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: P640938

Luminaire Tested: GWS-SA5E-830-U-AFL-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:	P640938
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5E-830-U-AFL-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	27054.4 lumens
Efficiency:	N/A
Efficacy:	100.4 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G2

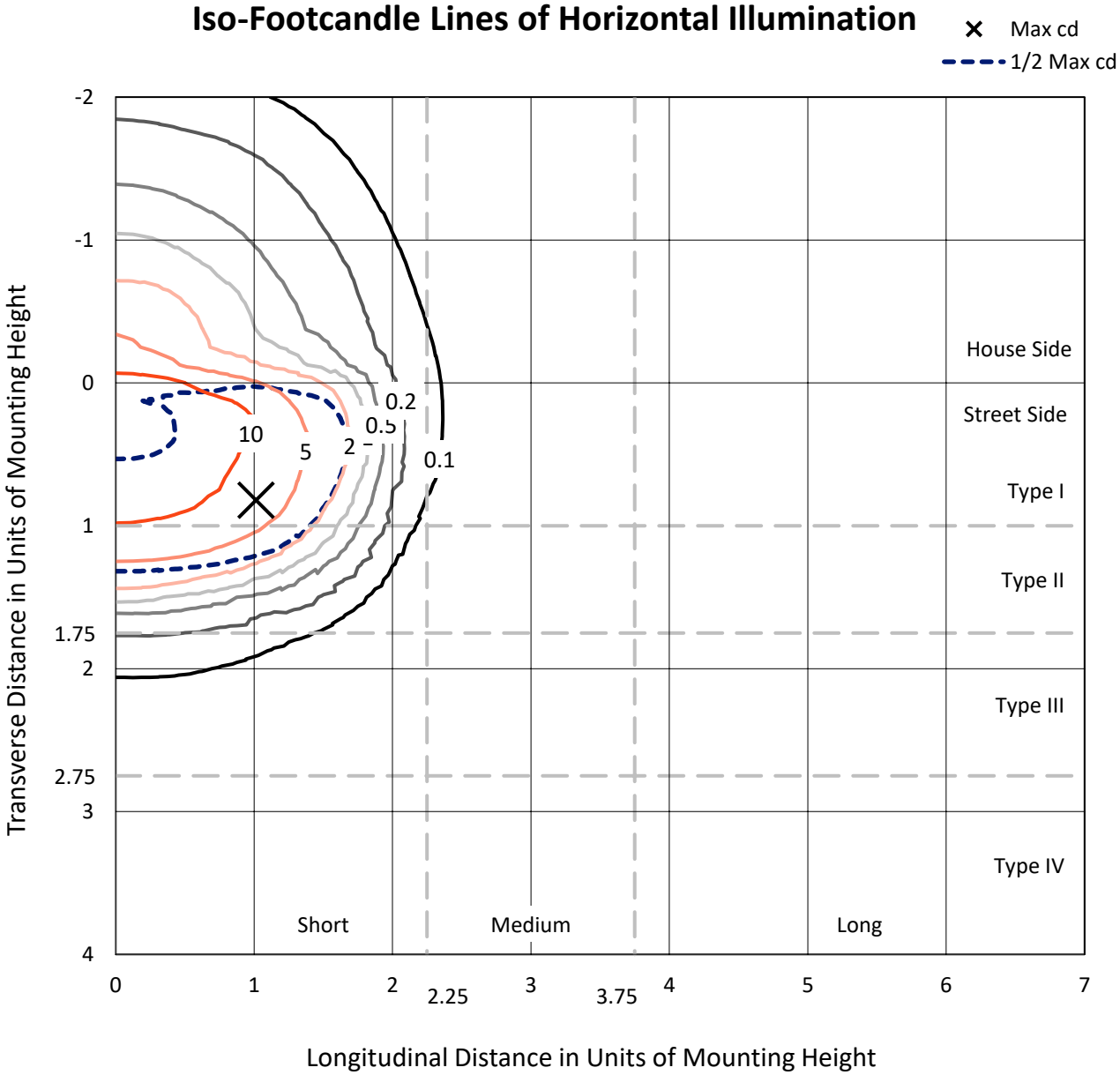
Input Watts (W):	269.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



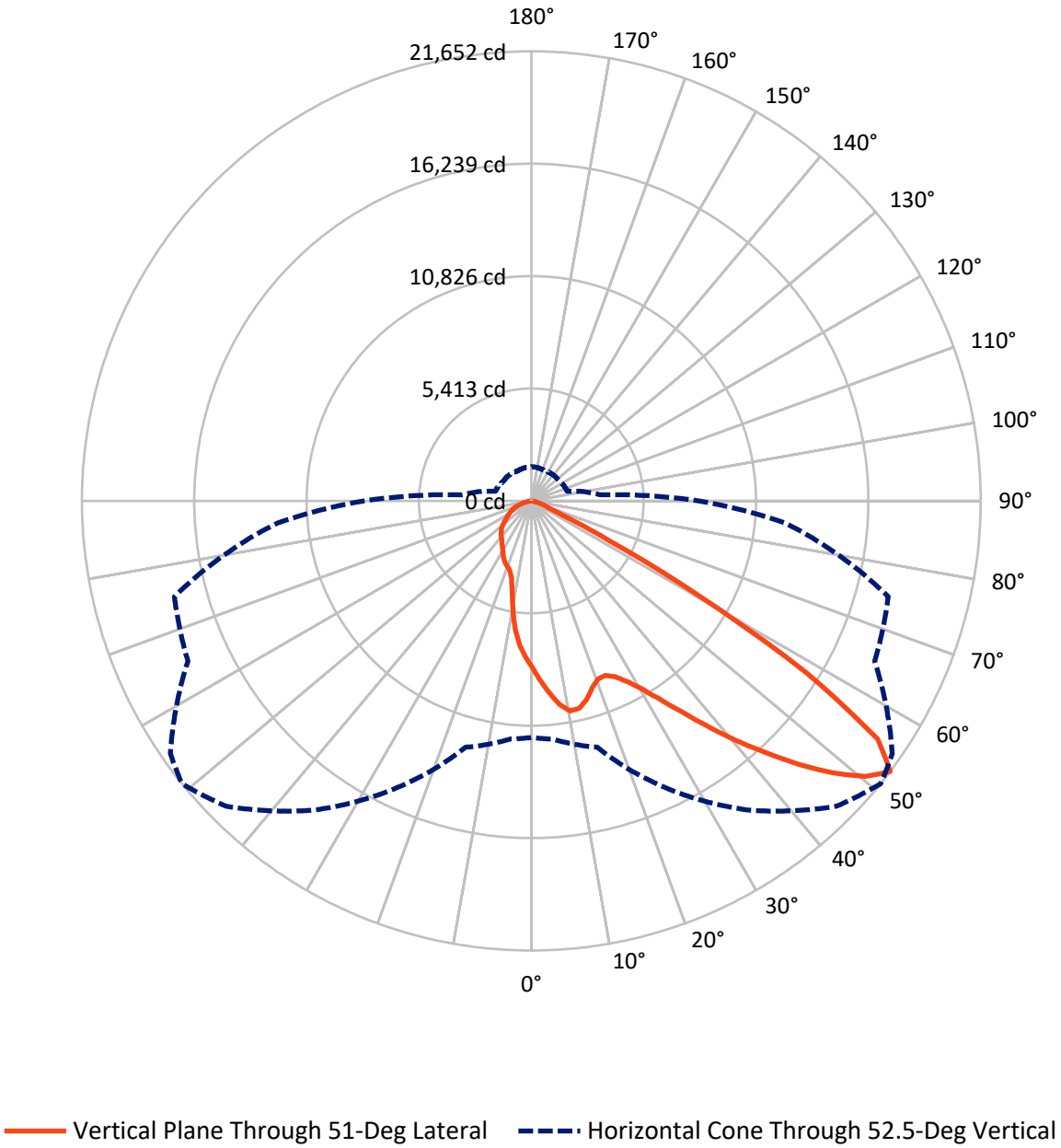
Based on 25 foot mounting height. Maximum calculated value = 15.7 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

Luminous Intensity Polar Plot



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

Scaled Data Report

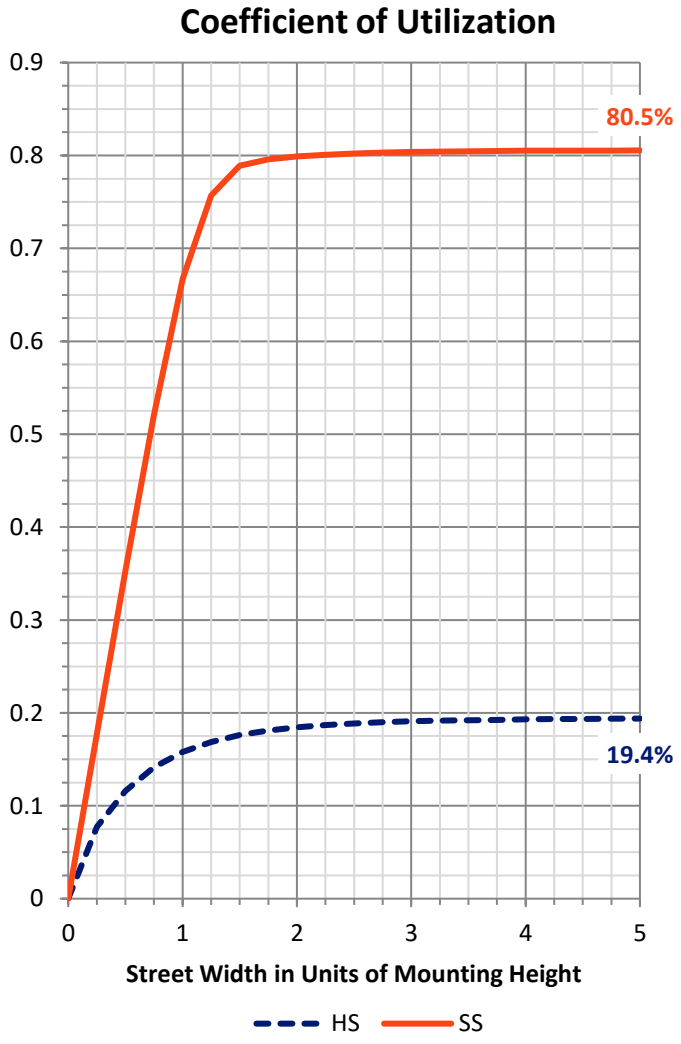
REPORT NUMBER: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5271.3	0.0	5271.3
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	21783.1	0.0	21783.1
	% Fixture	80.5	0.0	80.5
Total	Lumens	27054.4	0.0	27054.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	751.7	2.8
10°-20°	1953.2	7.2
20°-30°	3175.7	11.7
30°-40°	5032.8	18.6
40°-50°	7590.5	28.1
50°-60°	6566.4	24.3
60°-70°	1488.7	5.5
70°-80°	438.9	1.6
80°-90°	56.5	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°	27054.4	100.0
0°-180°	27054.4	100.0



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

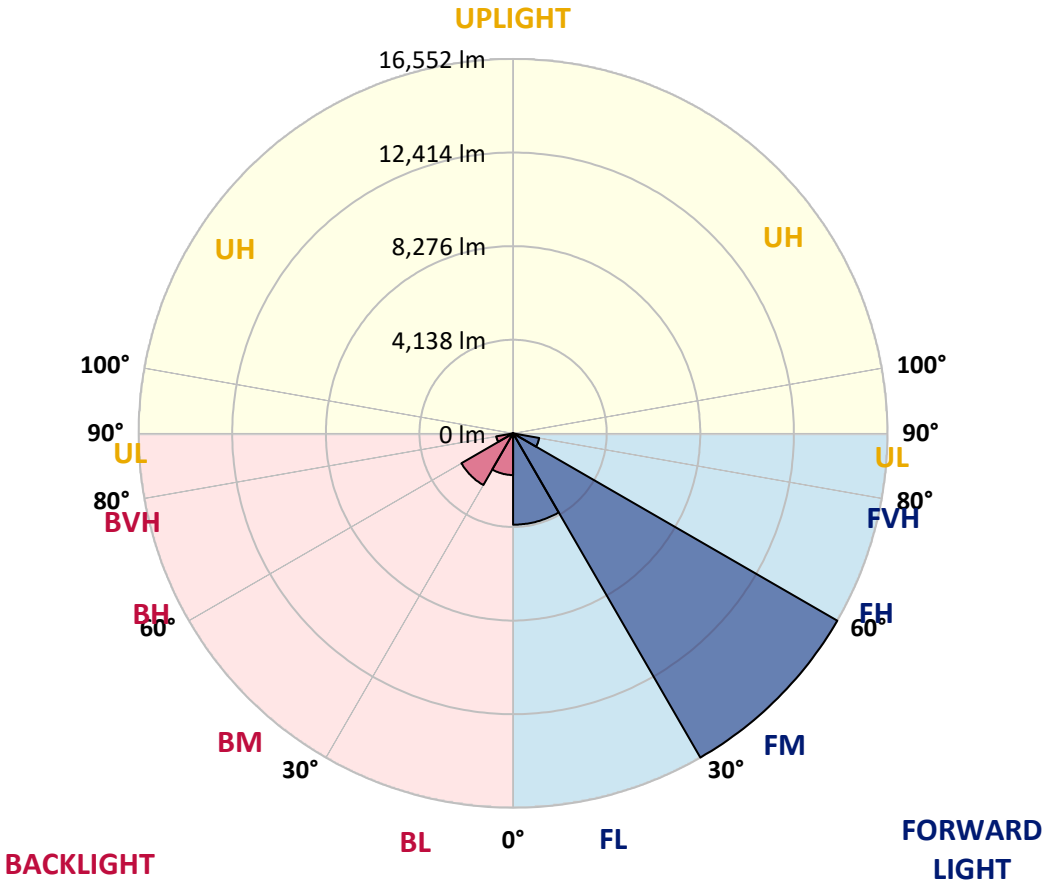
Scaled Data Report

REPORT NUMBER: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	4037.9	14.9			
FM	(30°-60°)	16552.3	61.2			
FH	(60°-80°)	1171.6	4.3			G1/1800
FVH	(80°-90°)	21.3	0.1			G1/100
BL	(0°-30°)	1842.6	6.8	B3/2500		
BM	(30°-60°)	2637.4	9.7	B3/5000		
BH	(60°-80°)	756.0	2.8	B2/1000		G2/1000
BVH	(80°-90°)	35.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type II Short



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

Scaled Data Report

REPORT NUMBER: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	51°	55°	65°	75°	85°
0°	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	*8055.4*	8055.4	8055.4	8055.4	8055.4
2.5°	8976.9	9028.2	8949.1	8919.1	8870.0	8784.5	*8686.1*	8658.3	8446.7	8307.7	8151.6
5°	9879.0	9906.8	9842.7	9778.6	9656.7	9504.9	*9314.6*	9274.0	8889.2	8570.7	8239.3
7.5°	10080.0	10069.3	10124.9	10161.2	10146.3	10086.4	*9917.5*	9838.4	9378.8	8874.2	8384.7
10°	9284.7	9224.9	9430.1	9673.8	9966.7	10304.5	*10285.2*	10278.8	9879.0	9282.6	8570.7
12.5°	8230.7	8200.8	8367.6	8673.3	9227.0	9975.2	*10255.3*	10473.4	10330.1	9671.7	8778.0
15°	7627.9	7617.2	7730.5	7950.7	8391.1	9336.0	*9934.6*	10366.5	10717.1	10088.5	8998.2
17.5°	7518.8	7525.3	7563.7	7689.9	8006.3	8784.5	*9477.1*	10080.0	11018.5	10546.0	9274.0
20°	7837.4	7880.1	7813.9	7833.1	8004.1	8585.6	*9165.0*	9791.4	11210.9	11005.7	9571.2
22.5°	8545.0	8530.0	8384.7	8299.2	8301.3	8707.5	*9130.8*	9656.7	11337.1	11452.5	9840.6
25°	9346.7	9329.6	9156.4	8966.2	8846.5	9038.9	*9376.6*	9799.9	11450.4	11860.8	10056.5
27.5°	10293.8	10240.3	10047.9	9804.2	9539.1	9622.5	*9851.2*	10186.9	11625.7	12262.7	10199.7
30°	11210.9	11272.9	10997.1	10708.5	10428.5	10377.2	*10509.7*	10813.3	11982.7	12733.1	10370.7
32.5°	12427.4	12406.0	12100.3	11724.0	11324.2	11285.7	*11390.5*	11668.4	12624.0	13383.0	10631.6
35°	13900.3	13904.6	13470.6	12961.8	12393.2	12290.5	*12465.8*	12735.2	13579.7	14263.8	11044.2
37.5°	15431.1	15424.6	15046.2	14469.0	13693.0	13547.6	*13748.6*	13949.5	14774.7	15463.1	11685.5
40°	16504.3	16547.0	16369.6	16066.0	15330.6	14975.7	*15153.1*	15292.1	16074.5	16874.1	12530.0
42.5°	17113.5	17177.7	17216.2	17397.9	17010.9	16632.5	*16568.4*	16641.1	17235.4	18184.6	13323.1
45°	17244.0	17329.5	17609.5	18283.0	18432.6	18325.7	*18116.2*	17940.9	18101.2	19114.6	13842.6
47.5°	16668.9	16818.5	17417.1	18595.1	19469.5	19805.1	*19572.1*	19304.8	18601.5	19354.0	13789.2
50°	14389.9	14565.2	15914.2	17958.0	19617.0	20839.8	*20861.2*	20465.7	18541.6	18663.5	13117.9
52.5°	*11392.6*	*11512.4*	*12284.1*	*15223.7*	*18169.6*	*20797.1*	*21652.2*	*21228.9*	*18253.0*	*17799.8*	*12277.7*
55°	6809.1	7001.5	7721.9	10043.7	14154.8	18432.6	*20254.1*	20459.3	18111.9	17075.1	11704.8
57.5°	2298.2	2392.3	3080.7	4436.1	8341.9	13496.3	*15649.1*	16482.9	16442.3	15967.7	10586.7
60°	1094.6	1116.0	1254.9	1682.5	3339.3	7052.8	*9263.3*	10225.4	11101.9	11189.5	6586.7
62.5°	833.8	846.6	917.1	1009.1	1342.6	2971.6	*4245.8*	4981.2	5321.1	4566.5	2398.7
65°	696.9	707.6	761.1	818.8	912.9	1287.0	*1629.0*	1879.2	1693.2	1319.1	1143.8
67.5°	581.5	590.0	630.7	692.7	756.8	861.6	*904.3*	930.0	974.9	1094.6	1051.8
70°	455.4	463.9	506.7	560.1	622.1	647.8	*688.4*	714.0	803.8	957.8	953.5
72.5°	350.6	361.3	384.8	419.0	470.3	496.0	*540.9*	570.8	622.1	746.1	797.4
75°	256.5	263.0	284.3	295.0	301.4	295.0	*339.9*	374.1	442.5	489.6	502.4
77.5°	104.8	117.6	113.3	113.3	134.7	162.5	*186.0*	207.4	254.4	282.2	284.3
80°	42.8	47.0	55.6	62.0	74.8	96.2	*111.2*	119.7	141.1	158.2	171.0
82.5°	25.7	27.8	32.1	34.2	42.8	55.6	*64.1*	70.5	87.7	104.8	111.2
85°	12.8	12.8	15.0	17.1	21.4	25.7	*29.9*	34.2	44.9	55.6	62.0
87.5°	2.1	2.1	2.1	4.3	6.4	8.6	*10.7*	12.8	15.0	17.1	21.4
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: P640938
CATALOG NUMBER: GWS-SA5E-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4	8055.4
2.5°	8059.7	7944.3	7809.6	7702.7	7578.7	7486.8	7356.4	7275.1	7198.2	7134.0	7087.0
5°	8068.3	7873.7	7593.7	7345.7	7089.1	6845.4	6595.3	6392.2	6210.5	6058.7	6045.9
7.5°	8117.4	7837.4	7399.1	6965.1	6464.9	5981.7	5498.6	5105.2	4805.9	4649.8	4617.8
10°	8200.8	7833.1	7200.3	6507.6	5654.6	4876.5	4303.5	4004.2	3831.0	3769.0	3747.7
12.5°	8288.5	7822.4	6945.9	5862.0	4677.6	3995.7	3681.4	3645.0	3677.1	3681.4	3679.3
15°	8395.4	7816.0	6625.2	5105.2	3963.6	3587.3	3608.7	3685.7	3760.5	3777.6	3777.6
17.5°	8525.8	7801.0	6189.1	4365.5	3516.8	3508.2	3621.5	3724.1	3794.7	3807.5	3807.5
20°	8662.6	7762.6	5652.5	3762.6	3335.1	3459.1	3580.9	3660.0	3709.2	3726.3	3728.4
22.5°	8756.7	7659.9	5034.7	3315.8	3221.8	3365.0	3452.6	3533.9	3533.9	3491.1	3478.3
25°	8775.9	7439.7	4365.5	3010.1	3087.1	3219.6	3309.4	3262.4	3174.7	3140.5	3138.4
27.5°	8705.4	7119.1	3704.9	2792.0	2924.6	3057.1	3042.2	2973.8	2935.3	2901.1	2913.9
30°	8619.8	6734.2	3132.0	2612.5	2736.5	2866.9	2815.6	2792.0	2764.2	2725.8	2734.3
32.5°	8562.1	6304.5	2691.6	2473.5	2610.3	2631.7	2668.0	2665.9	2640.3	2567.6	2563.3
35°	8579.2	5870.6	2396.5	2360.2	2505.6	2497.0	2565.4	2552.6	2375.2	2274.7	2268.3
37.5°	8716.0	5453.7	2223.4	2270.4	2338.8	2392.3	2452.1	2298.2	2236.2	2172.1	2176.3
40°	8976.9	5066.7	2129.3	2221.2	2238.3	2317.4	2178.5	2176.3	2148.5	2090.8	2088.7
42.5°	9271.9	4739.6	2065.2	2197.7	2174.2	2189.2	2041.7	2058.8	2056.6	2020.3	2009.6
45°	9451.5	4438.2	2013.9	2110.1	2116.5	1966.8	1921.9	1941.2	1951.9	1932.6	1930.5
47.5°	9265.5	4091.9	1960.4	1975.4	2031.0	1866.3	1810.8	1812.9	1832.1	1834.3	1825.7
50°	8743.8	3704.9	1896.3	1859.9	1823.6	1761.6	1710.3	1699.6	1718.8	1738.1	1744.5
52.5°	*8070.4*	*3335.1*	*1789.4*	*1733.8*	*1648.3*	*1648.3*	*1624.8*	*1590.6*	*1616.2*	*1641.9*	*1650.4*
55°	7576.6	3061.4	1637.6	1575.6	1481.5	1513.6	1509.3	1479.4	1513.6	1532.8	1539.3
57.5°	6565.4	2460.7	1440.9	1421.7	1342.6	1381.1	1389.6	1351.1	1334.0	1338.3	1344.7
60°	3897.3	1588.4	1299.8	1297.7	1227.1	1272.0	1297.7	1259.2	1207.9	1214.3	1222.9
62.5°	1748.8	1214.3	1122.4	1113.8	1111.7	1169.4	1197.2	1160.9	1088.2	1094.6	1103.1
65°	1101.0	1049.7	974.9	974.9	1009.1	1058.2	1079.6	1049.7	966.3	955.6	964.2
67.5°	1021.9	977.0	900.0	885.1	902.2	942.8	944.9	887.2	838.0	829.5	829.5
70°	917.1	882.9	808.1	778.2	771.8	769.6	763.2	748.2	716.2	707.6	711.9
72.5°	758.9	735.4	688.4	656.3	639.2	637.1	611.4	598.6	570.8	566.5	564.4
75°	502.4	508.8	508.8	504.5	489.6	483.2	455.4	442.5	410.5	397.6	395.5
77.5°	297.2	303.6	312.1	314.3	312.1	312.1	286.5	271.5	239.4	222.3	218.1
80°	181.7	186.0	190.3	196.7	188.1	181.7	158.2	143.2	128.3	117.6	115.4
82.5°	117.6	121.9	124.0	128.3	124.0	115.4	96.2	87.7	77.0	68.4	66.3
85°	66.3	68.4	72.7	72.7	66.3	59.9	49.2	42.8	36.3	32.1	32.1
87.5°	23.5	23.5	23.5	25.7	21.4	19.2	12.8	8.6	6.4	6.4	6.4
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

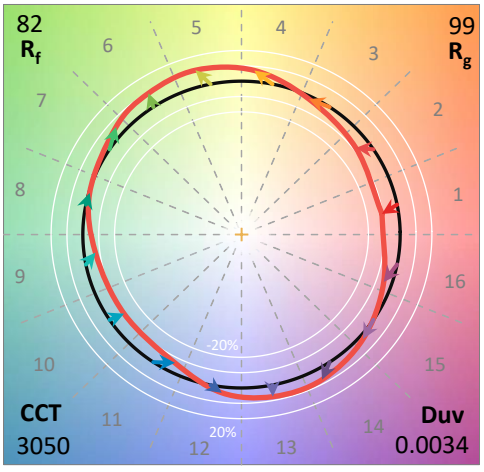
Test Information

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

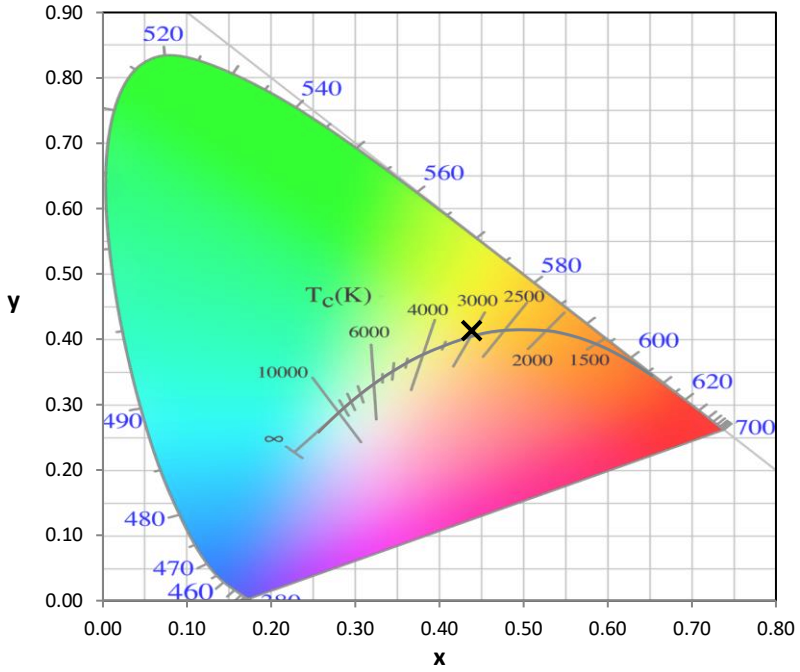
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

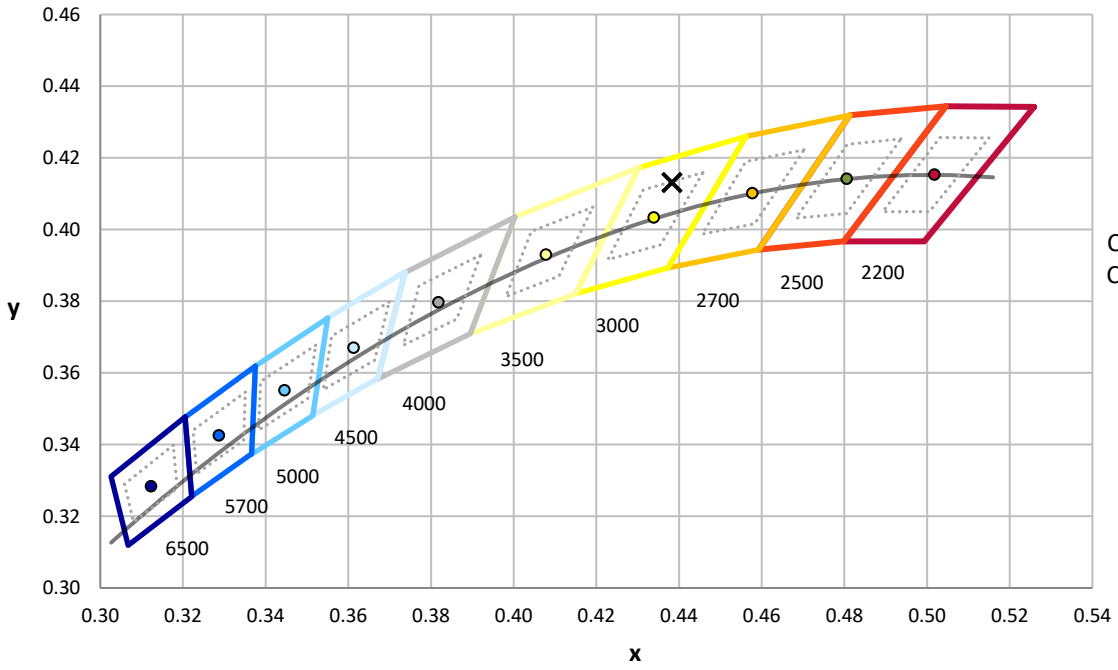
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

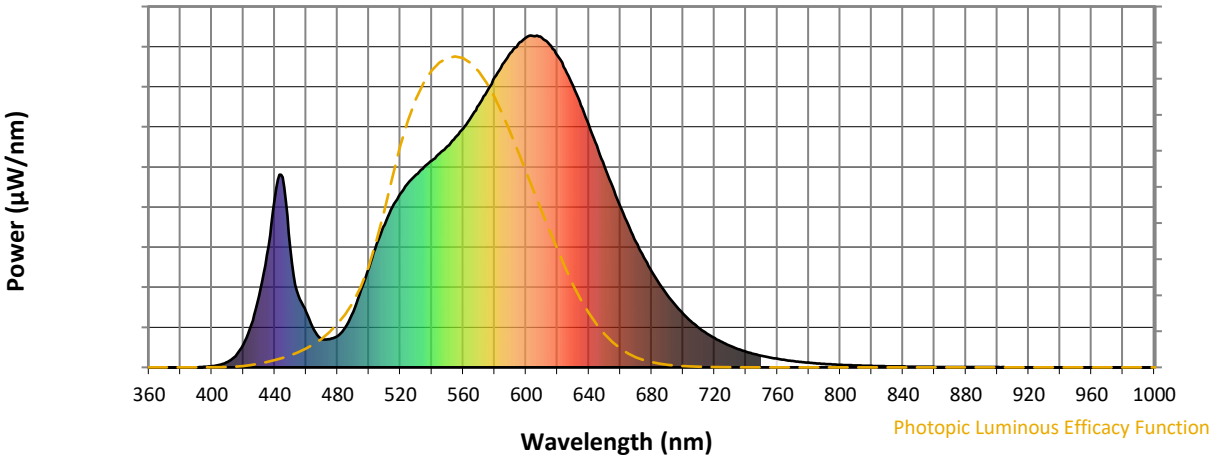


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

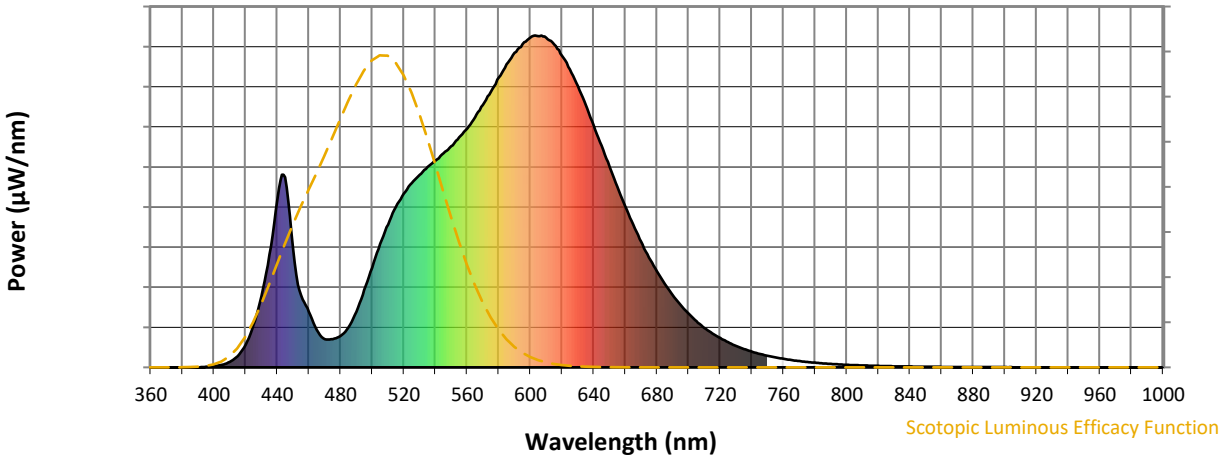


Photopic Lumens: NR

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

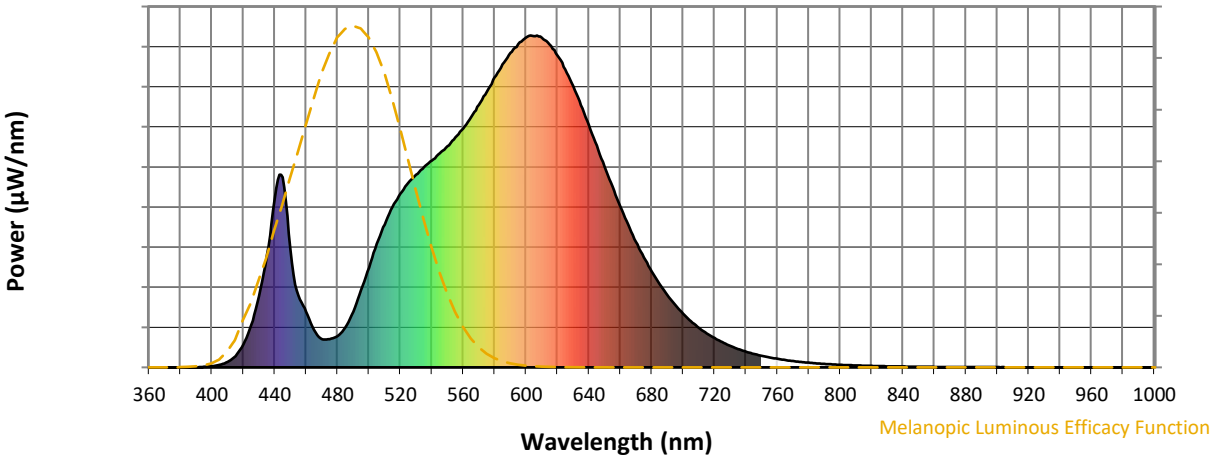


Scotopic Lumens: NR **S/P: 1.27**

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			

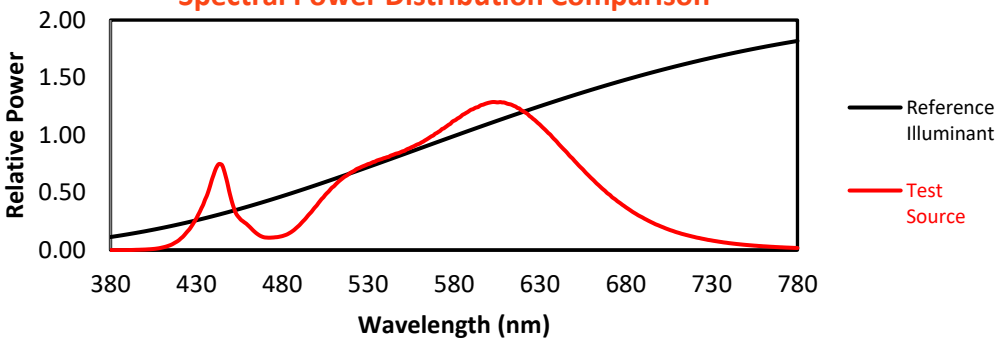
REPORT NUMBER: SP1-2408-195-9

TM-30-18

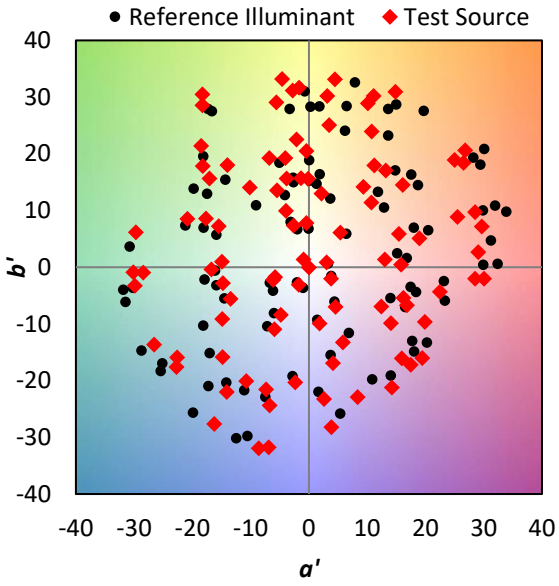
Summary

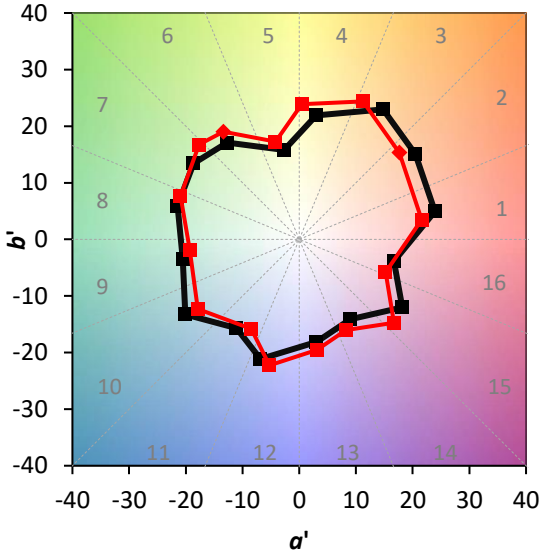
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

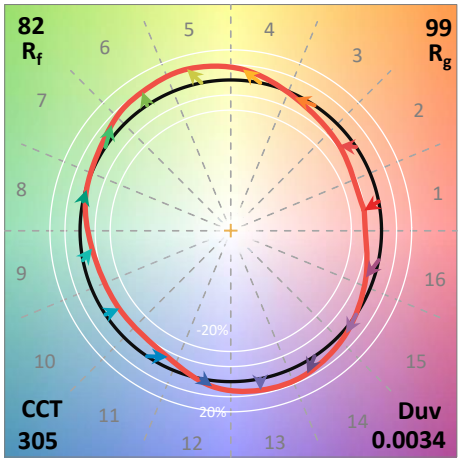
Spectral Power Distribution Comparison

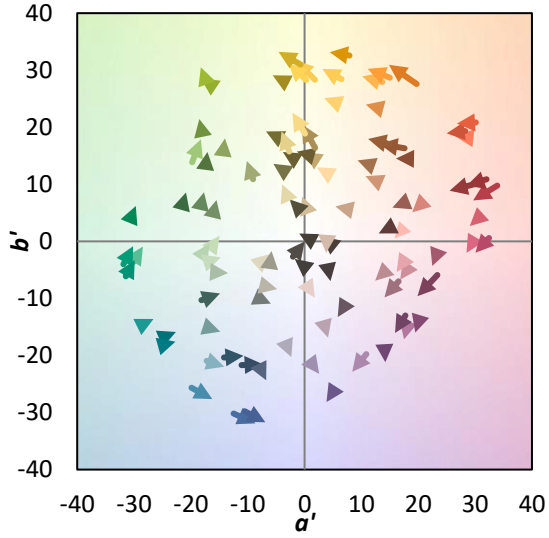


Color Vector Graphics







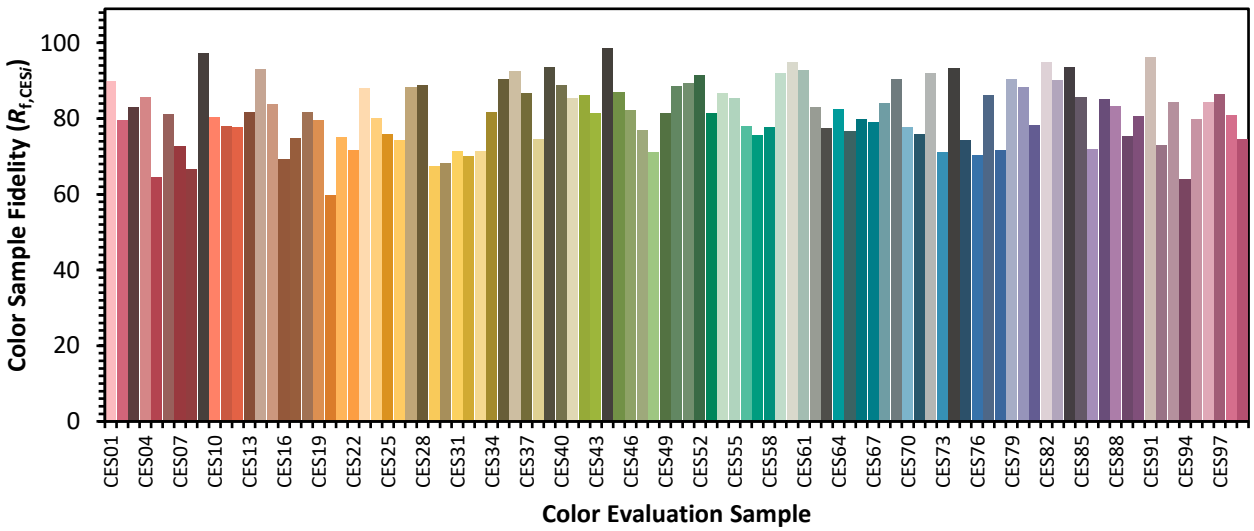


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

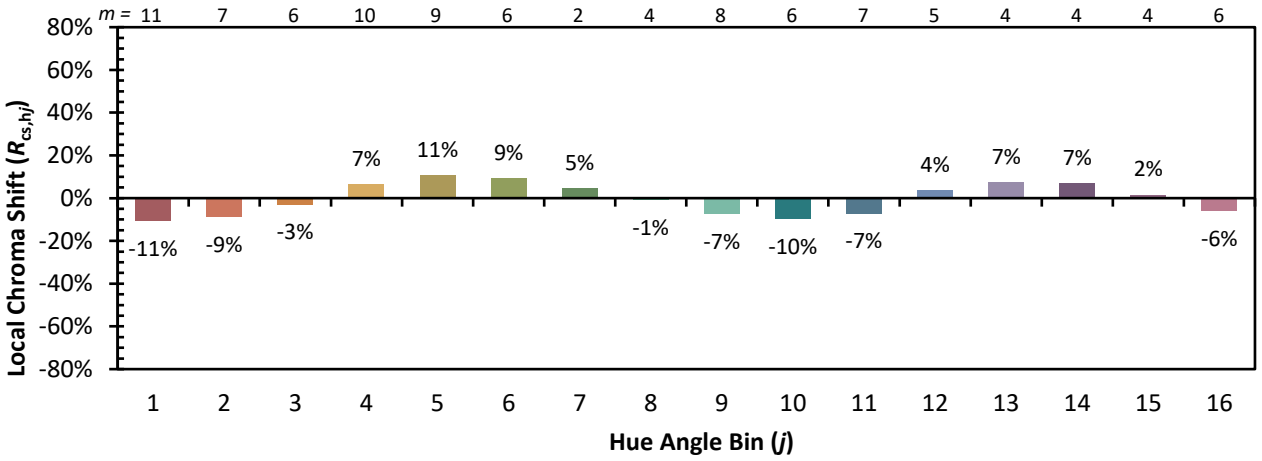
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

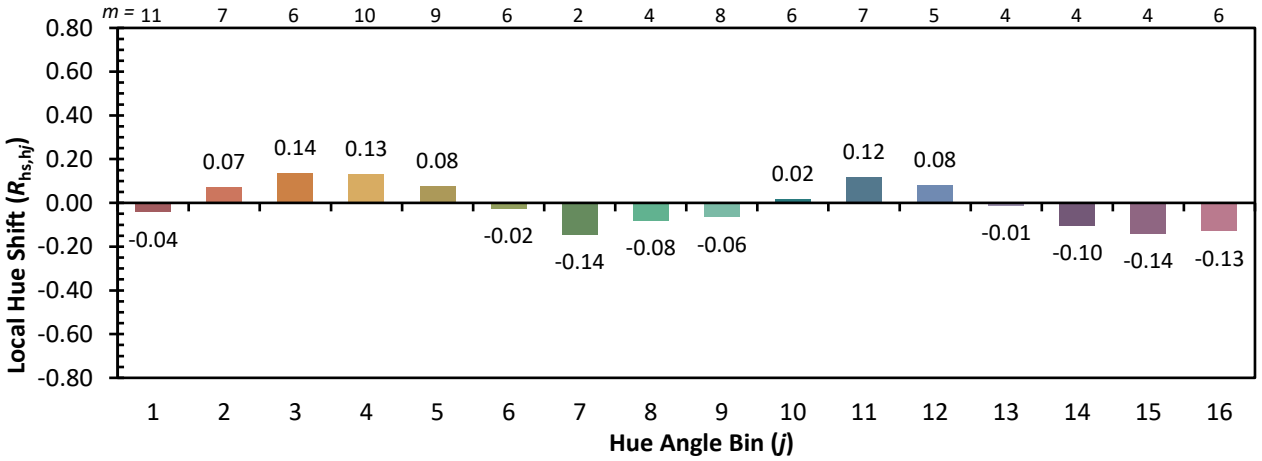


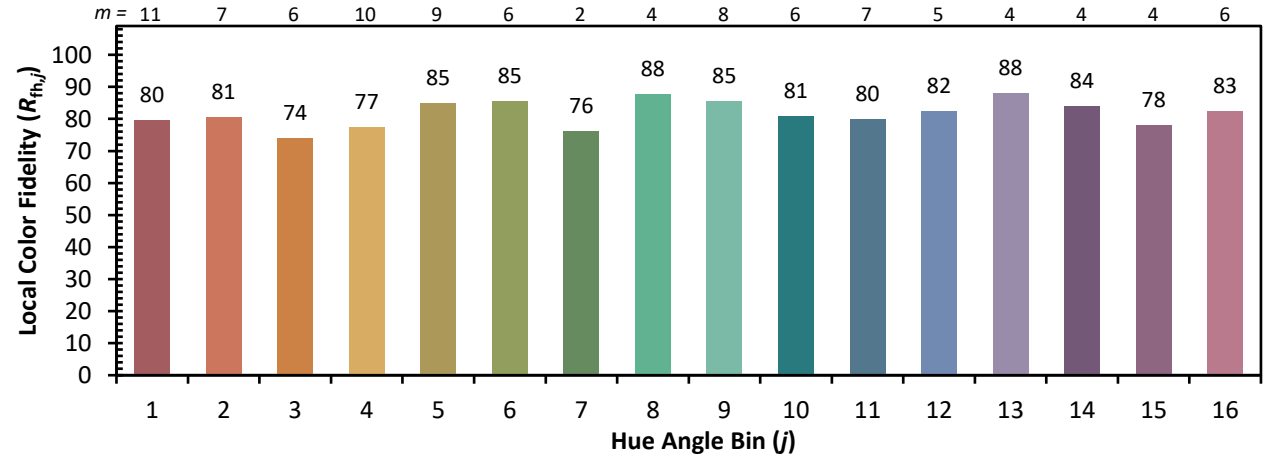
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



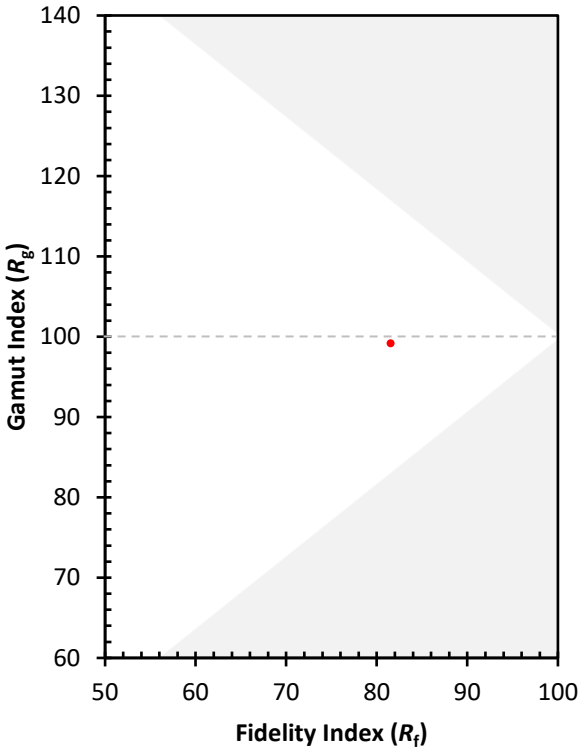


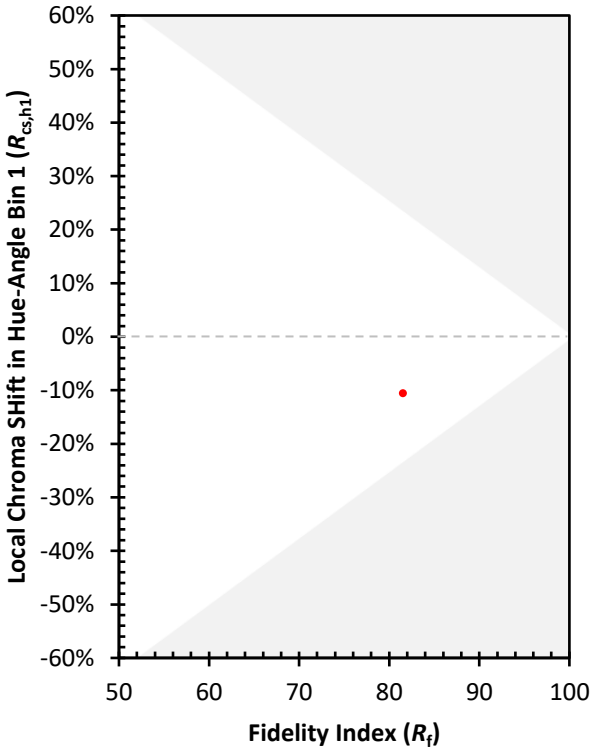


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)