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: P631543

Luminaire Tested: GWS-SA1F-830-U-SL3-W-GRSBK

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:	P631543
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-32)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA1F-830-U-SL3-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(16) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3914.5 lumens
Efficiency:	N/A
Efficacy:	58.3 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G0

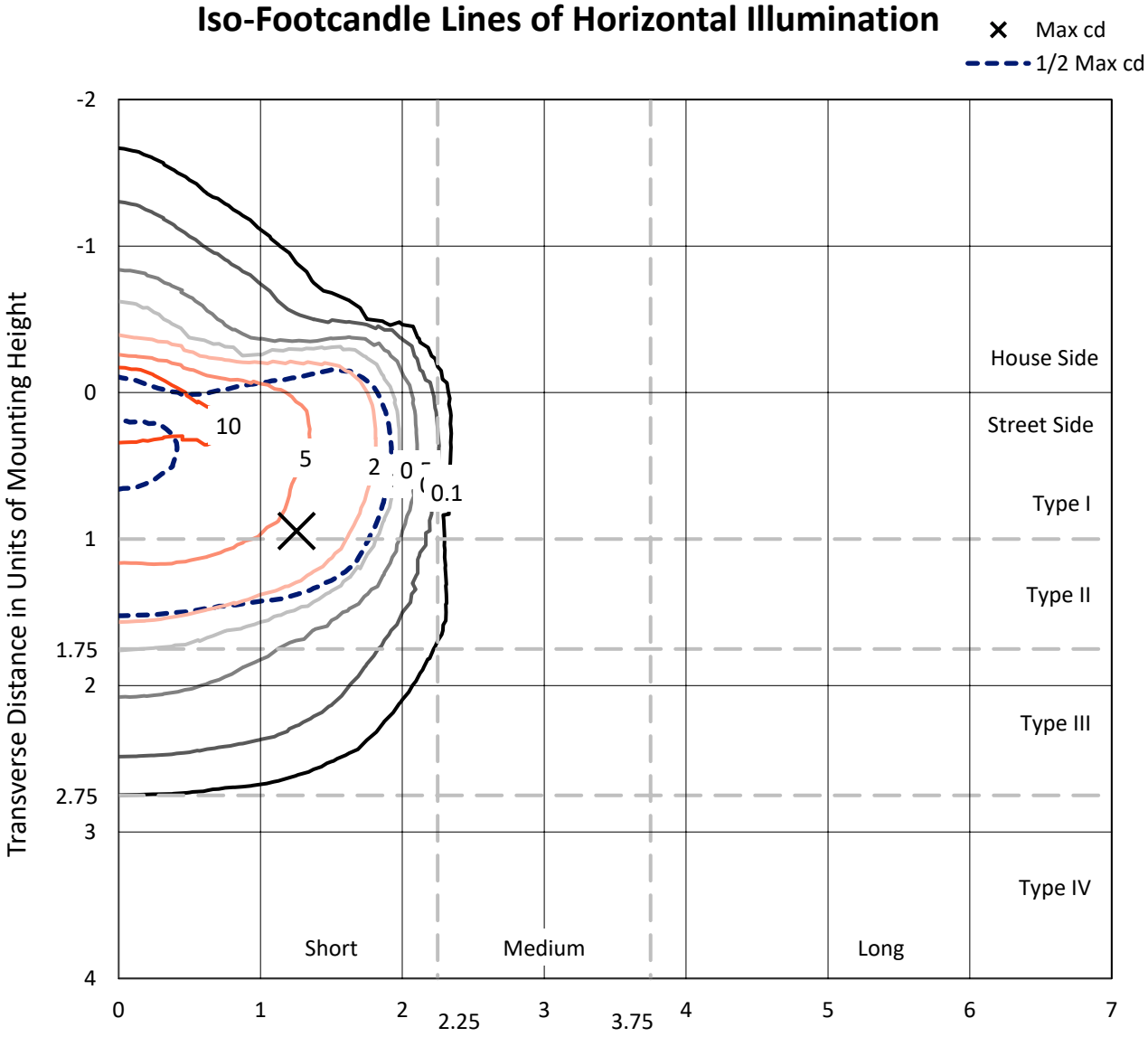
Input Watts (W):	67.2
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



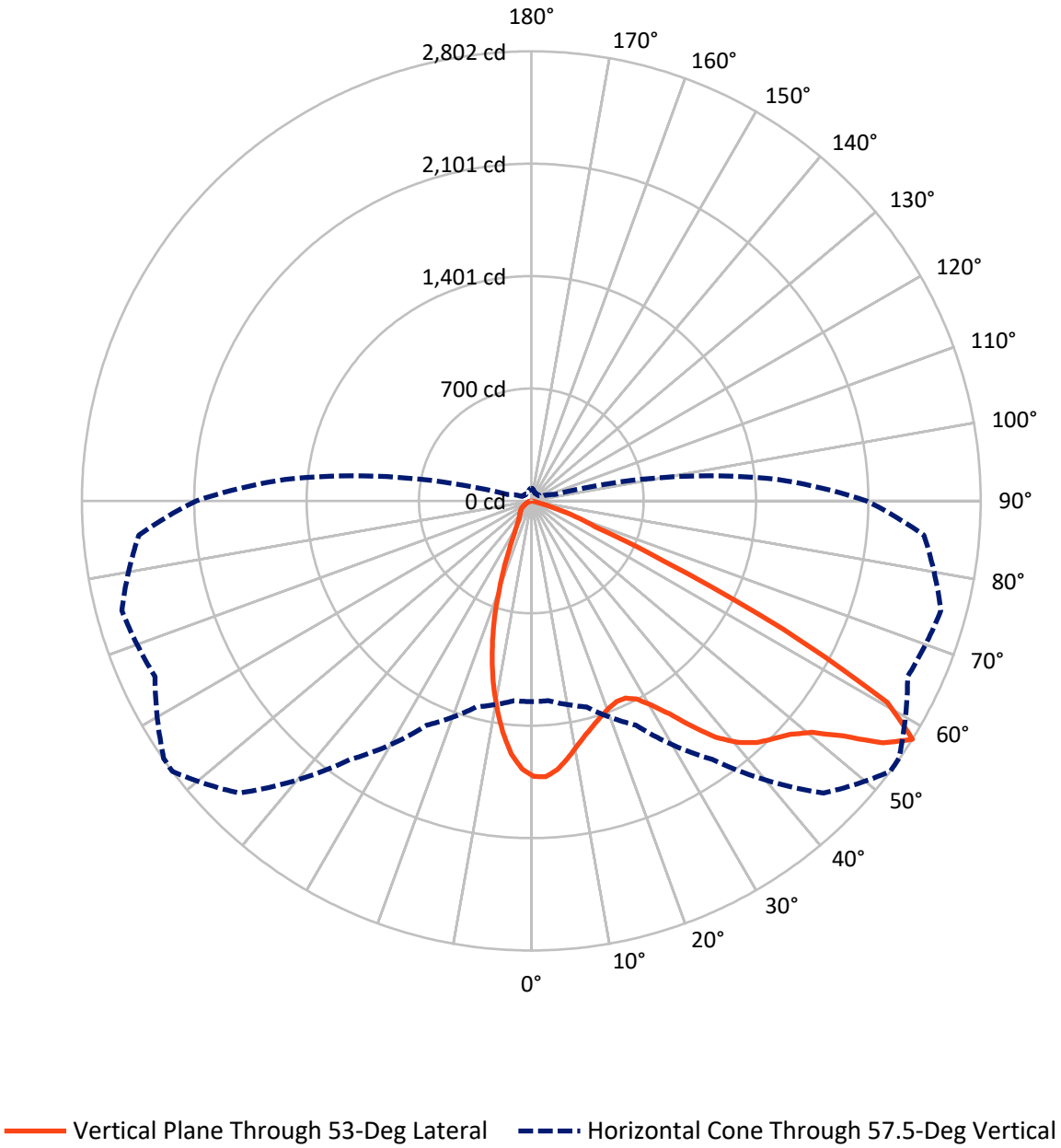
Based on 10 foot mounting height. Maximum calculated value = 17.2 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

Luminous Intensity Polar Plot



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

Scaled Data Report

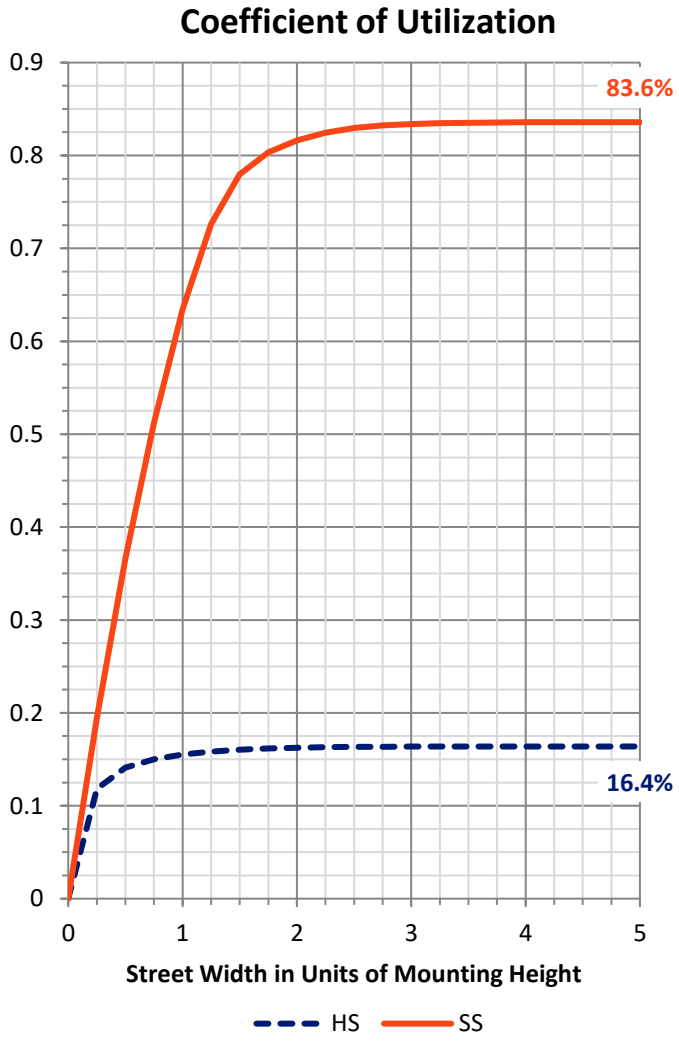
REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	646.6	0.0	646.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	3267.9	0.0	3267.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	3914.5	0.0	3914.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.9	3.8
10°-20°	322.5	8.2
20°-30°	420.2	10.7
30°-40°	609.5	15.6
40°-50°	879.4	22.5
50°-60°	1063.6	27.2
60°-70°	433.5	11.1
70°-80°	39.0	1.0
80°-90°	0.0	0.0
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°	3914.5	100.0
0°-180°	3914.5	100.0



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

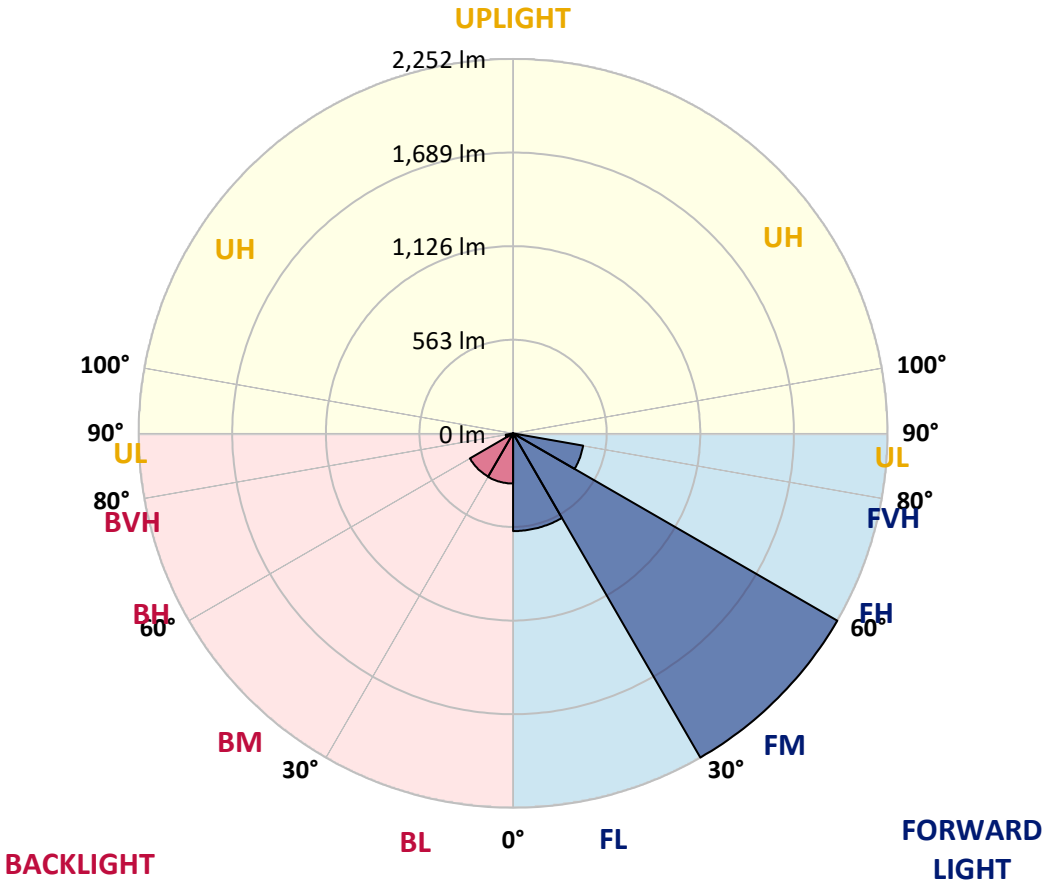
Scaled Data Report

REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	587.8	15.0			
FM	(30°-60°)	2252.3	57.5			
FH	(60°-80°)	427.7	10.9			G0/660
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	301.8	7.7	B1/500		
BM	(30°-60°)	300.1	7.7	B1/1000		
BH	(60°-80°)	44.7	1.1	B0/110		G0/110
BVH	(80°-90°)	0.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G0
Type II Short



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

Scaled Data Report

REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1
2.5°	1693.1	1697.0	1703.7	1712.3	1718.1	1721.0	1721.0	1729.1	1723.8	1719.5	1714.7
5°	1620.7	1624.5	1633.6	1647.6	1661.5	1671.5	1683.1	1691.7	1695.1	1695.1	1686.9
7.5°	1518.5	1523.8	1529.5	1548.7	1578.9	1601.5	1621.2	1633.6	1651.9	1657.6	1646.1
10°	1408.6	1413.9	1426.9	1453.2	1487.8	1521.4	1555.0	1570.8	1602.0	1618.3	1605.3
12.5°	1315.5	1317.9	1335.2	1366.9	1411.0	1457.1	1497.9	1514.2	1558.3	1582.8	1567.4
15°	1238.8	1240.2	1257.5	1292.5	1343.4	1400.0	1451.3	1468.1	1522.3	1559.3	1536.2
17.5°	1180.7	1181.2	1196.1	1234.0	1287.2	1350.1	1411.0	1431.7	1501.7	1546.3	1511.8
20°	1151.5	1150.0	1160.6	1193.7	1244.1	1306.9	1378.9	1404.3	1490.2	1544.4	1493.1
22.5°	1151.9	1148.6	1152.9	1176.4	1219.1	1278.1	1358.7	1387.5	1491.1	1552.6	1477.2
25°	1179.3	1174.5	1175.5	1187.9	1218.2	1271.9	1361.6	1392.3	1510.3	1579.9	1471.5
27.5°	1225.4	1220.1	1220.1	1226.3	1242.6	1291.6	1397.6	1432.6	1561.7	1633.2	1483.5
30°	1284.8	1279.6	1277.6	1283.9	1297.3	1342.4	1477.7	1514.2	1649.5	1720.5	1521.9
32.5°	1353.0	1346.7	1350.1	1358.7	1371.7	1434.1	1580.9	1629.3	1759.3	1838.0	1590.9
35°	1424.9	1419.7	1435.0	1453.7	1473.9	1561.2	1723.4	1765.6	1894.2	1984.4	1696.5
37.5°	1493.5	1491.1	1523.3	1562.6	1604.4	1713.8	1868.3	1900.9	2009.8	2143.6	1825.6
40°	1562.2	1561.7	1616.8	1685.9	1752.6	1865.9	1978.1	2005.0	2080.3	2267.4	1949.3
42.5°	1638.9	1638.9	1715.2	1807.3	1896.1	1994.4	2058.7	2070.7	2112.0	2338.9	2042.4
45°	1712.3	1716.6	1804.9	1911.9	2017.0	2094.7	2114.4	2115.3	2124.9	2381.1	2119.7
47.5°	1770.4	1774.2	1879.8	2003.1	2116.3	2171.0	2173.9	2169.6	2159.0	2421.4	2179.1
50°	1817.4	1823.2	1933.5	2064.0	2184.4	2244.4	2266.5	2262.1	2235.3	2464.6	2220.9
52.5°	1840.4	1848.6	1952.2	2094.2	2260.2	2370.1	2431.5	2441.6	2349.5	2488.6	2260.7
55°	1656.2	1668.2	1763.7	1958.0	2302.5	2564.4	2660.8	2658.9	2473.3	2560.1	2357.6
57.5°	1250.8	1249.8	1329.0	1541.5	1966.6	2575.4	2801.9	2798.1	2588.9	2643.1	2456.9
60°	851.6	845.8	867.0	969.6	1375.0	2098.1	2550.0	2601.8	2506.8	2441.6	2086.1
62.5°	701.0	695.7	689.0	660.7	789.7	1306.9	1761.7	1840.4	1828.0	1697.0	1308.4
65°	573.8	578.1	596.8	584.8	549.3	670.2	914.5	961.0	878.5	739.3	457.2
67.5°	423.2	425.1	449.6	512.9	493.7	446.2	430.4	438.0	256.7	118.0	76.3
70°	250.0	251.4	274.0	358.9	400.6	342.6	290.7	286.4	101.7	31.7	34.5
72.5°	141.5	138.7	143.0	170.8	218.3	181.8	149.7	136.3	30.7	17.8	17.8
75°	67.2	65.2	56.1	52.8	48.0	30.7	19.2	16.3	7.7	7.2	7.2
77.5°	0.5	1.4	1.0	1.4	1.4	1.0	0.5	0.5	1.4	1.4	1.9
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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

Scaled Data Report

REPORT NUMBER: P631543
CATALOG NUMBER: GWS-SA1F-830-U-SL3-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1	1717.1
2.5°	1706.1	1691.7	1688.3	1687.4	1673.9	1659.5	1644.7	1638.9	1630.3	1625.0	1629.3
5°	1673.9	1653.3	1635.1	1618.3	1588.5	1555.9	1527.6	1509.4	1492.1	1480.6	1483.5
7.5°	1628.4	1601.5	1559.8	1517.1	1462.4	1413.4	1358.7	1325.1	1294.0	1276.7	1284.8
10°	1579.9	1544.4	1477.7	1405.3	1319.4	1242.6	1164.4	1100.6	1063.7	1028.6	1032.5
12.5°	1532.4	1485.4	1385.6	1275.7	1167.3	1054.1	936.0	847.8	787.3	743.7	736.9
15°	1488.3	1427.8	1295.9	1151.0	1003.2	852.6	701.9	575.7	505.7	462.5	459.6
17.5°	1448.9	1374.1	1202.8	1020.5	835.3	642.4	469.2	374.7	334.4	315.7	313.8
20°	1411.0	1319.9	1107.8	888.1	652.0	451.0	323.8	280.2	267.2	259.6	260.5
22.5°	1374.6	1260.9	1008.0	741.3	488.9	316.7	250.9	234.1	232.7	233.7	234.1
25°	1343.9	1206.6	905.3	599.7	348.8	241.3	209.7	204.9	209.2	215.4	216.4
27.5°	1328.0	1162.5	805.1	457.2	252.4	196.2	181.8	183.8	191.4	198.1	199.1
30°	1332.3	1129.4	701.4	331.5	194.3	165.5	160.7	164.6	172.2	178.5	179.4
32.5°	1363.0	1112.6	595.4	241.3	159.8	144.4	142.5	145.4	152.1	156.9	157.4
35°	1424.0	1116.4	494.7	184.7	137.2	128.6	128.1	130.0	133.4	136.7	137.2
37.5°	1513.7	1147.6	395.3	153.5	124.3	118.0	116.1	116.1	118.5	119.9	120.9
40°	1610.1	1194.6	316.7	135.8	115.1	108.4	104.6	103.2	105.1	107.0	107.5
42.5°	1689.8	1241.7	257.2	123.3	107.9	98.8	94.0	93.1	95.5	98.8	99.8
45°	1750.7	1278.1	214.5	113.2	99.8	89.7	84.4	84.4	88.8	94.5	95.5
47.5°	1806.4	1307.4	182.8	104.1	92.1	81.6	76.3	77.2	84.4	92.1	93.6
50°	1844.3	1330.9	159.3	96.0	85.9	74.8	70.0	72.0	80.6	89.7	91.2
52.5°	1885.0	1359.7	143.9	88.8	80.1	69.6	65.2	66.7	76.3	86.4	88.3
55°	1997.8	1456.1	143.5	79.2	70.0	62.4	60.5	60.9	70.5	82.0	84.4
57.5°	*2089.9*	*1541.0*	*153.0*	*66.7*	*58.5*	*54.7*	*53.7*	*54.2*	*62.9*	*75.8*	*78.7*
60°	1729.1	1197.5	126.7	55.2	48.9	48.0	46.5	47.5	55.7	67.2	69.6
62.5°	1023.4	684.6	60.5	42.2	41.7	40.8	39.3	41.3	48.9	59.0	60.5
65°	349.8	202.9	38.4	34.5	35.5	34.1	32.6	34.5	41.3	47.0	47.5
67.5°	67.2	53.7	30.7	28.8	29.3	26.4	25.9	27.8	31.7	32.6	32.1
70°	35.0	31.2	23.5	23.5	22.5	18.7	18.7	20.6	20.6	19.2	18.7
72.5°	18.2	17.3	15.4	17.3	14.4	11.5	11.5	12.5	11.5	9.6	9.6
75°	7.2	7.2	6.7	8.6	6.2	5.3	4.8	5.8	4.3	3.4	3.4
77.5°	1.9	1.9	1.9	2.4	1.4	1.4	1.0	1.0	0.5	0.0	0.0
80°	0.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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

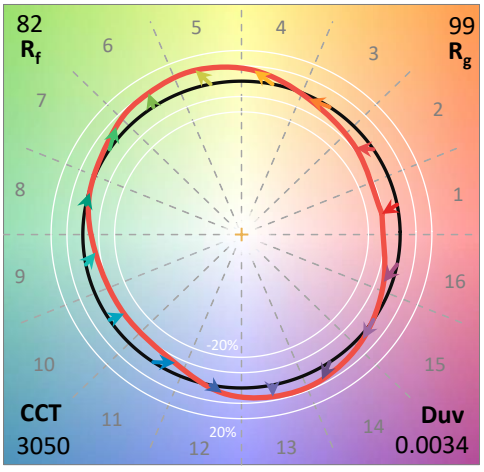
Test Information

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

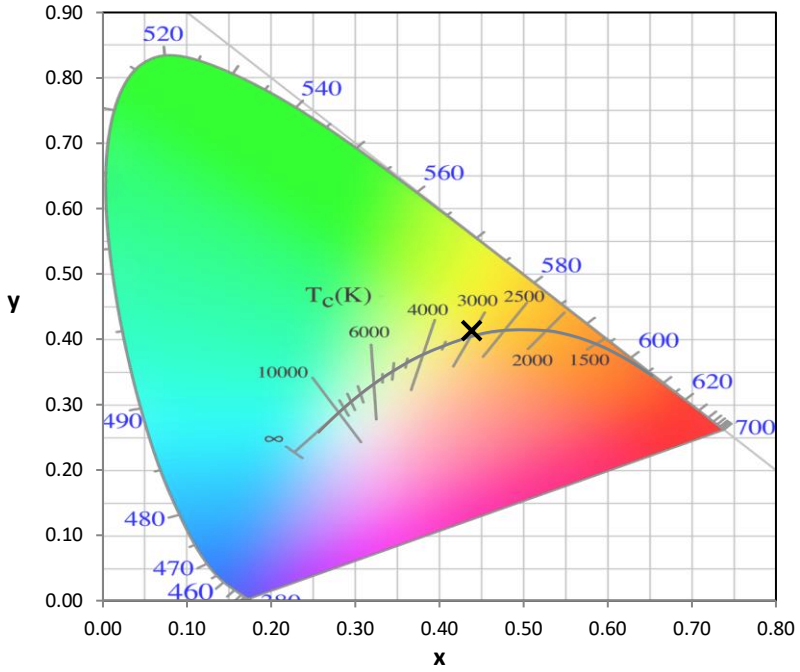
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

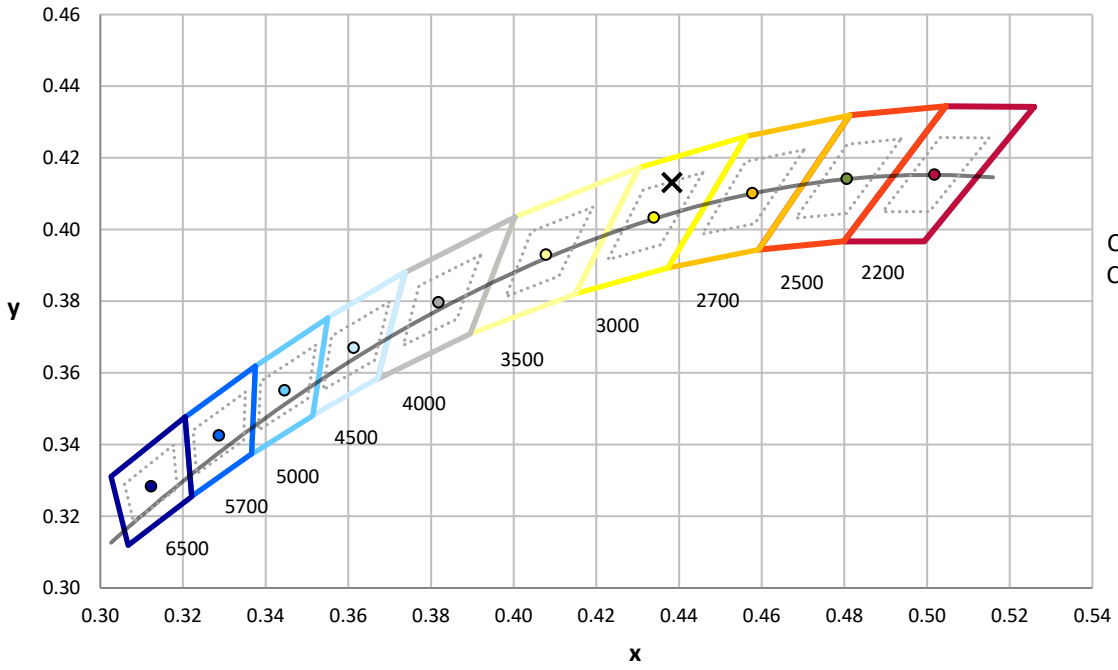
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

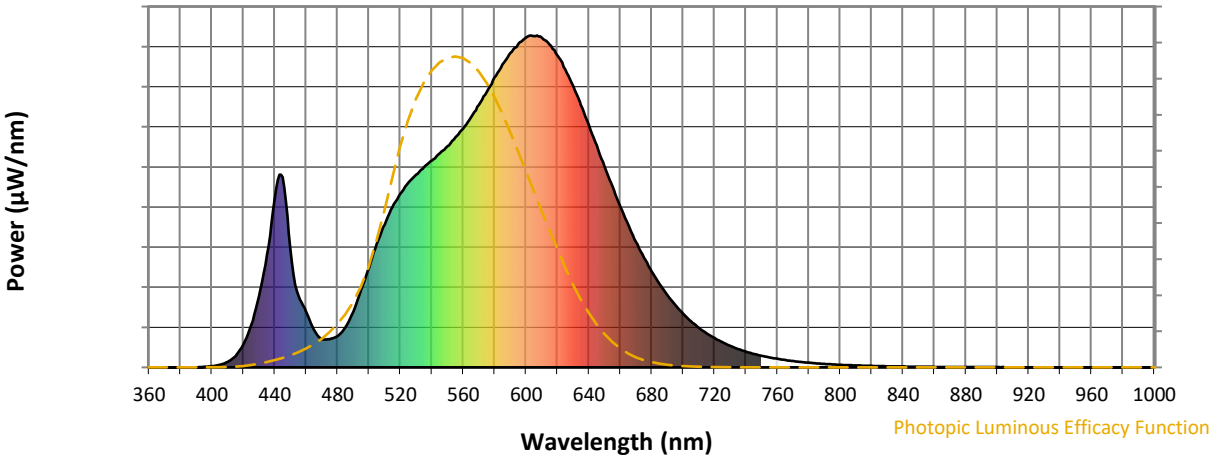


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

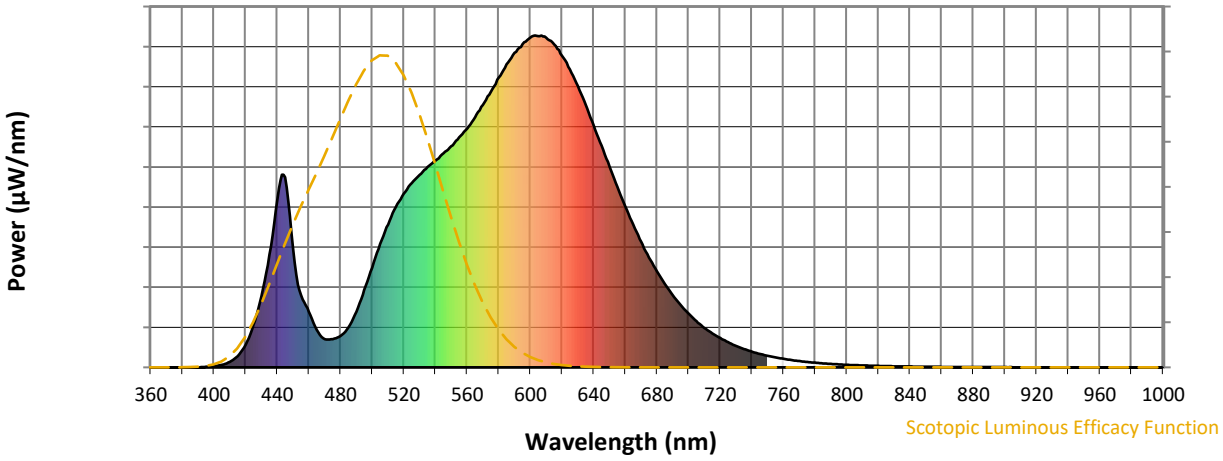


Photopic Lumens: NR

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

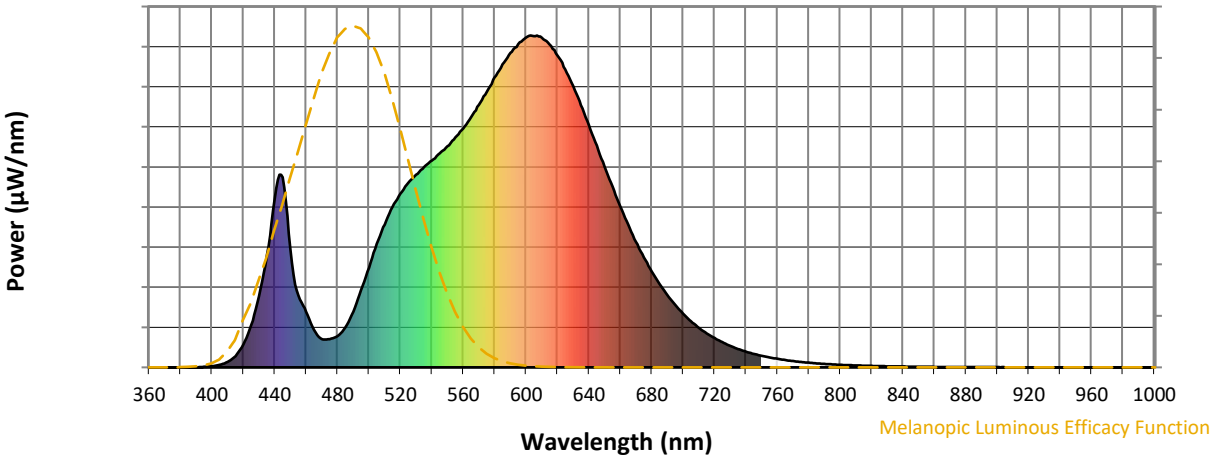


Scotopic Lumens: NR **S/P: 1.27**

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			

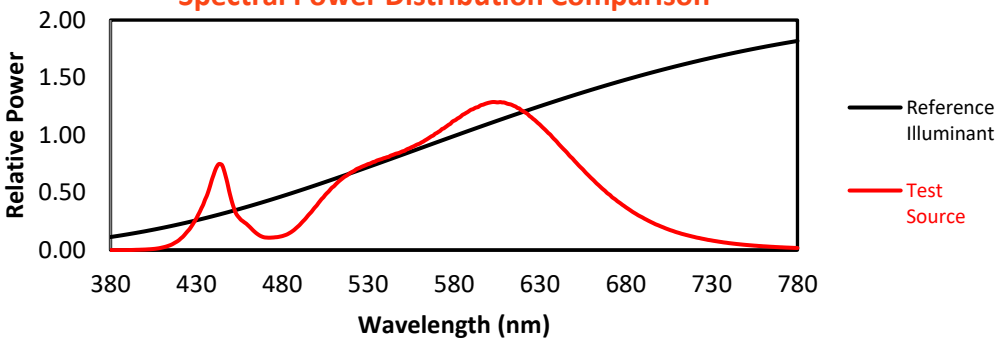
REPORT NUMBER: SP1-2408-195-9

TM-30-18

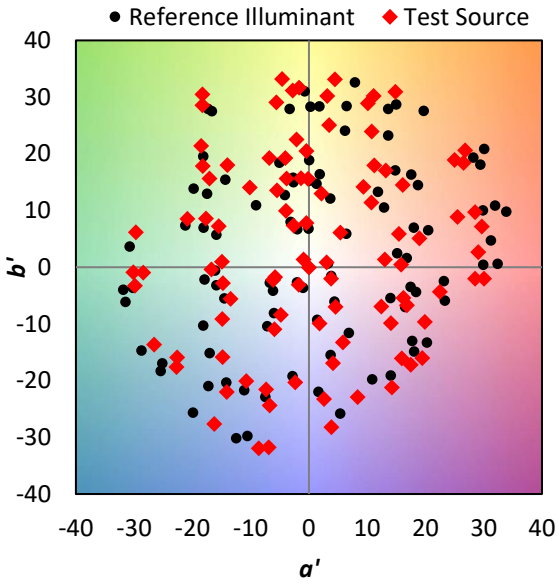
Summary

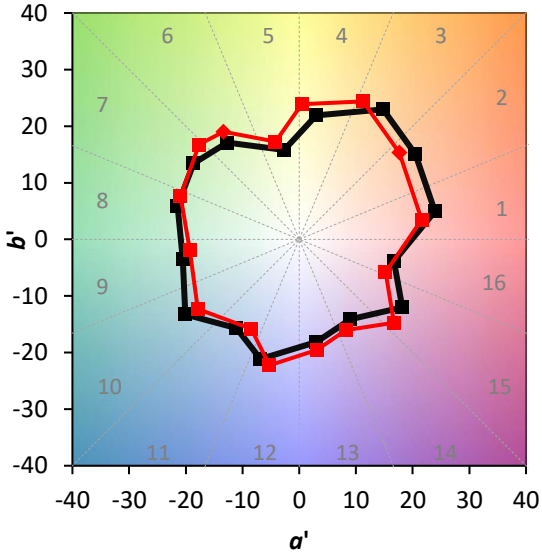
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

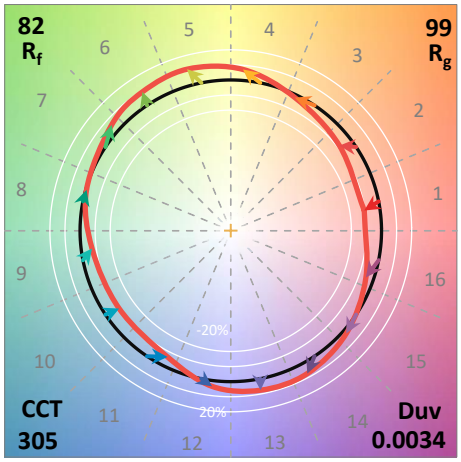
Spectral Power Distribution Comparison

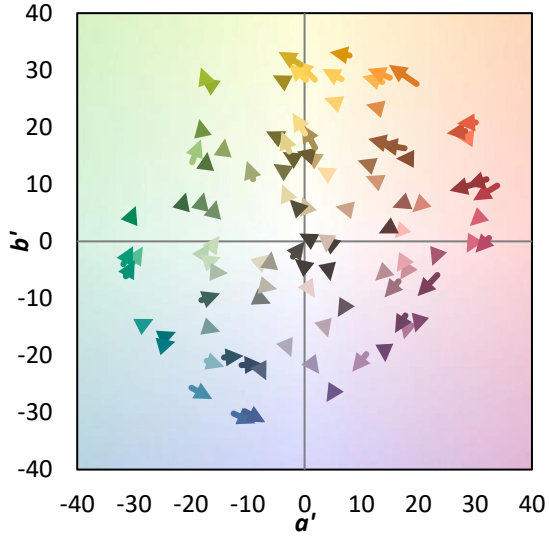


Color Vector Graphics







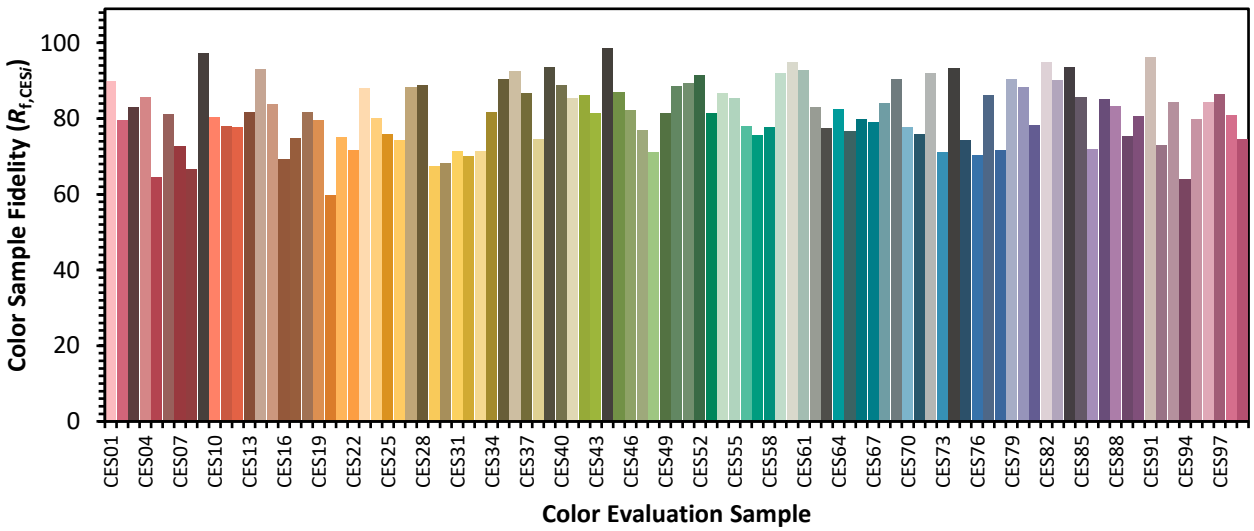


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

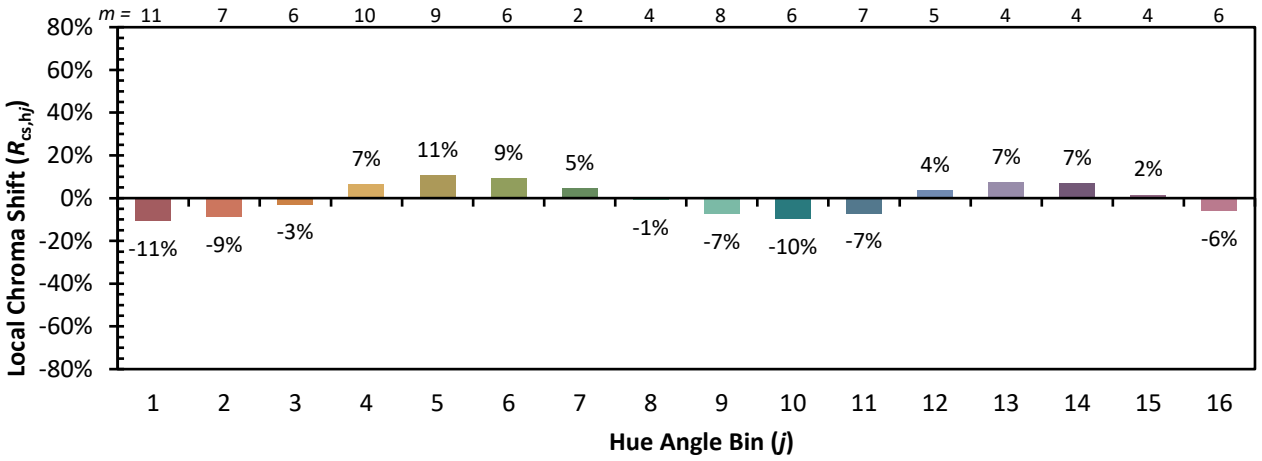
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

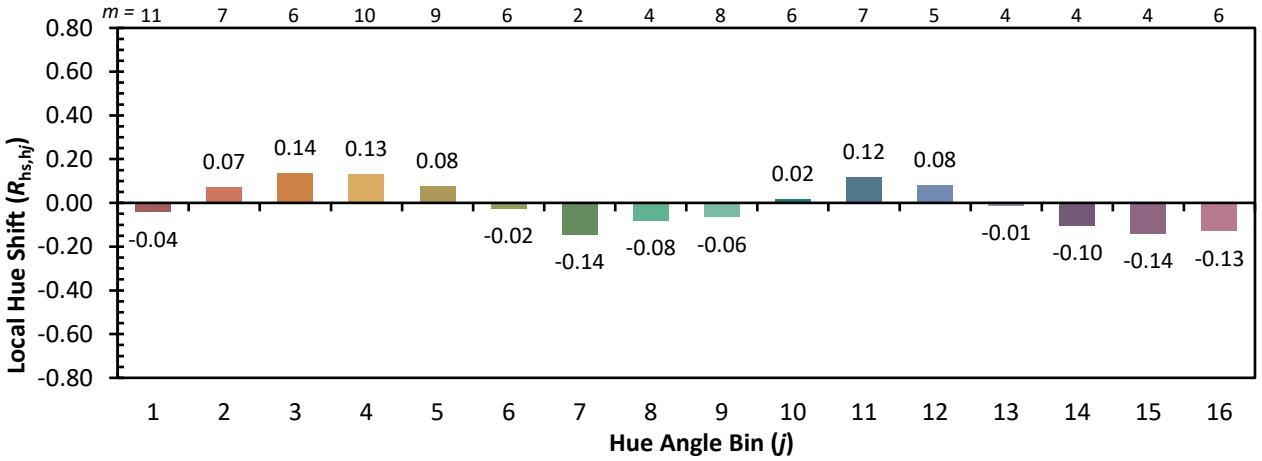


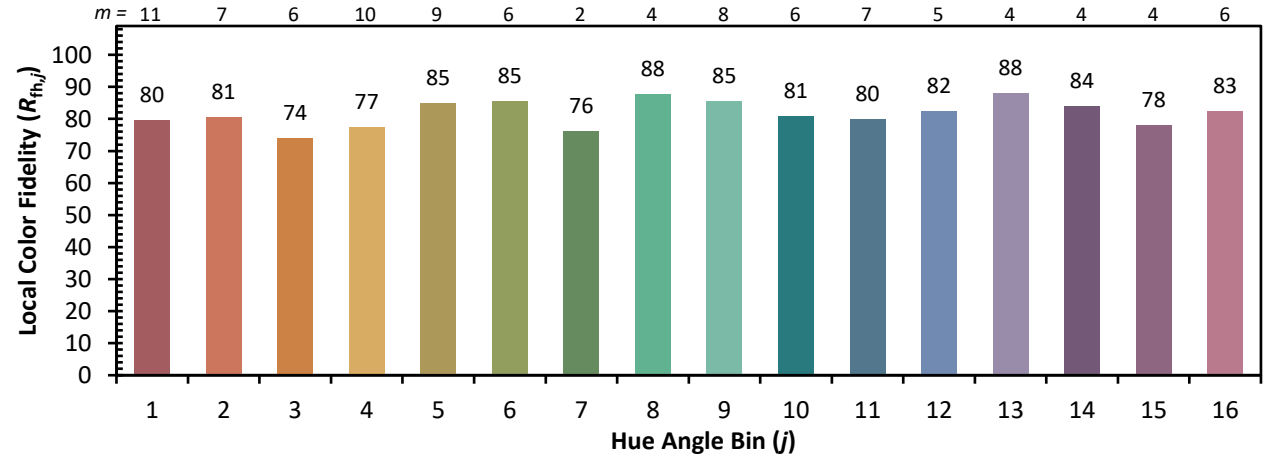
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



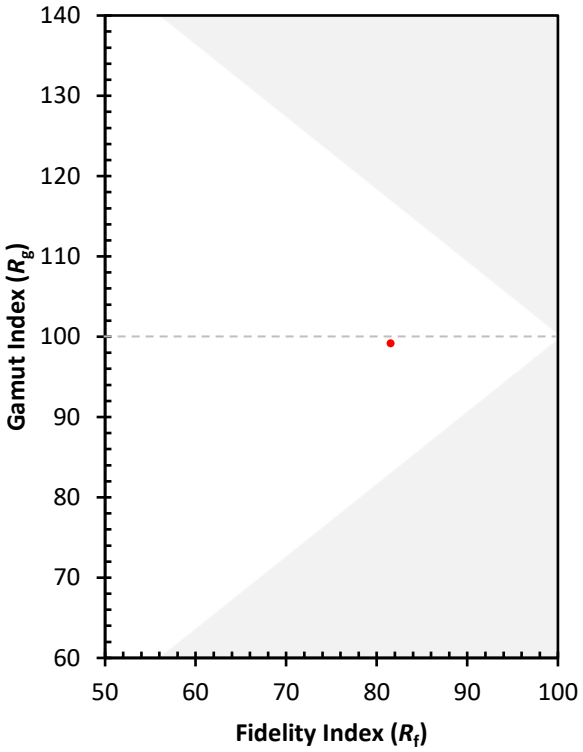


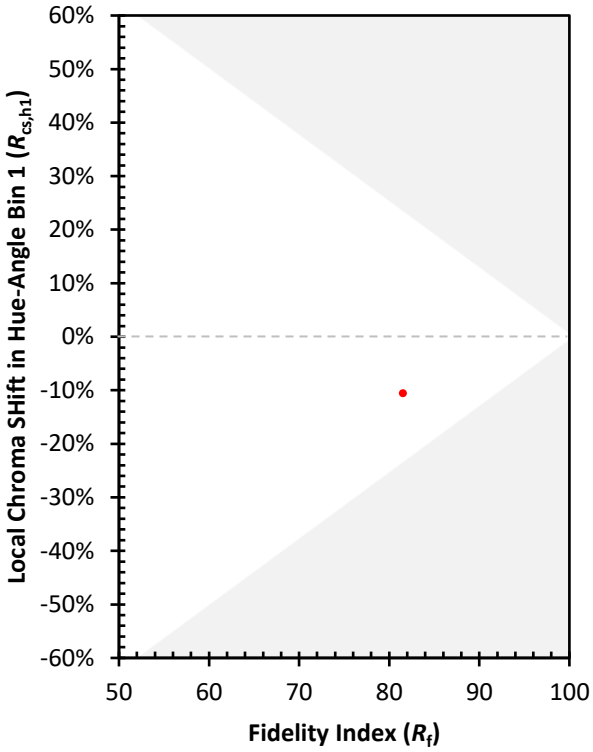


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)