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: P637503

Luminaire Tested: GWS-SA4C-830-U-T2R-W-GRSWH

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:	P637503
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-13)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4C-830-U-T2R-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	13571.5 lumens
Efficiency:	N/A
Efficacy:	105.6 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G2

Input Watts (W):	128.5
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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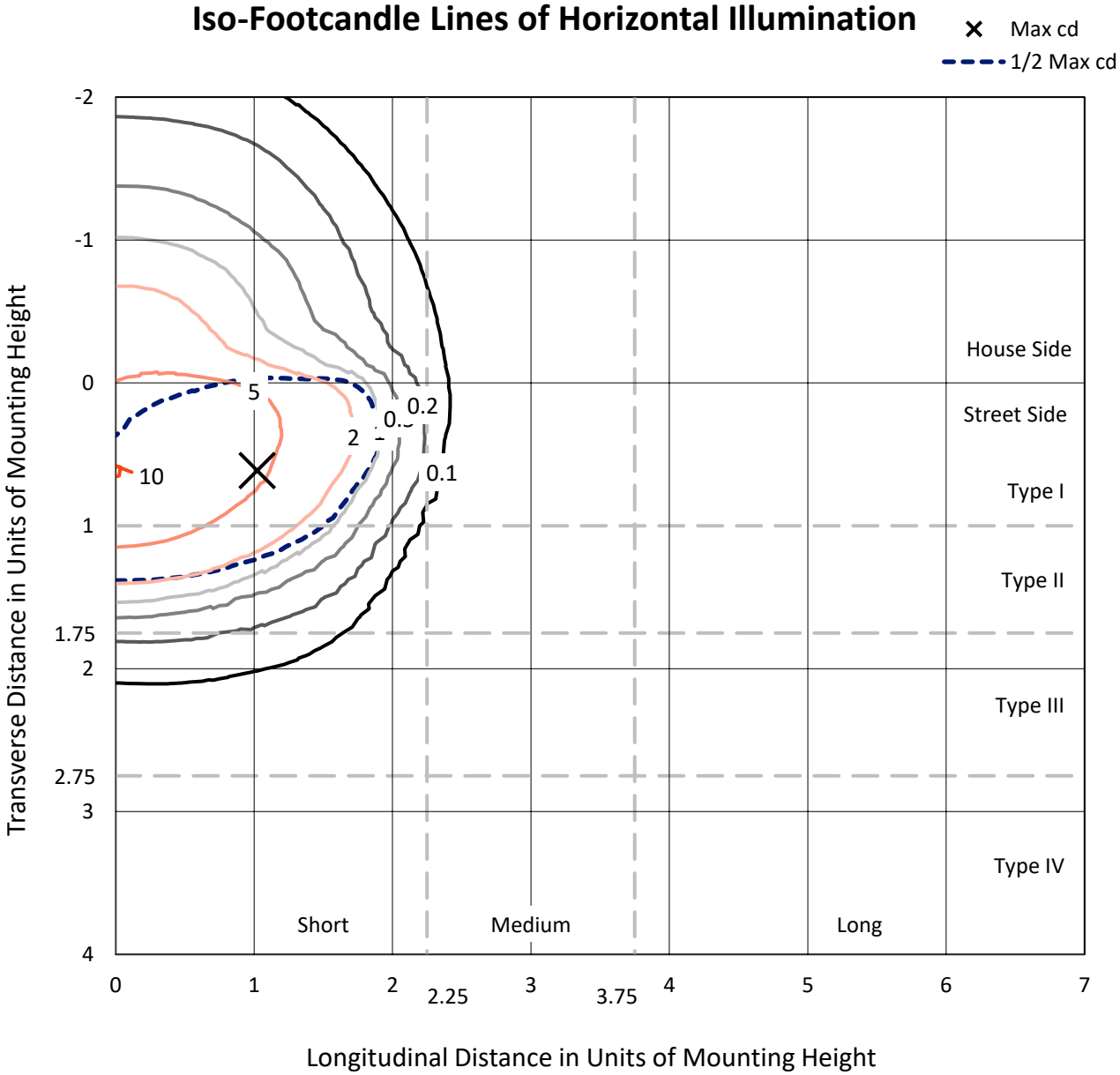
REPORT NUMBER: P637503
CATALOG NUMBER: GWS-SA4C-830-U-T2R-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 10.2 fc
Type II - Short - N/A

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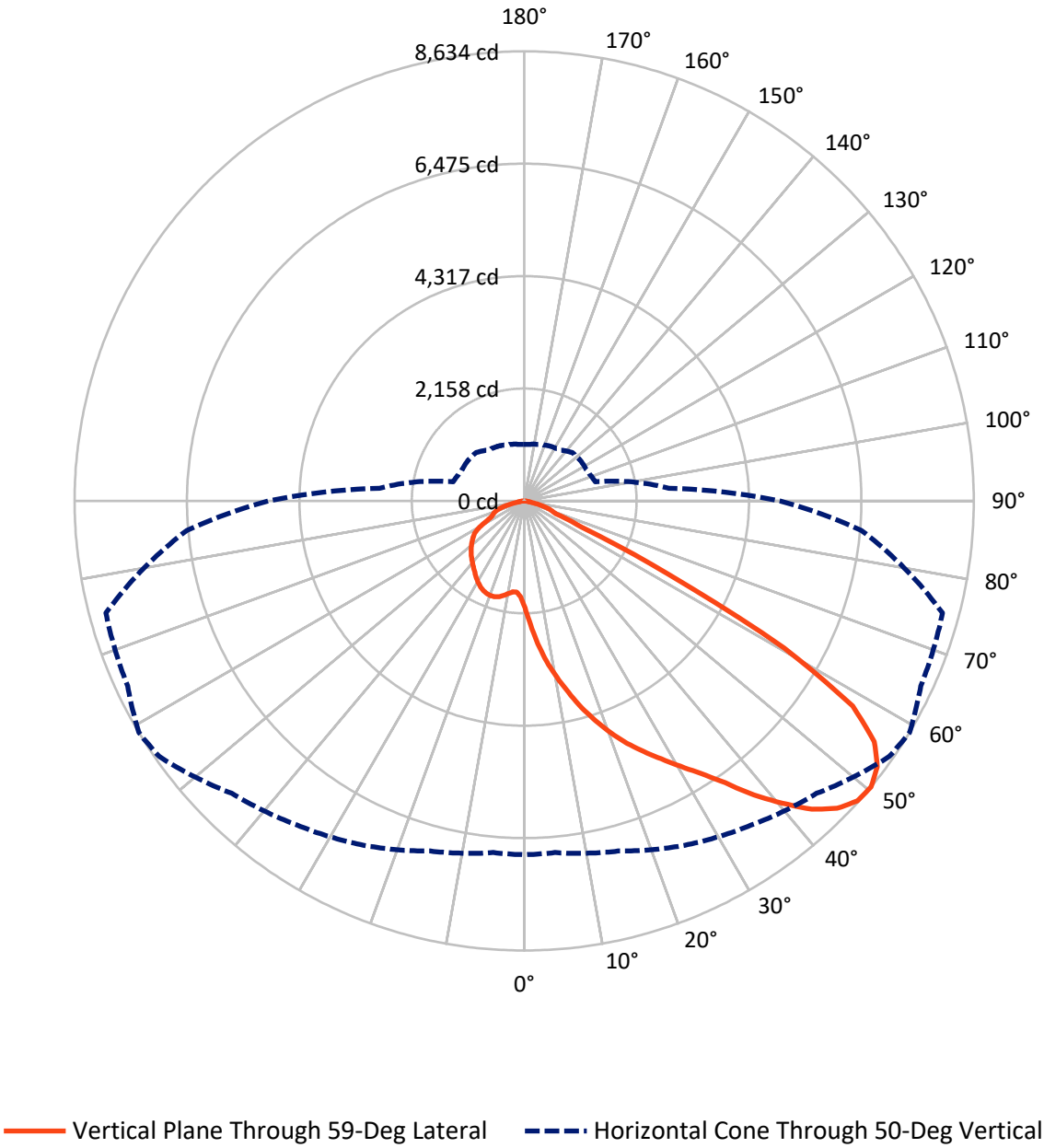
Luminous Intensity Polar Plot



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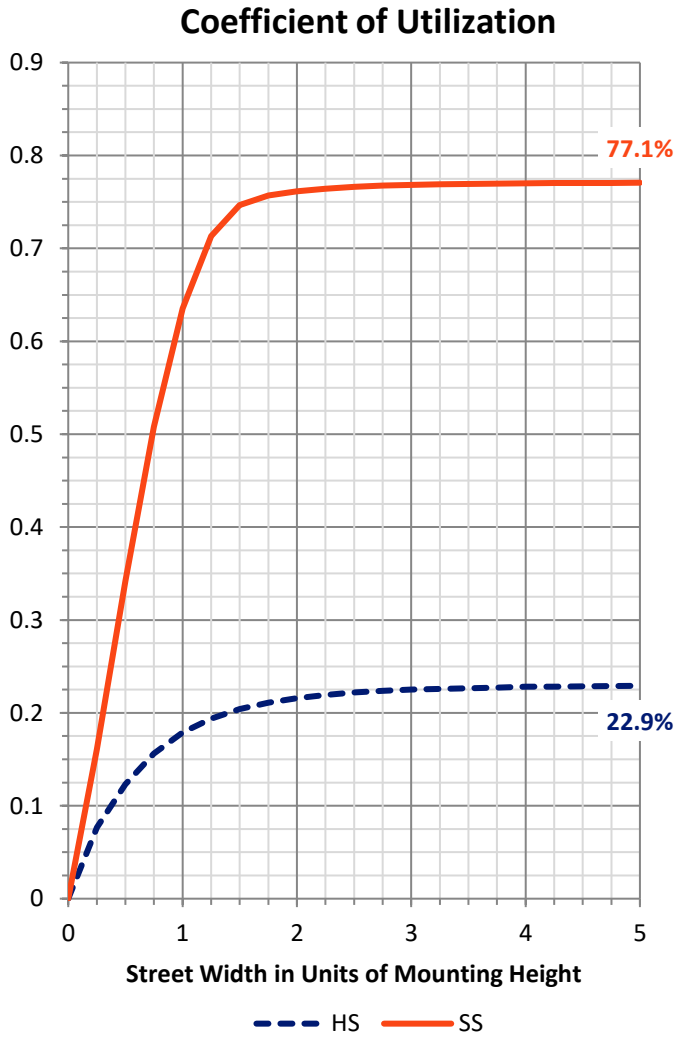
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3121.7	0.0	3121.7
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	10449.8	0.0	10449.8
	% Fixture	77.0	0.0	77.0
Total	Lumens	13571.5	0.0	13571.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.7	1.7
10°-20°	837.4	6.2
20°-30°	1585.6	11.7
30°-40°	2629.5	19.4
40°-50°	3592.0	26.5
50°-60°	3260.6	24.0
60°-70°	1085.8	8.0
70°-80°	316.7	2.3
80°-90°	33.3	0.2
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°	13571.5	100.0
0°-180°	13571.5	100.0



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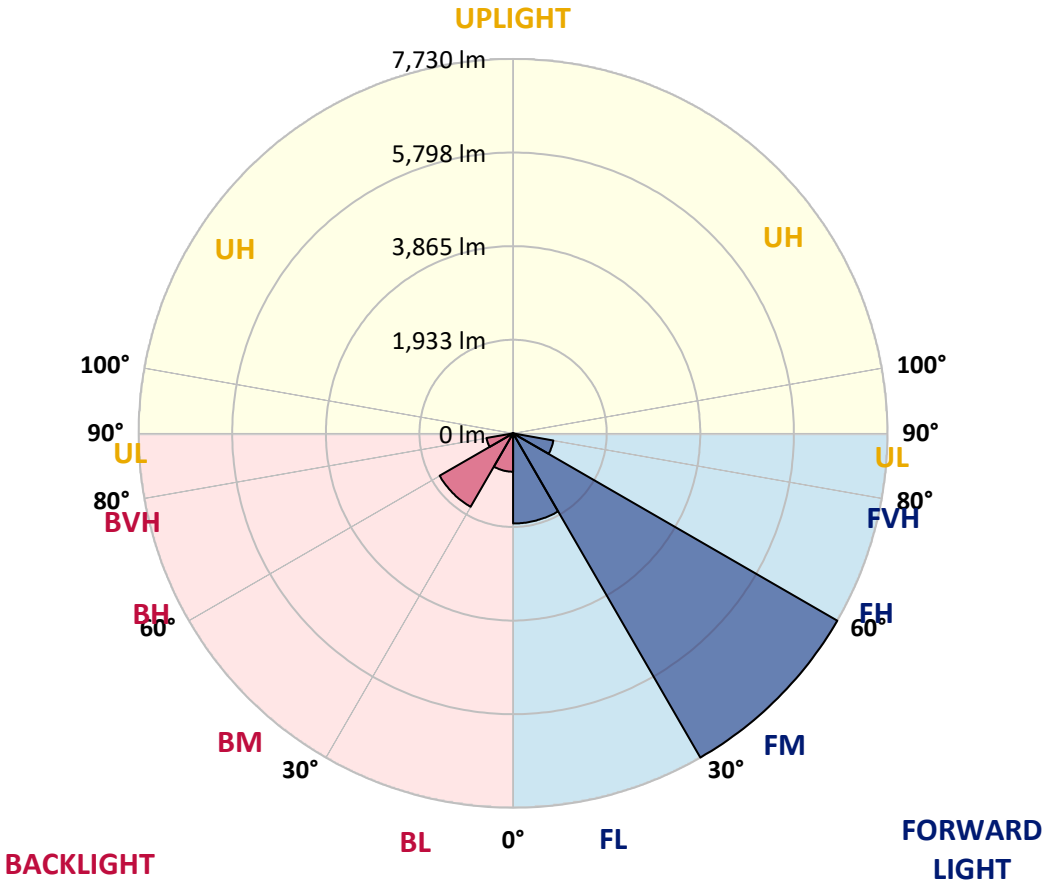
REPORT NUMBER: P637503
CATALOG NUMBER: GWS-SA4C-830-U-T2R-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1861.0	13.7			
FM	(30°-60°)	7730.5	57.0			
FH	(60°-80°)	845.3	6.2			G1/1800
FVH	(80°-90°)	13.0	0.1			G1/100
BL	(0°-30°)	792.7	5.8	B2/1000		
BM	(30°-60°)	1751.6	12.9	B2/2500		
BH	(60°-80°)	557.2	4.1	B2/1000		G2/1000
BVH	(80°-90°)	20.3	0.1			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 II Short



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REPORT NUMBER: P637503
CATALOG NUMBER: GWS-SA4C-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2
2.5°	2664.2	2684.1	2653.1	2655.3	2578.0	2542.6	2443.1	2384.5	2345.8	2237.5	2139.1
5°	3201.4	3178.2	3153.9	3139.5	3072.1	2977.0	2853.2	2754.8	2664.2	2451.9	2247.4
7.5°	3530.9	3518.7	3502.1	3493.3	3427.0	3327.5	3203.7	3119.6	2988.1	2700.7	2379.0
10°	3810.6	3796.2	3786.2	3792.9	3738.7	3674.6	3539.7	3443.5	3295.4	2963.8	2538.2
12.5°	4027.2	4035.0	4038.3	4073.7	4050.5	4011.8	3872.5	3770.8	3606.1	3241.2	2725.0
15°	4198.6	4196.4	4235.1	4302.5	4340.1	4315.8	4204.1	4119.0	3917.8	3514.3	2926.2
17.5°	4238.4	4240.6	4301.4	4419.7	4542.4	4602.1	4539.1	4437.4	4238.4	3784.0	3135.1
20°	4270.4	4274.9	4337.9	4472.7	4651.8	4818.8	4828.7	4755.7	4584.4	4075.9	3347.4
22.5°	4472.7	4482.7	4499.3	4584.4	4745.8	4956.9	5073.0	5057.5	4913.8	4382.1	3576.2
25°	5004.5	4974.6	4893.9	4869.6	4931.5	5102.9	5300.7	5330.6	5259.8	4719.3	3822.7
27.5°	5661.1	5629.1	5509.7	5383.6	5249.9	5309.6	5520.7	5610.3	5611.4	5090.7	4070.3
30°	6257.0	6231.5	6134.3	5954.1	5723.0	5636.8	5792.7	5913.2	5985.0	5519.6	4352.2
32.5°	6766.6	6743.4	6611.8	6464.8	6239.3	6065.7	6122.1	6238.2	6406.2	6074.6	4702.7
35°	7195.5	7172.3	7046.3	6898.1	6689.2	6585.3	6565.4	6645.0	6862.8	6653.8	5105.1
37.5°	7543.7	7520.5	7389.0	7249.7	7090.5	7097.1	7127.0	7165.7	7290.6	7274.0	5535.1
40°	7769.3	7744.9	7651.0	7551.5	7450.9	7530.5	7678.6	7632.2	7698.5	7774.8	5930.9
42.5°	7869.9	7838.9	7784.7	7762.6	7731.7	7855.5	8140.7	8094.3	8014.7	8108.6	6224.9
45°	7769.3	7742.7	7741.6	7809.1	7880.9	8040.1	8460.2	8422.6	8221.4	8270.0	6400.7
47.5°	7460.8	7437.6	7500.6	7677.5	7854.4	8086.5	8602.8	8609.4	8368.4	8337.5	6514.5
50°	6794.2	6778.8	6961.2	7296.1	7601.2	7941.7	8557.5	8633.7	8403.8	8316.5	6500.2
52.5°	5438.9	5510.8	5907.6	6467.0	7059.5	7687.5	8389.4	8488.9	8233.6	8178.3	6422.8
55°	3723.2	3756.4	4153.3	4970.2	5909.9	7136.9	8003.6	8157.3	8032.4	8155.1	6503.5
57.5°	1927.9	1954.5	2267.3	2992.5	4008.4	5640.1	6932.4	7436.5	7626.7	8272.2	6754.4
60°	791.5	813.6	943.0	1293.4	2021.9	3284.4	4989.0	5736.3	6182.9	7554.8	5998.3
62.5°	574.8	585.9	647.8	771.6	1059.0	1609.6	2823.4	3098.6	3412.6	4734.7	3808.4
65°	484.2	496.4	546.1	621.3	772.7	987.2	1206.1	1212.7	1336.5	1929.0	1411.7
67.5°	405.7	416.8	461.0	525.1	624.6	700.9	647.8	648.9	646.7	699.8	676.5
70°	316.2	325.0	369.2	437.8	489.7	449.9	506.3	560.5	537.3	558.3	590.3
72.5°	231.0	241.0	279.7	331.6	318.4	320.6	410.1	465.4	452.1	475.4	505.2
75°	166.9	173.6	193.5	165.8	174.7	211.1	288.5	318.4	331.6	351.5	378.1
77.5°	54.2	54.2	60.8	76.3	95.1	117.2	147.0	159.2	179.1	201.2	220.0
80°	27.6	28.7	34.3	42.0	53.1	67.4	86.2	91.8	101.7	113.9	121.6
82.5°	13.3	14.4	16.6	21.0	27.6	35.4	47.5	53.1	59.7	67.4	73.0
85°	3.3	3.3	4.4	6.6	8.8	13.3	17.7	21.0	26.5	32.1	35.4
87.5°	0.0	0.0	0.0	0.0	0.0	1.1	3.3	4.4	5.5	6.6	8.8
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: P637503
CATALOG NUMBER: GWS-SA4C-830-U-T2R-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2	2056.2
2.5°	2094.9	2033.0	1953.4	1885.9	1824.0	1776.5	1735.6	1715.7	1696.9	1683.6	1688.1
5°	2152.4	2046.2	1898.1	1795.3	1732.3	1700.2	1678.1	1667.1	1664.8	1656.0	1652.7
7.5°	2236.4	2084.9	1887.0	1783.1	1741.1	1724.5	1712.4	1705.7	1709.1	1700.2	1696.9
10°	2340.3	2149.0	1914.7	1822.9	1786.4	1774.3	1761.0	1752.2	1747.8	1734.5	1732.3
12.5°	2469.6	2228.6	1964.4	1873.8	1837.3	1816.3	1798.6	1783.1	1773.2	1756.6	1752.2
15°	2608.9	2317.1	2023.0	1923.5	1880.4	1849.5	1820.7	1797.5	1779.8	1757.7	1754.4
17.5°	2760.4	2409.9	2071.7	1957.8	1902.5	1861.6	1819.6	1785.3	1761.0	1732.3	1729.0
20°	2918.4	2503.9	2108.1	1974.4	1903.6	1848.3	1792.0	1746.6	1715.7	1687.0	1684.7
22.5°	3082.1	2590.1	2130.2	1970.0	1885.9	1817.4	1750.0	1699.1	1662.6	1628.4	1626.1
25°	3246.8	2673.0	2135.8	1952.3	1850.6	1771.0	1703.5	1643.8	1602.9	1564.2	1559.8
27.5°	3413.7	2742.7	2122.5	1916.9	1803.0	1716.8	1649.4	1590.8	1548.8	1510.1	1503.4
30°	3591.7	2802.4	2093.8	1870.5	1747.8	1659.3	1593.0	1548.8	1509.0	1470.3	1463.6
32.5°	3781.8	2854.3	2052.9	1814.1	1683.6	1601.8	1553.2	1513.4	1473.6	1439.3	1432.7
35°	4008.4	2888.6	1992.1	1741.1	1623.9	1559.8	1526.7	1480.2	1431.6	1394.0	1390.7
37.5°	4242.8	2915.1	1919.1	1671.5	1572.0	1535.5	1507.9	1444.9	1384.1	1338.7	1333.2
40°	4469.4	2937.2	1828.5	1606.3	1524.4	1517.8	1480.2	1401.7	1296.7	1245.9	1241.4
42.5°	4680.6	2943.9	1733.4	1536.6	1481.3	1478.0	1436.0	1314.4	1233.7	1201.6	1197.2
45°	4825.4	2938.3	1635.0	1471.4	1438.2	1420.5	1376.3	1251.4	1201.6	1172.9	1167.4
47.5°	4932.6	2909.6	1524.4	1402.8	1389.6	1365.3	1270.2	1211.6	1165.2	1136.4	1130.9
50°	*4913.8*	*2790.2*	*1412.8*	*1336.5*	*1331.0*	*1310.0*	*1192.8*	*1161.9*	*1120.9*	*1090.0*	*1085.6*
52.5°	4816.5	2563.6	1298.9	1263.6	1274.6	1233.7	1137.5	1102.2	1066.8	1031.4	1023.7
55°	4840.9	2400.0	1212.7	1192.8	1212.7	1119.8	1075.6	1038.0	1004.9	970.6	964.0
57.5°	4947.0	2238.6	1120.9	1116.5	1137.5	1032.5	996.0	948.5	901.0	873.3	873.3
60°	4154.4	1631.7	959.5	970.6	1018.1	961.8	929.7	881.1	829.1	804.8	804.8
62.5°	2456.4	1023.7	795.9	783.8	813.6	849.0	866.7	826.9	765.0	732.9	734.0
65°	1082.3	745.1	702.0	692.0	683.2	707.5	756.1	759.5	694.2	656.7	657.8
67.5°	666.6	674.3	656.7	648.9	641.2	636.8	632.3	634.5	616.9	582.6	581.5
70°	601.4	622.4	610.2	603.6	593.6	585.9	559.4	516.3	486.4	477.6	487.5
72.5°	517.4	546.1	539.5	536.2	524.0	505.2	469.8	427.8	392.4	370.3	374.8
75°	390.2	413.4	416.8	417.9	404.6	386.9	350.4	315.1	284.1	260.9	266.4
77.5°	224.4	237.7	241.0	244.3	234.4	227.7	203.4	178.0	161.4	137.1	143.7
80°	124.9	130.4	130.4	131.6	126.0	118.3	101.7	87.3	79.6	68.5	69.6
82.5°	75.2	77.4	78.5	79.6	76.3	68.5	56.4	46.4	42.0	36.5	35.4
85°	36.5	38.7	38.7	39.8	34.3	29.8	23.2	17.7	15.5	11.1	12.2
87.5°	8.8	9.9	9.9	8.8	7.7	5.5	3.3	1.1	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

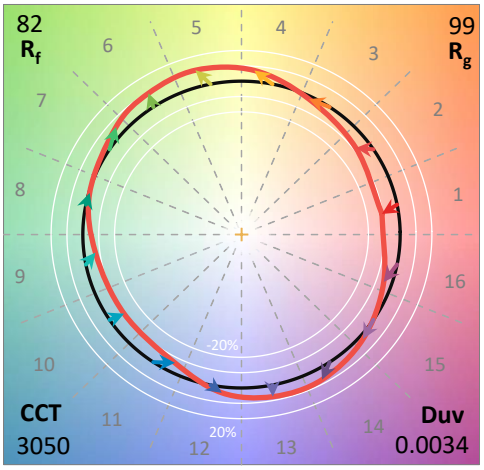
Test Information

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

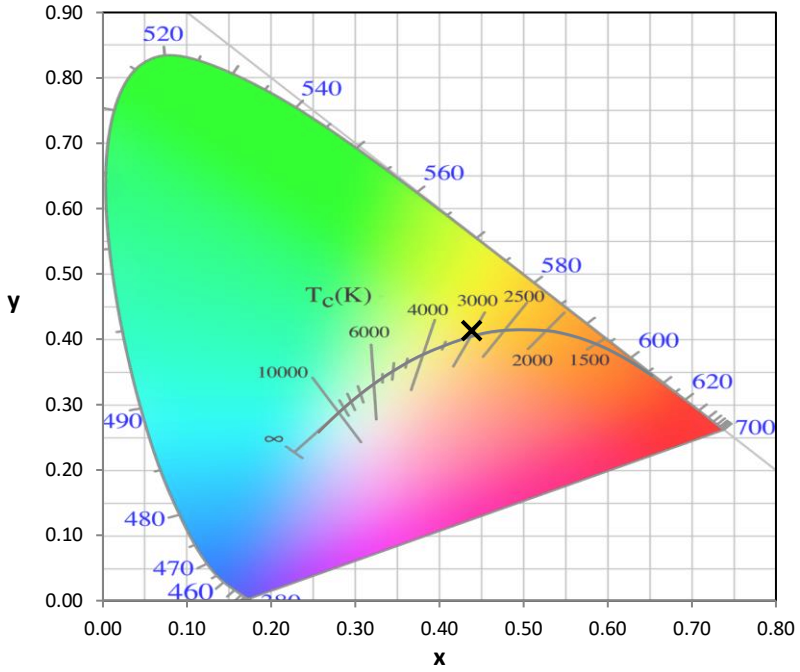
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

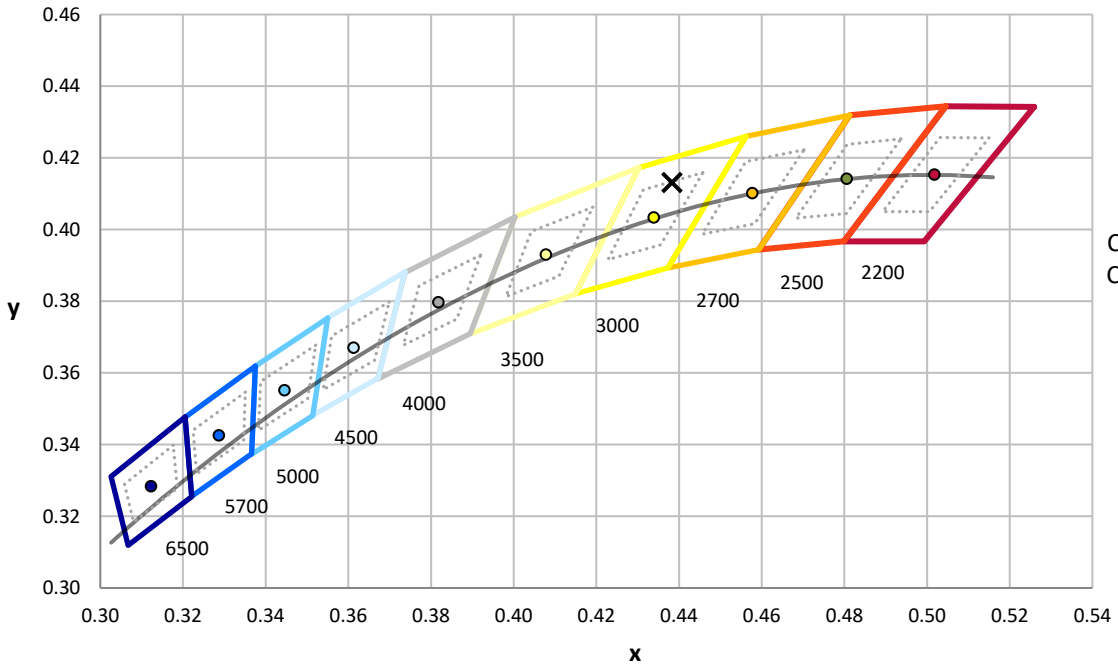
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

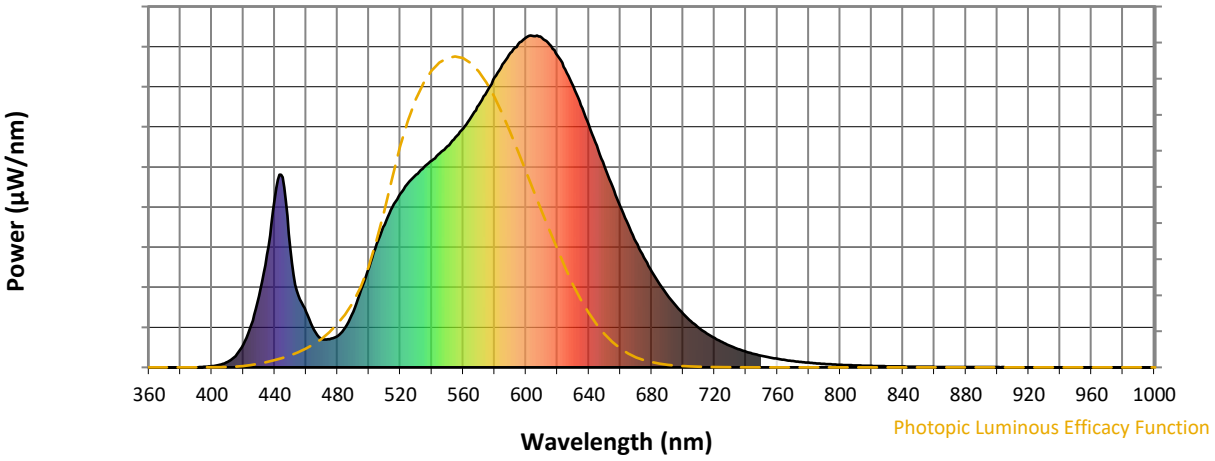


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

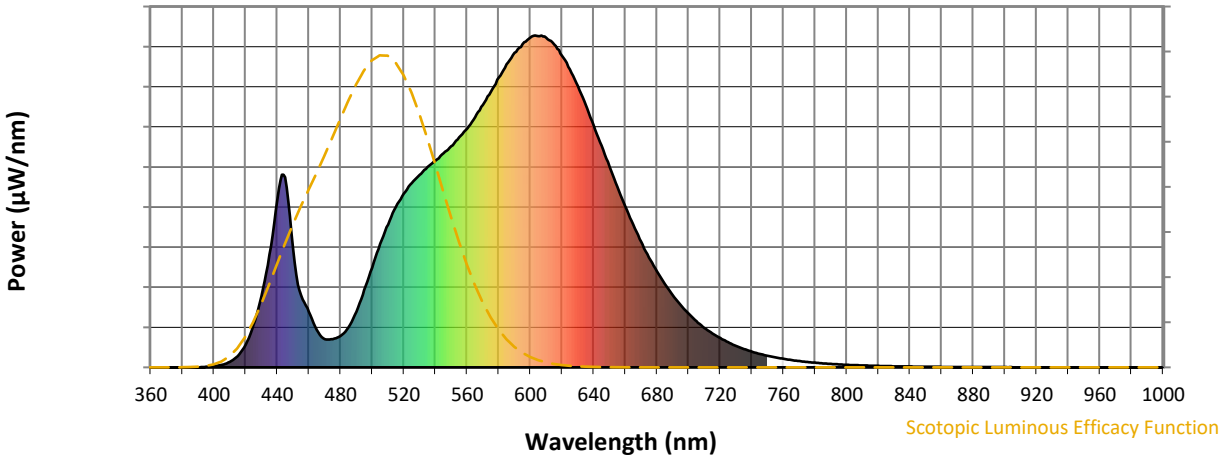


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

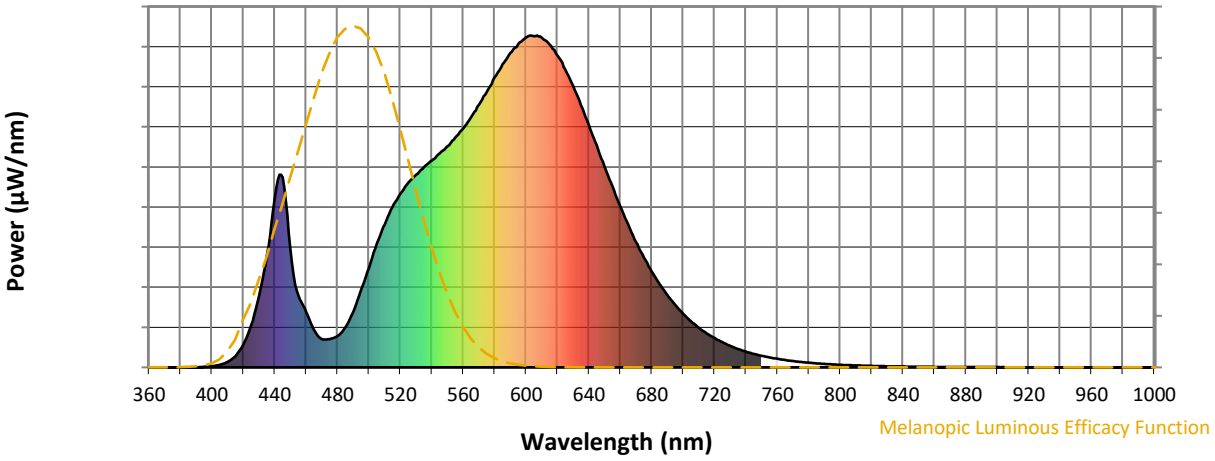


Scotopic Lumens: NR **S/P: 1.27**

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			

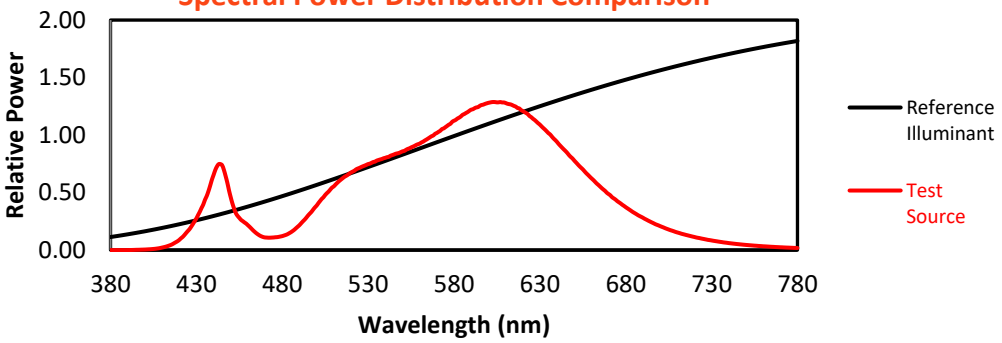
REPORT NUMBER: SP1-2408-195-9

TM-30-18

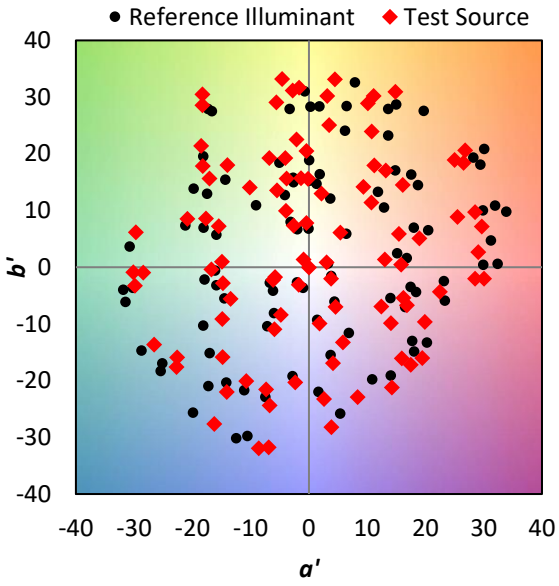
Summary

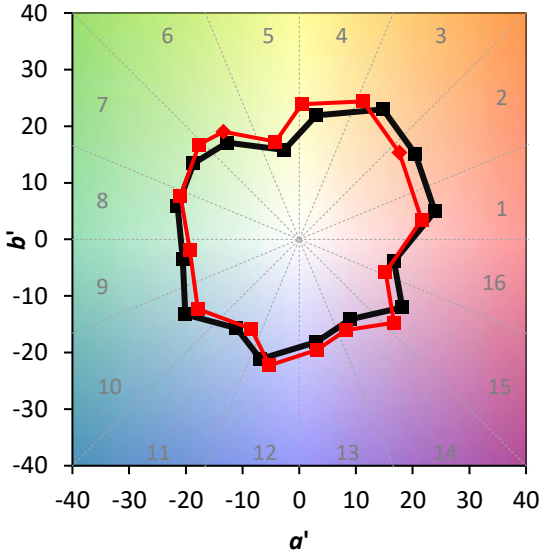
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

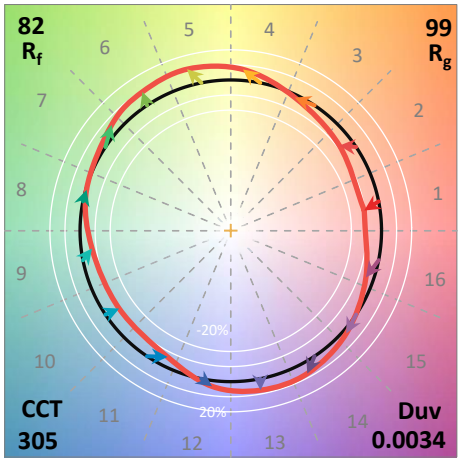
Spectral Power Distribution Comparison

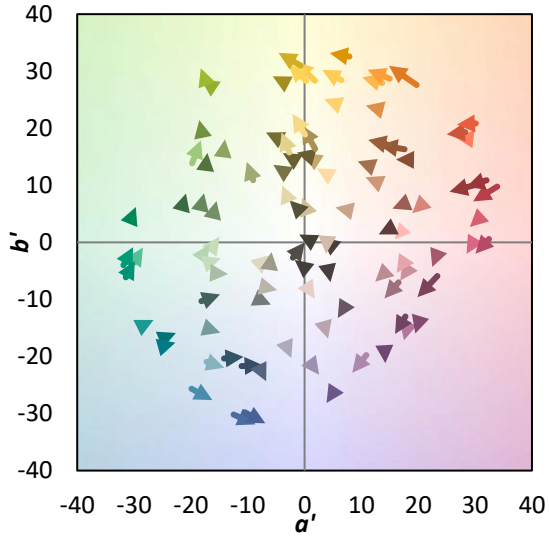


Color Vector Graphics







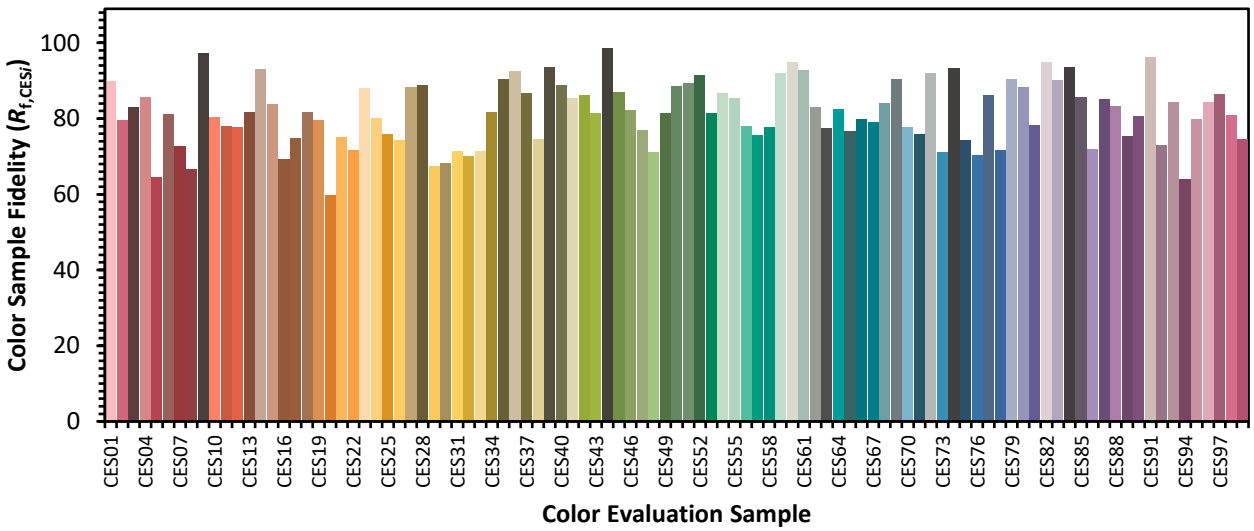


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

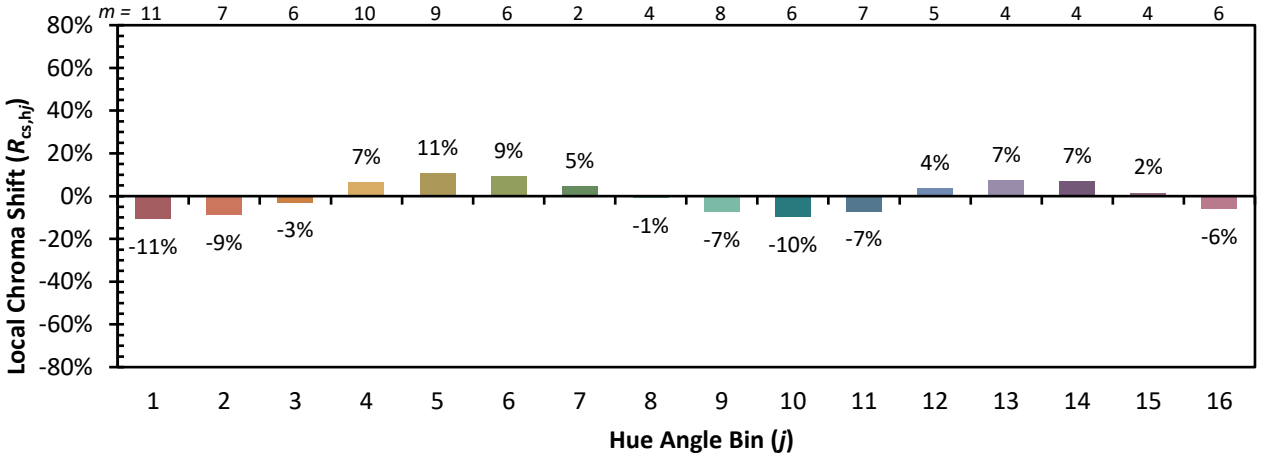
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

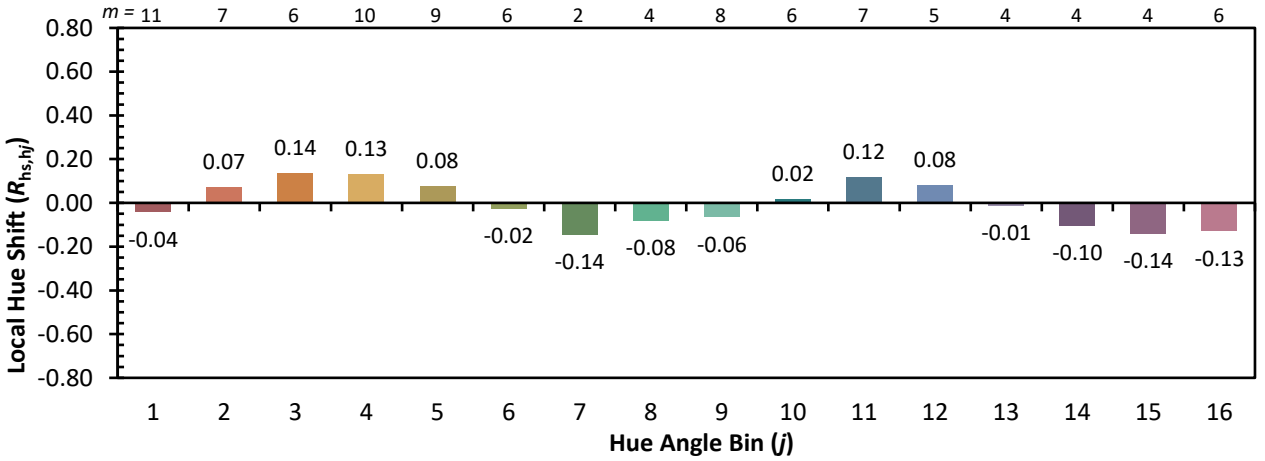


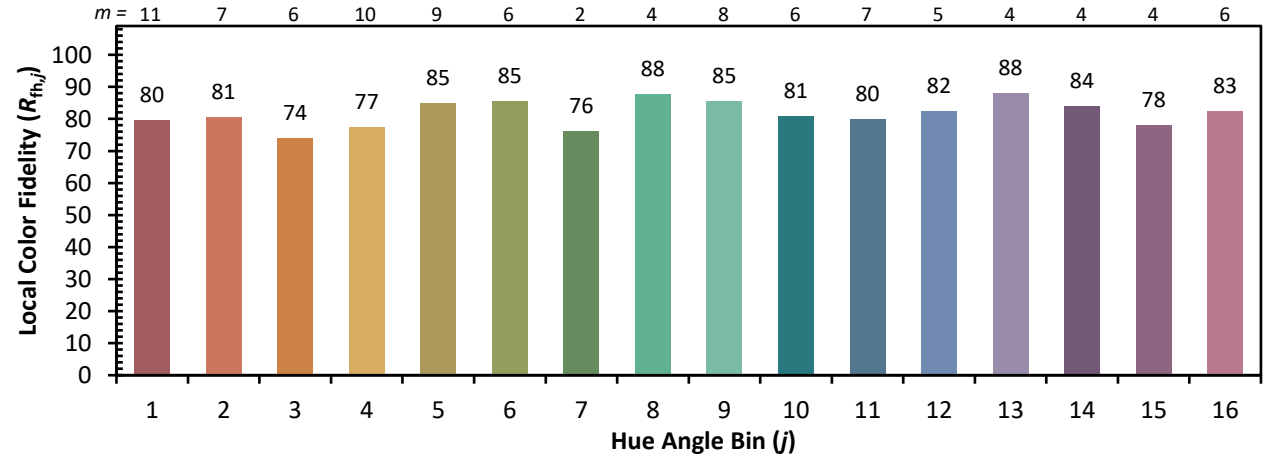
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



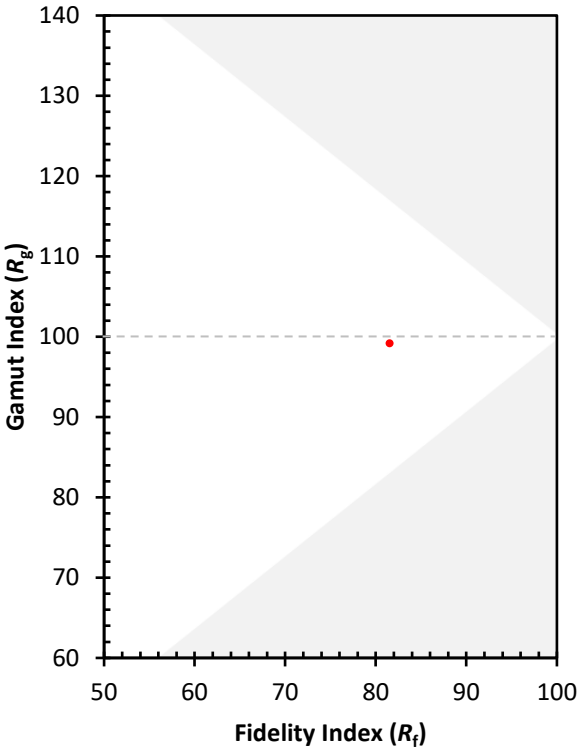


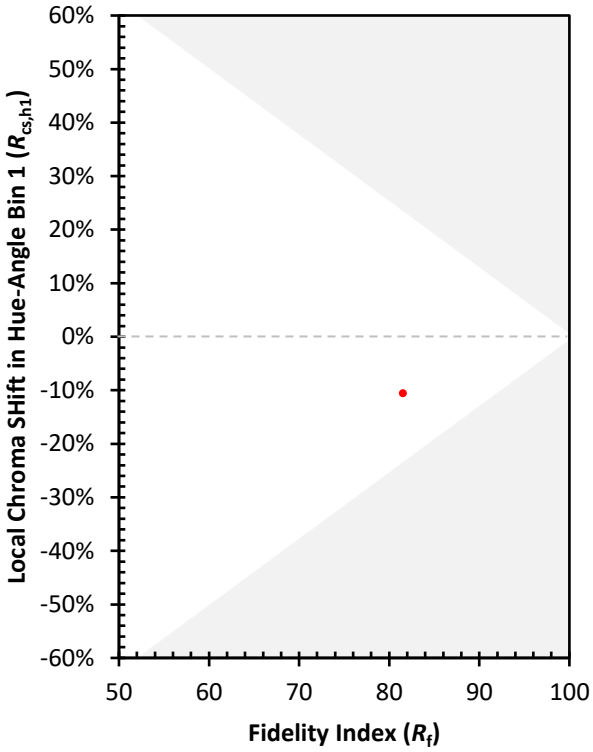


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





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