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: P633033

Luminaire Tested: GWS-SA2D-830-U-SL4-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:	P633033
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-35)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA2D-830-U-SL4-W
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8908 lumens
Efficiency:	N/A
Efficacy:	108.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G2

Input Watts (W):	82.1
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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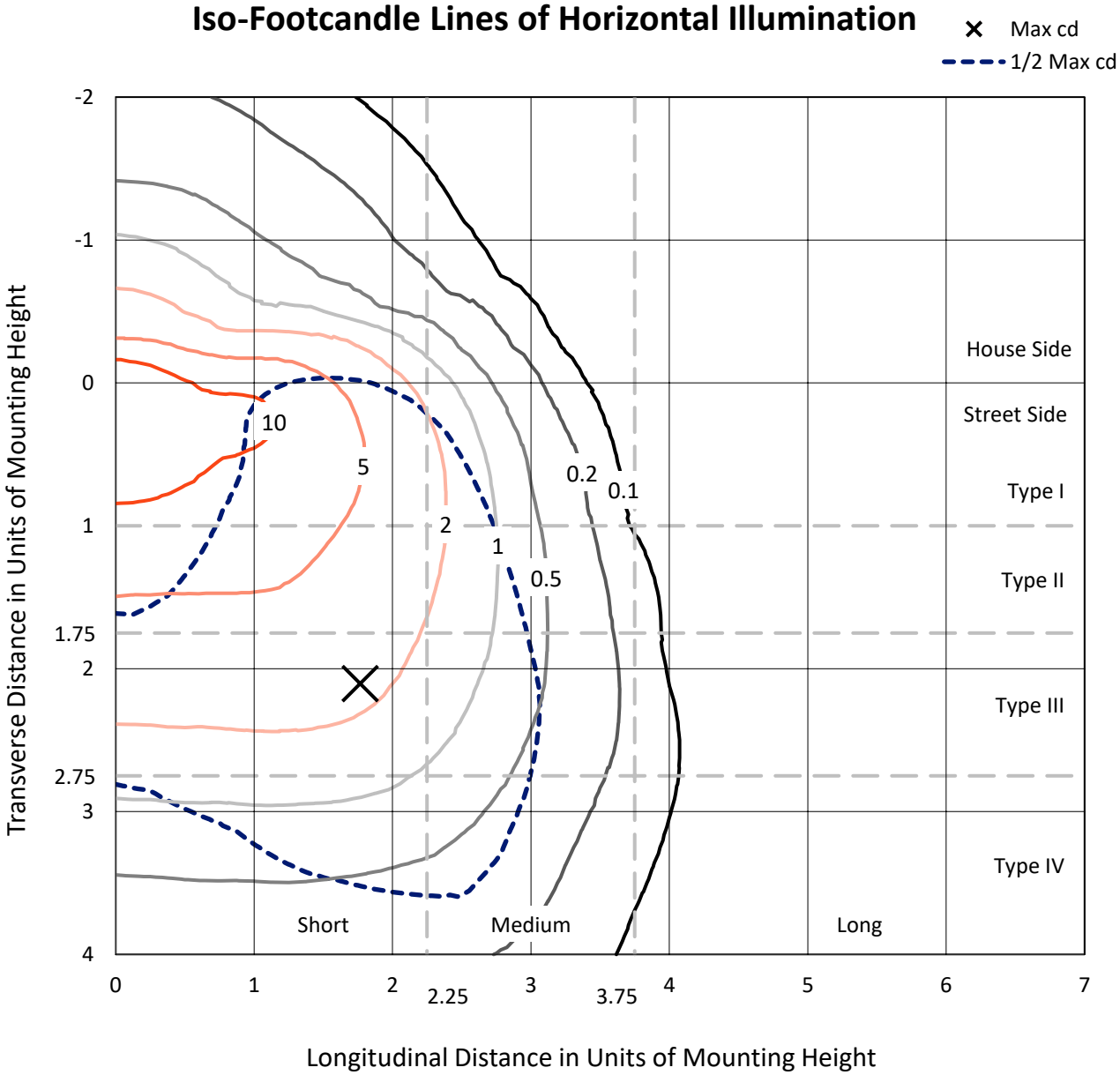
Scaled Data Report

REPORT NUMBER: P633033
CATALOG NUMBER: GWS-SA2D-830-U-SL4-W

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 15.1 fc
Type IV - Short - N/A

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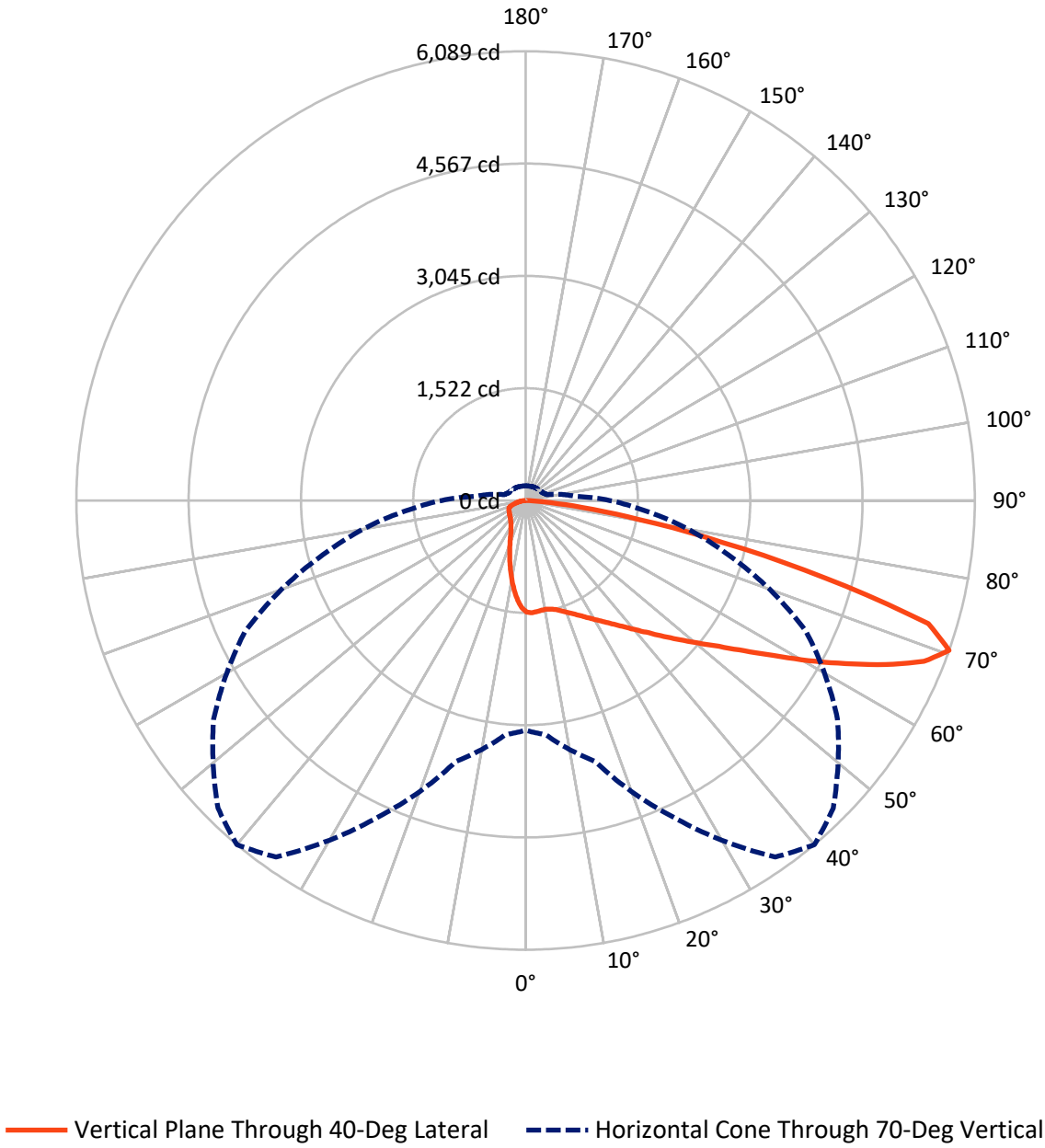
Luminous Intensity Polar Plot



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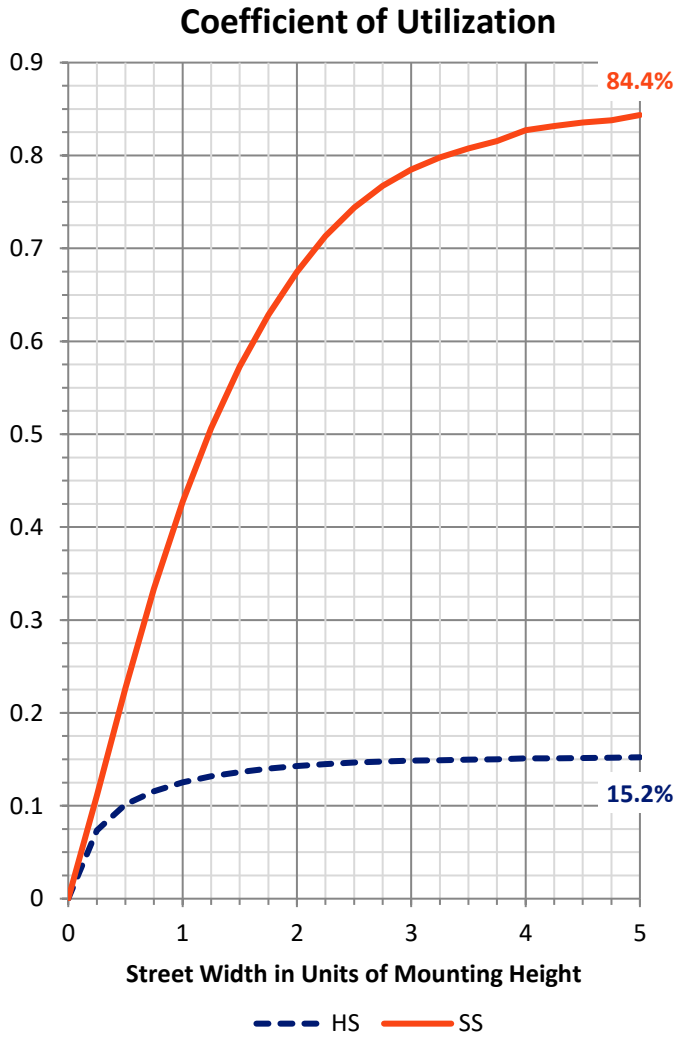
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1372.1	0.0	1372.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	7535.9	0.0	7535.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	8908.0	0.0	8908.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.6	1.5
10°-20°	348.3	3.9
20°-30°	546.9	6.1
30°-40°	822.3	9.2
40°-50°	1269.3	14.2
50°-60°	1885.0	21.2
60°-70°	2376.0	26.7
70°-80°	1374.0	15.4
80°-90°	152.5	1.7
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°	8908.0	100.0
0°-180°	8908.0	100.0



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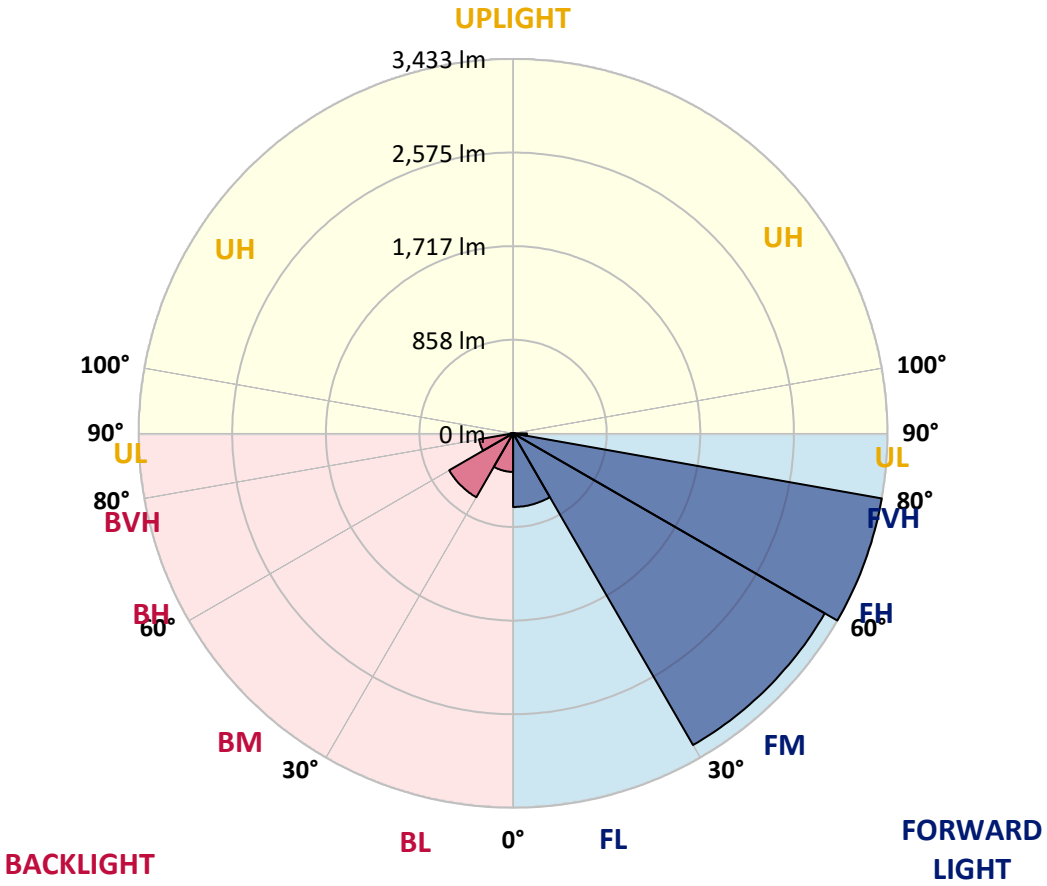
REPORT NUMBER: P633033
CATALOG NUMBER: GWS-SA2D-830-U-SL4-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	675.3	7.6			
FM	(30°-60°)	3300.3	37.0			
FH	(60°-80°)	3433.3	38.5			G2/5000
FVH	(80°-90°)	127.0	1.4			G2/225
BL	(0°-30°)	353.6	4.0	B1/500		
BM	(30°-60°)	676.3	7.6	B1/1000		
BH	(60°-80°)	316.7	3.6	B1/500		G1/500
BVH	(80°-90°)	25.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
Type IV Short



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REPORT NUMBER: P633033
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1512.7	1512.7	1512.7	1512.7	1512.7	*1512.7*	1512.7	1512.7	1512.7	1512.7	1512.7
2.5°	1522.0	1524.6	1526.6	1529.3	1528.0	*1524.0*	1527.3	1527.3	1520.0	1512.0	1504.7
5°	1524.0	1527.3	1526.6	1526.0	1520.7	*1514.0*	1514.0	1510.0	1497.4	1484.8	1472.8
7.5°	1520.0	1519.3	1518.7	1516.7	1510.7	*1503.4*	1502.0	1494.1	1477.4	1460.2	1442.9
10°	1502.0	1501.4	1503.4	1508.0	1506.7	*1500.0*	1500.0	1492.7	1473.5	1452.2	1429.6
12.5°	1487.4	1487.4	1495.4	1508.0	1512.7	*1510.0*	1510.7	1505.4	1483.4	1458.2	1431.6
15°	1489.4	1490.1	1507.4	1528.0	1536.6	*1534.6*	1535.3	1529.3	1504.7	1479.4	1443.5
17.5°	1502.7	1506.0	1536.0	1564.5	1575.8	*1573.2*	1568.5	1558.6	1530.6	1502.0	1458.2
20°	1530.6	1536.0	1574.5	1610.4	1623.7	*1617.7*	1609.8	1589.8	1559.2	1528.0	1474.1
22.5°	1585.8	1589.1	1631.7	1666.9	1677.6	*1670.3*	1654.3	1625.7	1590.5	1557.9	1493.4
25°	1663.6	1667.6	1708.2	1740.7	1738.1	*1729.4*	1707.5	1672.3	1630.4	1595.8	1521.3
27.5°	1756.0	1762.7	1802.6	1828.5	1811.2	*1798.6*	1774.0	1731.4	1684.2	1653.0	1563.9
30°	1857.1	1859.8	1893.7	1919.6	1893.0	*1875.7*	1845.8	1799.9	1757.4	1734.1	1627.7
32.5°	1954.8	1957.5	1986.8	2001.4	1973.5	*1960.8*	1934.9	1886.4	1856.4	1843.8	1722.8
35°	2057.9	2057.2	2081.2	2093.8	2065.2	*2059.9*	2033.3	1996.1	1990.8	2007.4	1861.8
37.5°	2161.0	2155.0	2167.6	2184.2	2168.3	*2173.6*	2156.3	2143.7	2164.3	2207.5	2046.6
40°	2243.4	2243.4	2256.7	2277.3	2282.7	*2305.9*	2295.9	2312.6	2379.1	2482.1	2275.3
42.5°	2316.6	2317.2	2345.2	2377.1	2415.6	*2451.5*	2459.5	2502.7	2640.4	2801.9	2562.6
45°	2393.0	2393.7	2431.6	2478.1	2559.9	*2628.4*	2644.4	2741.4	2938.3	3135.1	2874.4
47.5°	2481.5	2474.1	2526.7	2604.5	2720.8	*2819.2*	2860.5	2998.1	3246.8	3488.8	3168.3
50°	2581.2	2565.9	2624.4	2758.7	2902.4	*3037.3*	3106.5	3264.1	3577.9	3815.3	3444.9
52.5°	2693.6	2684.9	2746.1	2909.7	3129.1	*3284.7*	3378.4	3585.2	3899.7	4140.4	3664.3
55°	2833.2	2812.6	2901.0	3109.1	3395.1	*3593.2*	3704.2	3903.0	4251.5	4435.6	3831.9
57.5°	2986.1	2963.5	3081.9	3358.5	3740.8	*3958.2*	4097.2	4260.8	4582.6	4661.7	3930.3
60°	3151.0	3143.7	3284.0	3651.0	4153.1	*4405.7*	4506.1	4654.4	4870.5	4792.7	3905.7
62.5°	3302.0	3299.3	3503.4	3968.2	4589.9	*4867.8*	4947.6	4986.9	5078.0	4784.1	3710.2
65°	3460.9	3483.5	3759.4	4335.9	5090.6	*5363.2*	5396.4	5296.7	5147.8	4557.3	3309.9
67.5°	3480.8	3524.7	3920.3	4680.3	5565.3	*5822.7*	5796.1	5414.4	4941.6	3926.3	2594.5
70°	*3113.1*	*3189.6*	*3663.7*	*4732.9*	*5899.8*	*6089.3*	*5897.1*	*5161.1*	*4193.6*	*2844.5*	*1631.7*
72.5°	2601.1	2667.0	3085.9	4036.0	5468.3	*5709.6*	5449.6	4368.5	2963.5	1631.7	831.1
75°	2024.7	2101.1	2487.4	3208.2	4093.9	*4190.3*	4060.0	3046.6	1629.0	672.9	377.7
77.5°	1235.4	1290.6	1591.1	2173.6	2864.5	*2720.2*	2305.3	1708.2	714.8	322.5	233.4
80°	546.6	580.5	783.9	1167.6	1655.0	*1564.5*	1233.4	729.4	391.0	204.8	162.9
82.5°	293.2	315.2	386.3	462.1	726.8	*760.0*	616.4	420.2	210.1	117.0	93.1
85°	129.0	141.6	175.5	167.6	238.7	*234.7*	236.7	288.6	100.4	53.9	60.5
87.5°	0.0	0.0	0.0	0.0	0.7	*0.7*	7.3	38.6	10.0	16.0	14.0
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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REPORT NUMBER: P633033
CATALOG NUMBER: GWS-SA2D-830-U-SL4-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7	1512.7
2.5°	1496.7	1484.8	1481.4	1477.4	1470.1	1457.5	1448.2	1437.5	1432.9	1427.6	1428.2
5°	1459.5	1444.9	1430.9	1412.9	1390.3	1365.1	1347.8	1327.8	1317.2	1307.2	1309.9
7.5°	1427.6	1405.0	1376.4	1338.5	1297.9	1252.7	1216.1	1187.5	1168.3	1155.0	1161.6
10°	1407.6	1381.0	1331.2	1269.3	1200.8	1131.7	1079.2	1030.0	999.4	975.4	974.1
12.5°	1403.6	1369.1	1296.6	1206.8	1107.7	1015.3	938.2	871.7	831.1	801.2	812.5
15°	1407.6	1363.7	1266.7	1149.0	1024.0	899.0	803.2	726.8	678.2	651.0	649.0
17.5°	1412.3	1358.4	1232.8	1086.5	936.2	793.2	682.2	601.1	551.2	524.0	524.6
20°	1416.3	1350.4	1192.9	1018.0	847.1	694.8	579.8	502.7	458.1	438.2	441.5
22.5°	1422.9	1342.5	1150.3	944.8	756.0	599.8	498.7	436.2	409.6	396.3	397.0
25°	1435.6	1337.8	1106.4	865.1	666.2	524.0	442.8	400.9	384.3	376.3	375.7
27.5°	1461.5	1341.8	1060.5	787.9	585.1	466.1	406.9	379.7	368.4	363.0	362.4
30°	1504.7	1357.8	1020.6	709.5	515.3	420.9	382.3	365.7	359.1	354.4	353.7
32.5°	1570.5	1387.7	977.4	636.3	458.8	387.6	363.0	354.4	349.7	347.1	347.1
35°	1670.3	1442.2	934.9	572.5	414.9	361.7	347.8	344.4	340.4	339.1	340.4
37.5°	1813.9	1529.3	896.3	516.6	383.7	341.8	331.1	332.5	329.1	331.1	333.1
40°	1996.1	1645.7	863.7	470.8	360.4	327.1	316.5	321.2	319.2	321.2	324.5
42.5°	2226.8	1789.9	839.1	434.9	343.8	315.2	305.2	309.9	308.5	311.2	314.5
45°	2484.1	1980.1	827.8	409.6	331.8	306.5	295.9	299.2	297.9	299.9	303.2
47.5°	2730.8	2153.0	837.8	395.0	321.8	299.2	287.9	289.2	288.6	287.9	289.9
50°	2943.6	2290.6	866.4	390.3	315.2	291.9	281.3	281.9	279.9	275.9	277.3
52.5°	3117.1	2401.0	883.7	390.3	311.8	283.9	273.9	274.6	270.6	265.3	266.0
55°	3231.5	2445.6	869.7	389.6	310.5	277.3	266.6	267.3	263.3	256.7	257.3
57.5°	3264.1	2402.3	811.2	382.3	309.2	272.0	259.3	260.6	258.0	250.7	250.7
60°	3173.0	2244.1	704.1	365.7	305.9	268.6	254.0	256.0	254.7	247.3	247.3
62.5°	2934.3	1962.8	576.5	340.4	296.6	264.6	249.3	253.3	256.7	252.7	252.0
65°	2487.4	1572.5	468.8	312.5	284.6	258.0	242.7	252.7	260.0	265.3	265.3
67.5°	1866.4	1125.7	382.3	283.3	266.6	244.7	234.0	243.4	248.7	252.0	254.0
70°	*1137.7*	*662.3*	*301.2*	*249.3*	*240.7*	*224.7*	*216.8*	*207.5*	*200.1*	*198.8*	*199.5*
72.5°	556.5	379.0	244.7	212.1	205.5	190.8	172.9	168.9	165.6	163.6	162.9
75°	306.5	264.0	202.1	176.2	164.2	146.3	142.3	135.6	134.3	131.7	132.3
77.5°	216.8	208.1	166.9	143.0	125.0	115.7	117.7	113.0	113.0	111.0	110.4
80°	162.9	163.6	128.3	104.4	92.4	89.1	91.1	91.1	89.8	89.1	88.4
82.5°	103.1	116.4	86.4	67.2	65.8	66.5	65.8	65.2	66.5	64.5	63.8
85°	71.1	83.8	52.5	39.9	39.9	39.2	40.6	39.9	41.2	39.2	39.2
87.5°	16.0	37.2	19.3	12.0	12.6	12.0	12.6	13.3	14.6	15.3	15.3
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

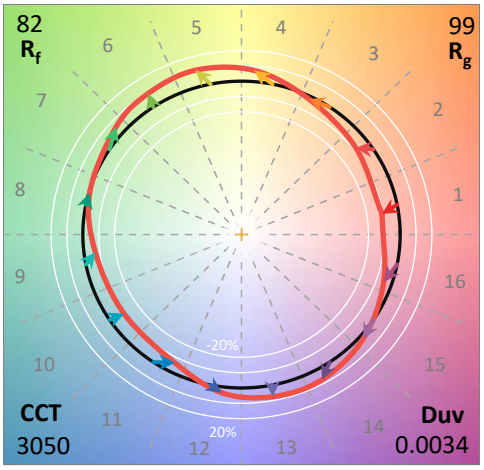
Test Information

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

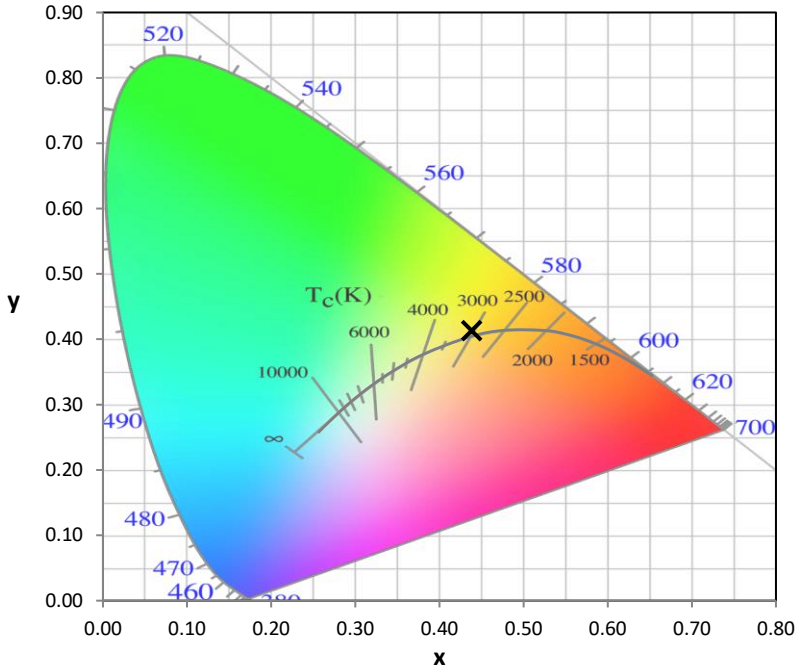
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

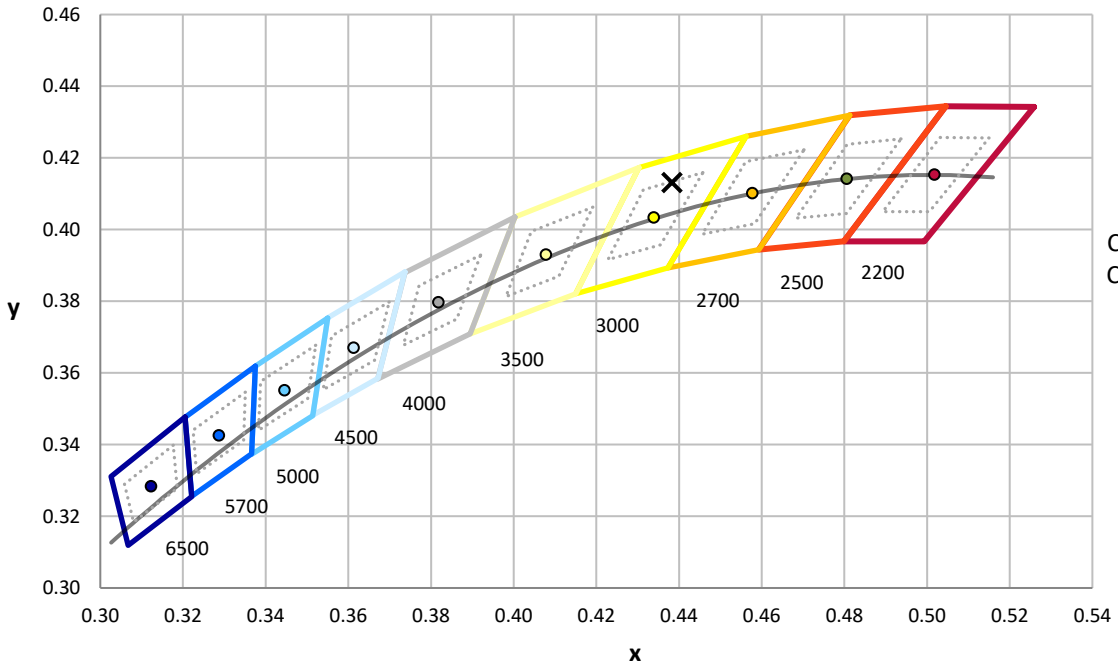
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

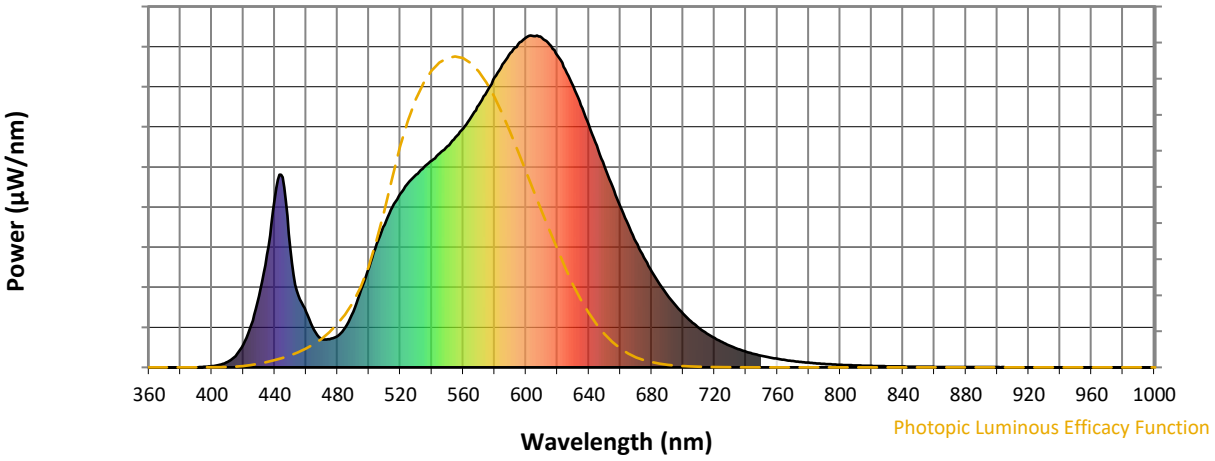


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

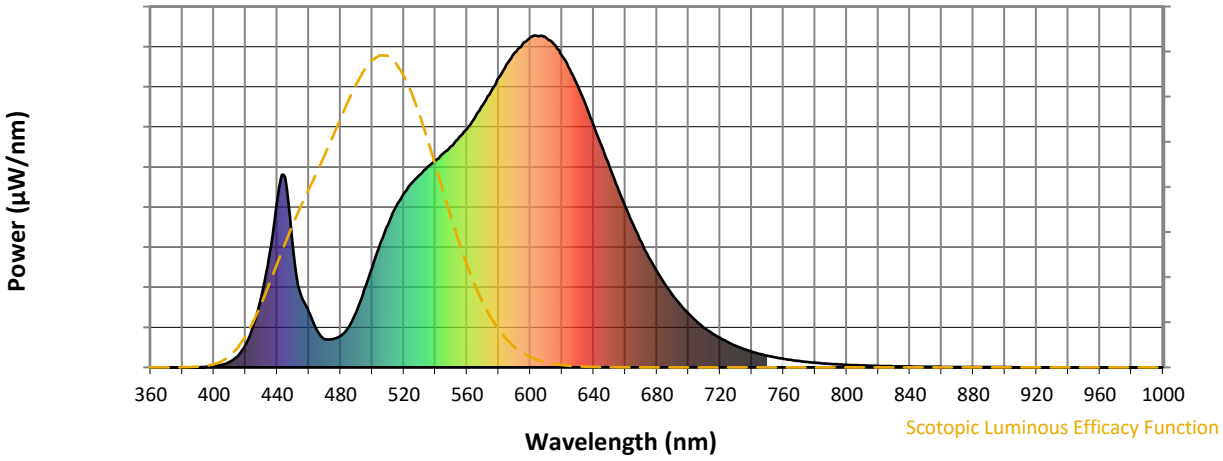


Photopic Lumens: NR

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

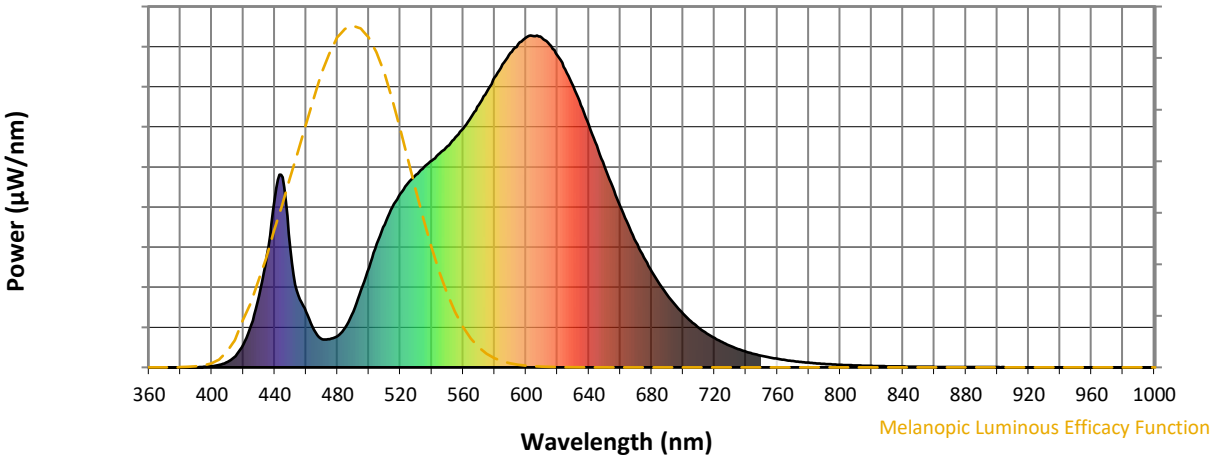


Scotopic Lumens: NR **S/P: 1.27**

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			

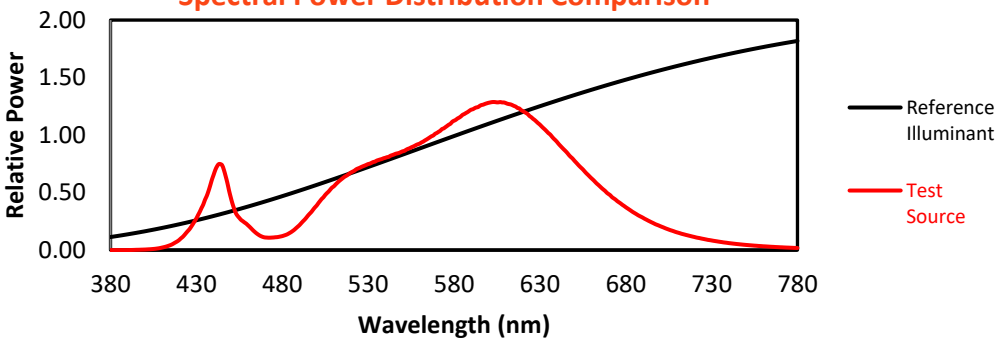
REPORT NUMBER: SP1-2408-195-9

TM-30-18

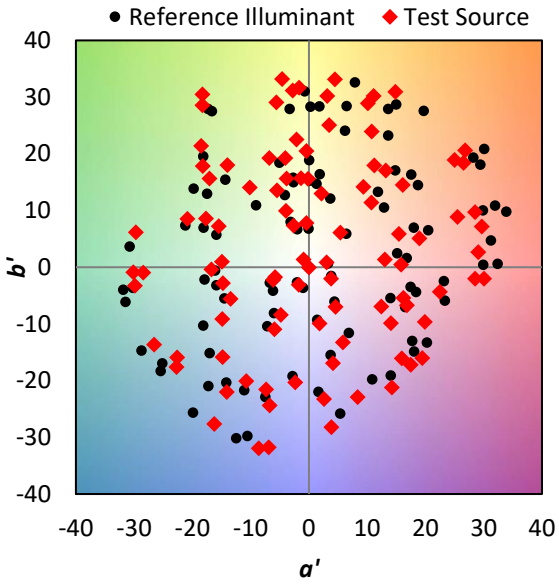
Summary

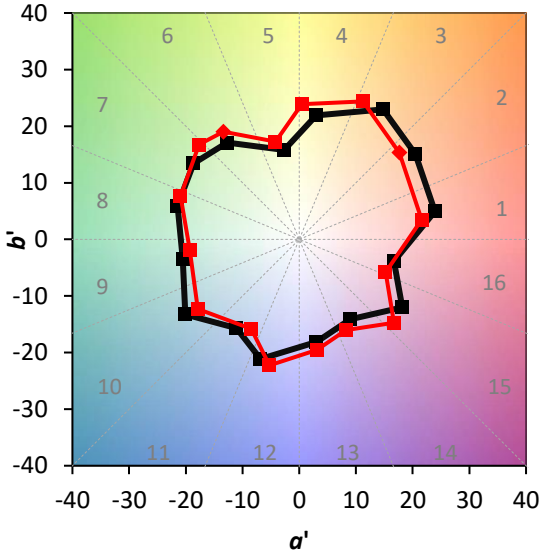
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

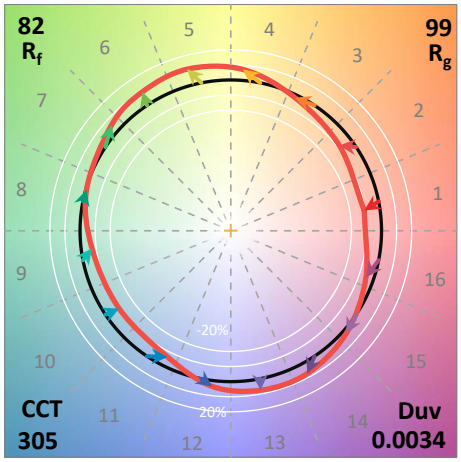
Spectral Power Distribution Comparison

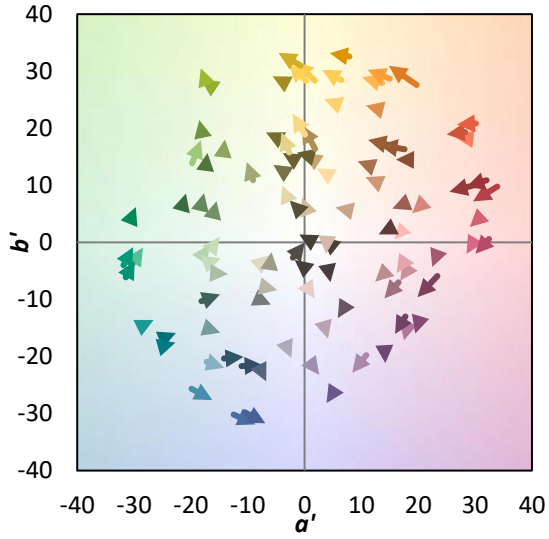


Color Vector Graphics







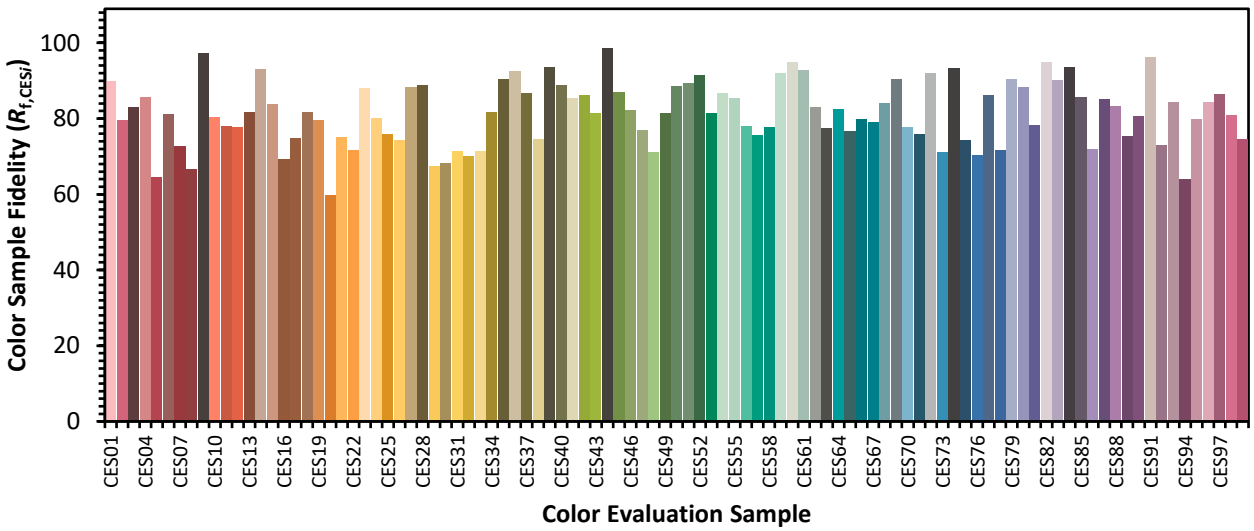


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

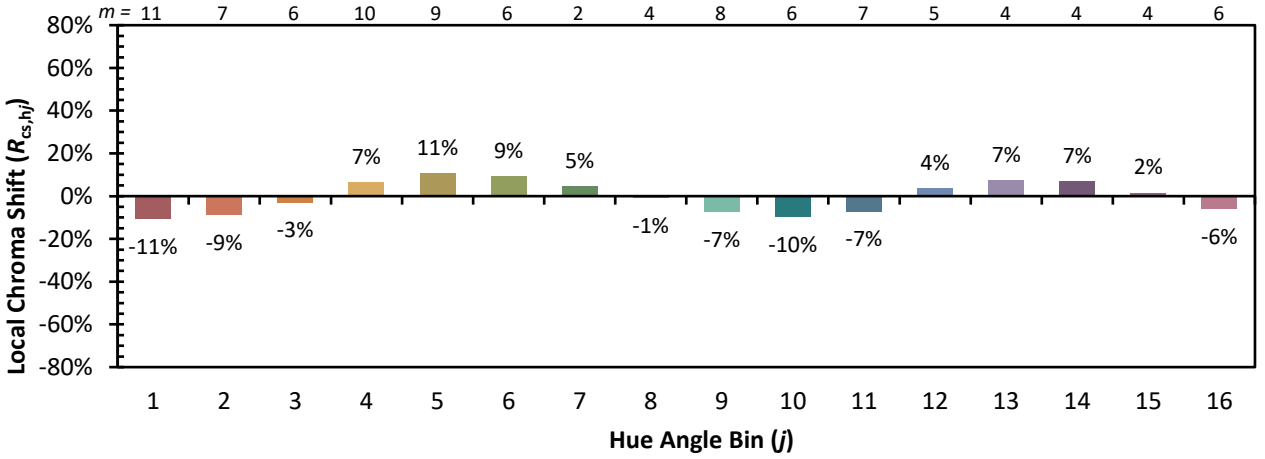
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

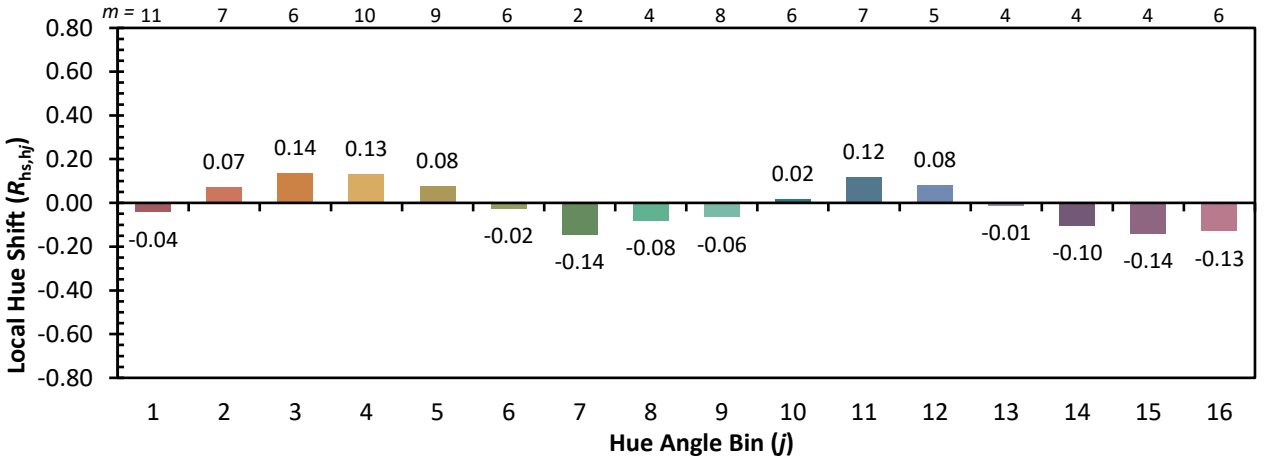


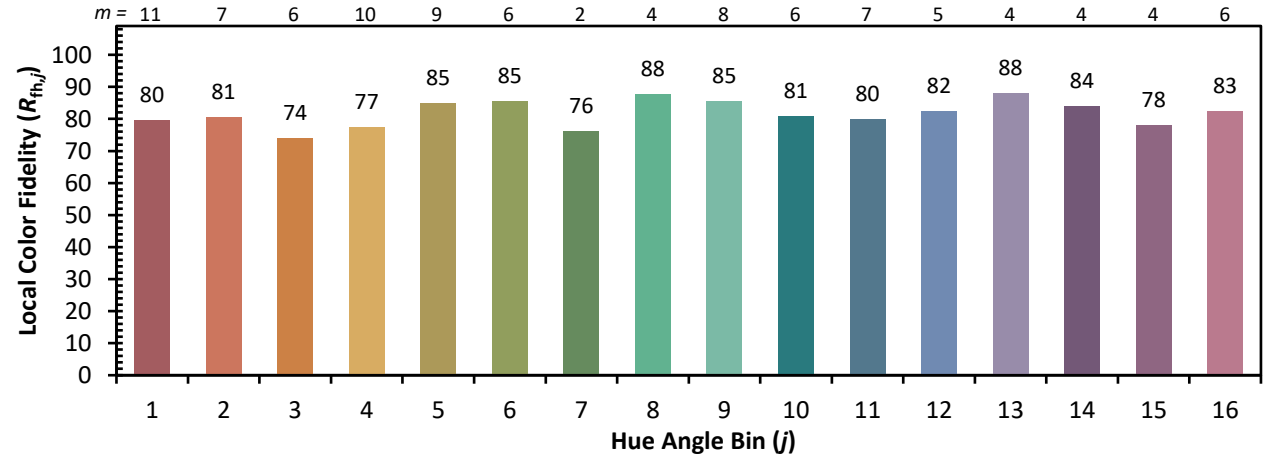
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



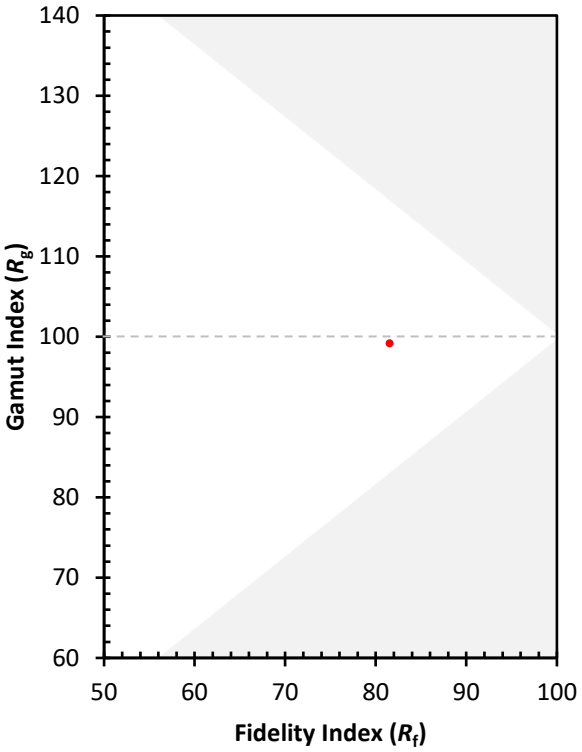


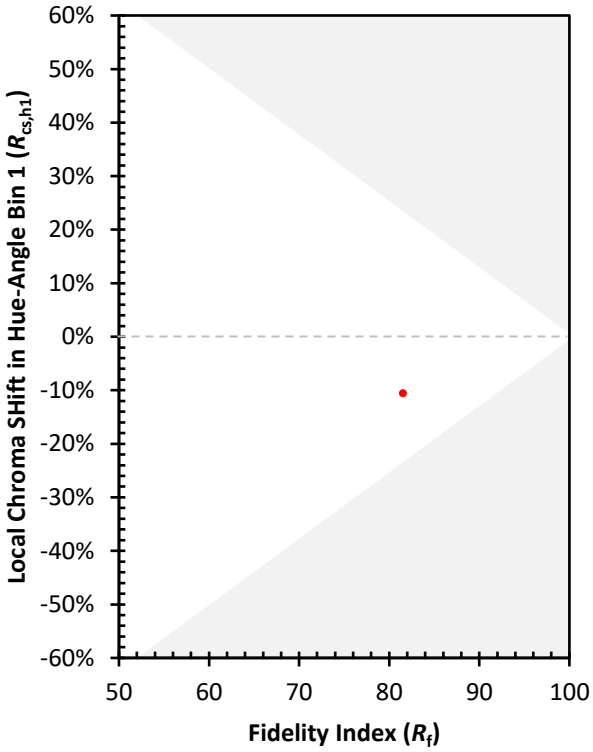


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





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