

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: P630082

Luminaire Tested: GWS-SA1C-830-U-T3-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630082
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-25)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1C-830-U-T3-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND
TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3258.9 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 34.1
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



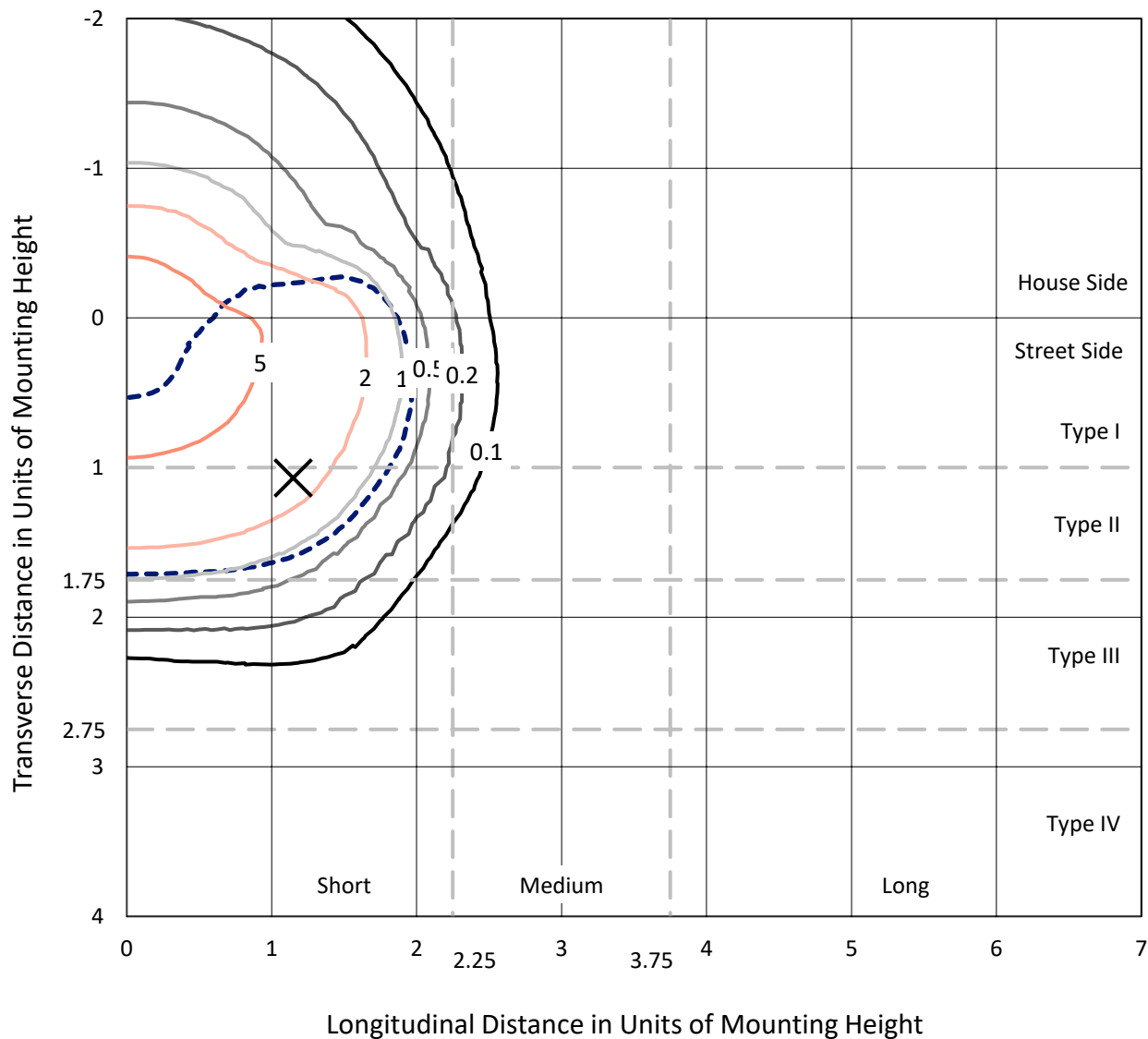
REPORT NUMBER: P630082

CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

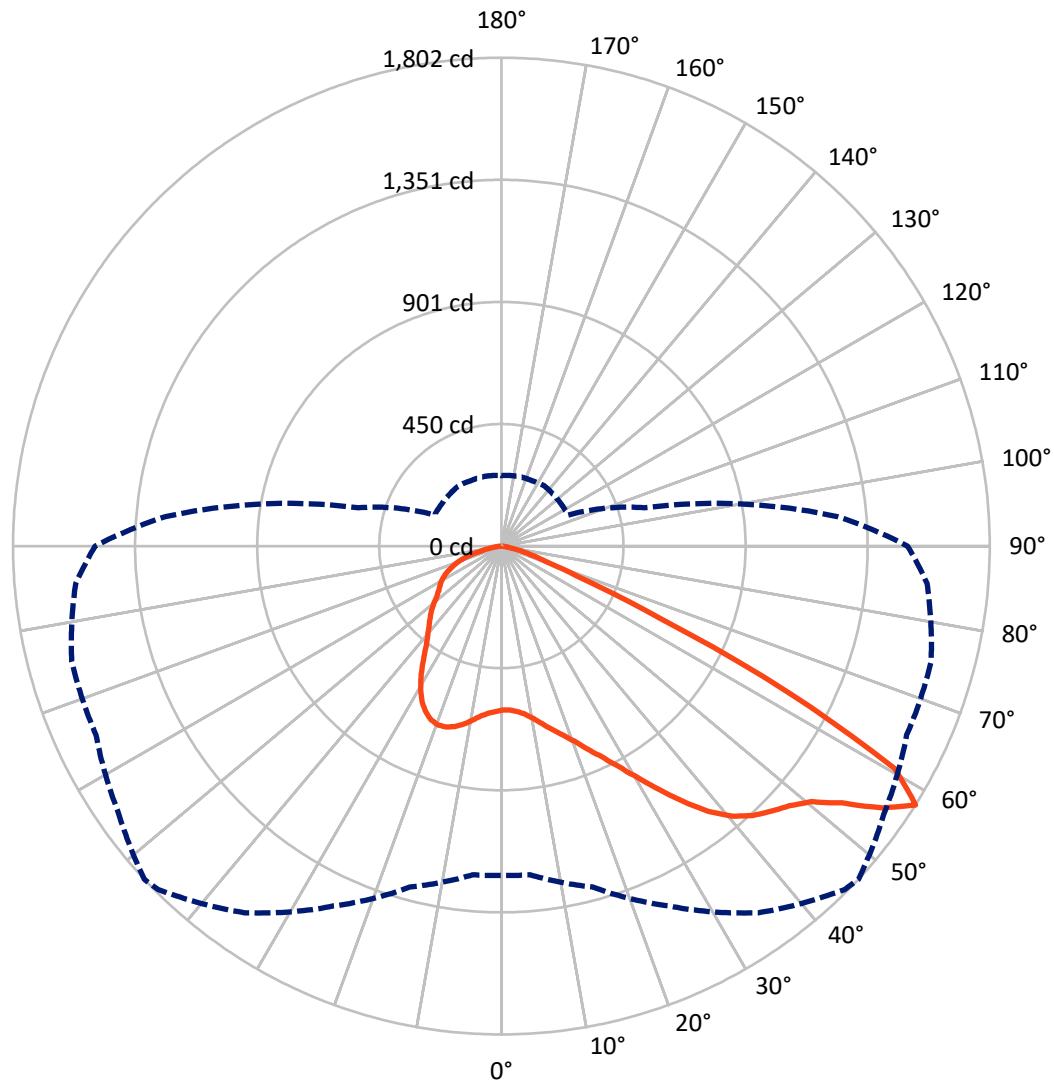


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc
 Type II - Short - N/A

REPORT NUMBER: P630082

CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P630082

CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

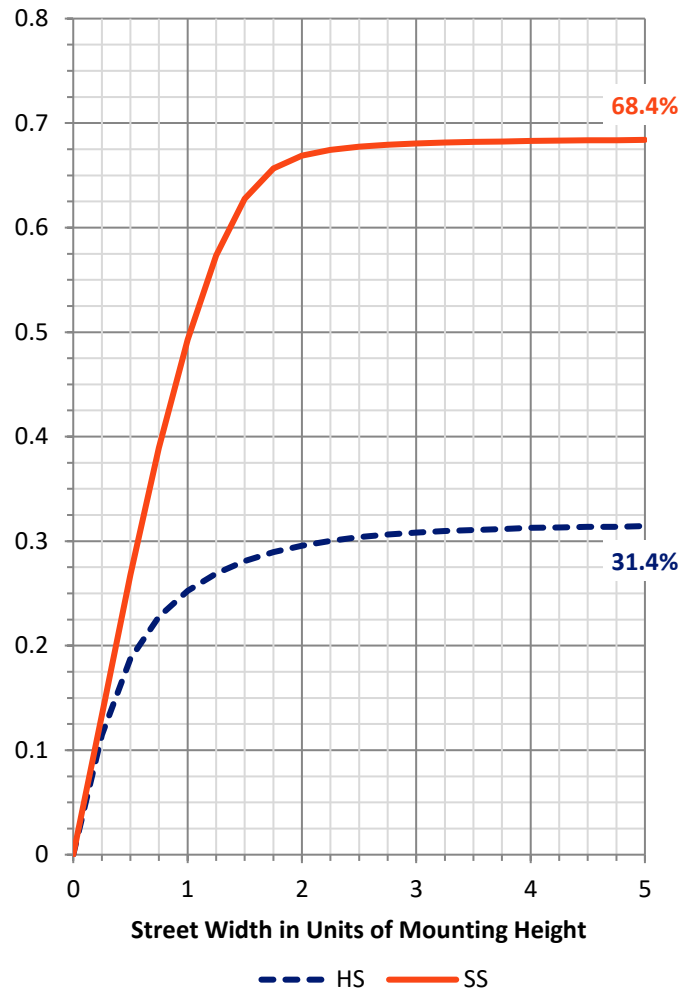
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1031.4	0.0	1031.4
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	2227.5	0.0	2227.5
	% Fixture	68.4	0.0	68.4
Total	Lumens	3258.9	0.0	3258.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	1.8
10°-20°	196.1	6.0
20°-30°	353.0	10.8
30°-40°	533.2	16.4
40°-50°	718.0	22.0
50°-60°	862.8	26.5
60°-70°	420.2	12.9
70°-80°	103.5	3.2
80°-90°	12.4	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°	3258.9	100.0
0°-180°	3258.9	100.0

Coefficient of Utilization



REPORT NUMBER: P630082

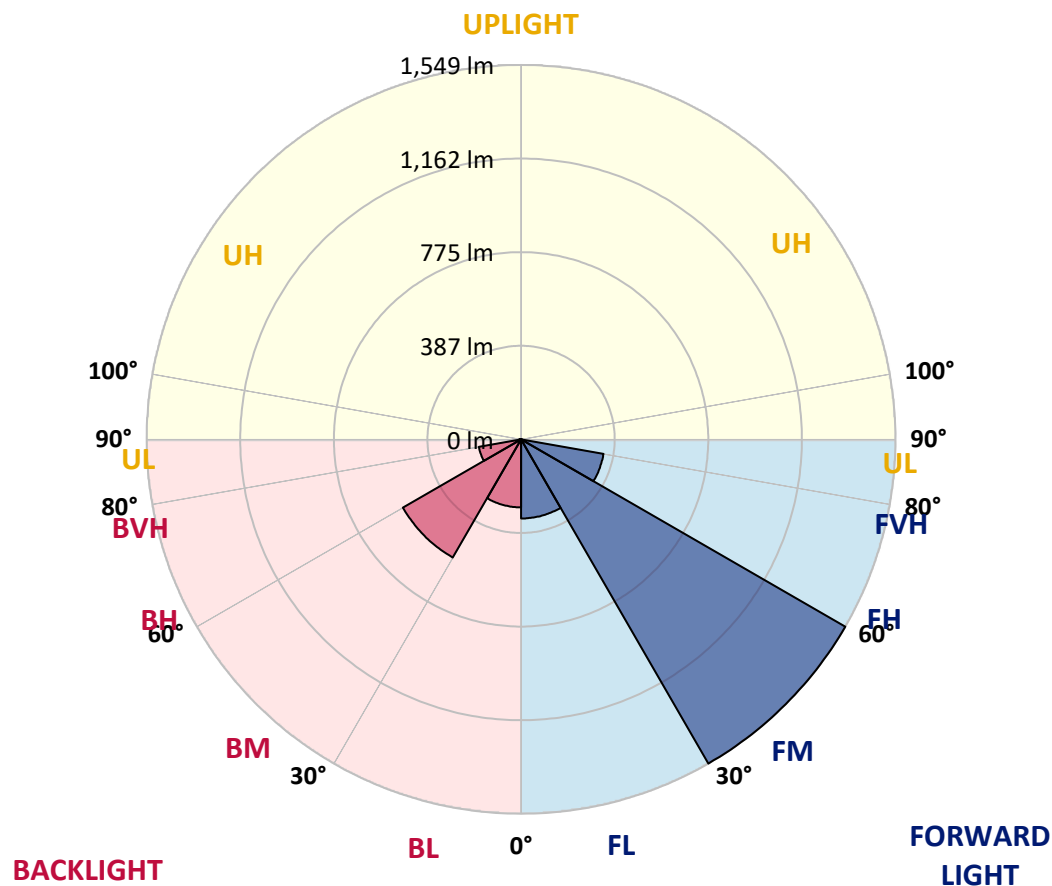
CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	327.3	10.0			
FM	(30°-60°)	1549.1	47.5			
FH	(60°-80°)	346.3	10.6			G0/660
FVH	(80°-90°)	4.7	0.1			G0/10
BL	(0°-30°)	281.4	8.6	B1/500		
BM	(30°-60°)	564.9	17.3	B1/1000		
BH	(60°-80°)	177.4	5.4	B1/500		G1/500
BVH	(80°-90°)	7.8	0.2			G0/10
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





REPORT NUMBER: P630082

CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4
2.5°	603.3	603.0	603.0	604.6	604.6	605.2	606.0	606.8	607.1	605.7	602.7
5°	609.8	609.8	609.8	611.2	611.2	611.8	612.9	613.1	612.9	610.7	607.7
7.5°	620.2	620.2	620.5	622.2	623.5	624.3	626.3	626.0	625.2	621.6	617.8
10°	637.2	638.0	638.9	640.8	643.5	645.4	646.8	646.8	645.7	640.2	635.3
12.5°	661.3	662.4	663.2	664.9	667.0	670.3	673.3	673.3	672.0	665.1	657.7
15°	689.5	690.6	690.3	690.9	695.0	699.6	702.1	703.7	704.3	694.7	683.2
17.5°	721.8	722.9	721.8	720.2	720.7	728.1	732.5	738.5	742.0	729.2	710.8
20°	751.1	750.0	750.0	751.1	752.7	761.8	768.3	778.2	782.6	767.0	738.5
22.5°	782.0	784.5	783.4	783.4	789.9	805.0	812.9	825.8	830.5	810.2	771.9
25°	822.0	824.2	823.6	824.2	831.8	853.2	861.1	884.9	889.6	860.6	808.8
27.5°	865.8	869.3	871.0	870.4	882.7	910.7	920.5	953.6	962.1	917.0	848.2
30°	922.7	926.5	927.9	927.4	941.9	979.9	991.1	1028.9	1040.9	983.7	898.3
32.5°	988.7	992.5	996.6	998.2	1016.9	1055.7	1071.9	1111.0	1128.3	1060.9	958.8
35°	1054.1	1057.4	1065.3	1078.2	1103.6	1143.3	1157.6	1196.1	1212.8	1141.1	1031.9
37.5°	1126.3	1128.5	1135.4	1153.2	1189.8	1227.6	1241.9	1278.8	1280.7	1218.6	1114.6
40°	1205.5	1205.5	1204.1	1221.6	1259.9	1298.0	1310.3	1331.6	1320.4	1278.3	1195.0
42.5°	1272.5	1271.4	1272.5	1288.9	1317.4	1348.3	1359.0	1354.9	1340.7	1324.0	1267.9
45°	1333.0	1333.8	1343.7	1356.3	1371.0	1389.4	1395.7	1372.4	1359.6	1360.6	1326.2
47.5°	1374.1	1374.9	1397.9	1419.0	1428.0	1433.7	1431.0	1398.7	1392.1	1404.4	1371.0
50°	1379.5	1383.9	1423.6	1466.9	1489.3	1490.1	1482.5	1443.0	1441.1	1455.1	1395.1
52.5°	1380.6	1385.0	1434.6	1512.6	1570.9	1583.2	1574.4	1533.4	1513.4	1499.4	1424.7
55°	1376.5	1381.5	1436.2	1543.2	1654.9	1704.2	1705.0	1647.0	1583.2	1573.9	1509.0
57.5°	1215.3	1217.2	1302.1	1465.2	1651.6	1791.2	1801.9	1723.1	1650.2	1641.5	1576.6
60°	846.6	854.3	946.5	1161.9	1387.5	1633.5	1668.0	1645.0	1596.3	1532.5	1352.7
62.5°	424.0	430.6	523.1	726.7	956.9	1151.3	1188.2	1212.6	1224.1	1155.6	921.1
65°	182.6	187.5	245.0	379.6	541.7	635.6	648.4	677.7	749.4	668.7	496.2
67.5°	122.1	125.4	154.7	231.6	319.2	325.2	323.3	329.6	345.2	284.9	224.2
70°	93.6	96.3	116.1	169.7	229.4	196.3	185.9	168.6	183.1	186.7	181.7
72.5°	67.9	70.1	84.9	115.8	143.7	125.4	123.7	132.5	152.2	157.7	154.7
75°	43.8	44.9	53.9	63.5	74.2	80.5	83.8	99.6	119.6	123.7	120.2
77.5°	29.3	30.1	35.3	40.8	42.2	42.4	43.5	50.6	64.3	72.0	71.2
80°	15.3	15.3	17.2	17.2	19.7	23.5	24.6	29.3	35.6	39.4	39.7
82.5°	6.0	6.3	7.4	8.2	9.9	12.0	12.9	15.3	18.6	21.3	23.8
85°	2.5	2.7	3.0	3.6	4.4	5.5	5.7	6.6	8.8	10.9	12.3
87.5°	0.0	0.0	0.3	0.3	0.5	0.8	0.8	1.1	1.4	2.5	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P630082

CATALOG NUMBER: GWS-SA1C-830-U-T3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4	604.4
2.5°	606.3	602.7	606.3	607.4	610.4	611.5	609.6	609.3	609.3	606.6	605.7
5°	610.4	607.1	610.7	612.3	616.7	619.4	620.0	622.2	623.5	622.4	622.2
7.5°	620.5	616.4	620.2	622.7	628.5	632.8	634.8	639.7	643.2	642.7	642.4
10°	638.3	632.8	637.2	641.3	647.6	652.8	653.1	655.8	659.4	658.3	657.7
12.5°	658.8	653.6	658.6	662.7	670.1	672.2	668.7	667.6	668.1	666.8	665.7
15°	684.0	676.6	681.0	685.7	689.8	687.3	679.6	676.6	676.4	674.4	673.3
17.5°	709.2	699.9	703.2	705.6	703.7	696.1	686.5	681.3	678.8	675.0	673.9
20°	734.1	722.3	721.8	719.9	711.1	697.2	684.3	673.9	667.6	662.4	660.5
22.5°	762.6	746.2	737.9	729.2	710.0	687.3	667.9	653.1	643.0	636.4	634.2
25°	793.2	770.0	753.0	735.5	699.1	666.2	639.1	618.9	606.8	599.7	597.3
27.5°	823.6	791.6	766.1	736.3	677.2	635.8	599.4	572.1	560.0	554.3	552.4
30°	864.7	820.3	781.7	725.6	648.4	593.7	548.3	520.6	512.7	508.6	506.9
32.5°	912.0	856.7	802.5	703.2	611.8	544.4	496.5	477.4	471.9	464.0	463.7
35°	974.4	908.7	822.2	670.1	565.5	491.6	456.8	443.1	433.3	420.7	419.6
37.5°	1047.2	973.6	832.9	627.9	511.6	448.1	427.3	411.9	396.1	379.4	377.2
40°	1122.5	1049.4	833.7	578.1	458.8	419.3	401.8	381.8	362.1	343.5	341.1
42.5°	1201.6	1120.1	819.2	520.6	415.5	394.4	376.6	351.5	329.3	316.7	315.3
45°	1272.2	1177.0	786.4	460.1	383.5	373.6	350.9	323.8	312.0	303.0	301.1
47.5°	1327.8	1214.8	742.0	405.9	357.5	352.3	322.7	308.8	299.7	291.5	289.6
50°	1355.2	1223.2	684.3	361.9	333.4	327.1	306.8	296.2	290.1	283.6	281.9
52.5°	1389.1	1232.8	634.5	324.9	309.8	301.4	293.7	285.2	280.8	276.7	275.4
55°	1467.1	1269.0	608.2	295.3	287.4	283.6	282.5	275.4	274.0	271.3	268.8
57.5°	1498.9	1245.7	546.1	271.3	269.6	270.2	272.9	266.3	265.0	261.7	260.0
60°	1205.5	941.6	369.8	250.5	254.8	258.4	261.1	254.6	252.6	252.1	249.9
62.5°	772.4	579.2	258.1	231.0	237.6	242.0	243.6	237.3	235.9	240.3	240.6
65°	402.1	315.6	209.4	210.2	215.7	222.3	225.5	223.4	222.8	227.5	227.7
67.5°	205.3	193.0	182.6	185.6	190.0	198.4	206.1	215.7	219.0	219.5	219.8
70°	174.9	169.4	164.2	166.1	170.8	175.5	182.8	187.5	182.0	180.7	180.1
72.5°	148.9	144.8	142.3	144.5	147.0	146.2	144.0	146.2	147.0	147.3	147.5
75°	115.8	112.8	110.9	111.1	111.1	108.1	104.0	101.5	98.8	96.6	96.6
77.5°	70.9	71.4	73.4	73.1	72.8	71.7	67.6	65.4	58.8	56.9	56.9
80°	40.5	41.3	43.2	43.8	43.8	42.4	38.3	35.9	32.8	31.5	31.2
82.5°	24.6	25.7	26.8	27.4	27.6	26.0	22.4	20.5	18.9	17.5	17.5
85°	12.9	13.4	14.5	14.8	14.0	12.3	10.4	9.6	7.9	7.7	7.7
87.5°	3.6	3.8	4.4	3.6	3.3	2.5	1.4	1.1	0.5	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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.

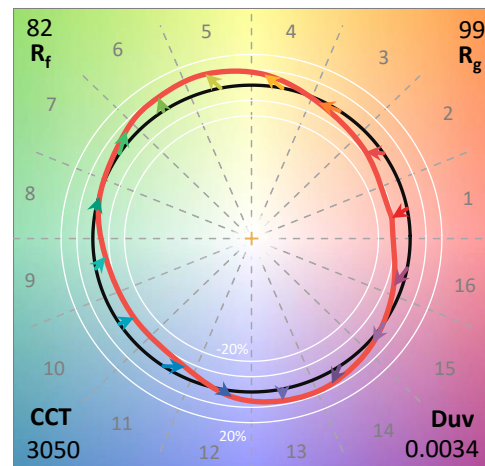
Test Information

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
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

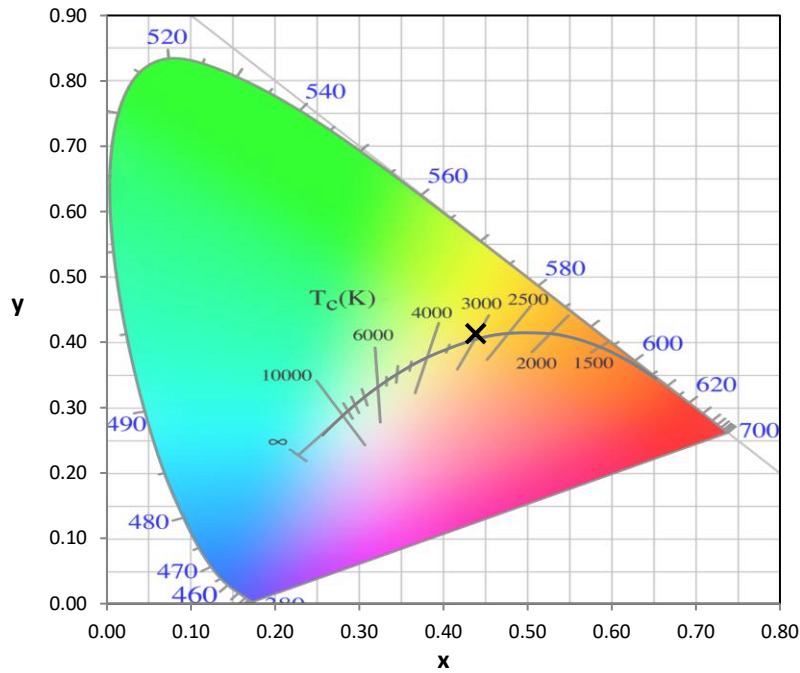
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

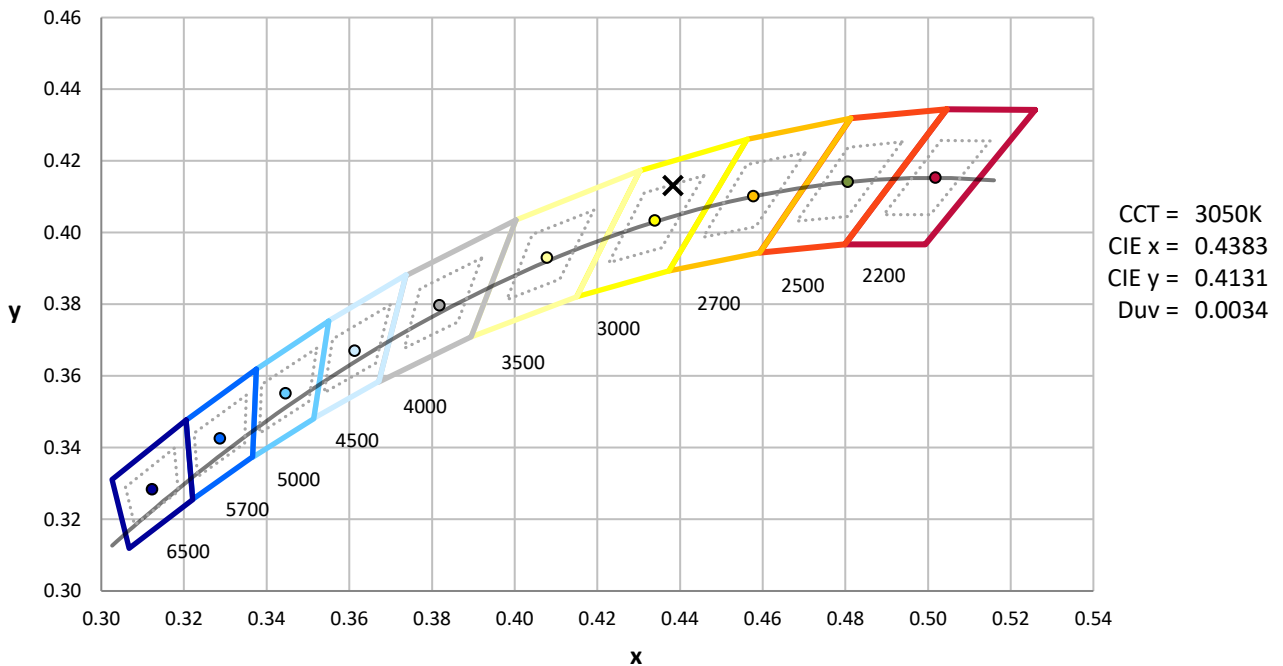
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



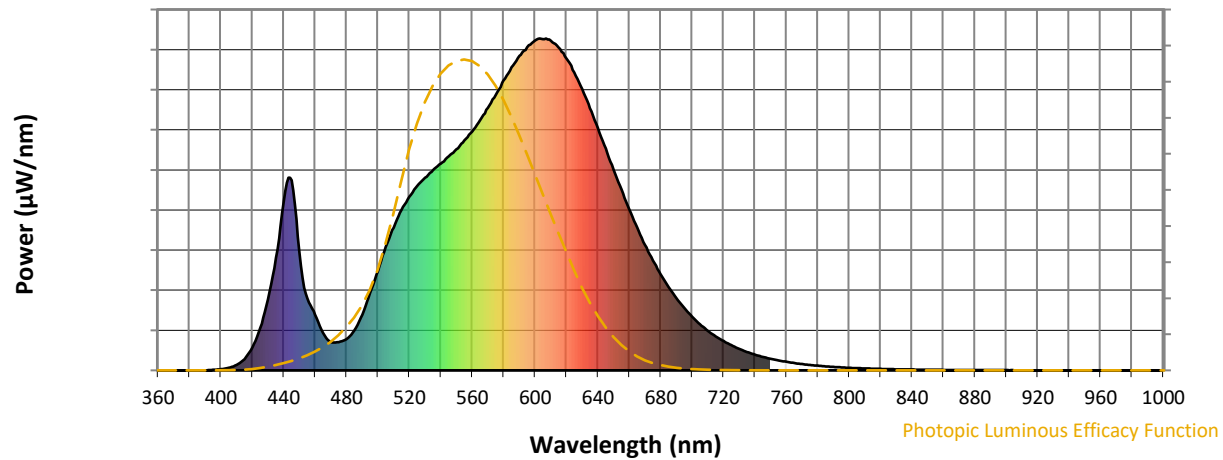
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

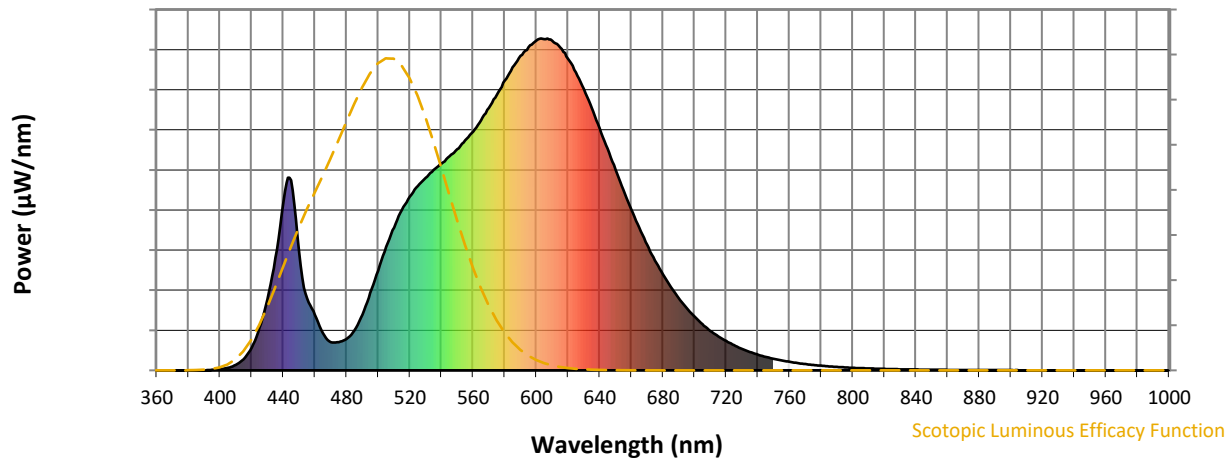


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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



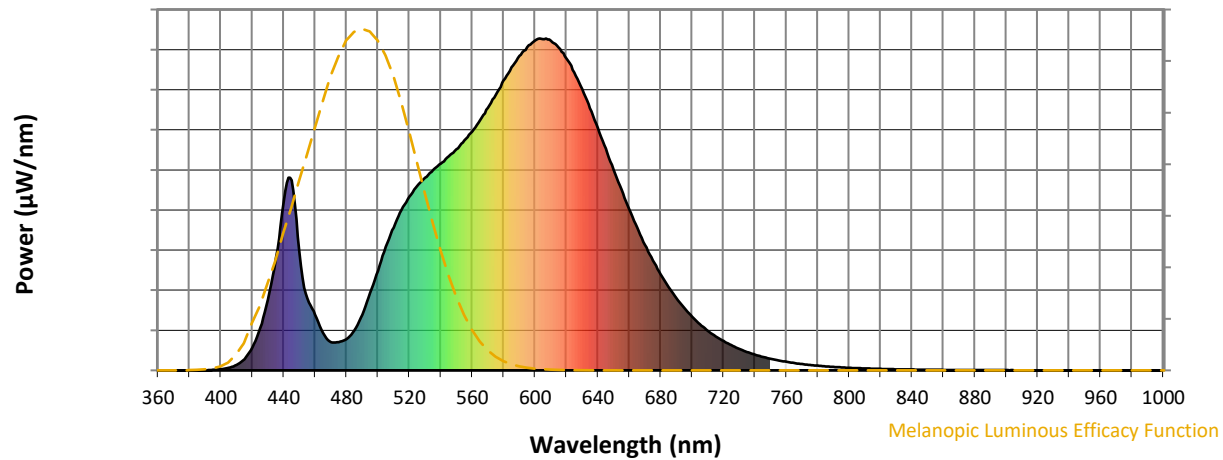
Scotopic Lumens: NR

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

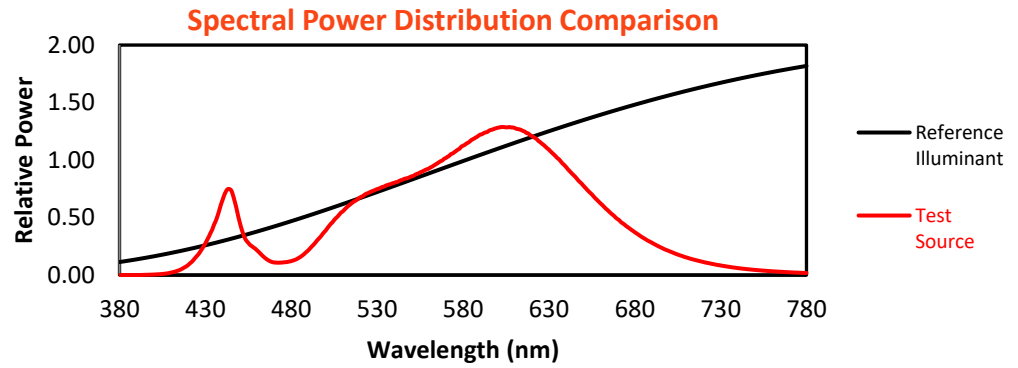
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	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

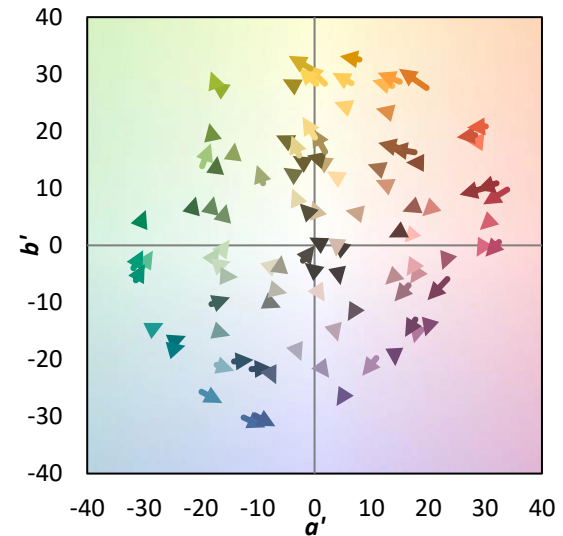
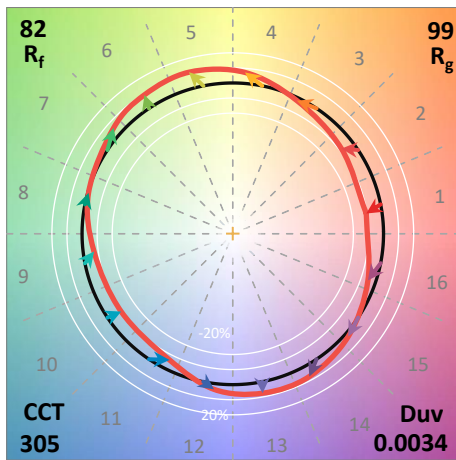
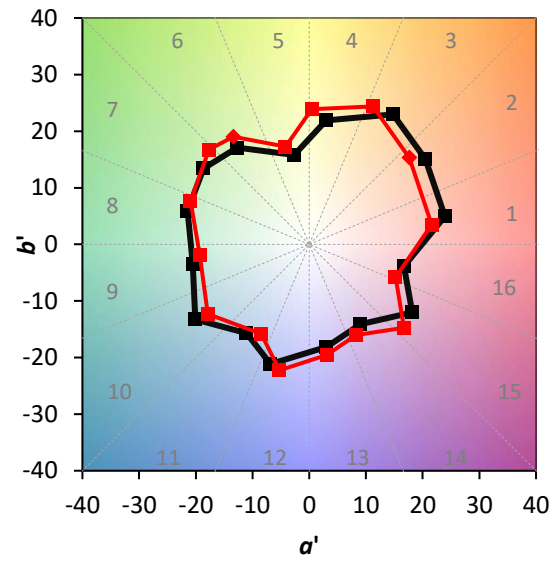
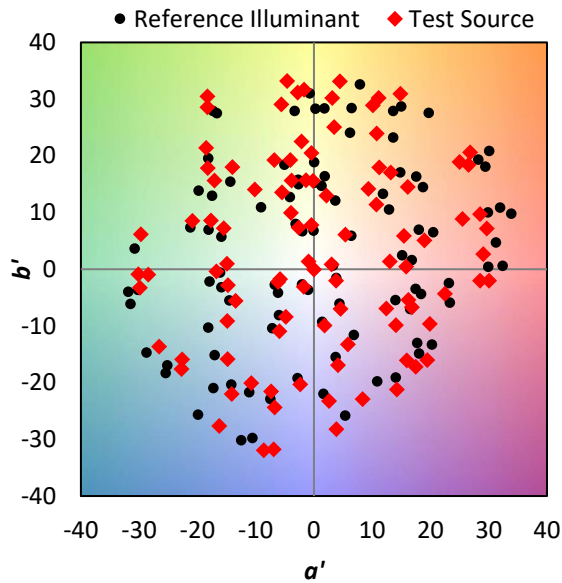
TM-30-18

Summary

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

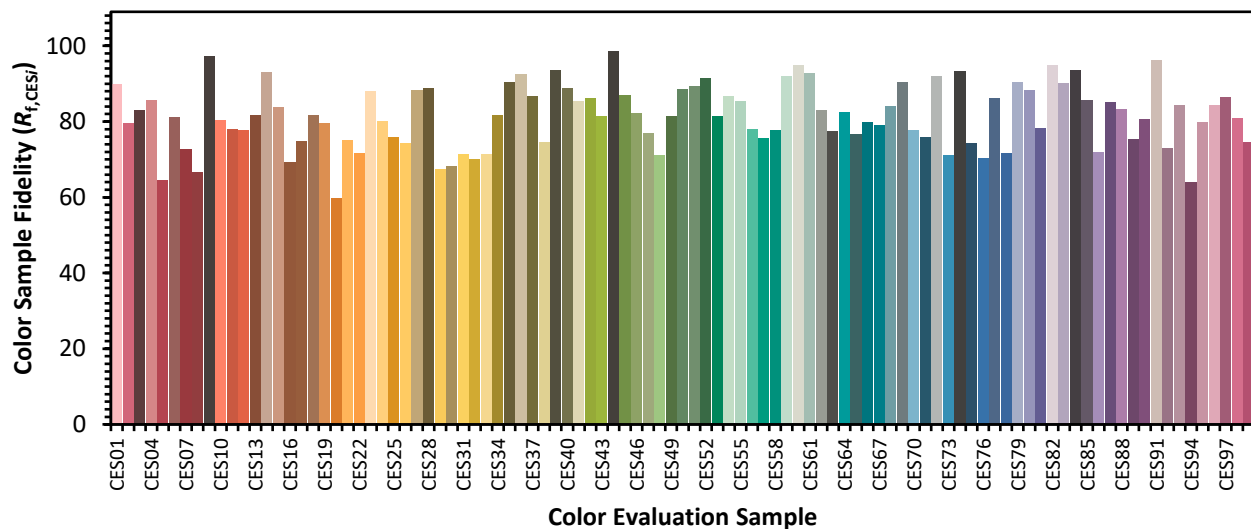


Color Vector Graphics

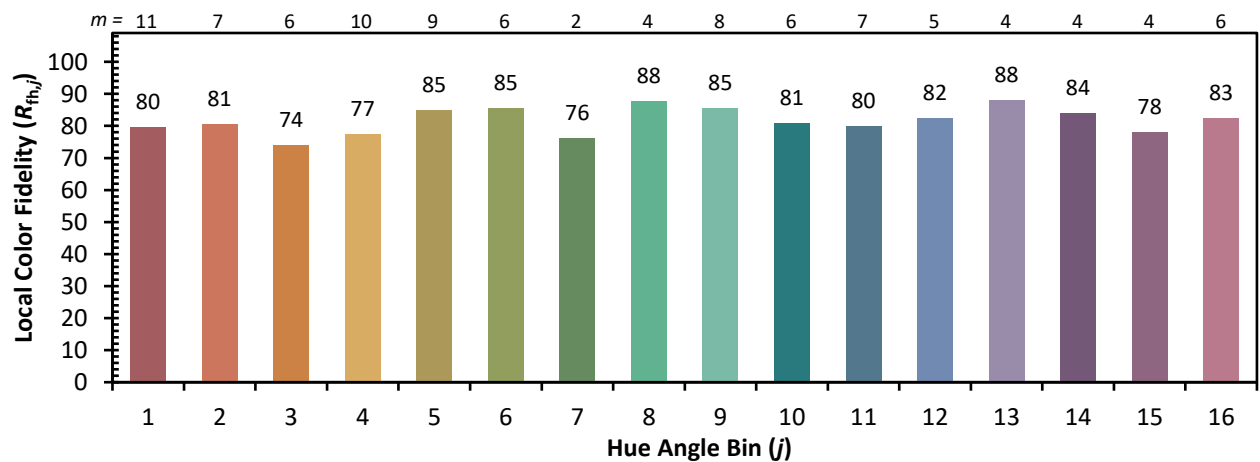
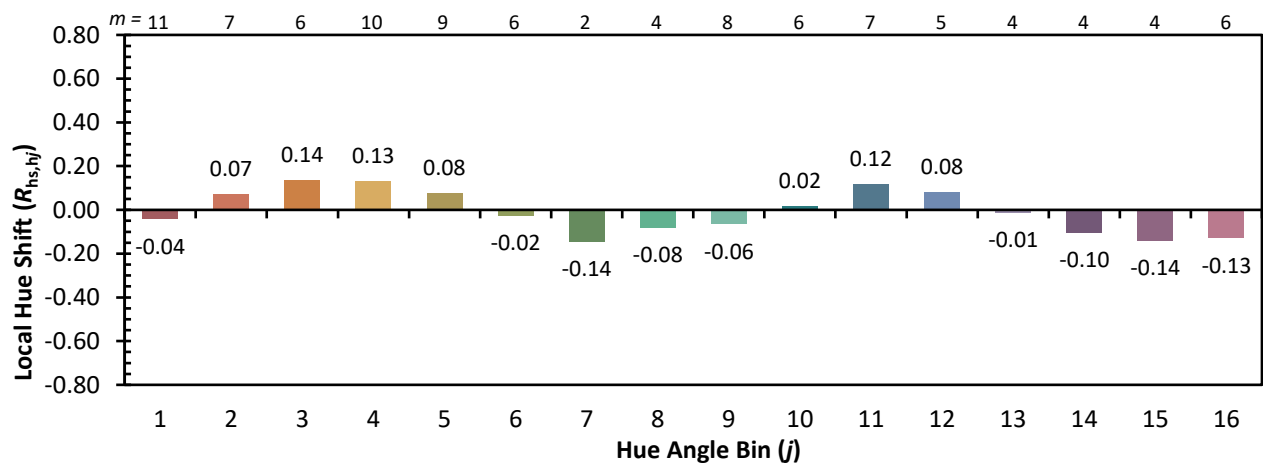
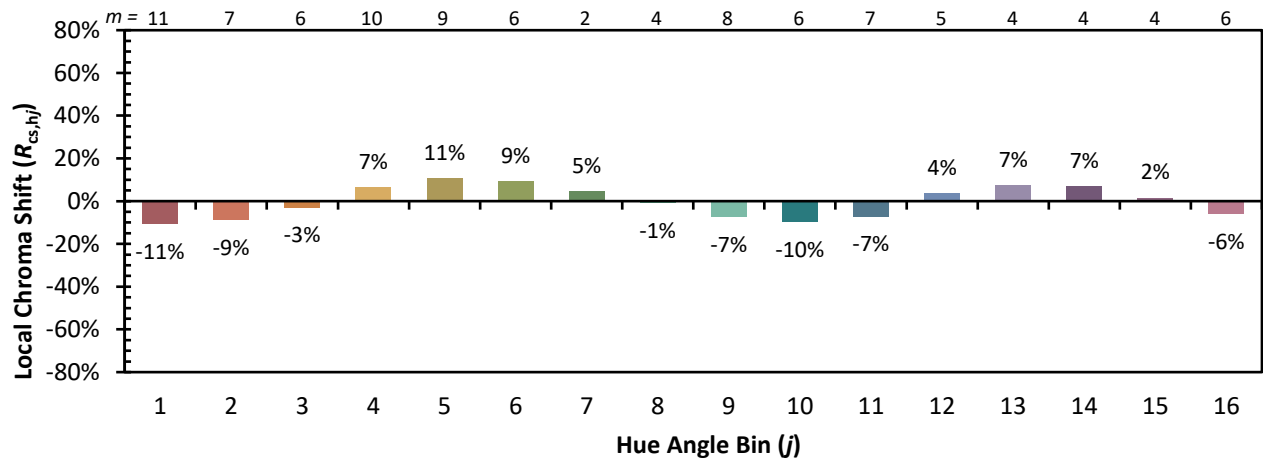


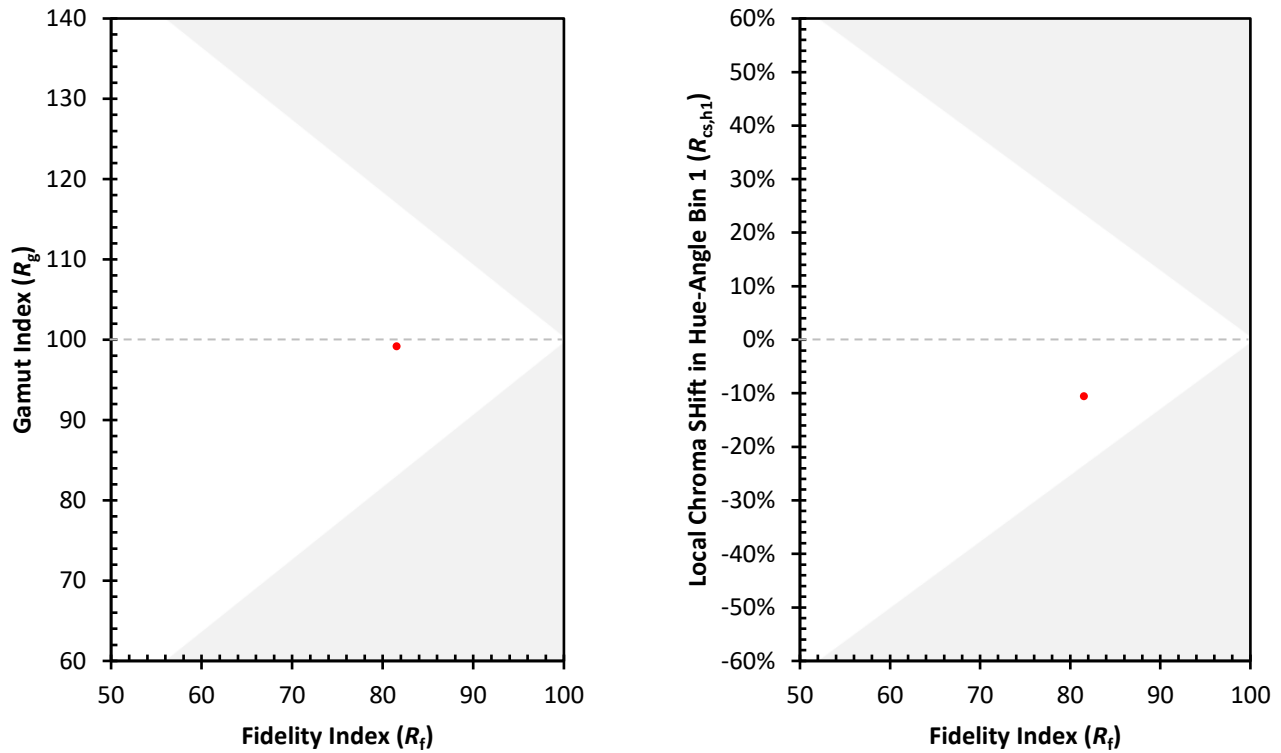
Individual Sample Fidelity Index ($R_{f,i}$)

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	



Color Rendition by Hue-Angle Bin



Measure Comparisons


(END OF REPORT)