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: P633062

Luminaire Tested: GWS-SA2D-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:	P633062
	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-SA2D-830-U-T4W-W
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	9195.9 lumens
Efficiency:	N/A
Efficacy:	112.0 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G2

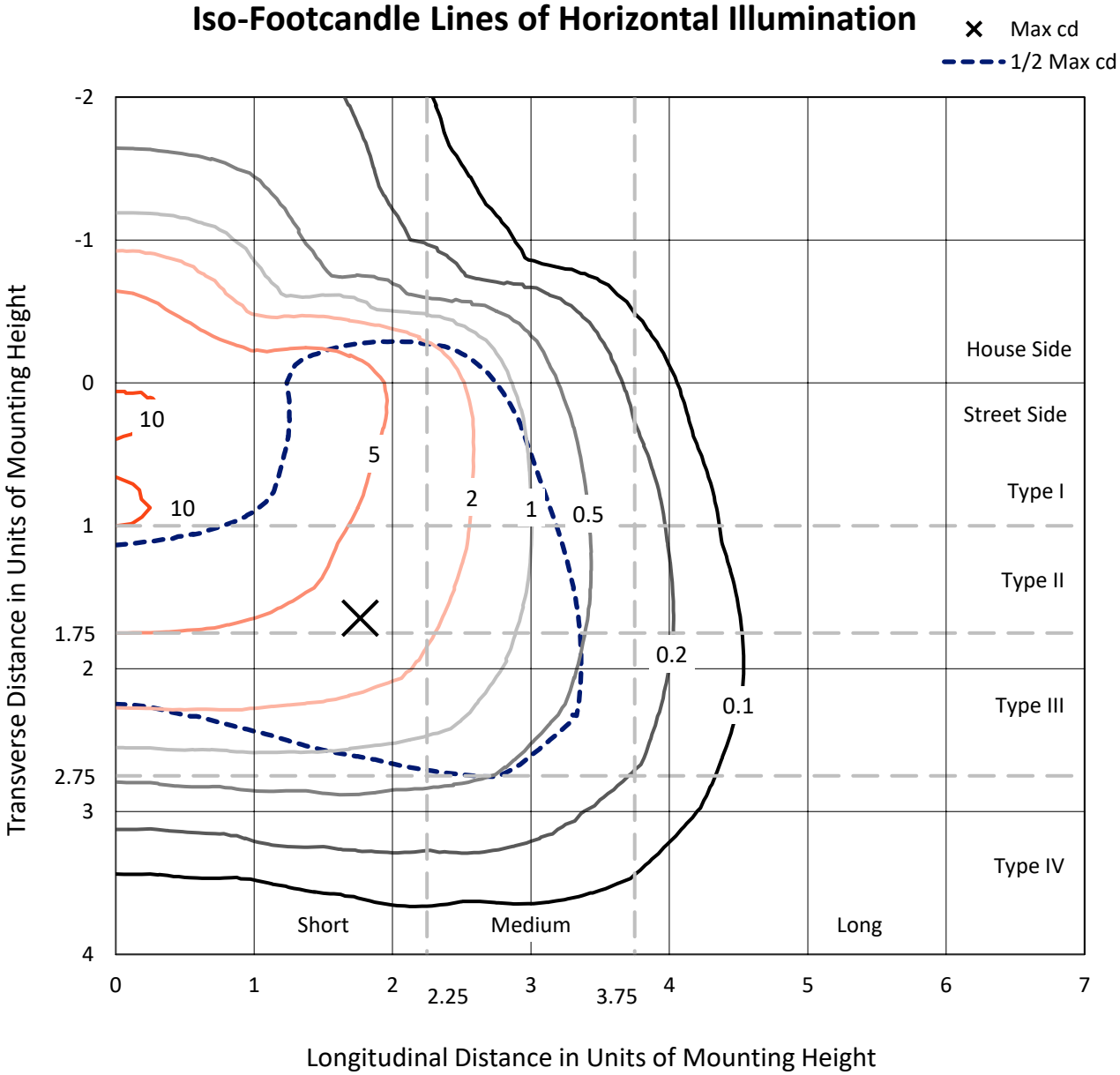
Input Watts (W):	82.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P633062
CATALOG NUMBER: GWS-SA2D-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination



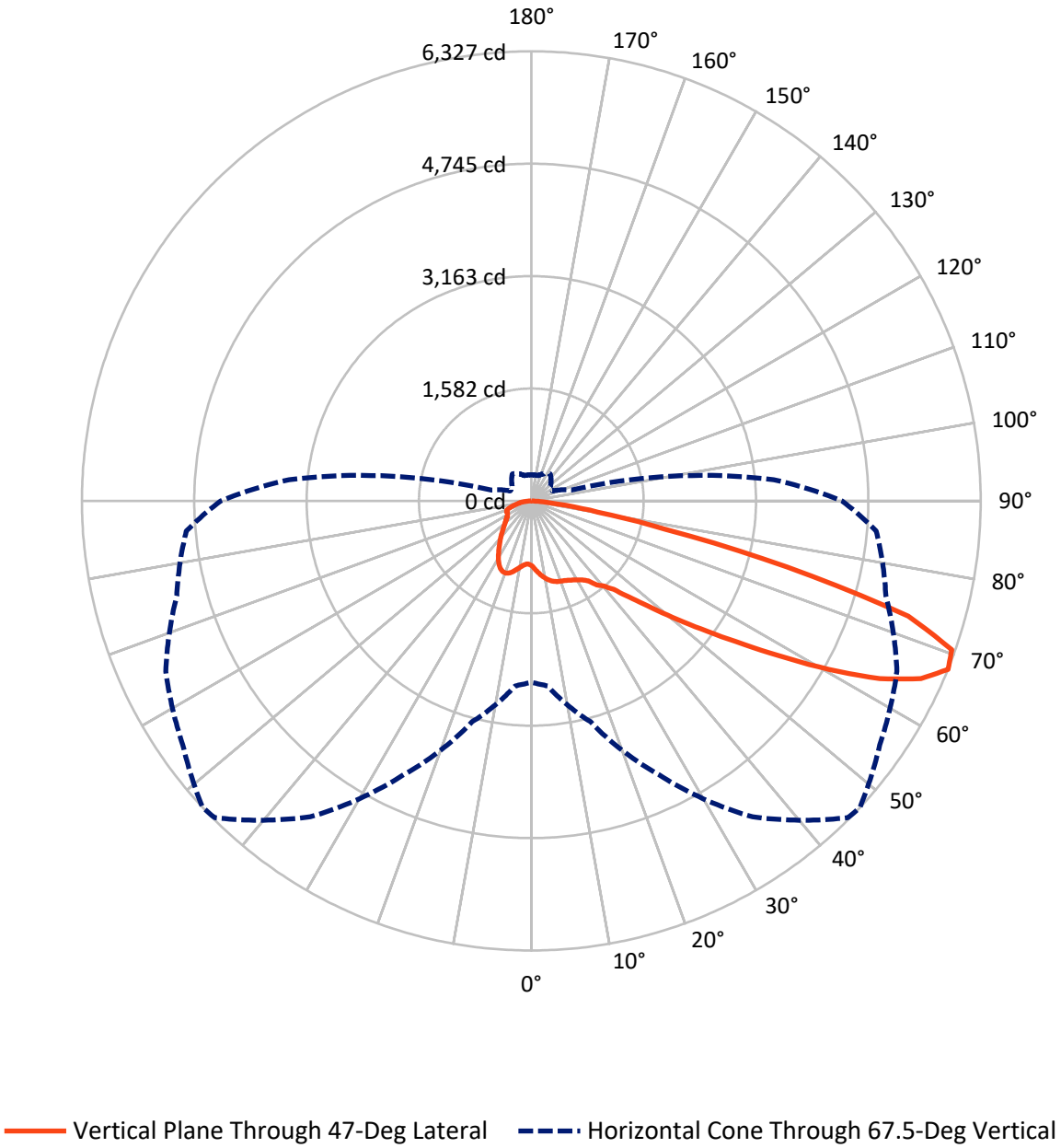
Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P633062
CATALOG NUMBER: GWS-SA2D-830-U-T4W-W

Luminous Intensity Polar Plot



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

Scaled Data Report

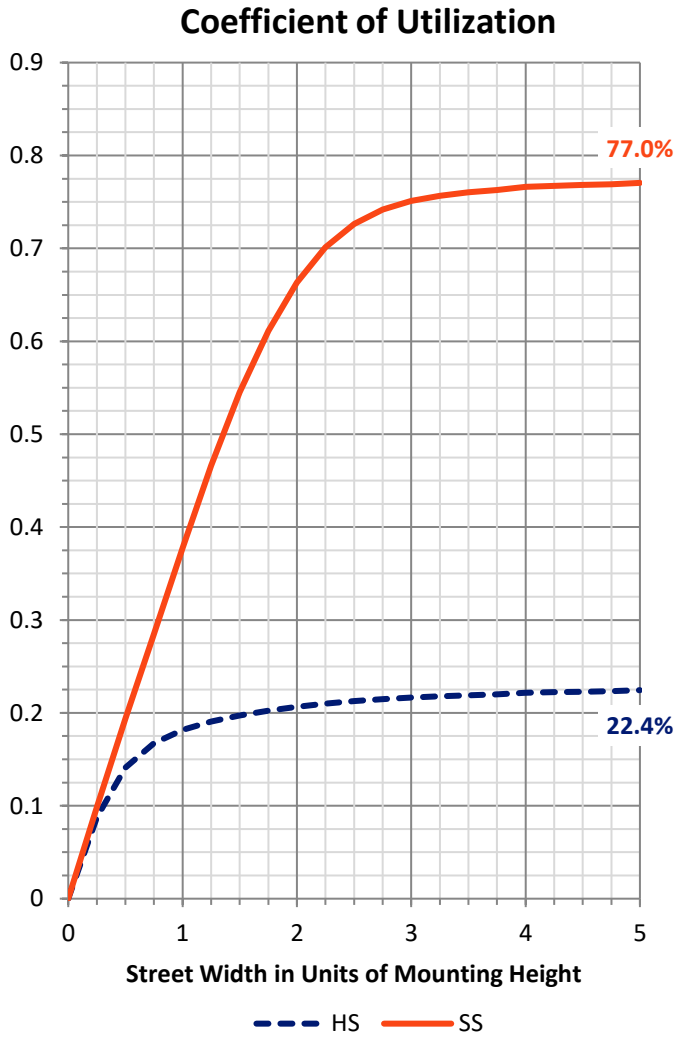
REPORT NUMBER: P633062
CATALOG NUMBER: GWS-SA2D-830-U-T4W-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2095.8	0.0	2095.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	7100.1	0.0	7100.1
	% Fixture	77.2	0.0	77.2
Total	Lumens	9195.9	0.0	9195.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	1.0
10°-20°	310.4	3.4
20°-30°	527.6	5.7
30°-40°	772.9	8.4
40°-50°	1177.6	12.8
50°-60°	2106.9	22.9
60°-70°	2811.4	30.6
70°-80°	1271.4	13.8
80°-90°	124.6	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°	9195.9	100.0
0°-180°	9195.9	100.0



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

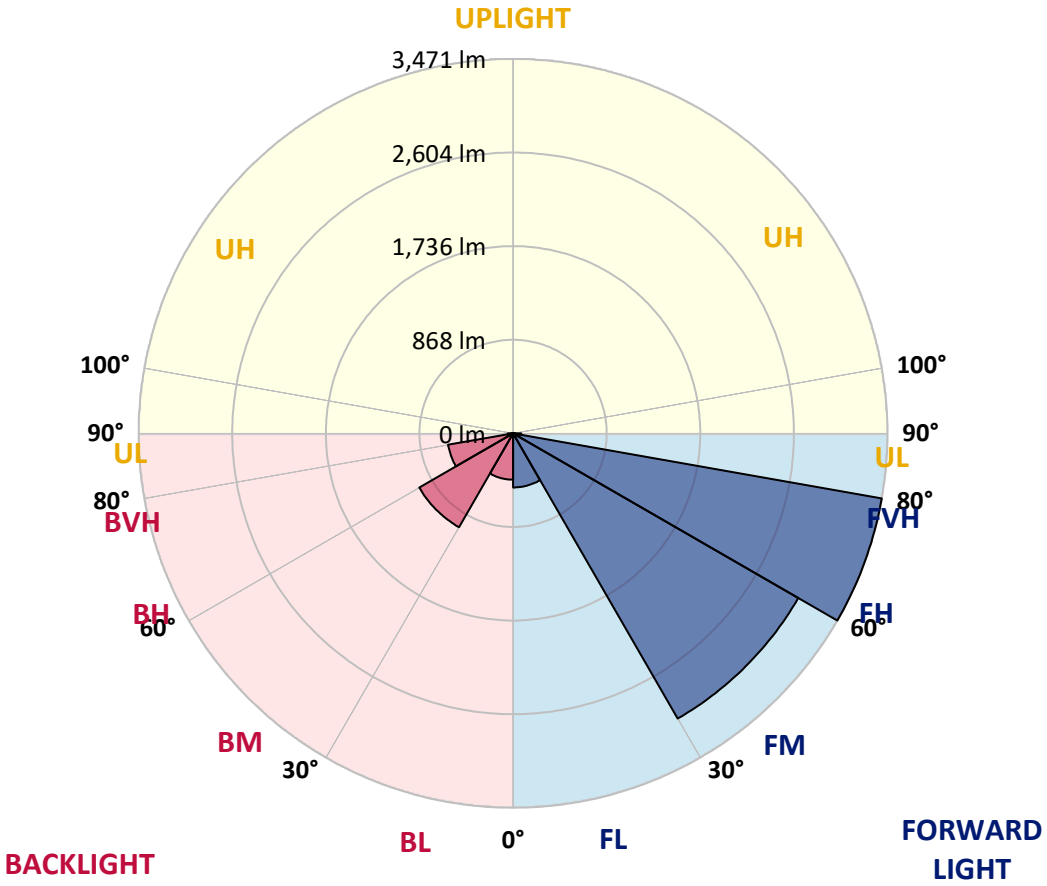
Scaled Data Report

REPORT NUMBER: P633062
CATALOG NUMBER: GWS-SA2D-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°)	501.5	5.5			
FM	(30°-60°)	3053.1	33.2			
FH	(60°-80°)	3471.3	37.7			G2/5000
FVH	(80°-90°)	74.1	0.8			G1/100
BL	(0°-30°)	429.6	4.7	B1/500		
BM	(30°-60°)	1004.2	10.9	B2/2500		
BH	(60°-80°)	611.5	6.6	B2/1000		G2/1000
BVH	(80°-90°)	50.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
Type III Short



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

Scaled Data Report

REPORT NUMBER: P633062
CATALOG NUMBER: GWS-SA2D-830-U-T4W-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	911.6	911.6	911.6	911.6	911.6	911.6	*911.6*	911.6	911.6	911.6	911.6
2.5°	972.1	975.4	974.8	969.5	966.1	960.1	*960.8*	951.5	937.5	928.2	917.6
5°	1057.9	1063.2	1056.6	1047.9	1034.6	1015.3	*1013.3*	992.1	965.5	946.8	927.6
7.5°	1132.4	1135.7	1127.7	1113.1	1093.8	1067.9	*1063.2*	1037.9	1004.7	975.4	947.5
10°	1190.2	1194.2	1183.6	1164.3	1139.0	1113.1	*1109.8*	1083.8	1048.6	1014.0	978.8
12.5°	1239.4	1240.7	1229.4	1203.5	1176.2	1149.6	*1146.3*	1122.4	1089.8	1054.6	1016.0
15°	1268.0	1268.7	1254.7	1226.1	1200.2	1176.9	*1174.9*	1154.3	1124.4	1091.1	1049.9
17.5°	1266.0	1267.3	1257.4	1232.1	1209.5	1195.5	*1193.5*	1180.2	1157.0	1127.0	1085.8
20°	1241.4	1242.7	1236.1	1219.5	1207.5	1203.5	*1204.2*	1200.2	1186.2	1161.6	1119.7
22.5°	1222.1	1224.1	1218.1	1206.2	1204.8	1214.1	*1216.1*	1218.1	1211.5	1189.5	1149.0
25°	1231.4	1234.8	1225.4	1208.8	1211.5	1232.1	*1236.1*	1242.7	1237.4	1218.8	1183.6
27.5°	1295.9	1297.9	1274.0	1240.1	1232.1	1254.0	*1260.0*	1270.7	1266.7	1249.4	1222.1
30°	1445.5	1444.2	1393.0	1309.9	1276.6	1285.3	*1289.9*	1305.2	1306.6	1295.3	1269.3
32.5°	1656.3	1649.7	1570.5	1438.2	1341.8	1320.5	*1325.8*	1346.5	1361.8	1349.8	1314.5
35°	1879.1	1873.1	1786.0	1631.0	1462.2	1388.4	*1382.4*	1398.3	1421.6	1388.4	1337.8
37.5°	2091.2	2081.9	1992.8	1801.3	1610.4	1507.4	*1498.7*	1482.8	1468.8	1405.0	1366.4
40°	2326.6	2315.9	2238.1	2021.4	1774.0	1598.5	*1576.5*	1513.4	1500.7	1460.2	1440.9
42.5°	2577.9	2577.9	2513.4	2300.0	1971.5	1728.8	*1700.2*	1605.1	1618.4	1591.8	1569.2
45°	2829.2	2836.5	2785.3	2580.6	2235.5	1974.8	*1928.9*	1794.0	1825.9	1813.9	1802.6
47.5°	3043.3	3057.3	3047.3	2867.1	2558.6	2274.0	*2204.2*	2063.9	2132.4	2161.0	2192.9
50°	3274.1	3289.4	3279.4	3208.2	2936.9	2636.4	*2573.9*	2429.0	2546.6	2632.4	2736.8
52.5°	3616.5	3638.4	3555.3	3528.1	3396.4	3048.0	*2992.1*	2827.2	3040.7	3183.0	3415.7
55°	3905.7	3905.1	3875.8	3938.3	3889.8	3551.3	*3489.5*	3339.9	3612.5	3763.4	4103.9
57.5°	4040.1	4056.0	4156.4	4333.3	4430.4	4166.4	*4107.2*	3954.3	4226.2	4304.7	4672.4
60°	4109.2	4129.2	4323.3	4673.1	4934.4	4838.0	*4814.7*	4619.9	4772.8	4763.5	5151.8
62.5°	4012.1	4052.0	4363.9	4828.6	5294.1	5512.8	*5505.5*	5211.0	5237.6	5146.5	5449.0
65°	3566.6	3609.8	4099.2	4750.9	5499.5	6026.2	*6028.2*	5746.2	5594.6	5332.7	5399.1
67.5°	*2550.6*	*2612.5*	*3217.5*	*4250.8*	*5427.1*	*6303.4*	*6326.7*	*5988.9*	*5678.4*	*5167.8*	*4875.2*
70°	1390.3	1435.6	1909.6	3089.9	4774.1	6236.9	*6280.2*	5871.9	5308.7	4470.3	3752.8
72.5°	631.7	646.3	888.3	1695.5	3261.4	5368.6	*5549.4*	5240.2	4359.9	3302.0	2386.4
75°	289.2	295.9	387.0	811.2	1704.2	3592.6	*3719.6*	3903.1	3034.0	2085.2	1244.1
77.5°	181.5	183.5	220.1	371.0	849.8	1793.3	*1926.9*	2323.9	1776.7	1032.0	520.0
80°	107.1	109.0	137.0	200.8	399.0	820.5	*947.5*	918.9	835.1	445.5	236.7
82.5°	53.9	55.9	79.1	114.4	217.4	326.5	*384.3*	386.3	311.2	241.4	133.6
85°	19.3	19.9	25.9	45.2	92.4	107.7	*120.4*	146.9	152.3	140.3	64.5
87.5°	0.0	0.0	0.7	1.3	2.7	10.6	*11.3*	21.3	44.5	49.9	25.9
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: P633062
CATALOG NUMBER: GWS-SA2D-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	911.6	911.6	911.6	911.6	911.6	911.6	911.6	911.6	911.6	911.6	911.6
2.5°	914.3	904.3	901.0	897.6	892.3	890.3	886.3	882.3	882.3	878.4	876.4
5°	918.9	905.6	897.0	893.0	889.7	891.7	891.7	893.0	897.6	895.0	896.3
7.5°	935.5	920.2	908.3	905.0	905.0	912.9	918.3	924.9	933.5	934.9	934.9
10°	964.8	946.8	934.2	932.2	935.5	946.8	954.8	962.8	973.4	974.1	975.4
12.5°	996.7	978.8	966.1	968.8	972.1	986.7	995.4	1002.0	1012.7	1012.7	1012.0
15°	1030.0	1010.0	999.4	1004.7	1014.7	1031.3	1032.6	1033.3	1038.6	1037.3	1036.6
17.5°	1064.5	1043.3	1035.3	1043.3	1053.9	1061.9	1055.2	1045.9	1043.9	1041.3	1039.9
20°	1098.4	1076.5	1073.2	1079.2	1082.5	1075.8	1055.2	1037.9	1030.0	1026.0	1024.6
22.5°	1127.7	1109.1	1107.1	1107.1	1090.5	1067.2	1036.6	1013.3	1002.7	997.4	996.0
25°	1162.3	1145.0	1141.7	1123.7	1081.2	1038.6	997.4	976.1	967.5	964.8	965.5
27.5°	1202.8	1190.9	1180.2	1129.0	1054.6	988.1	941.5	932.2	928.9	932.2	934.2
30°	1252.7	1240.7	1216.8	1122.4	1012.0	922.2	877.7	877.0	887.0	895.6	897.0
32.5°	1293.3	1287.9	1248.7	1101.1	952.2	849.8	811.9	814.5	832.5	844.4	846.4
35°	1325.2	1333.8	1275.3	1065.9	881.0	781.3	751.4	752.7	762.7	779.3	780.0
37.5°	1370.4	1399.7	1299.3	1012.0	799.2	722.1	694.8	684.9	683.5	688.2	689.5
40°	1461.5	1505.4	1316.5	933.5	720.1	668.9	638.3	619.0	602.4	589.8	585.8
42.5°	1599.1	1649.7	1326.5	838.5	649.6	616.4	581.8	557.2	527.9	501.3	492.0
45°	1851.8	1868.4	1326.5	737.4	587.1	567.2	532.6	503.3	466.1	434.9	428.2
47.5°	2256.1	2202.9	1327.8	639.7	531.9	524.0	494.0	460.8	419.6	393.6	389.6
50°	2865.1	2678.3	1355.1	558.5	486.1	487.4	465.4	428.9	391.6	372.4	369.0
52.5°	3555.3	3264.1	1428.2	498.7	447.5	457.5	445.5	410.3	377.0	360.4	357.1
55°	4204.3	3802.7	1490.7	456.1	414.9	432.2	431.5	399.0	369.0	352.4	350.4
57.5°	4756.2	4171.7	1481.4	421.6	387.0	408.9	418.9	391.6	363.7	349.7	347.8
60°	5099.3	4367.2	1349.1	389.6	365.7	392.3	411.6	389.6	366.4	363.0	363.7
62.5°	5248.2	4331.3	1095.1	365.7	351.7	384.3	419.6	403.6	391.0	399.0	403.6
65°	5016.8	4022.8	805.9	347.8	338.4	386.3	438.2	425.5	391.0	396.3	398.3
67.5°	*4374.5*	*3424.3*	*582.5*	*329.8*	*321.8*	*392.3*	*464.8*	*422.2*	*368.4*	*368.4*	*364.4*
70°	3152.4	2462.9	422.9	311.8	305.2	383.7	466.1	399.6	342.4	340.4	330.5
72.5°	1897.0	1452.8	329.8	291.9	279.9	340.4	436.9	373.0	317.2	300.5	288.6
75°	985.4	728.1	276.6	270.0	240.0	288.6	399.6	331.8	271.3	256.7	250.0
77.5°	422.2	340.4	237.4	240.7	199.5	242.7	322.5	287.2	240.7	222.1	216.1
80°	208.1	193.5	187.5	192.8	159.6	187.5	277.9	251.3	204.1	182.9	174.2
82.5°	119.0	113.0	135.0	137.0	113.7	156.9	234.7	212.8	168.9	145.6	131.7
85°	55.2	59.2	81.8	82.5	70.5	107.7	153.6	119.7	89.8	74.5	71.1
87.5°	21.9	25.9	35.9	35.2	20.6	19.9	13.3	7.3	6.0	5.3	4.7
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

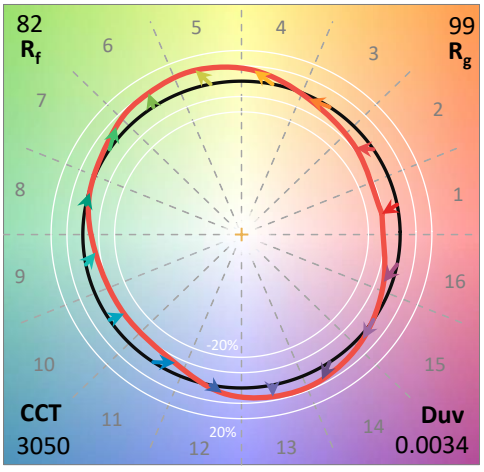
Test Information

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

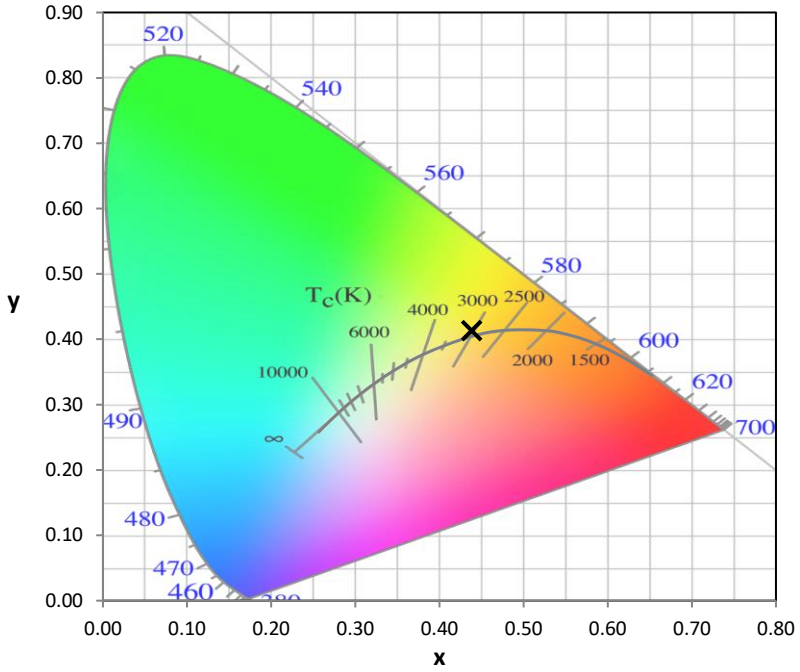
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

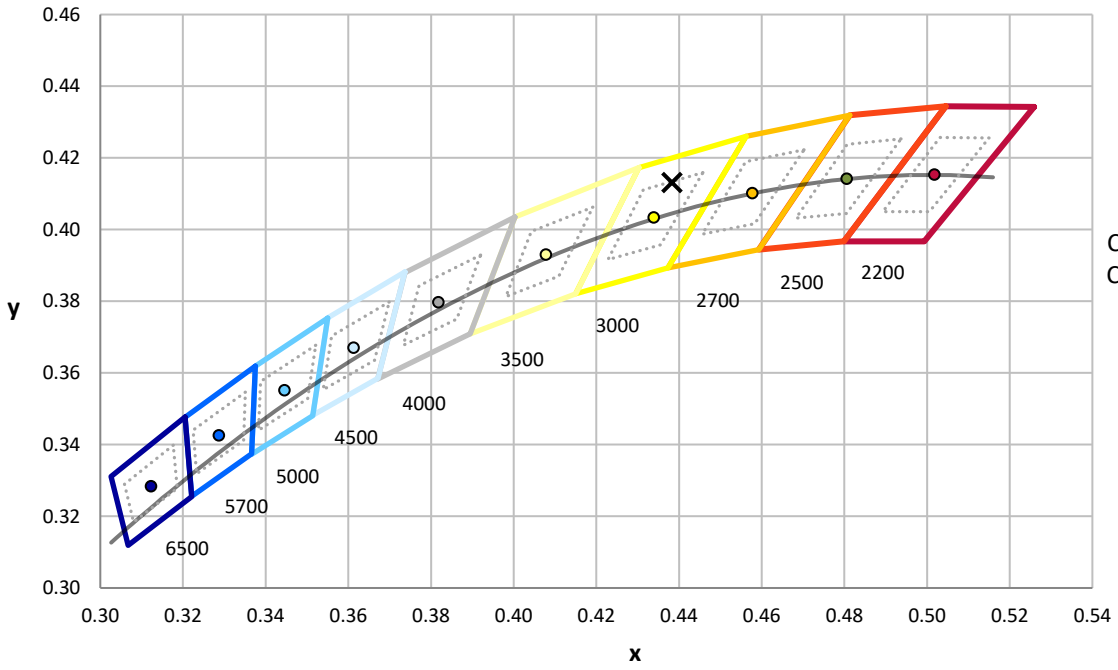
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

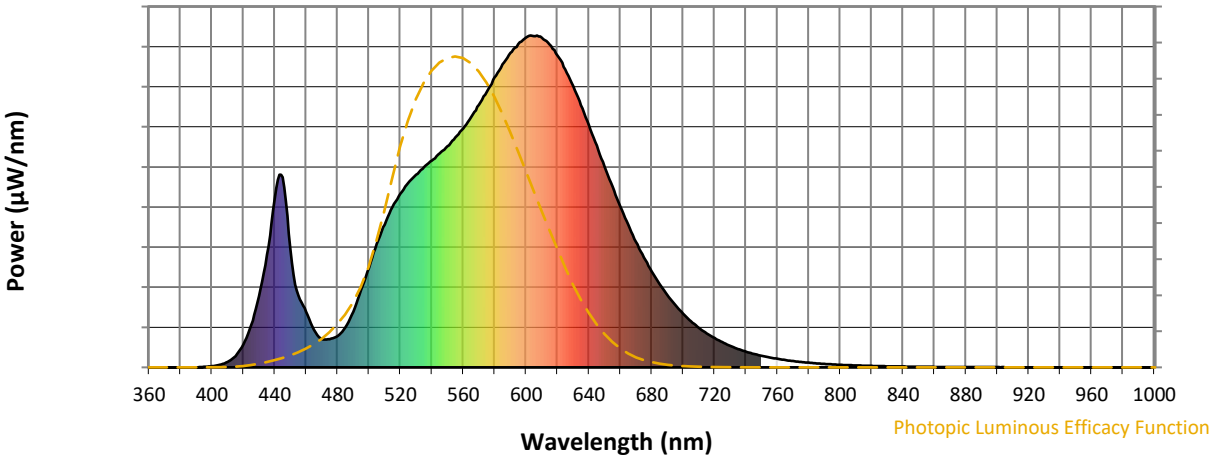


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

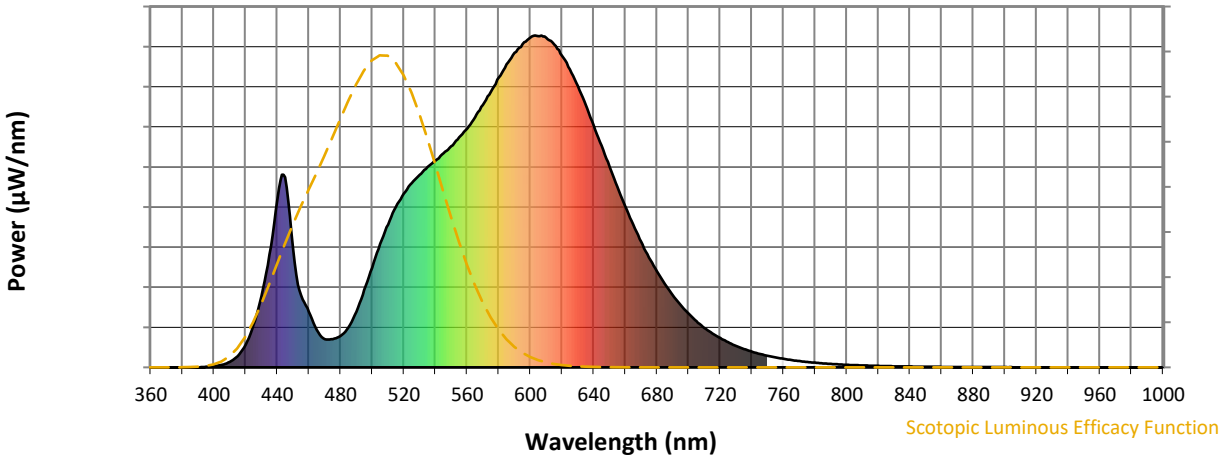


Photopic Lumens: NR

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

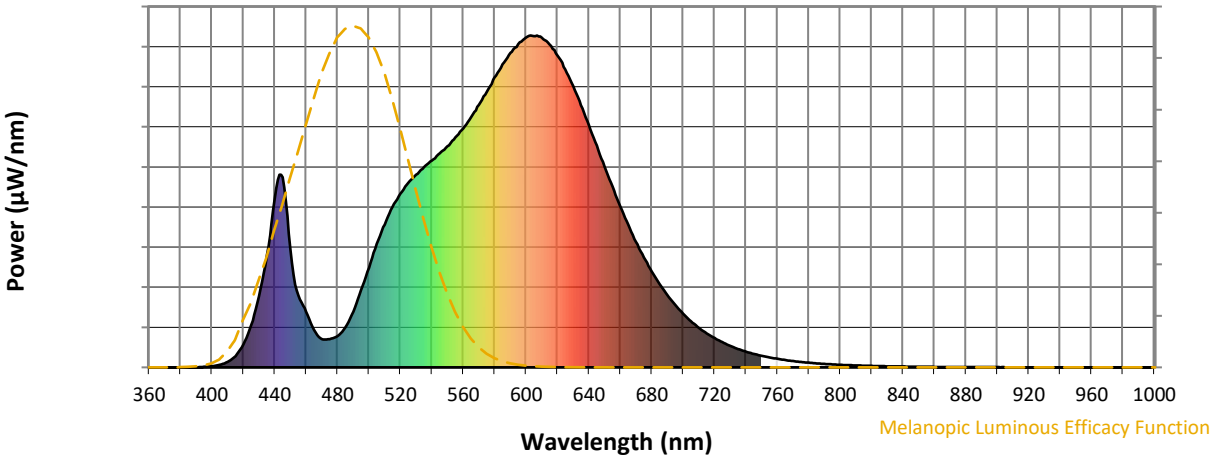


Scotopic Lumens: NR **S/P: 1.27**

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			

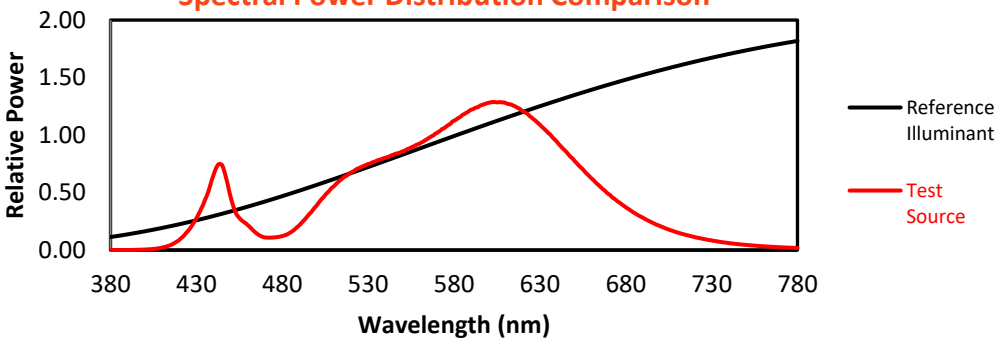
REPORT NUMBER: SP1-2408-195-9

TM-30-18

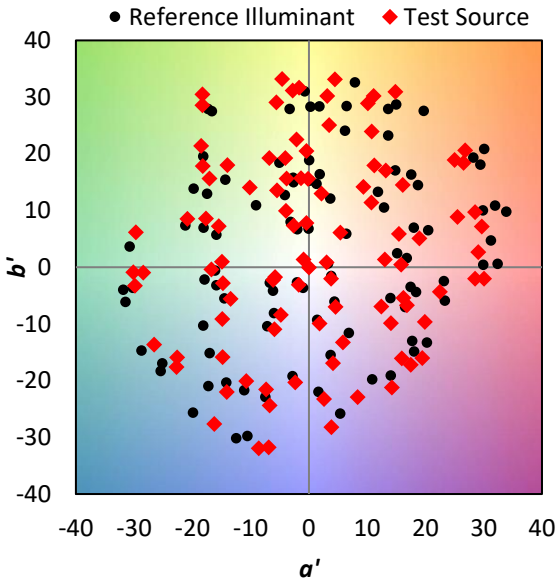
Summary

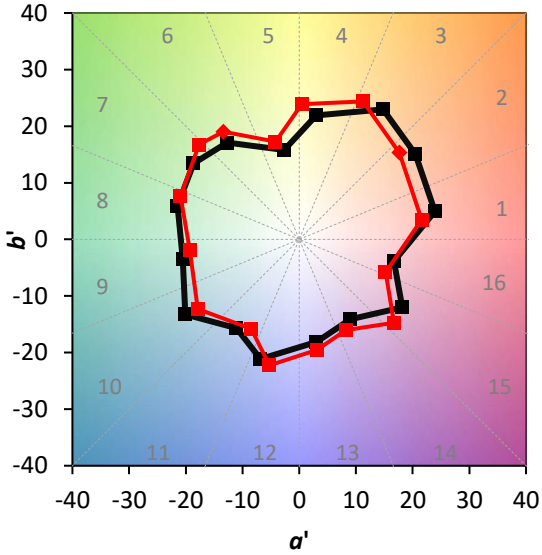
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

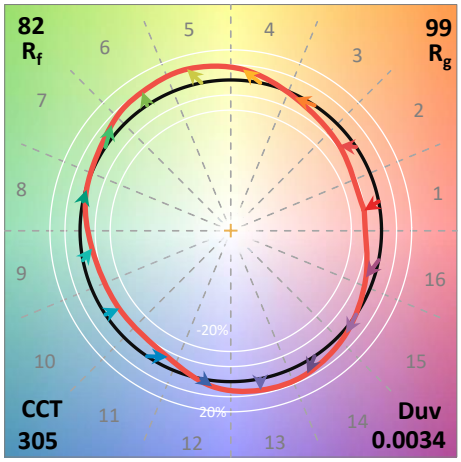
Spectral Power Distribution Comparison

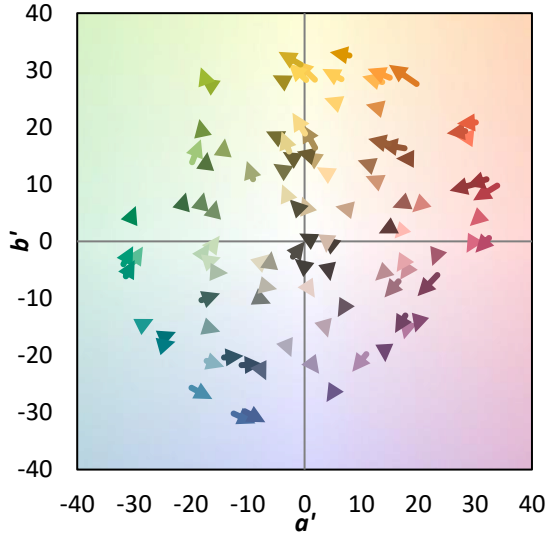


Color Vector Graphics







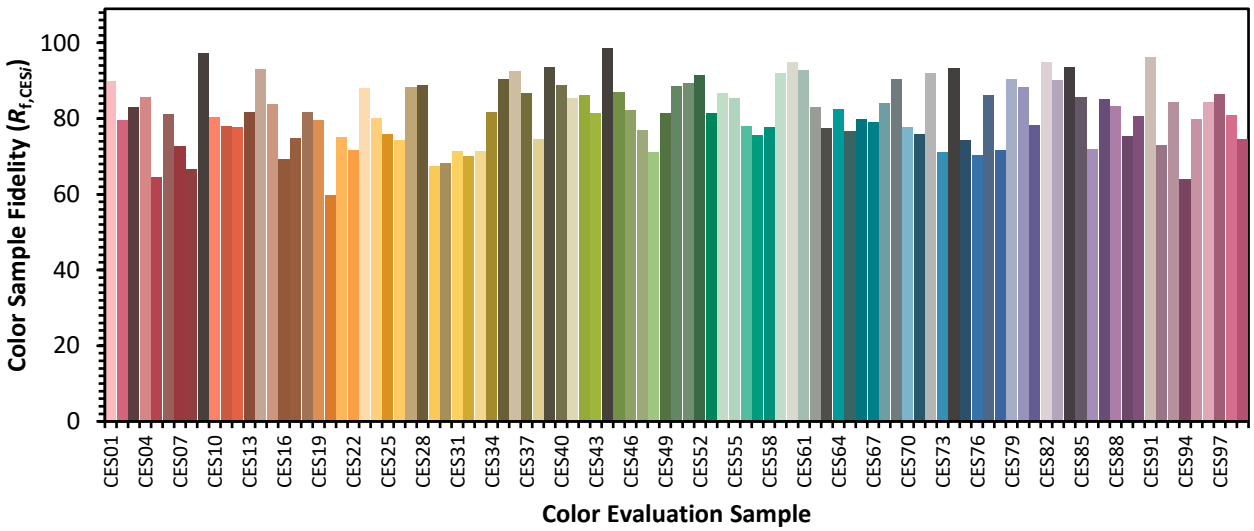


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

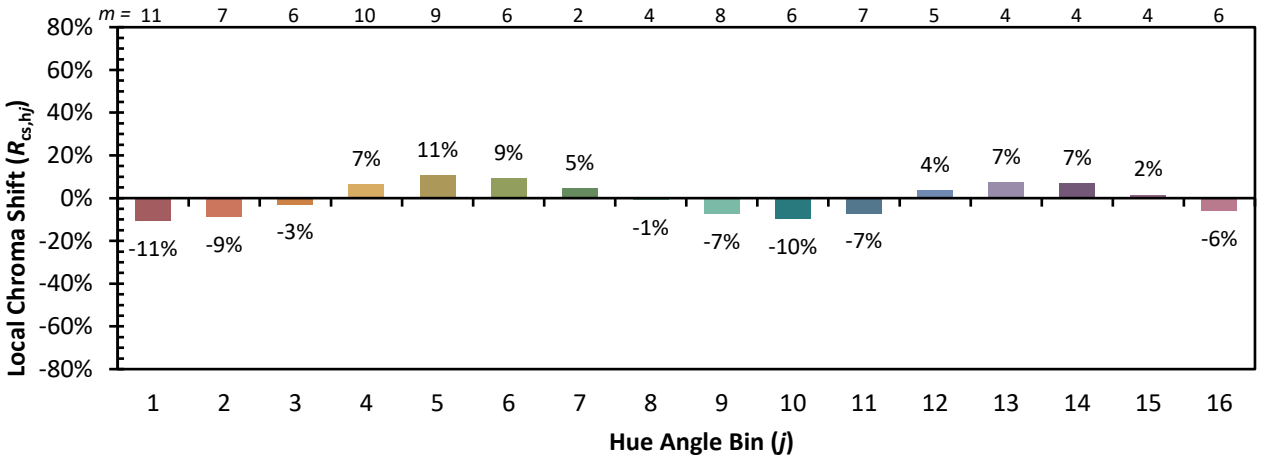
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

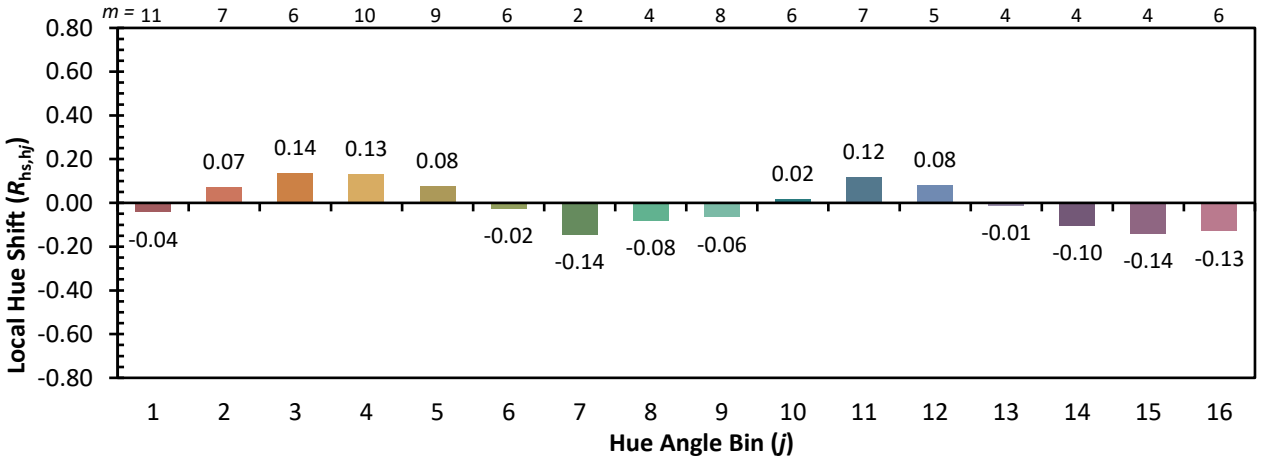


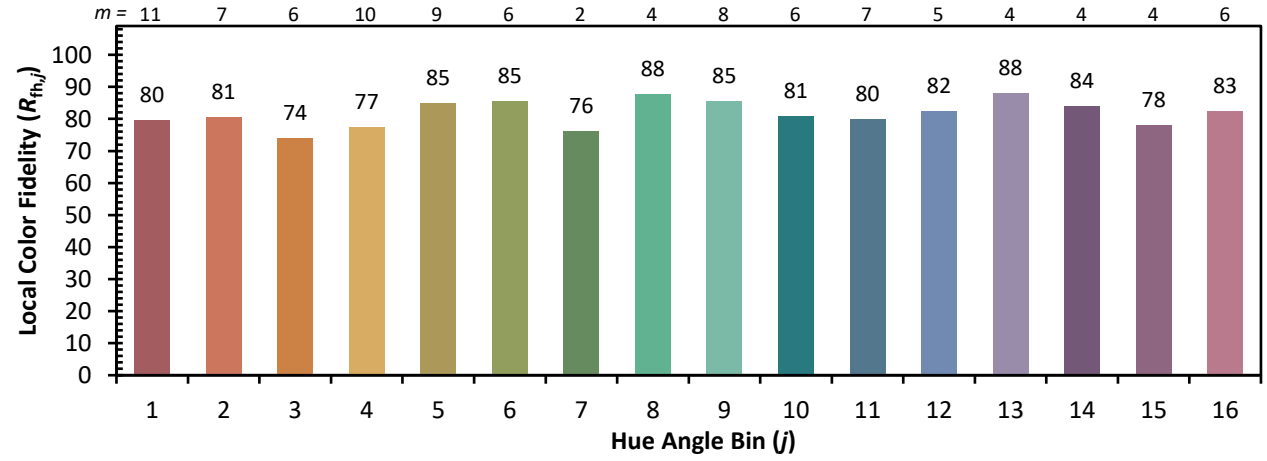
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



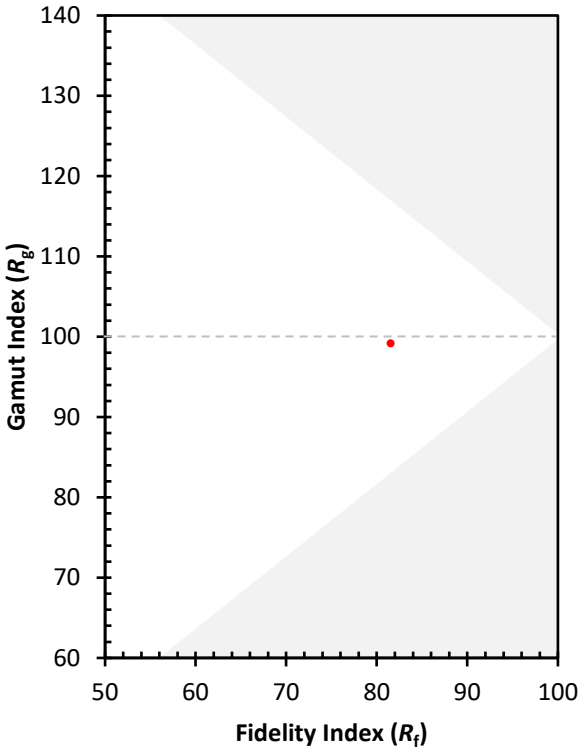


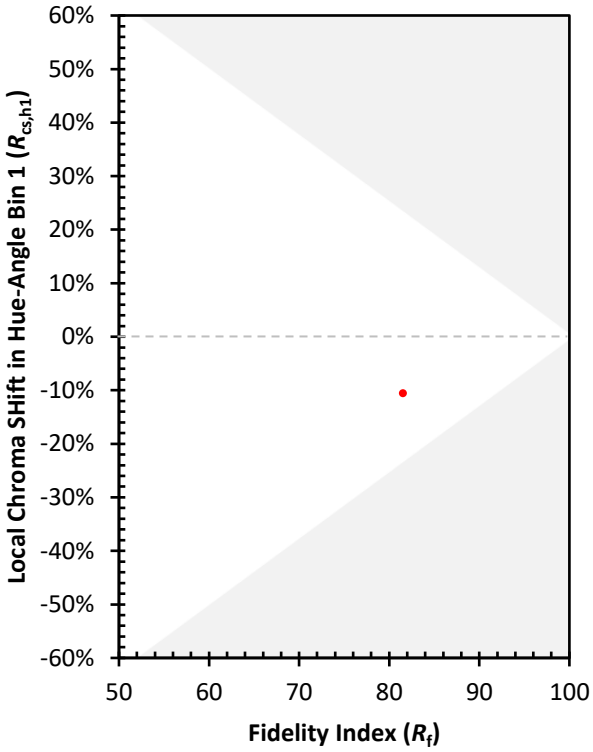


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)