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: P631041

Luminaire Tested: GWS-SA1E-830-U-RW-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:	P631041
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-50)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA1E-830-U-RW-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE 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:	3901.4 lumens
Efficiency:	N/A
Efficacy:	66.8 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B2 - U0 - G0

Input Watts (W):	58.4
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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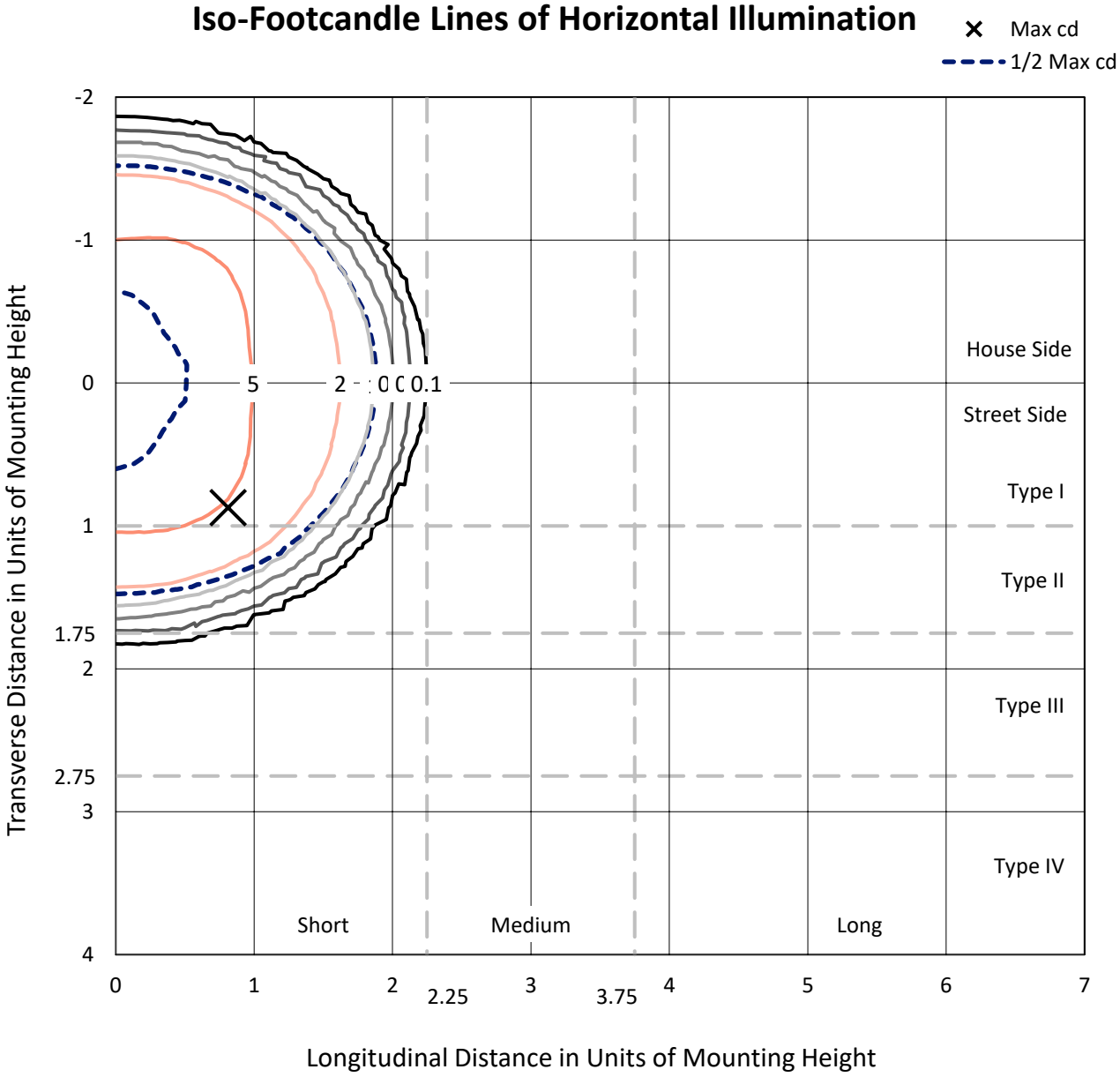
Scaled Data Report

REPORT NUMBER: P631041
CATALOG NUMBER: GWS-SA1E-830-U-RW-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 6.6 fc
Type V - Short - N/A

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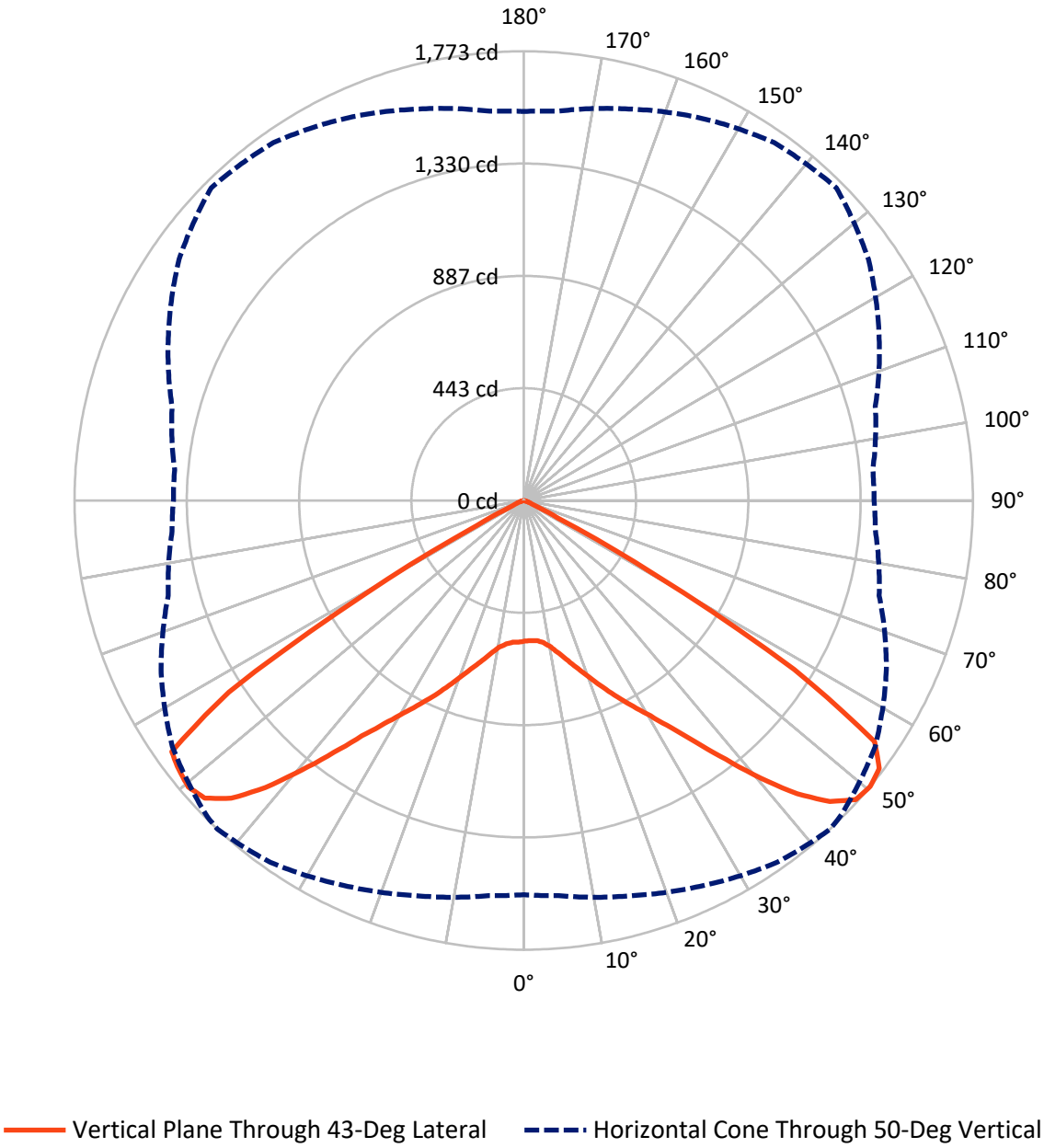
Luminous Intensity Polar Plot



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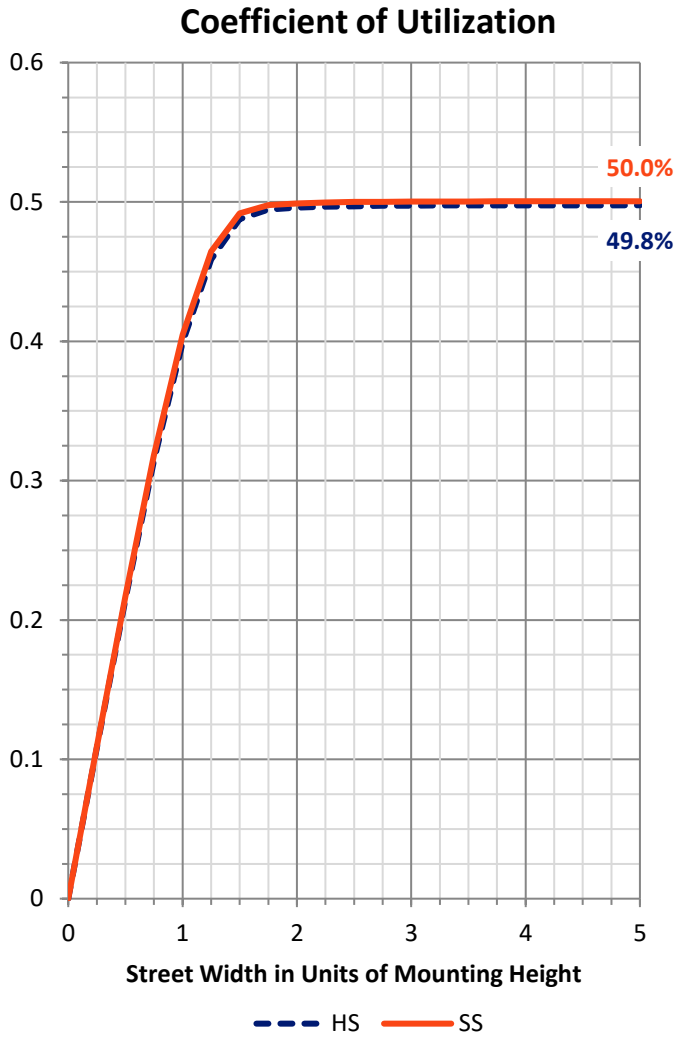
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1950.6	0.0	1950.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1950.7	0.0	1950.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	3901.4	0.0	3901.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	1.4
10°-20°	188.1	4.8
20°-30°	380.5	9.8
30°-40°	705.9	18.1
40°-50°	1171.7	30.0
50°-60°	1195.8	30.7
60°-70°	196.1	5.0
70°-80°	8.6	0.2
80°-90°	0.1	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°	3901.4	100.0
0°-180°	3901.4	100.0



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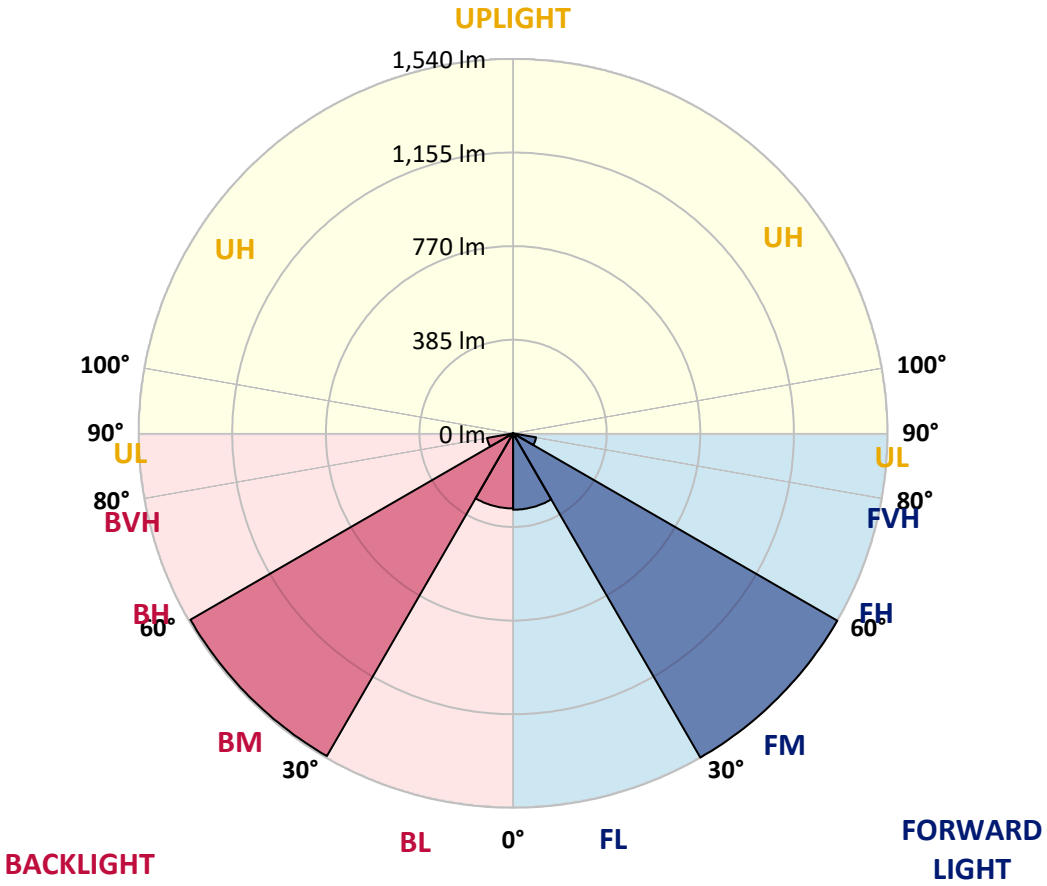
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	314.3	8.1			
FM	(30°-60°)	1540.5	39.5			
FH	(60°-80°)	95.9	2.5			G0/660
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	308.9	7.9	B1/500		
BM	(30°-60°)	1533.0	39.3	B2/2500		
BH	(60°-80°)	108.7	2.8	B0/110		G0/660
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G0
Type V Short



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Scaled Data Report

REPORT NUMBER: P631041
CATALOG NUMBER: GWS-SA1E-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	554.9	554.9	554.9	554.9	554.9	*554.9*	554.9	554.9	554.9	554.9	554.9
2.5°	544.6	545.9	547.6	549.3	551.5	*553.6*	554.9	558.8	557.9	561.4	561.4
5°	538.5	539.8	542.0	545.9	550.6	*555.3*	558.8	566.6	570.9	577.8	580.4
7.5°	541.5	543.3	545.9	551.9	559.2	*566.6*	570.4	583.0	591.6	604.5	611.9
10°	551.5	553.2	557.5	567.9	577.4	*587.7*	592.5	608.4	622.2	639.9	650.3
12.5°	562.7	564.8	573.5	589.0	605.4	*619.2*	625.7	643.4	657.6	677.5	693.9
15°	574.3	577.8	591.2	614.0	637.3	*655.9*	662.8	681.8	696.0	717.2	735.7
17.5°	601.5	605.4	620.5	645.1	677.0	*698.6*	704.6	724.5	735.3	749.5	768.9
20°	635.6	642.9	661.5	691.3	726.2	*746.9*	751.2	770.7	769.8	775.8	792.7
22.5°	677.9	683.1	703.3	738.7	778.0	*800.9*	810.8	819.0	808.2	803.0	813.8
25°	721.9	727.9	750.0	788.8	832.8	*859.1*	867.3	873.8	856.5	837.1	838.4
27.5°	778.9	783.2	804.8	846.2	890.2	*920.0*	927.3	938.5	915.6	884.6	876.0
30°	846.6	850.9	873.8	917.4	961.0	*986.4*	997.6	1011.4	986.4	947.6	937.7
32.5°	926.0	930.3	959.7	1004.5	1040.4	*1068.0*	1078.8	1093.4	1073.6	1030.0	1018.8
35°	1020.9	1023.5	1058.0	1106.8	1144.8	*1171.5*	1178.9	1196.1	1174.1	1130.5	1124.5
37.5°	1131.0	1134.0	1171.5	1228.1	1266.9	*1296.7*	1308.3	1313.1	1286.3	1237.5	1232.8
40°	1251.8	1261.7	1298.4	1359.2	1402.8	*1440.4*	1450.7	1434.7	1397.2	1330.8	1322.1
42.5°	1377.8	1386.4	1427.4	1493.4	1543.9	*1582.3*	1582.8	1548.2	1484.4	1392.5	1379.5
45°	1482.6	1486.1	1539.2	1605.6	1667.8	*1694.9*	1697.5	1635.0	1538.7	1428.3	1400.7
47.5°	1554.7	1560.3	1606.5	1670.3	1739.0	*1763.6*	1758.4	1680.3	1564.6	1451.6	1405.8
50°	*1555.6*	*1565.1*	*1615.1*	*1676.8*	*1743.3*	*1773.0*	*1765.7*	*1693.2*	*1579.3*	*1452.4*	*1393.3*
52.5°	1417.9	1433.5	1515.0	1604.3	1706.2	*1757.1*	1758.8	1710.0	1573.7	1438.6	1382.1
55°	1069.7	1086.5	1189.2	1341.5	1538.3	*1680.3*	1704.9	1690.2	1567.2	1444.7	1402.0
57.5°	566.1	553.2	610.1	761.2	1008.4	*1259.6*	1331.6	1449.0	1495.2	1452.0	1438.6
60°	123.4	131.6	175.2	236.0	393.5	*592.5*	662.8	863.9	1102.9	1209.1	1285.9
62.5°	53.1	52.2	54.4	61.7	90.2	*150.2*	183.4	299.5	472.5	649.0	768.5
65°	43.6	44.0	45.7	45.7	42.7	*43.2*	45.3	68.6	110.5	154.9	208.0
67.5°	32.8	33.2	36.2	37.1	35.0	*31.1*	30.6	25.9	27.2	34.1	35.4
70°	20.7	20.7	22.4	23.3	23.3	*21.6*	21.1	18.6	18.1	20.7	23.3
72.5°	11.2	11.2	12.1	12.5	12.1	*11.7*	11.7	11.2	10.8	12.5	16.0
75°	4.7	4.7	5.2	5.2	4.7	*4.7*	4.7	4.7	4.7	5.6	8.6
77.5°	0.9	1.3	1.7	1.3	0.9	*0.9*	0.9	1.3	1.3	1.7	2.6
80°	0.4	0.4	0.9	0.4	0.0	*0.0*	0.0	0.0	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0	0.4
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

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Scaled Data Report

REPORT NUMBER: P631041
CATALOG NUMBER: GWS-SA1E-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9
2.5°	564.4	559.7	561.4	562.2	561.0	560.1	555.3	554.0	551.9	548.4	547.6
5°	583.4	579.5	579.1	576.5	570.4	563.1	554.0	550.2	545.9	541.5	540.7
7.5°	615.3	610.6	607.6	598.9	585.1	573.5	558.4	550.2	544.6	538.9	537.7
10°	656.3	650.7	642.1	626.1	607.6	590.7	573.0	562.2	553.6	545.9	545.4
12.5°	699.9	693.9	678.3	658.0	635.6	620.1	597.6	582.5	569.6	557.9	556.6
15°	745.6	738.3	717.2	693.0	672.3	656.3	631.7	607.6	587.7	570.9	569.2
17.5°	780.6	771.5	746.5	728.4	711.5	695.2	667.5	635.6	609.3	589.0	584.3
20°	802.6	794.0	770.2	760.3	752.5	740.9	708.1	674.9	645.5	620.5	616.2
22.5°	823.7	813.4	792.7	792.7	798.7	794.0	758.6	720.6	686.1	657.2	650.7
25°	847.5	839.3	824.6	836.7	851.8	851.4	815.1	767.6	727.9	695.6	689.1
27.5°	882.0	873.8	868.6	891.5	910.5	909.2	869.5	818.1	776.3	744.3	738.3
30°	942.8	935.1	929.5	957.1	981.2	972.2	928.6	879.0	836.7	800.4	796.1
32.5°	1024.0	1015.8	1008.4	1036.0	1057.6	1046.0	1004.5	957.9	909.2	873.8	865.2
35°	1130.5	1113.3	1105.9	1138.7	1147.8	1134.9	1095.2	1054.2	1002.4	961.8	956.2
37.5°	1240.6	1220.3	1215.1	1243.6	1258.3	1253.5	1206.9	1164.2	1108.1	1063.2	1056.8
40°	1334.6	1316.1	1307.0	1351.5	1384.7	1387.7	1345.9	1293.6	1227.6	1181.0	1169.4
42.5°	1389.9	1373.9	1371.7	1440.8	1495.2	1534.0	1483.9	1430.0	1360.5	1307.9	1298.4
45°	1402.4	1392.0	1410.2	1500.8	1585.3	1656.1	1613.4	1556.4	1481.3	1425.7	1416.6
47.5°	1401.1	1397.6	1430.0	1531.8	1638.8	1726.0	1704.9	1640.6	1568.1	1509.8	1501.2
50°	*1382.5*	*1383.0*	*1436.9*	*1547.4*	*1660.4*	*1745.0*	*1723.9*	*1664.3*	*1599.6*	*1542.2*	*1535.3*
52.5°	1375.2	1372.6	1424.0	1542.6	1682.4	1736.4	1688.9	1622.0	1550.0	1479.2	1468.8
55°	1401.1	1394.6	1425.7	1538.7	1685.0	1731.6	1606.5	1461.5	1313.9	1230.2	1223.3
57.5°	1439.9	1433.0	1447.7	1510.3	1550.0	1439.9	1182.3	948.4	796.6	732.3	704.2
60°	1285.9	1281.1	1269.9	1194.4	1024.4	772.8	526.4	335.7	241.2	195.0	195.0
62.5°	797.8	791.4	730.5	542.8	394.4	228.3	125.6	78.5	59.5	55.7	55.2
65°	223.9	222.7	184.3	130.3	82.8	51.3	45.3	46.2	45.3	44.0	43.6
67.5°	33.7	37.1	37.1	30.2	28.9	32.4	38.0	40.6	38.4	36.2	35.4
70°	21.6	23.3	22.4	19.4	20.7	24.2	27.2	27.6	26.3	24.2	23.7
72.5°	15.1	16.8	13.8	12.5	12.9	14.2	15.5	15.5	15.1	14.2	13.4
75°	9.1	9.1	6.5	6.0	6.0	6.5	6.5	7.3	7.3	6.9	6.5
77.5°	3.0	3.5	2.2	1.7	1.7	1.7	2.2	2.6	2.6	2.2	1.7
80°	0.4	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.9	0.4
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
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

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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

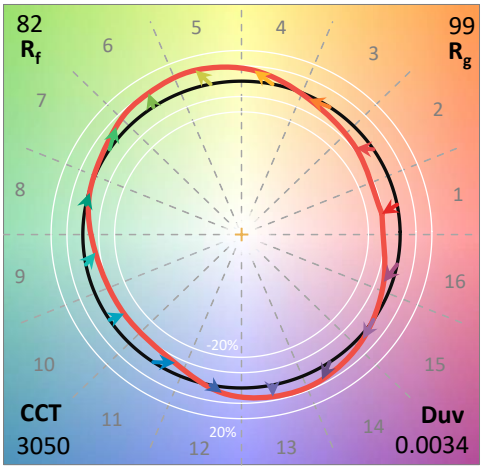
Test Information

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

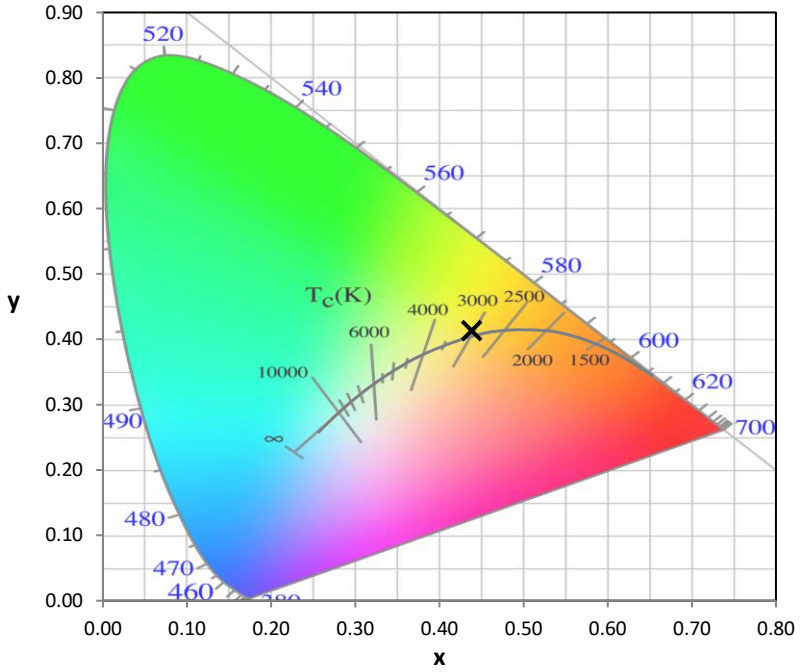
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

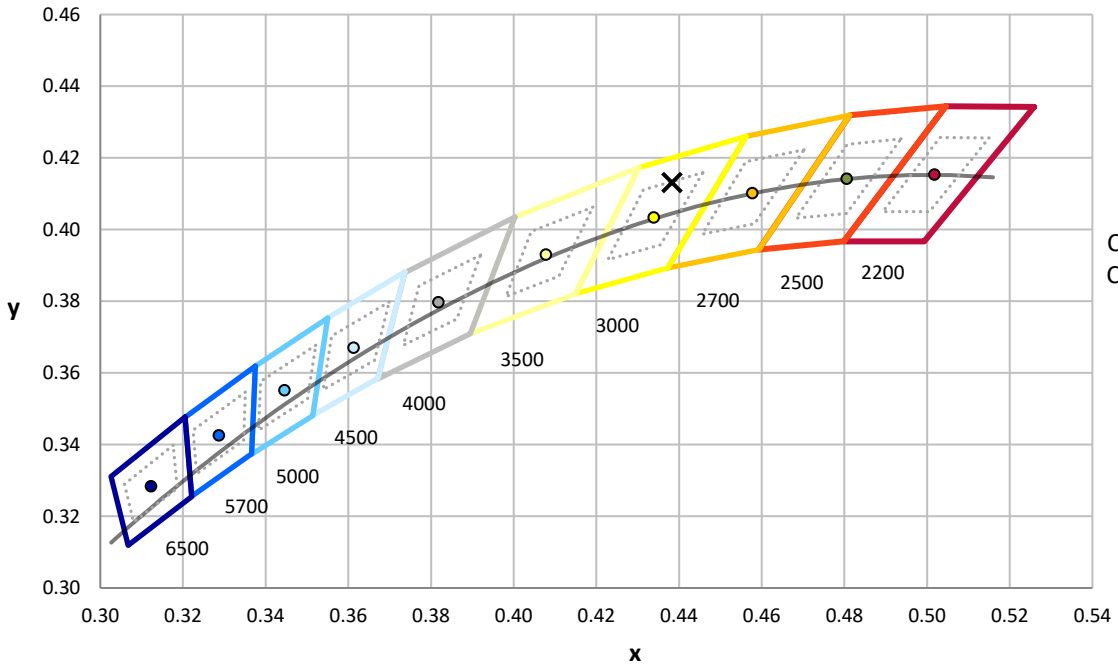
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

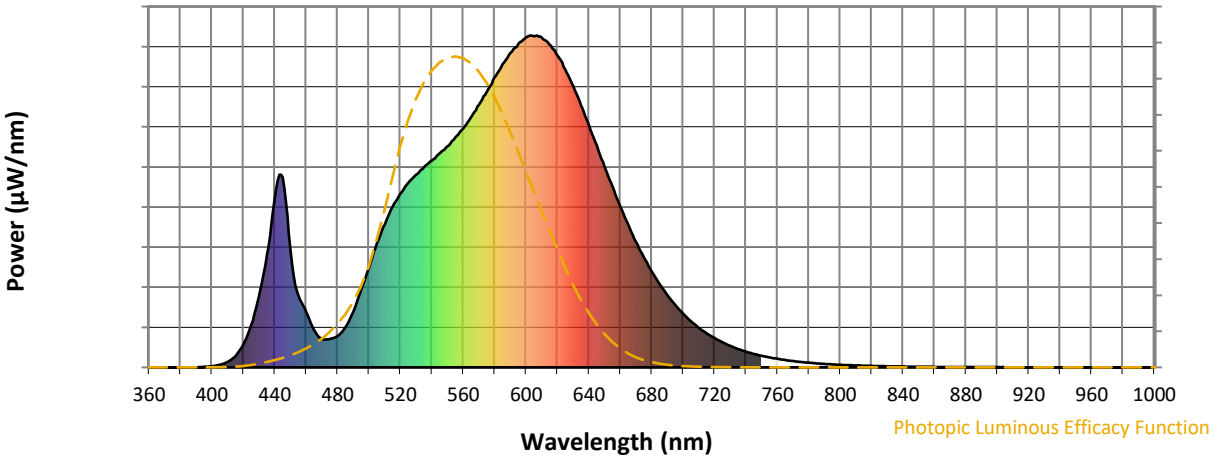


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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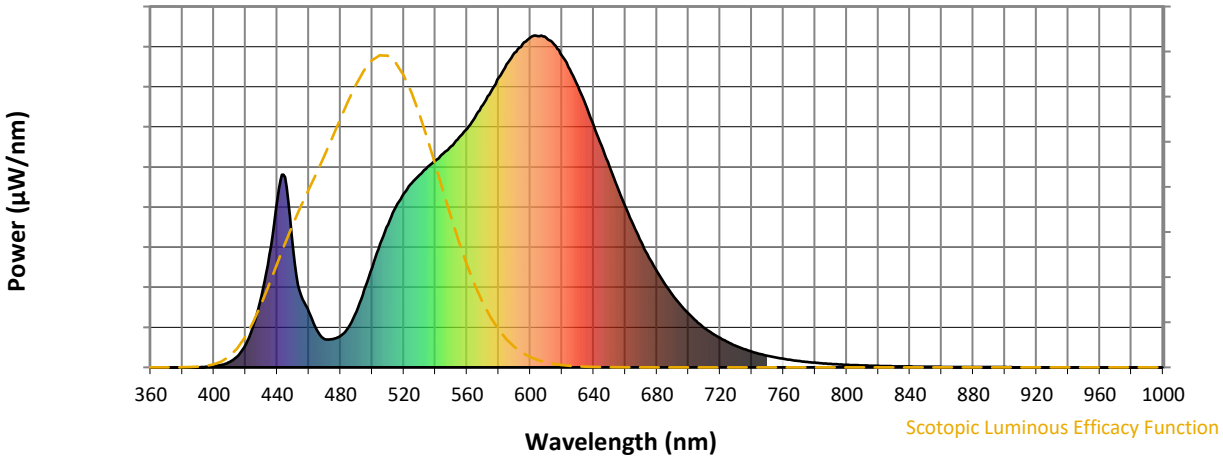
Scotopic Flux vs. Wavelength



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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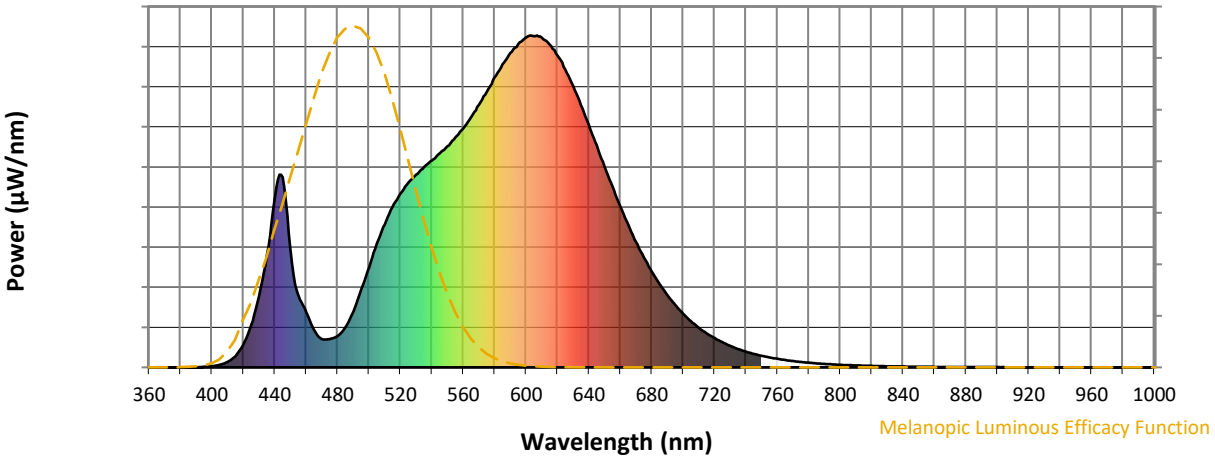
Melanopic Flux vs. Wavelength



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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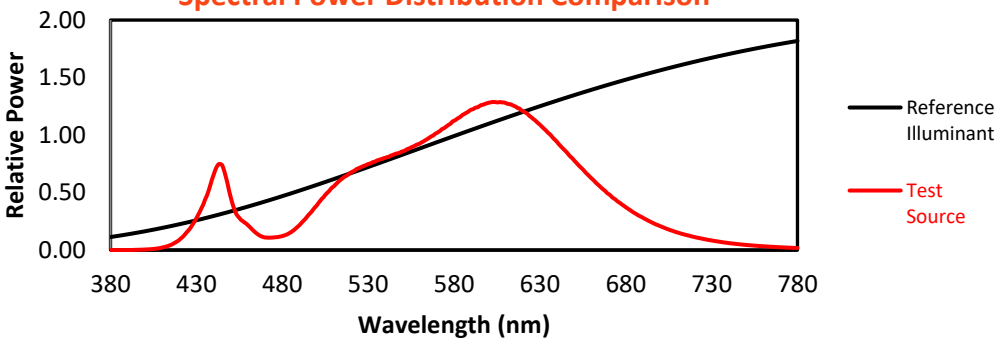
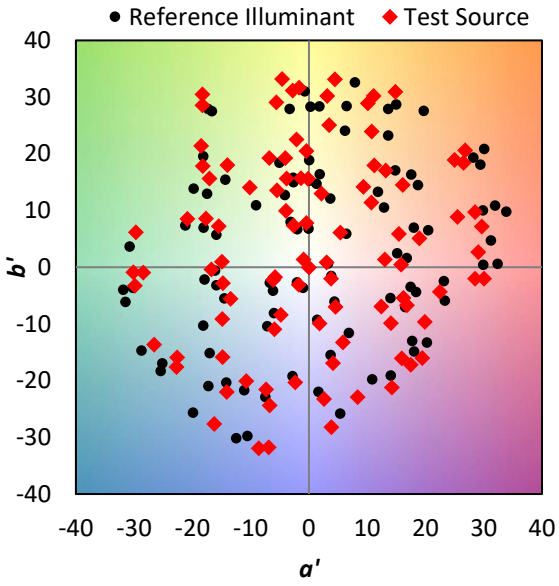
Summary

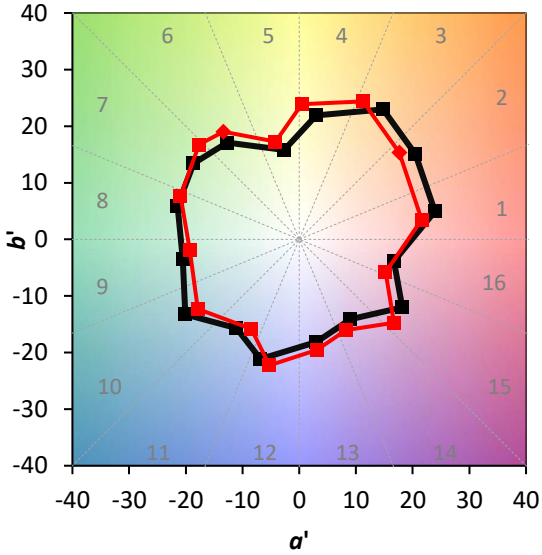
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

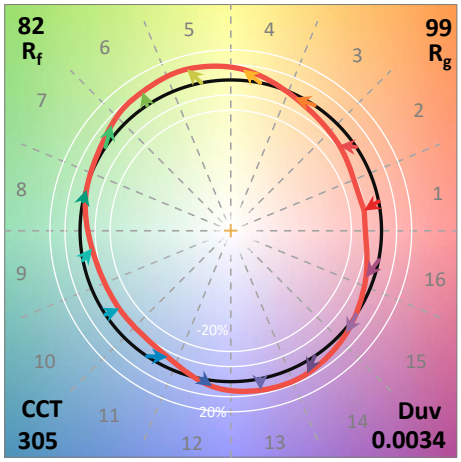
Spectral Power Distribution Comparison

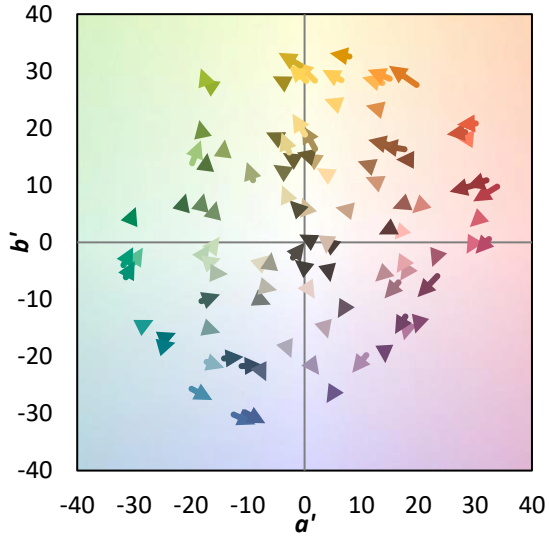


Color Vector Graphics









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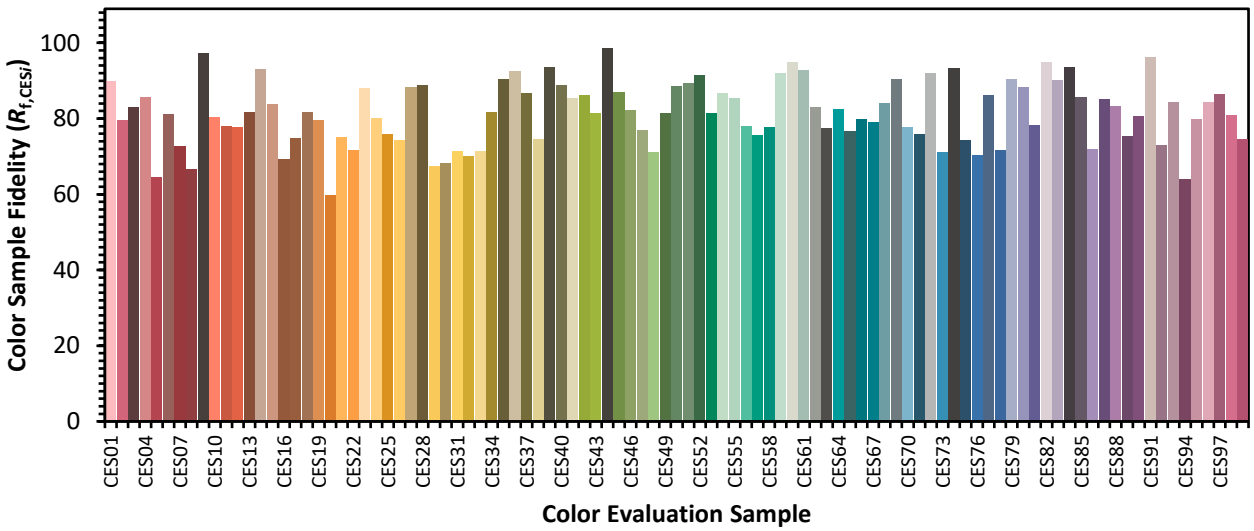
Individual Sample Fidelity Index ($R_{f,i}$)

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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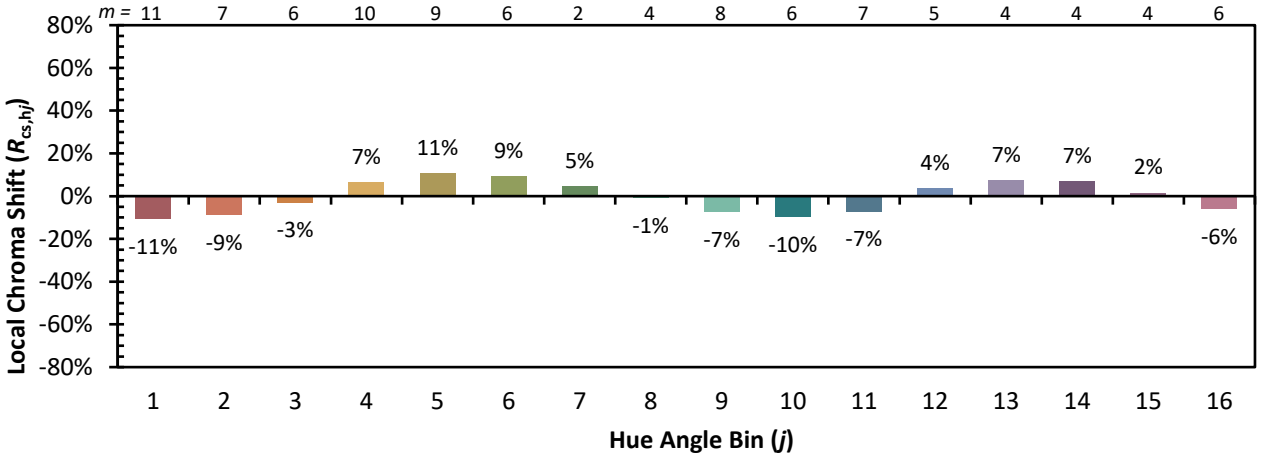
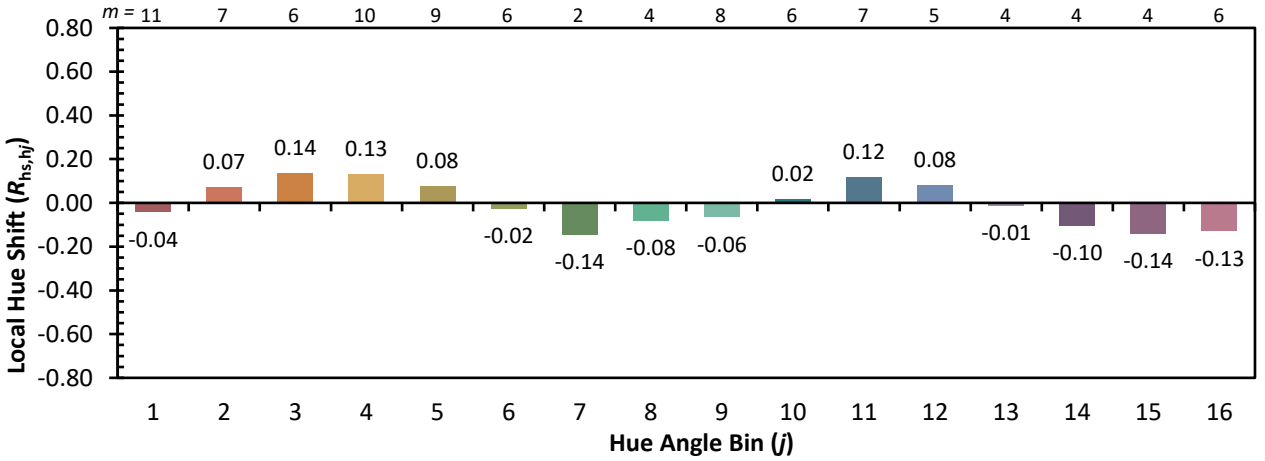
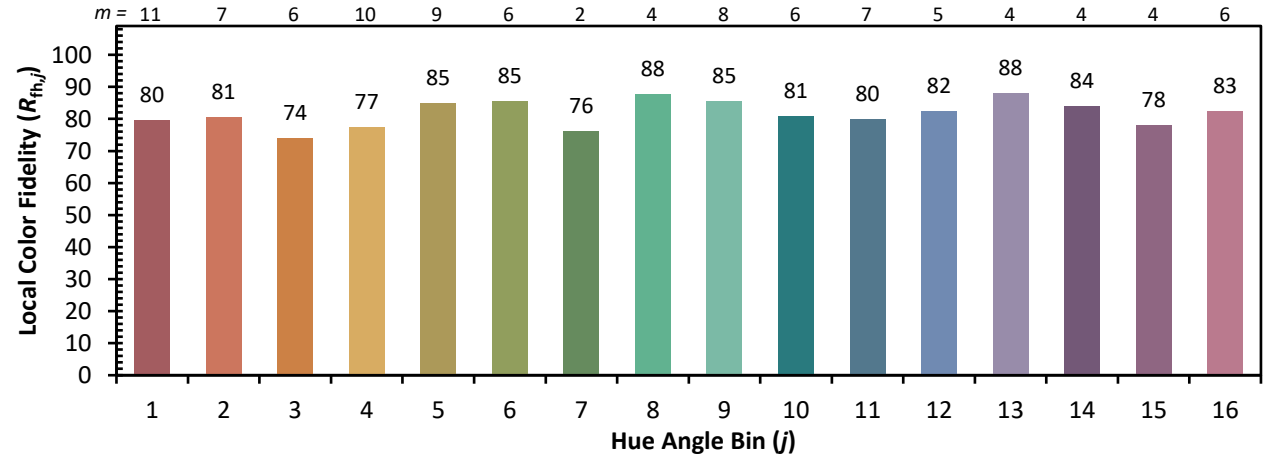
Color Rendition by Hue-Angle Bin







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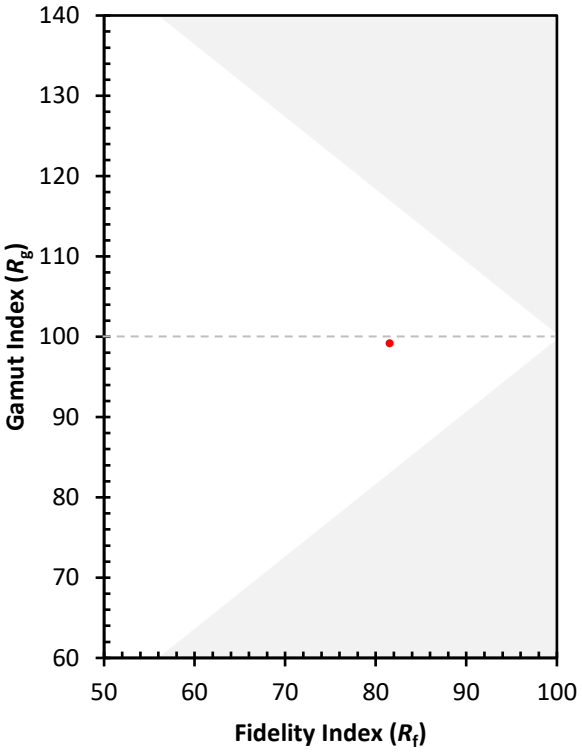
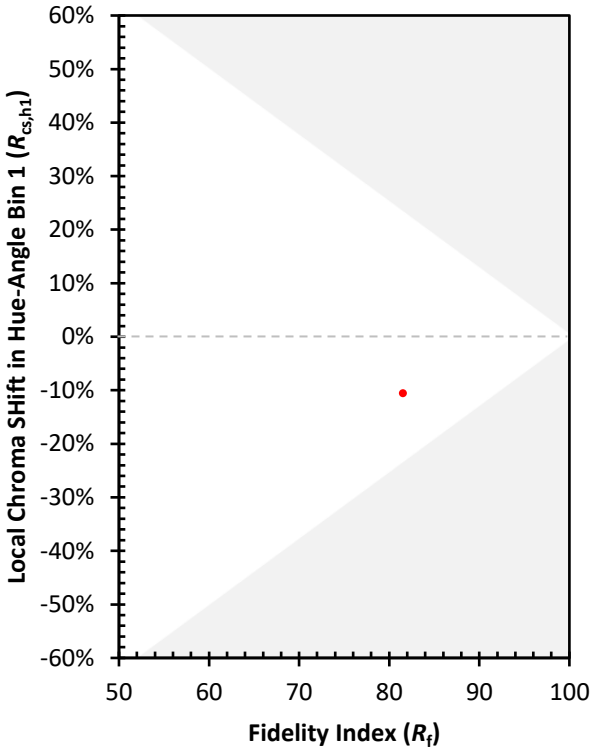
Measure Comparisons





(END OF REPORT)