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: P634529

Luminaire Tested: GWS-SA3B-830-U-T2-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:	P634529
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-21)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA3B-830-U-T2-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS W/ FACTORY INSLLED GLARE SHIELD, WH
Light Source:	(48) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	6888.9 lumens
Efficiency:	N/A
Efficacy:	100.9 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G1

Input Watts (W):	68.3
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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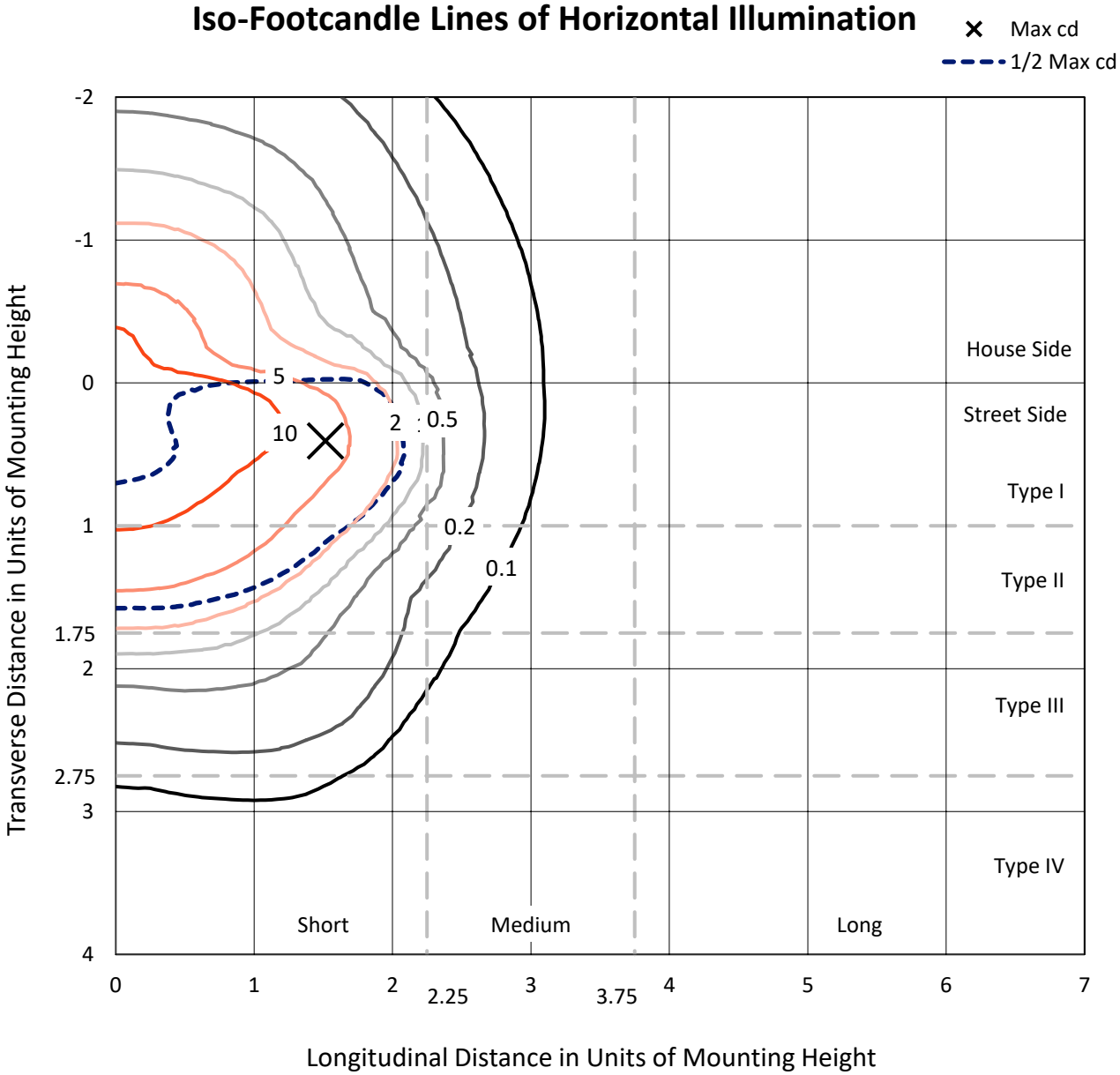
REPORT NUMBER: P634529
CATALOG NUMBER: GWS-SA3B-830-U-T2-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 18.3 fc
Type II - Short - N/A

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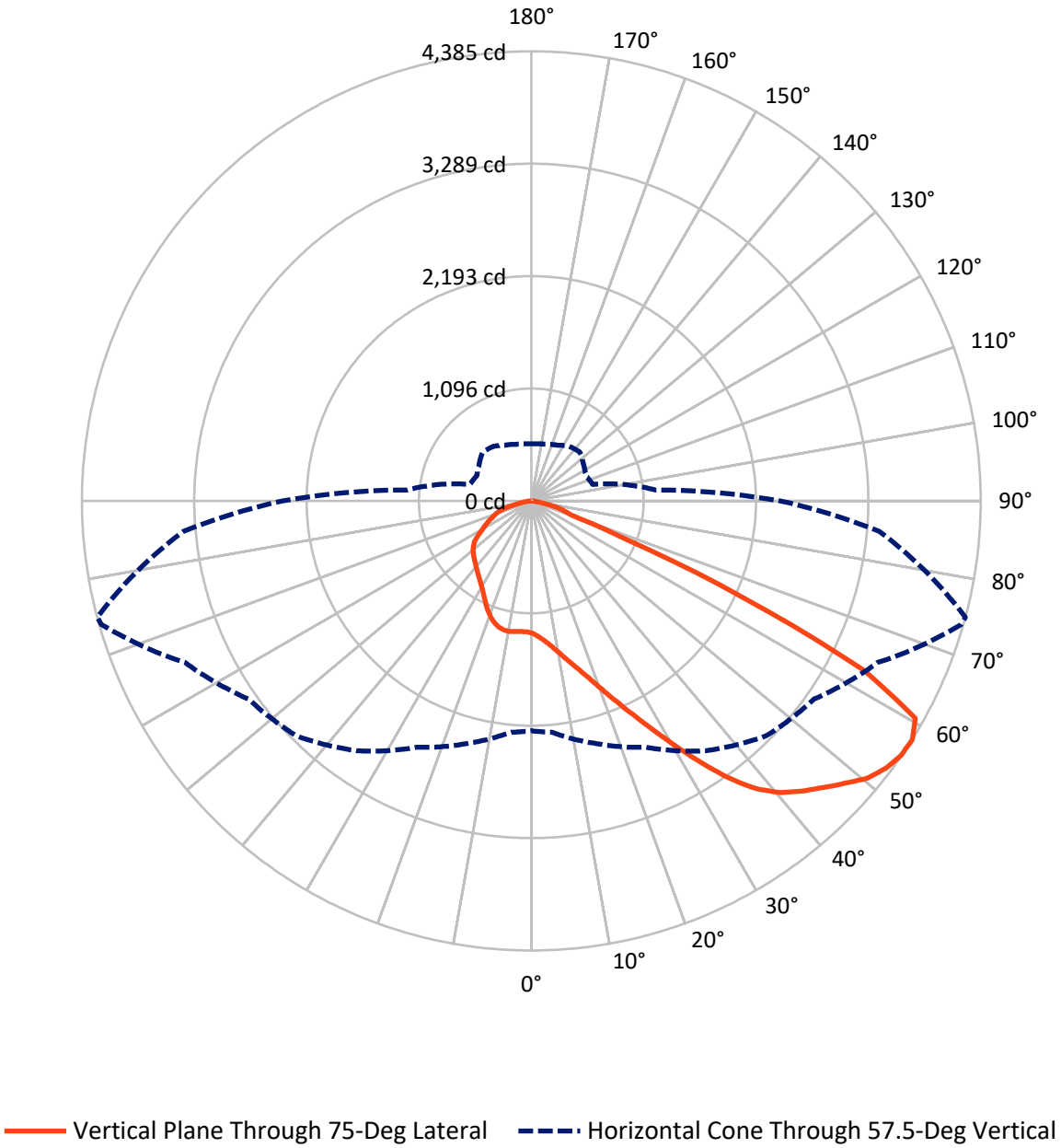
Luminous Intensity Polar Plot



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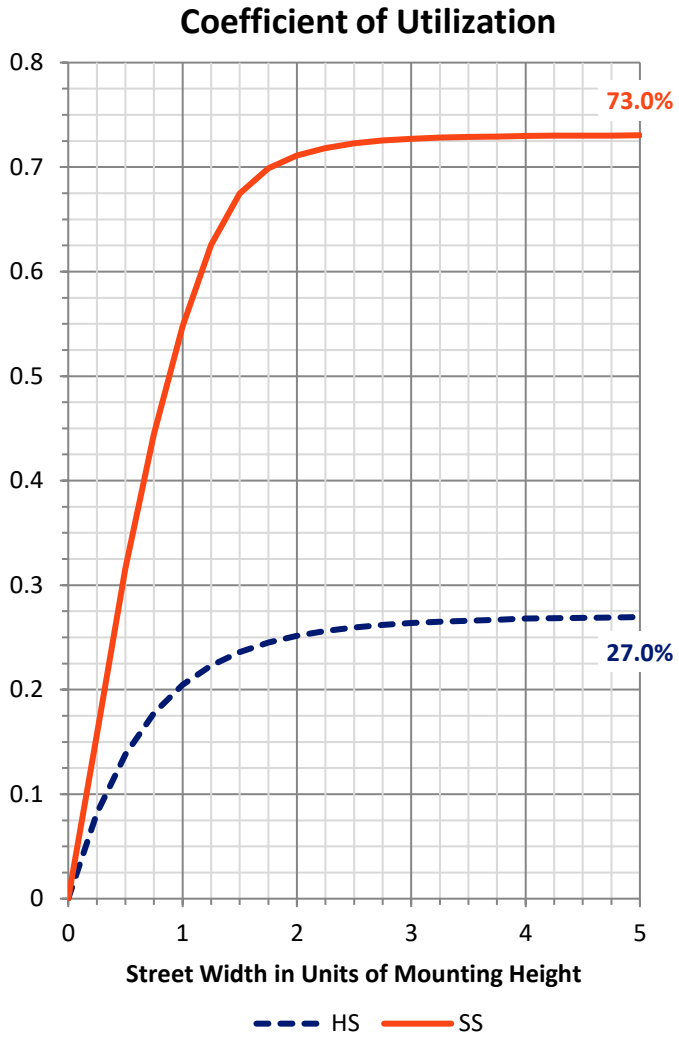
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1863.6	0.0	1863.6
	% Fixture	27.1	0.0	27.1
Street Side	Lumens	5025.3	0.0	5025.3
	% Fixture	72.9	0.0	72.9
Total	Lumens	6888.9	0.0	6888.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	1.9
10°-20°	411.0	6.0
20°-30°	729.0	10.6
30°-40°	1115.9	16.2
40°-50°	1553.8	22.6
50°-60°	1780.4	25.8
60°-70°	914.8	13.3
70°-80°	230.3	3.3
80°-90°	24.6	0.4
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°	6888.9	100.0
0°-180°	6888.9	100.0



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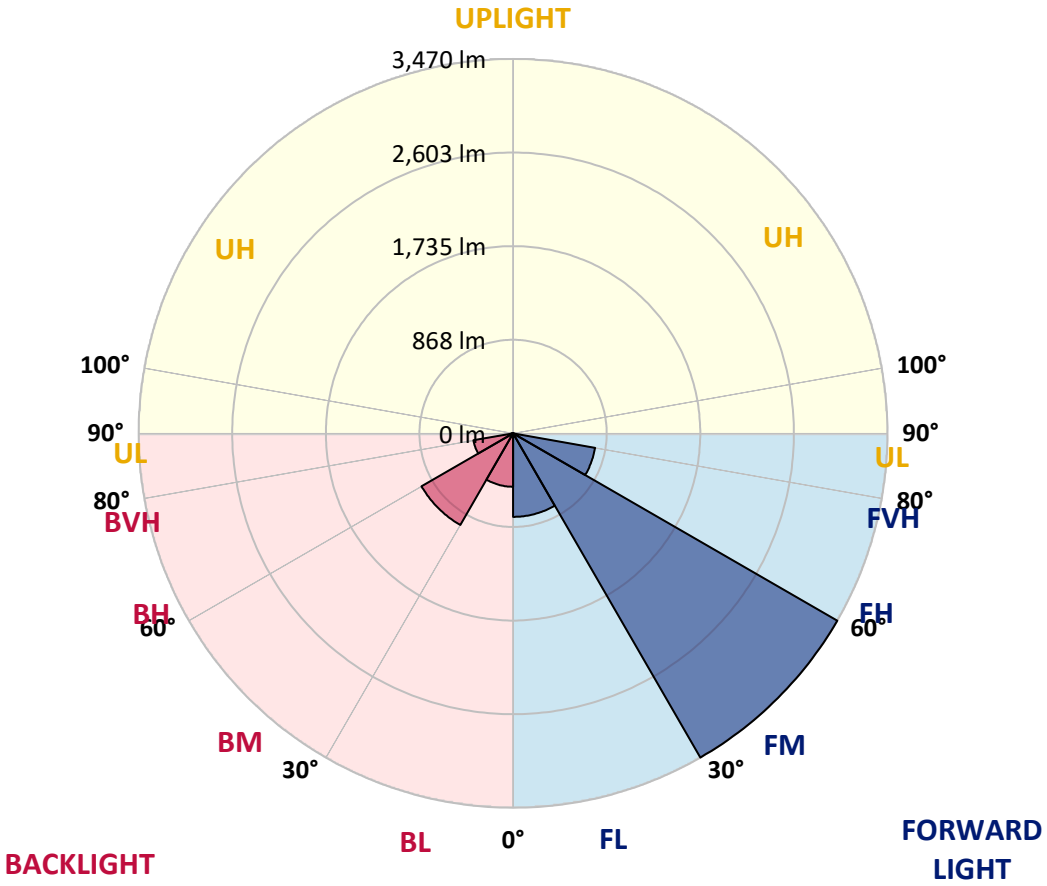
REPORT NUMBER: P634529
CATALOG NUMBER: GWS-SA3B-830-U-T2-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	774.0	11.2			
FM	(30°-60°)	3470.0	50.4			
FH	(60°-80°)	772.2	11.2			G1/1800
FVH	(80°-90°)	9.1	0.1			G0/10
BL	(0°-30°)	495.1	7.2	B1/500		
BM	(30°-60°)	980.1	14.2	B1/1000		
BH	(60°-80°)	372.9	5.4	B1/500		G1/500
BVH	(80°-90°)	15.5	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type II Short



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REPORT NUMBER: P634529
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	*1290.1*	1290.1
2.5°	1386.1	1389.6	1386.1	1392.0	1380.2	1374.8	1361.8	1342.3	1326.9	*1324.5*	1307.3
5°	1493.9	1501.6	1496.9	1494.5	1478.5	1466.6	1447.1	1408.0	1376.0	*1371.3*	1337.5
7.5°	1563.2	1568.5	1568.5	1570.3	1564.4	1550.8	1530.0	1483.8	1438.8	*1431.7*	1380.8
10°	1586.3	1590.4	1598.1	1613.0	1624.8	1628.9	1615.3	1570.9	1515.8	*1508.7*	1437.6
12.5°	1591.6	1596.4	1608.2	1635.5	1668.0	1697.7	1700.0	1667.4	1605.8	*1598.1*	1503.4
15°	1601.7	1606.4	1622.4	1656.2	1704.2	1761.0	1796.0	1773.5	1705.4	*1697.1*	1578.0
17.5°	1600.5	1605.8	1629.5	1674.6	1739.1	1821.5	1889.0	1898.5	1828.0	*1813.8*	1662.7
20°	1597.6	1602.3	1627.8	1682.8	1762.8	1876.0	1998.0	2047.1	1971.3	*1958.3*	1761.6
22.5°	1621.2	1626.6	1646.1	1691.7	1775.3	1918.0	2098.7	2217.1	2141.3	*2123.0*	1875.4
25°	1674.6	1682.3	1694.1	1725.5	1797.8	1955.3	2201.7	2409.7	2332.1	*2310.1*	1999.2
27.5°	1756.9	1766.4	1783.0	1797.8	1848.1	2002.7	2304.2	2625.3	2547.7	*2524.6*	2130.1
30°	1857.6	1870.0	1891.4	1901.4	1935.8	2072.6	2415.6	2847.4	2802.4	*2770.4*	2277.6
32.5°	1996.8	2014.0	2034.1	2037.1	2057.8	2178.6	2525.8	3067.8	3067.2	*3044.6*	2445.2
35°	2178.0	2196.4	2200.6	2204.7	2214.8	2324.4	2659.0	3268.6	3346.2	*3320.1*	2627.6
37.5°	2375.9	2402.5	2409.1	2390.7	2404.9	2499.7	2808.9	3429.7	3589.0	*3561.2*	2804.2
40°	2587.4	2598.0	2615.8	2586.8	2604.5	2700.5	2955.8	3532.7	3770.3	*3740.7*	2943.4
42.5°	2739.0	2758.5	2785.2	2774.5	2784.6	2872.3	3058.9	3582.5	3899.4	*3869.8*	3043.5
45°	2903.7	2909.6	2926.8	2924.4	2930.3	3012.1	3132.9	3604.4	4014.9	*3988.3*	3128.8
47.5°	3047.0	3055.9	3067.2	3054.1	3041.1	3094.4	3193.3	3623.4	4148.2	*4116.2*	3218.2
50°	3185.0	3192.7	3206.4	3168.4	3119.9	3133.5	3222.9	3649.4	4273.2	*4250.7*	3288.7
52.5°	3210.5	3218.8	3282.8	3290.5	3228.3	3180.3	3275.1	3706.9	4346.6	*4332.4*	3314.2
55°	2890.0	2904.9	3032.2	3178.5	3331.9	3316.5	3358.6	3737.1	4375.6	*4379.2*	3359.8
57.5°	*2243.2*	*2264.5*	*2450.5*	*2651.3*	*2974.2*	*3241.3*	*3369.3*	*3729.4*	*4365.6*	*4385.1*	*3406.6*
60°	1471.4	1483.8	1704.2	1929.3	2263.9	2633.6	3015.6	3590.8	4276.1	*4304.0*	3394.7
62.5°	888.5	902.7	1079.8	1250.4	1447.7	1694.7	2045.4	2885.9	3584.3	*3646.5*	2718.9
65°	620.2	639.1	794.3	934.7	1002.8	951.9	1036.0	1611.8	2233.1	*2259.2*	1661.5
67.5°	449.6	462.6	590.0	757.0	832.2	672.3	512.4	713.8	972.6	*982.1*	685.3
70°	294.4	309.2	424.7	576.4	679.4	545.0	383.2	386.2	409.3	*414.0*	398.1
72.5°	161.7	170.6	262.4	382.7	401.6	325.8	299.1	321.1	337.0	*337.0*	341.2
75°	83.5	91.2	107.2	126.2	152.2	178.3	215.6	248.2	265.4	*266.6*	264.8
77.5°	42.6	45.6	57.5	62.2	68.1	79.4	103.1	132.1	147.5	*153.4*	152.2
80°	20.1	21.3	24.3	28.4	34.9	44.4	55.7	66.3	75.8	*77.0*	83.5
82.5°	10.7	11.8	13.0	15.4	19.0	23.7	32.6	39.1	45.0	*46.2*	51.5
85°	4.1	4.7	5.3	5.9	8.3	10.1	13.6	18.4	22.5	*22.5*	26.7
87.5°	0.0	0.0	0.0	0.0	0.6	1.2	2.4	3.0	4.1	*4.1*	7.1
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: P634529
CATALOG NUMBER: GWS-SA3B-830-U-T2-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1	1290.1
2.5°	1303.2	1286.0	1278.3	1265.8	1255.8	1244.5	1235.6	1229.1	1225.0	1222.6	1220.2
5°	1324.5	1298.4	1277.7	1252.8	1235.6	1219.0	1205.4	1195.9	1191.2	1187.7	1185.3
7.5°	1357.7	1322.7	1283.6	1245.1	1214.9	1188.2	1171.1	1161.0	1154.5	1152.1	1150.3
10°	1403.3	1354.7	1290.1	1229.1	1184.1	1155.1	1143.2	1138.5	1139.1	1137.9	1137.3
12.5°	1454.8	1388.5	1288.3	1200.7	1150.9	1133.7	1134.3	1142.0	1150.9	1153.3	1153.9
15°	1510.5	1421.6	1271.2	1164.0	1124.9	1126.6	1142.0	1160.4	1177.0	1183.5	1184.7
17.5°	1570.9	1449.5	1239.8	1123.7	1103.5	1122.5	1150.9	1181.1	1205.4	1216.1	1219.0
20°	1638.4	1473.2	1195.4	1084.0	1083.4	1114.8	1156.3	1195.9	1226.7	1241.0	1243.3
22.5°	1710.1	1488.0	1140.9	1047.3	1062.7	1104.7	1152.1	1193.6	1226.2	1240.4	1243.3
25°	1782.4	1492.7	1081.0	1013.5	1041.3	1088.7	1132.0	1165.1	1195.9	1208.4	1210.8
27.5°	1849.9	1479.1	1024.2	984.5	1021.8	1065.0	1094.1	1111.8	1133.2	1142.6	1144.4
30°	1918.6	1451.8	976.2	961.4	999.9	1032.5	1045.5	1046.7	1055.0	1055.0	1056.1
32.5°	1987.9	1411.6	934.1	938.9	972.6	994.0	995.7	982.1	972.0	955.5	954.9
35°	2067.9	1370.7	899.8	913.4	940.6	953.7	948.3	922.3	898.0	870.7	869.6
37.5°	2141.9	1328.6	870.7	887.3	904.5	914.0	901.5	870.2	850.0	822.2	818.0
40°	2202.9	1290.7	842.9	860.1	868.4	876.7	856.5	831.1	834.0	818.6	818.0
42.5°	2238.5	1254.0	816.8	829.9	835.2	841.1	823.4	804.4	820.4	808.5	809.1
45°	2264.5	1222.0	793.1	797.9	810.9	819.8	803.2	781.9	785.4	739.8	729.2
47.5°	2294.1	1204.2	770.6	765.9	789.0	804.4	778.9	748.1	726.8	681.8	677.6
50°	2325.5	1197.7	746.9	733.9	761.8	776.6	746.9	708.4	680.6	656.3	653.9
52.5°	2336.2	1197.1	717.3	695.4	723.3	744.0	719.1	680.0	646.8	623.1	622.0
55°	2378.3	1214.3	679.4	642.7	668.8	711.4	693.0	636.8	610.1	599.5	598.3
57.5°	*2427.4*	*1217.3*	*619.6*	*585.2*	*621.4*	*671.7*	*648.6*	*600.0*	*571.0*	*558.0*	*556.8*
60°	2407.3	1144.4	555.6	541.4	581.1	634.4	613.1	571.0	537.3	524.8	523.6
62.5°	1834.5	808.0	508.8	503.5	537.8	580.5	576.4	532.5	500.5	491.6	490.5
65°	1103.5	567.5	463.8	463.2	487.5	528.4	533.7	498.2	464.4	452.0	452.0
67.5°	545.5	434.2	412.9	409.9	425.3	454.3	476.8	447.8	419.4	407.5	405.8
70°	385.6	382.7	375.5	367.3	370.2	382.1	391.5	367.3	337.0	325.2	322.8
72.5°	333.5	334.1	329.3	322.8	320.5	312.2	303.9	286.1	267.7	255.3	256.5
75°	258.9	260.0	263.0	260.6	254.1	245.2	236.3	213.8	199.0	187.2	184.8
77.5°	151.0	157.0	166.4	164.1	165.3	152.8	149.3	127.4	113.7	105.4	103.7
80°	85.3	88.9	93.0	96.0	92.4	87.1	79.4	67.5	63.4	57.5	56.3
82.5°	51.5	55.1	56.9	59.2	58.0	50.9	45.0	37.3	33.8	30.8	30.2
85°	26.1	28.4	30.2	31.4	27.8	23.1	20.7	16.6	14.2	12.4	12.4
87.5°	6.5	7.1	8.3	7.1	6.5	3.0	2.4	0.6	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

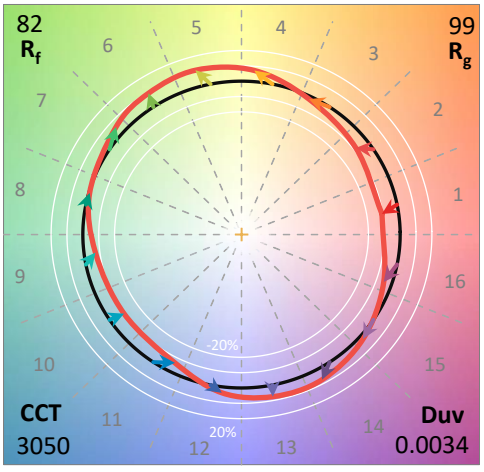
Test Information

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

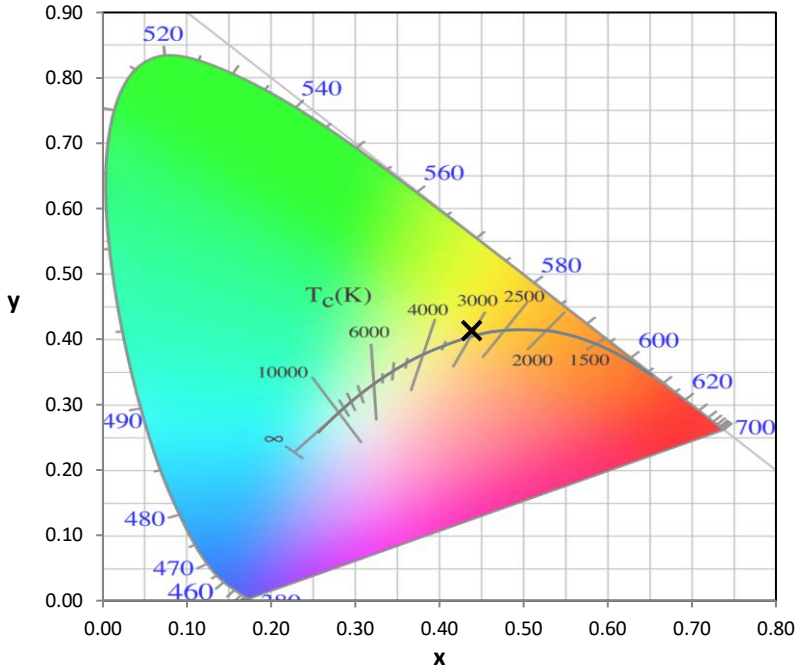
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

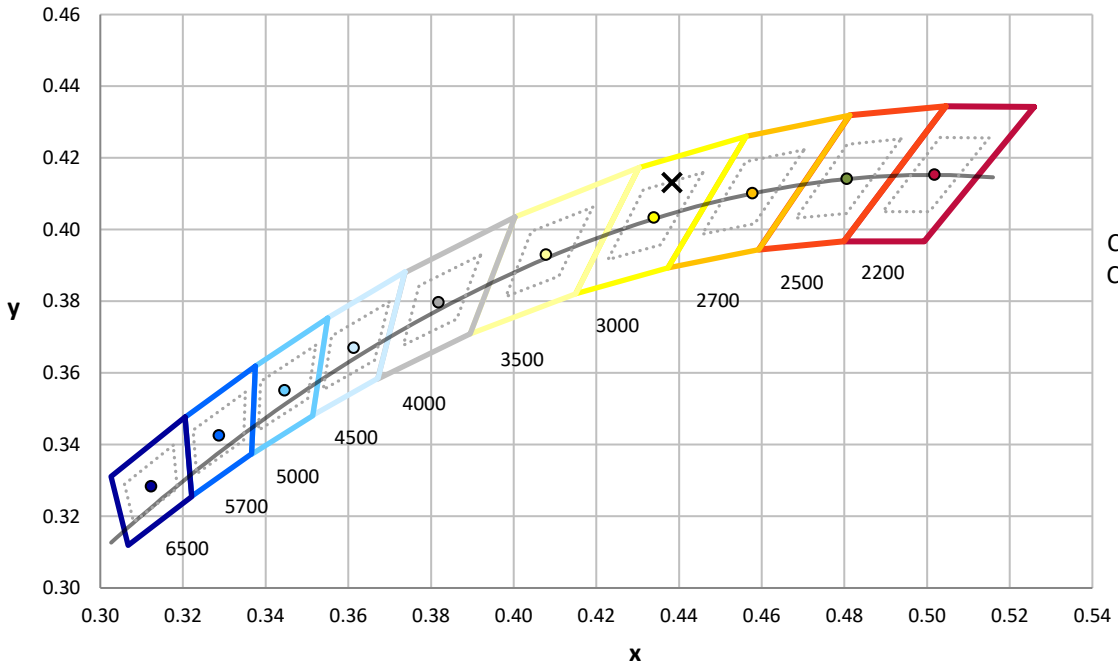
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

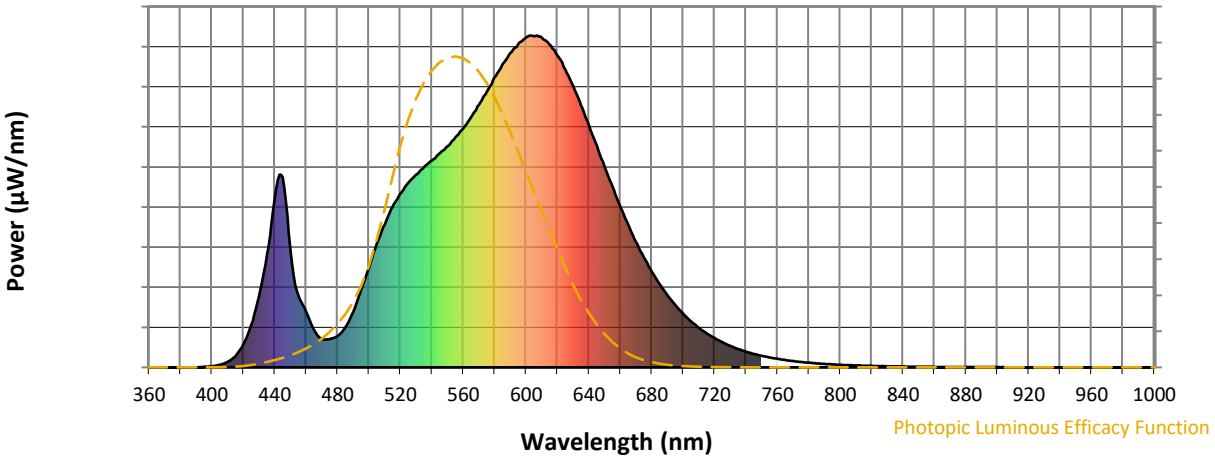


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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			

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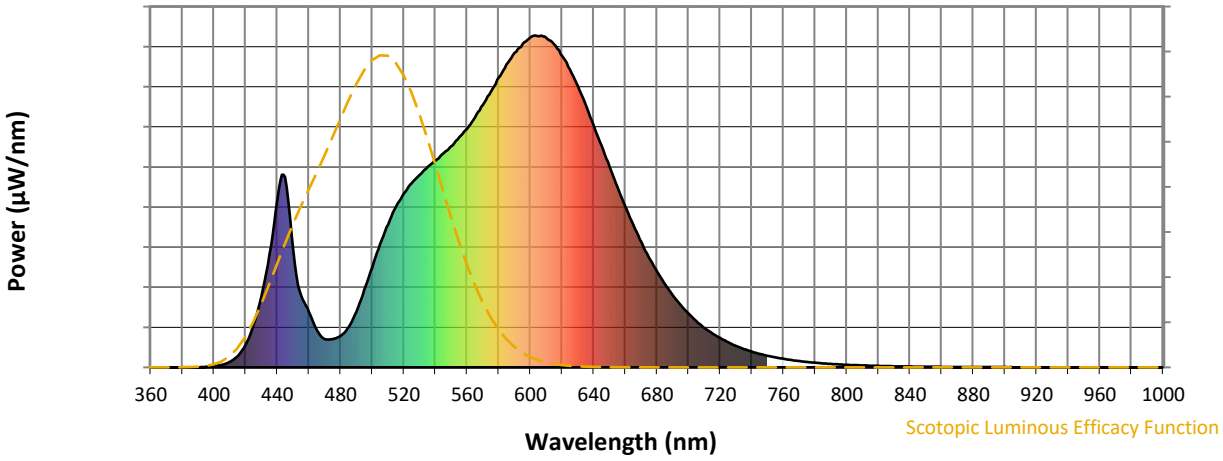
Scotopic Flux vs. Wavelength



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			

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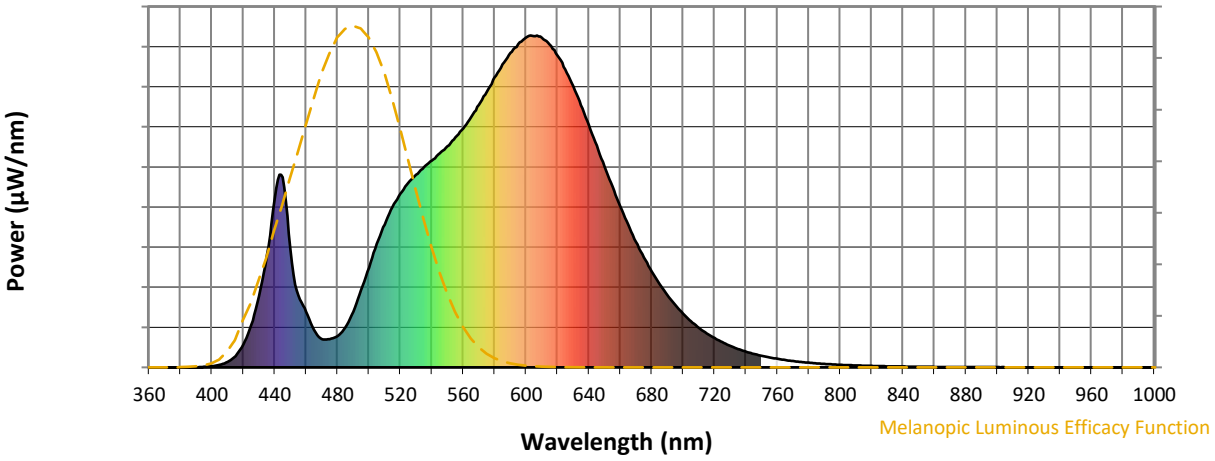
Melanopic Flux vs. Wavelength



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			

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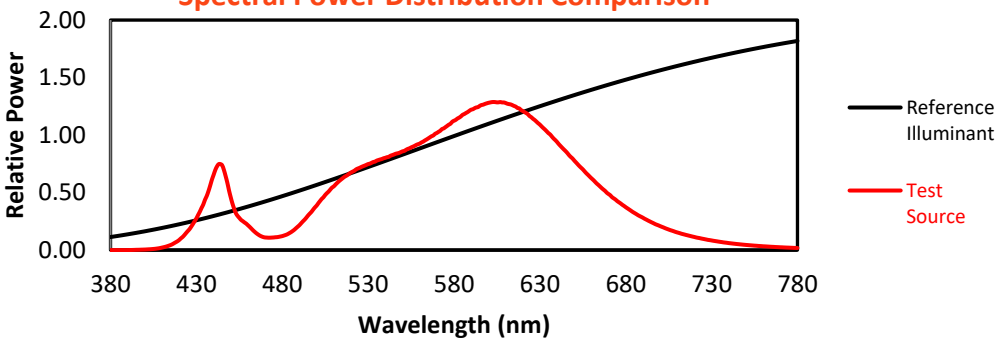
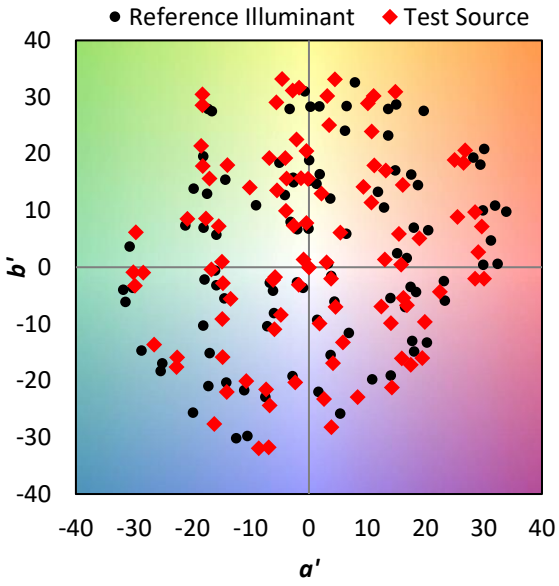
Summary

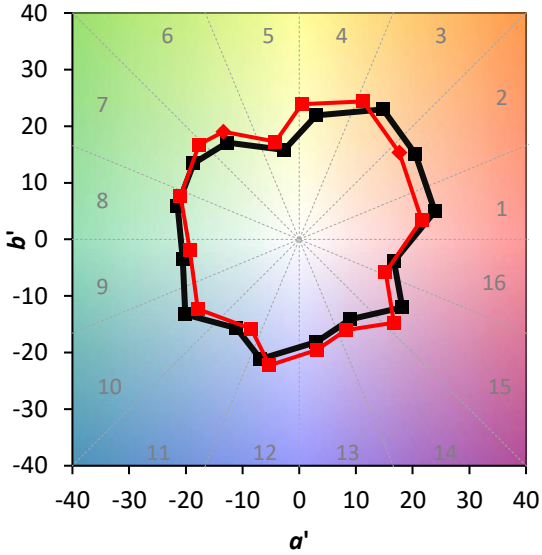
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

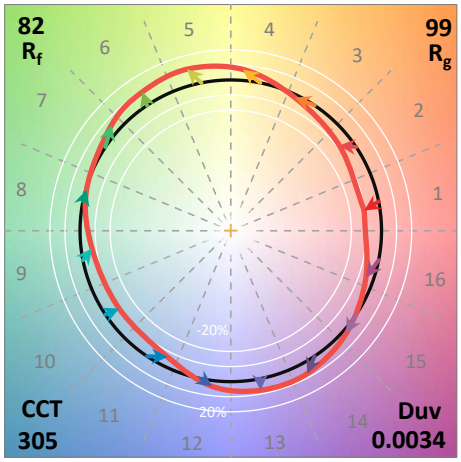
Spectral Power Distribution Comparison

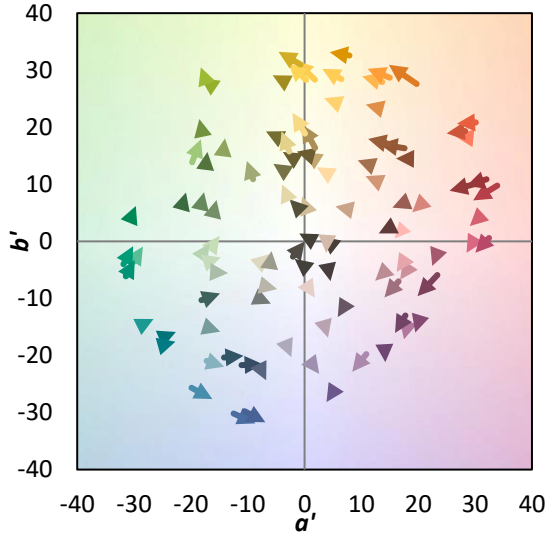


Color Vector Graphics









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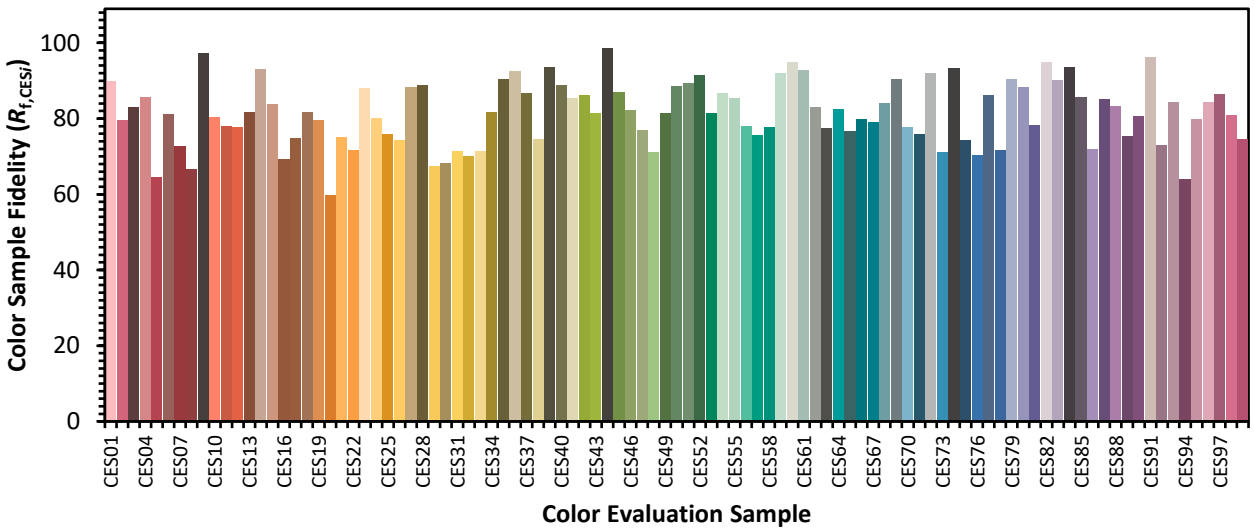
Individual Sample Fidelity Index ($R_{f,i}$)

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	



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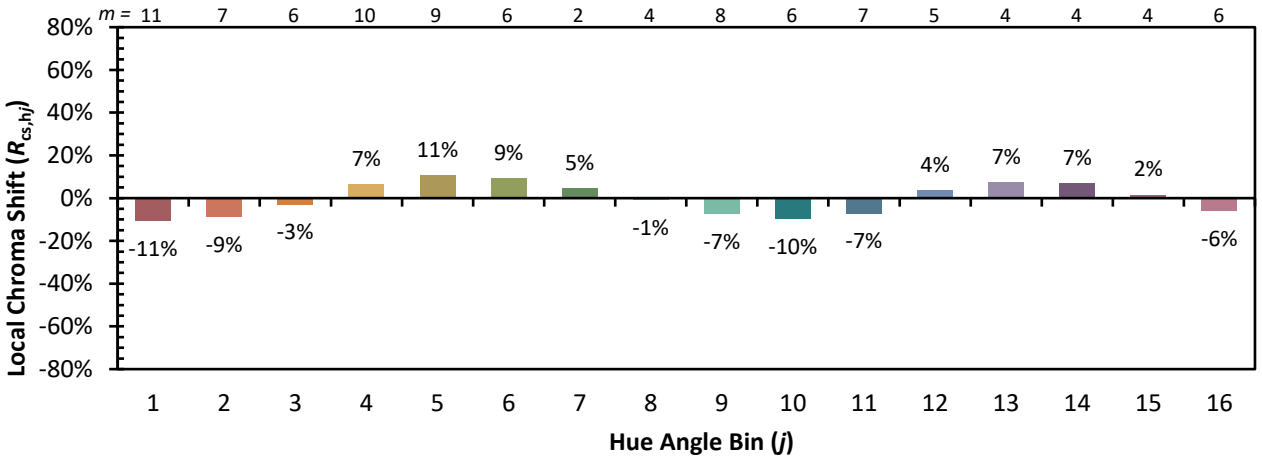
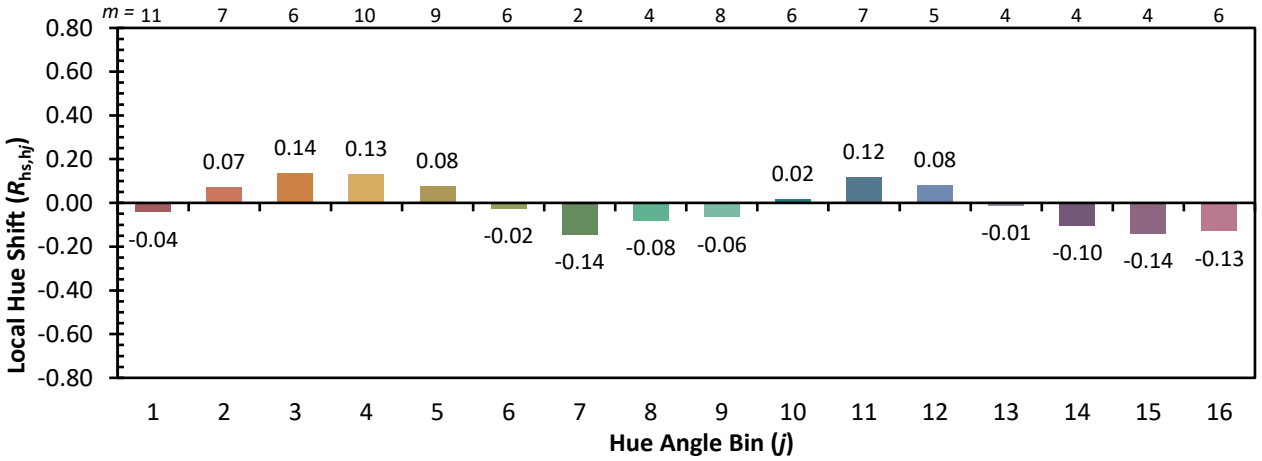
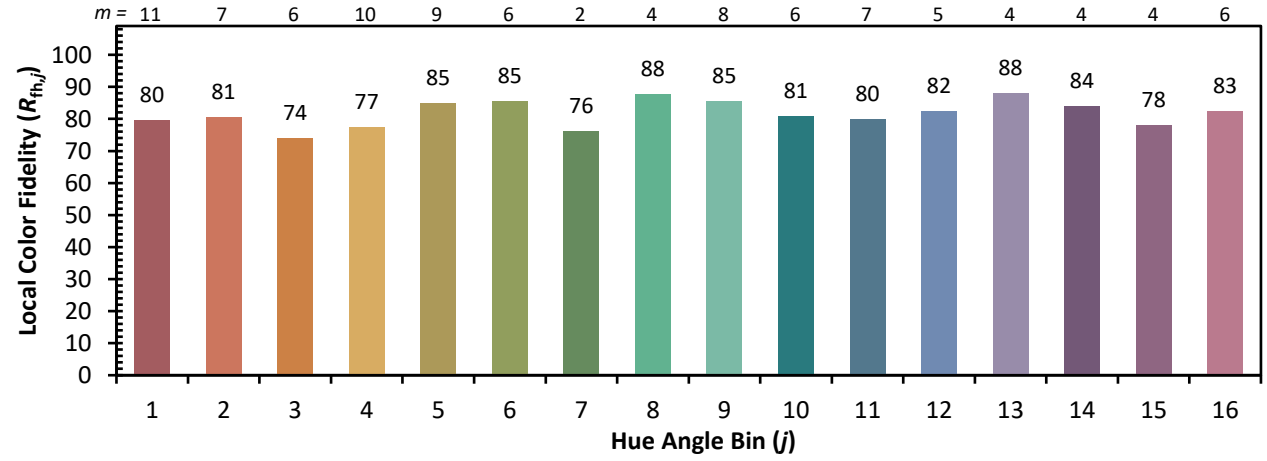
Color Rendition by Hue-Angle Bin







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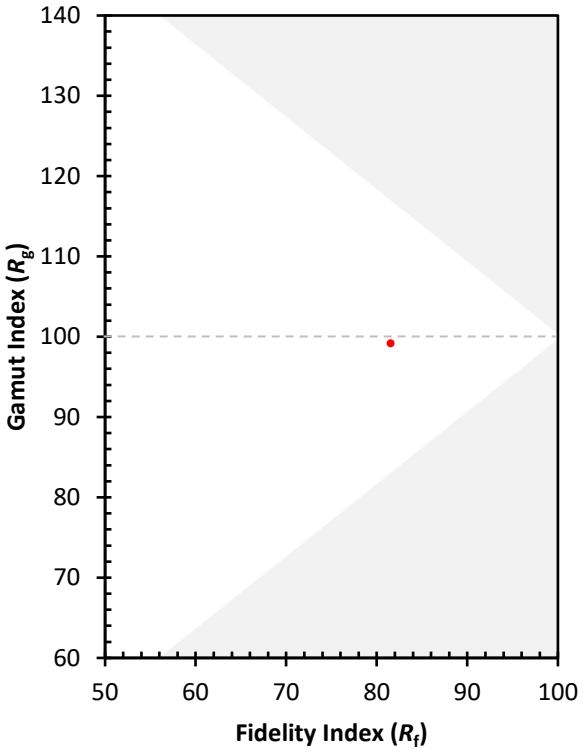
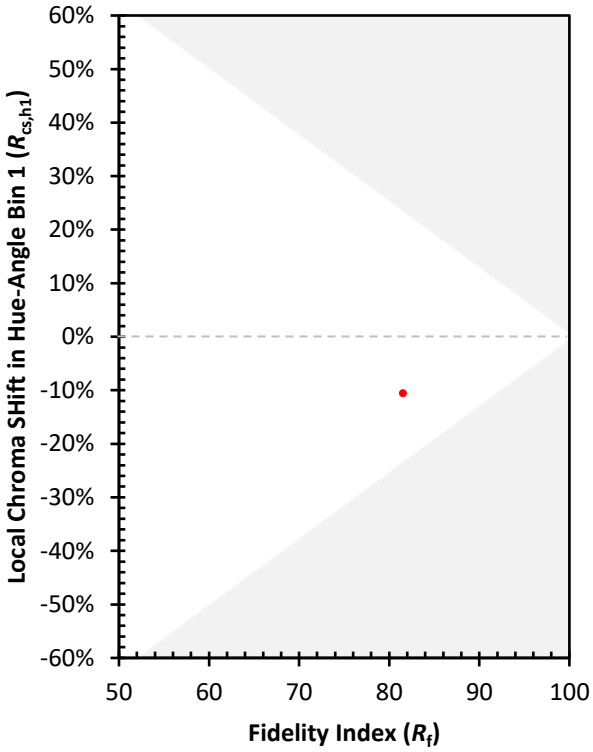
Measure Comparisons





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