1
75°	606.6	620.6	811.6	1701.4	3574.3	7534.9	*7801.3*	8186.2	6363.4	4373.4	2609.2
77.5°	380.7	384.9	461.6	778.2	1782.3	3761.2	*4041.5*	4874.0	3726.3	2164.4	1090.6
80°	224.5	228.7	287.3	421.2	836.7	1720.9	*1987.3*	1927.3	1751.6	934.4	496.5
82.5°	113.0	117.1	166.0	239.9	456.0	684.7	*806.1*	810.2	652.7	506.2	280.3
85°	40.4	41.8	54.4	94.8	193.8	225.9	*252.4*	308.2	319.4	294.3	135.3
87.5°	0.0	0.0	1.4	2.8	5.6	22.3	*23.7*	44.6	93.4	104.6	54.4
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: P638012
CATALOG NUMBER: GWS-SA4D-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0	1912.0
2.5°	1917.5	1896.6	1889.6	1882.7	1871.5	1867.3	1859.0	1850.6	1850.6	1842.2	1838.0
5°	1927.3	1899.4	1881.3	1872.9	1865.9	1870.1	1870.1	1872.9	1882.7	1877.1	1879.9
7.5°	1962.2	1930.1	1905.0	1898.0	1898.0	1914.8	1925.9	1939.9	1958.0	1960.8	1960.8
10°	2023.5	1985.9	1959.4	1955.2	1962.2	1985.9	2002.6	2019.3	2041.7	2043.1	2045.8
12.5°	2090.5	2052.8	2026.3	2031.9	2038.9	2069.5	2087.7	2101.6	2123.9	2123.9	2122.5
15°	2160.2	2118.4	2096.0	2107.2	2128.1	2163.0	2165.8	2167.2	2178.3	2175.5	2174.1
17.5°	2232.7	2188.1	2171.4	2188.1	2210.4	2227.1	2213.2	2193.7	2189.5	2183.9	2181.1
20°	2303.8	2257.8	2250.8	2263.4	2270.4	2256.4	2213.2	2176.9	2160.2	2151.8	2149.0
22.5°	2365.2	2326.2	2322.0	2322.0	2287.1	2238.3	2174.1	2125.3	2103.0	2091.9	2089.1
25°	2437.7	2401.5	2394.5	2356.8	2267.6	2178.3	2091.9	2047.2	2029.1	2023.5	2024.9
27.5°	2522.8	2497.7	2475.4	2368.0	2211.8	2072.3	1974.7	1955.2	1948.2	1955.2	1959.4
30°	2627.4	2602.3	2552.1	2354.0	2122.5	1934.3	1840.8	1839.4	1860.4	1878.5	1881.3
32.5°	2712.4	2701.3	2619.0	2309.4	1997.0	1782.3	1702.8	1708.4	1746.0	1771.1	1775.3
35°	2779.4	2797.5	2674.8	2235.5	1847.8	1638.6	1575.9	1578.7	1599.6	1634.4	1635.8
37.5°	2874.2	2935.6	2725.0	2122.5	1676.3	1514.5	1457.3	1436.4	1433.6	1443.4	1446.2
40°	3065.3	3157.3	2761.3	1958.0	1510.3	1402.9	1338.8	1298.3	1263.5	1237.0	1228.6
42.5°	3354.0	3459.9	2782.2	1758.6	1362.5	1292.8	1220.3	1168.7	1107.3	1051.5	1032.0
45°	3883.9	3918.8	2782.2	1546.6	1231.4	1189.6	1117.1	1055.7	977.6	912.1	898.1
47.5°	4731.8	4620.2	2785.0	1341.6	1115.7	1098.9	1036.2	966.4	880.0	825.6	817.2
50°	6009.2	5617.3	2842.1	1171.4	1019.4	1022.2	976.2	899.5	821.4	781.0	774.0
52.5°	7456.8	6846.0	2995.5	1045.9	938.5	959.5	934.4	860.5	790.7	755.9	748.9
55°	8817.9	7975.6	3126.6	956.7	870.2	906.5	905.1	836.7	774.0	739.1	734.9
57.5°	9975.4	8749.6	3107.1	884.2	811.6	857.7	878.6	821.4	762.8	733.5	729.4
60°	10695.0	9159.6	2829.6	817.2	767.0	822.8	863.2	817.2	768.4	761.4	762.8
62.5°	11007.4	9084.3	2296.9	767.0	737.7	806.1	880.0	846.5	820.0	836.7	846.5
65°	10522.1	8437.2	1690.2	729.4	709.8	810.2	919.0	892.5	820.0	831.2	835.4
67.5°	*9174.9*	*7182.1*	*1221.6*	*691.7*	*675.0*	*822.8*	*974.8*	*885.6*	*772.6*	*772.6*	*764.2*
70°	6611.7	5165.5	886.9	654.1	640.1	804.7	977.6	838.1	718.2	714.0	693.1
72.5°	3978.7	3047.1	691.7	612.2	587.1	714.0	916.2	782.4	665.2	630.3	605.2
75°	2066.8	1527.1	580.1	566.2	503.4	605.2	838.1	695.9	569.0	538.3	524.4
77.5°	885.6	714.0	497.9	504.8	418.4	509.0	676.4	602.5	504.8	465.8	453.2
80°	436.5	405.8	393.3	404.4	334.7	393.3	582.9	527.1	428.1	383.5	365.4
82.5°	249.6	237.1	283.1	287.3	238.5	329.1	492.3	446.3	354.2	305.4	276.1
85°	115.7	124.1	171.5	172.9	147.8	225.9	322.1	251.0	188.3	156.2	149.2
87.5°	46.0	54.4	75.3	73.9	43.2	41.8	27.9	15.3	12.6	11.2	9.8
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

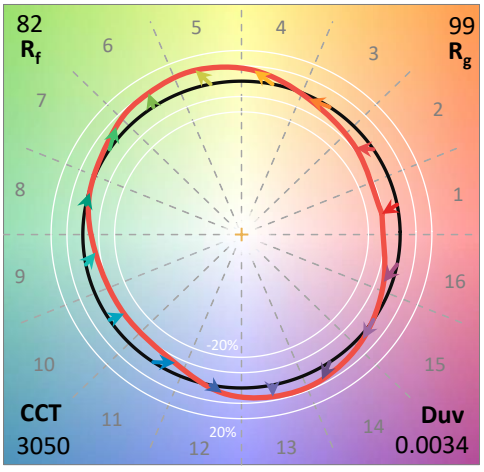
Test Information

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

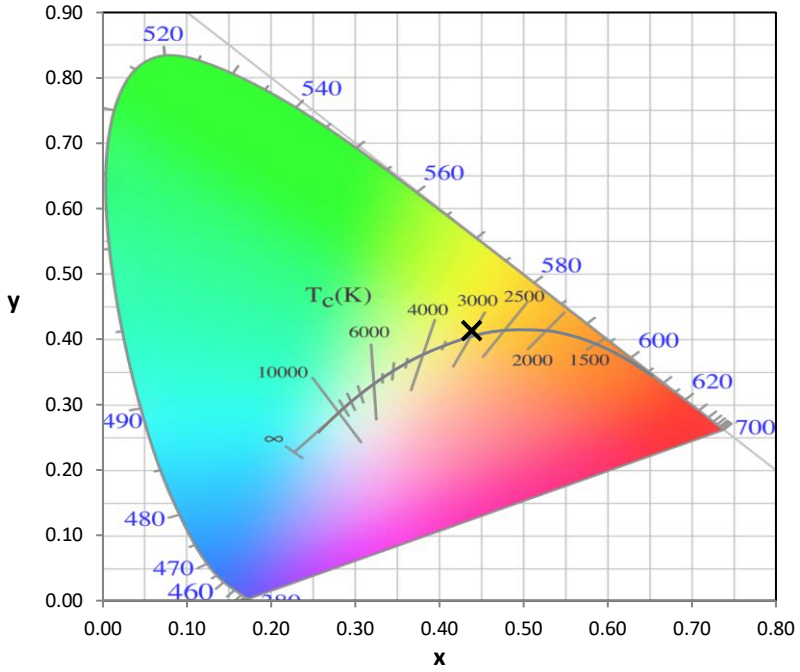
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

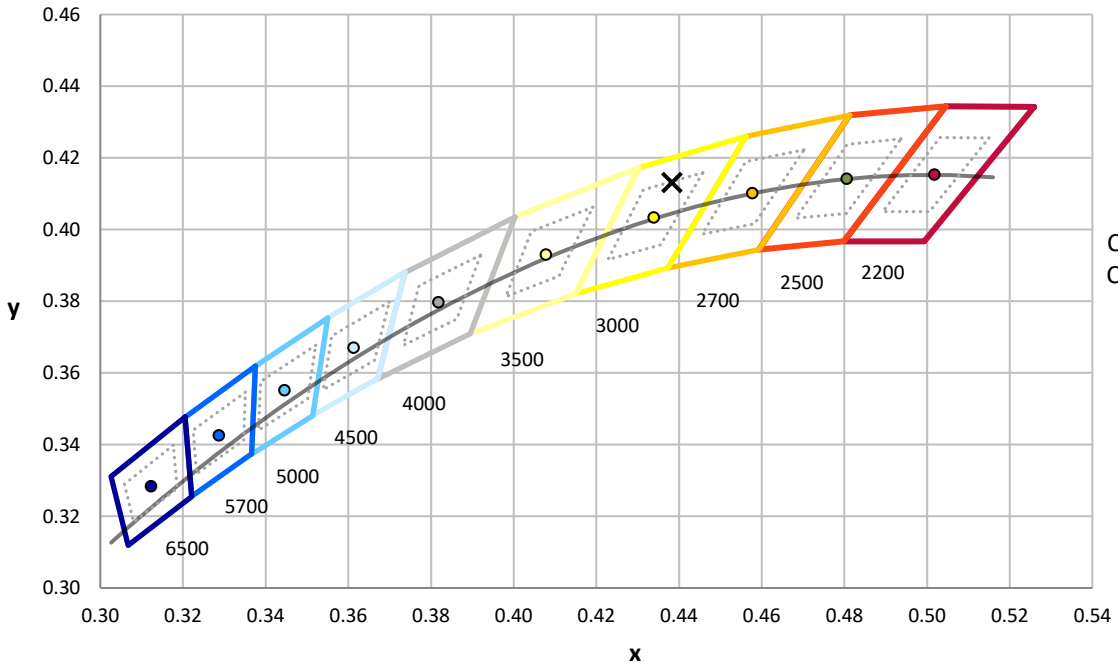
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

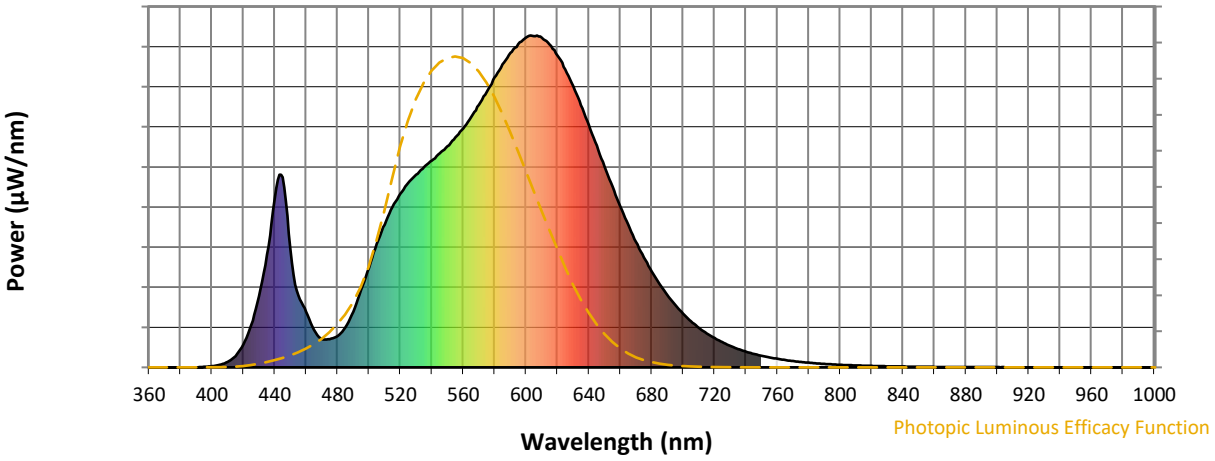


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

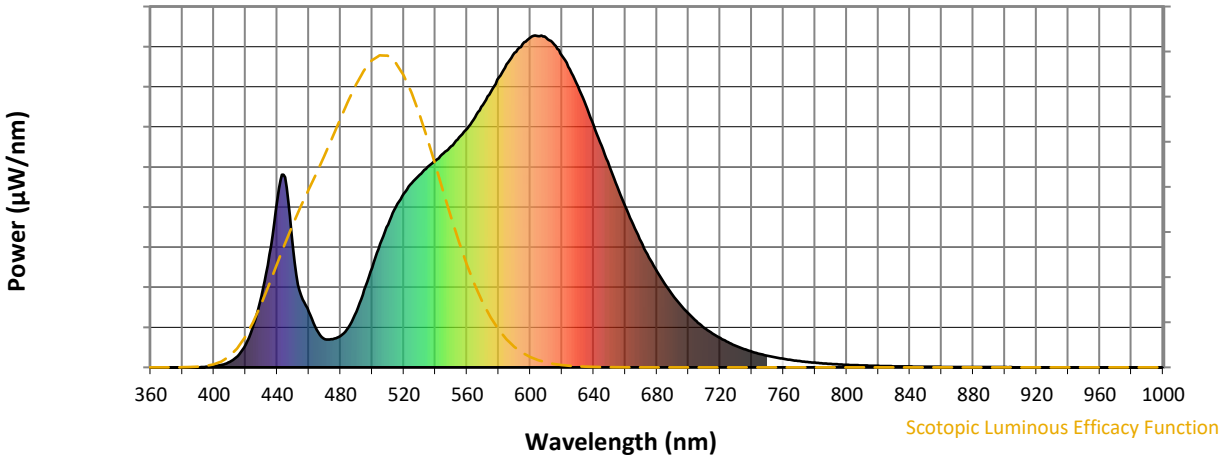


Photopic Lumens: NR

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

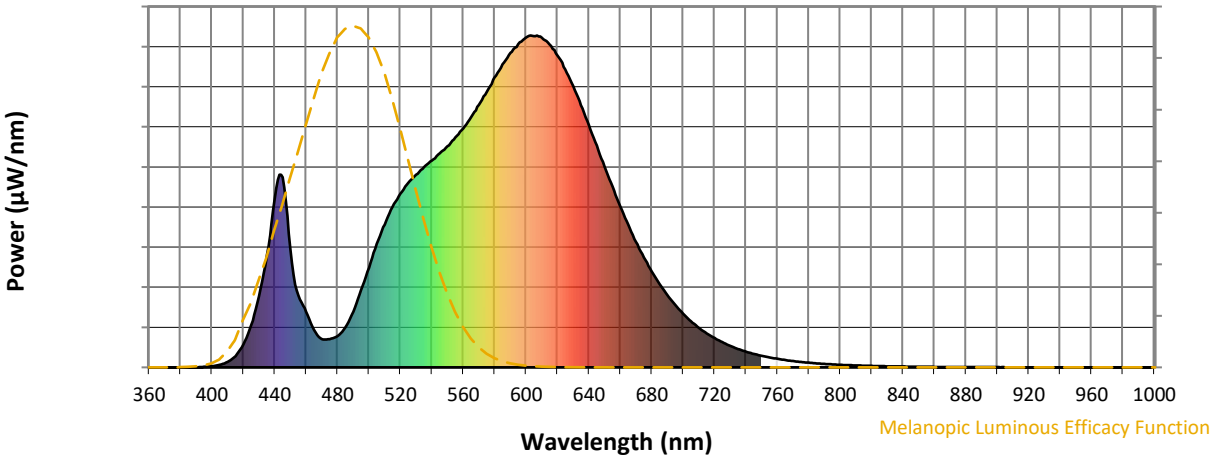


Scotopic Lumens: NR **S/P: 1.27**

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			

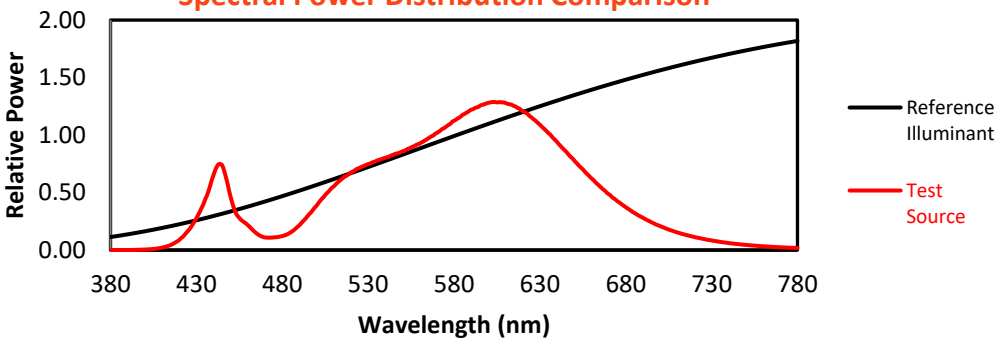
REPORT NUMBER: SP1-2408-195-9

TM-30-18

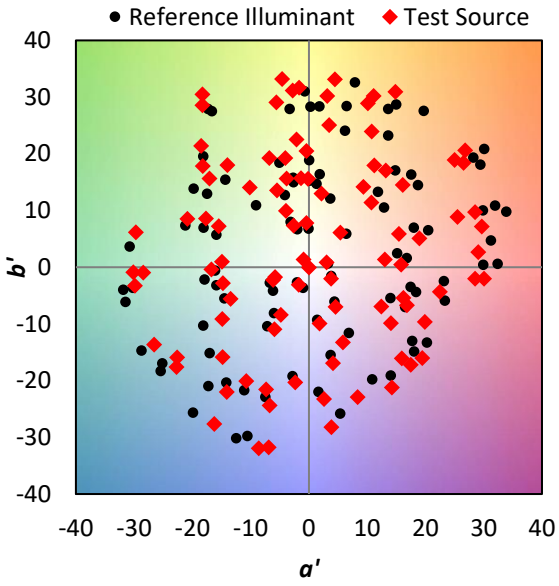
Summary

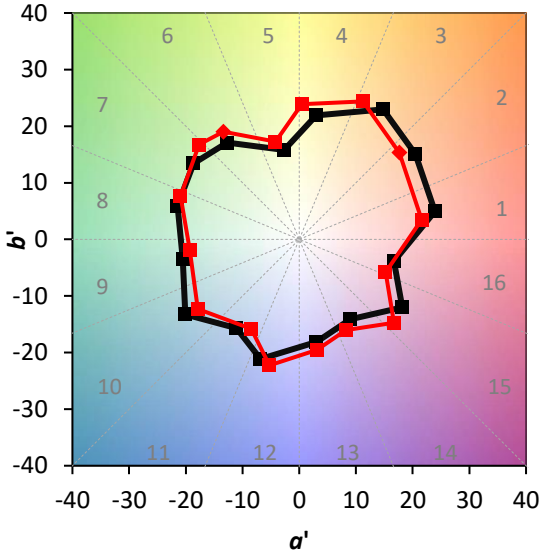
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

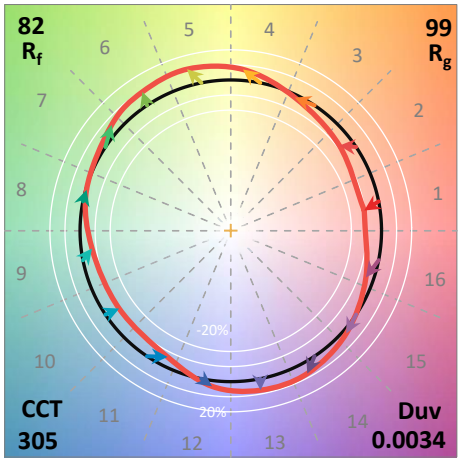
Spectral Power Distribution Comparison

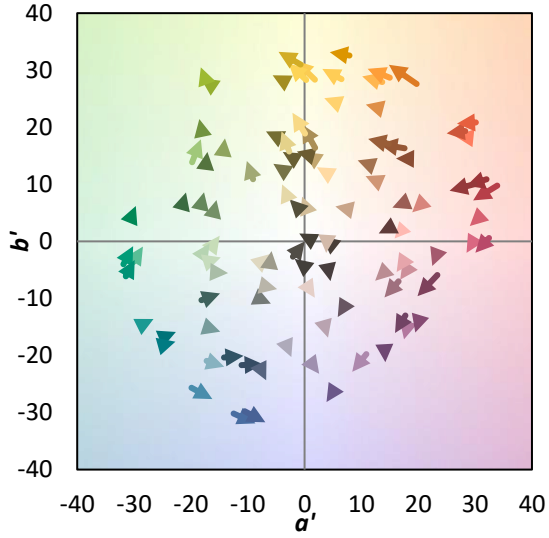


Color Vector Graphics







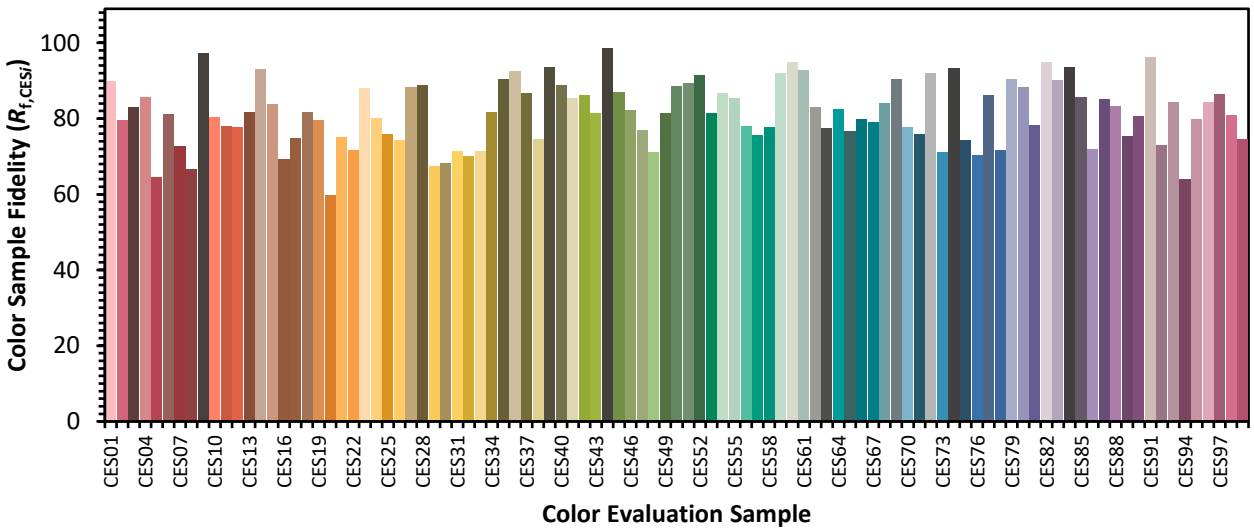


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

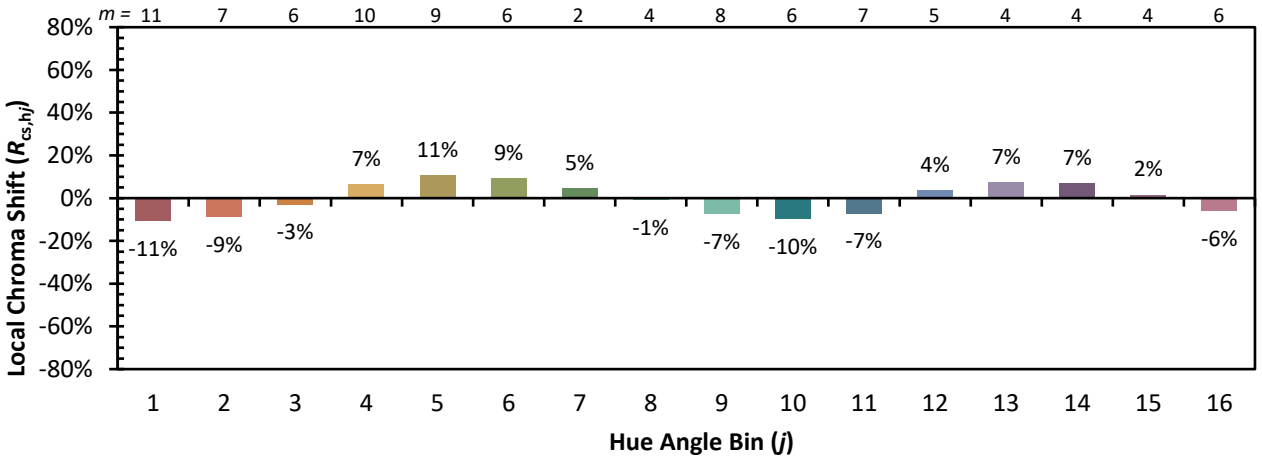
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

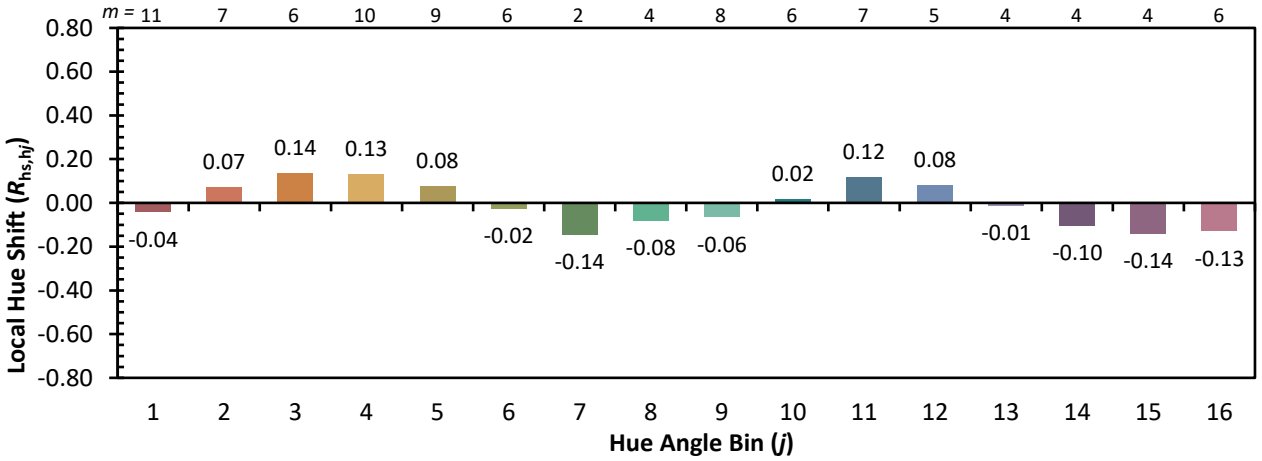


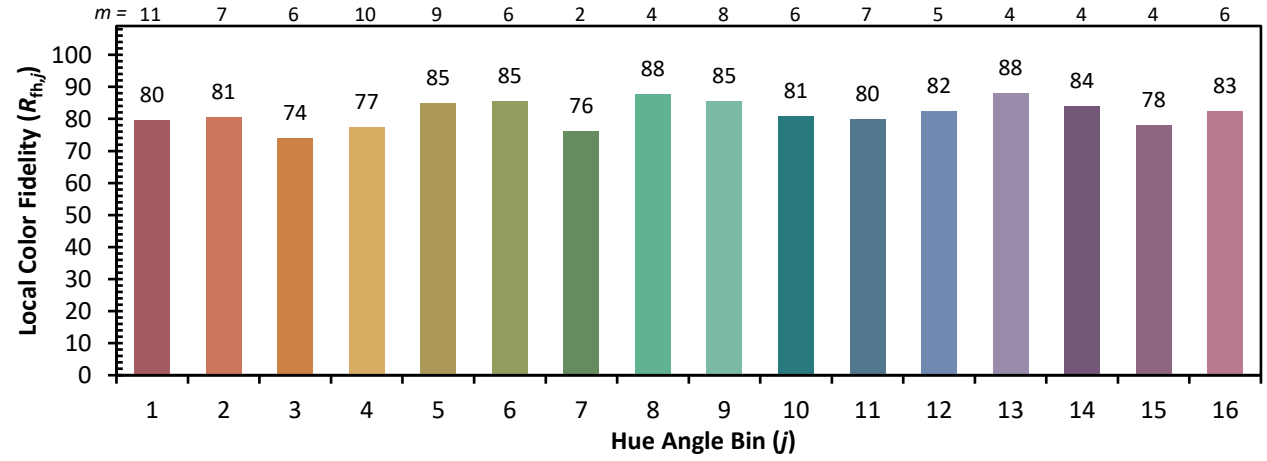
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



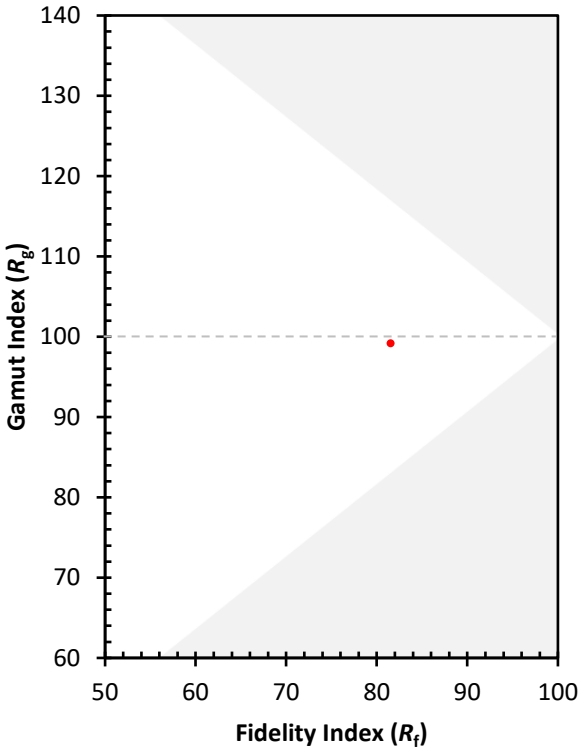


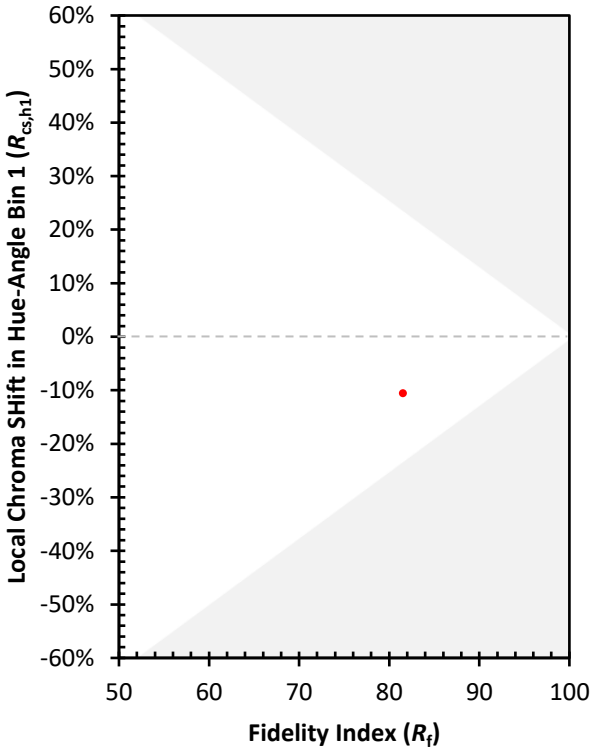


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





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