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: P640454

Luminaire Tested: GWS-SA5D-830-U-SL3-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:	P640454
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-33)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5D-830-U-SL3-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR 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:	19985 lumens
Efficiency:	N/A
Efficacy:	97.7 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G3

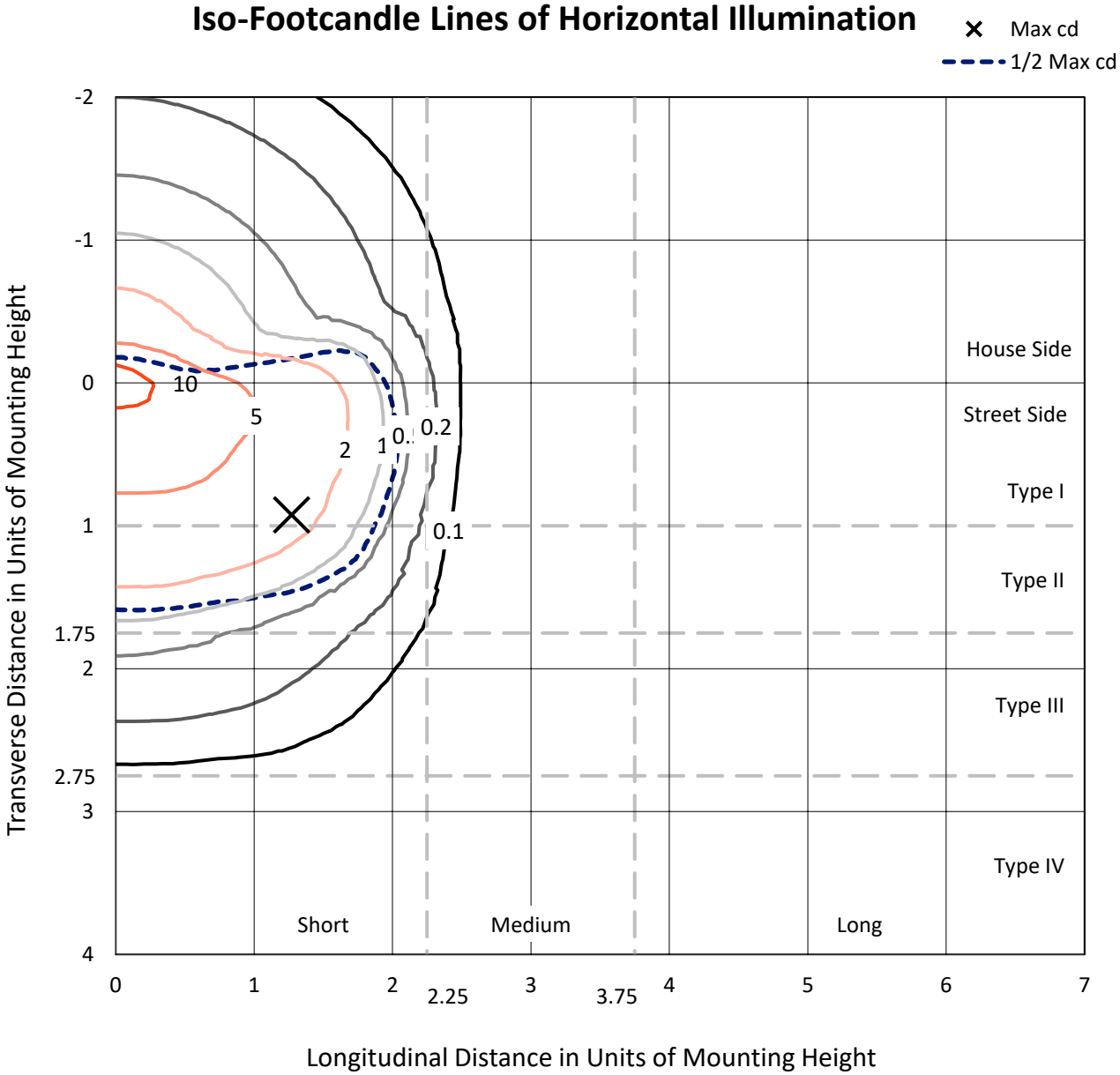
Input Watts (W):	204.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



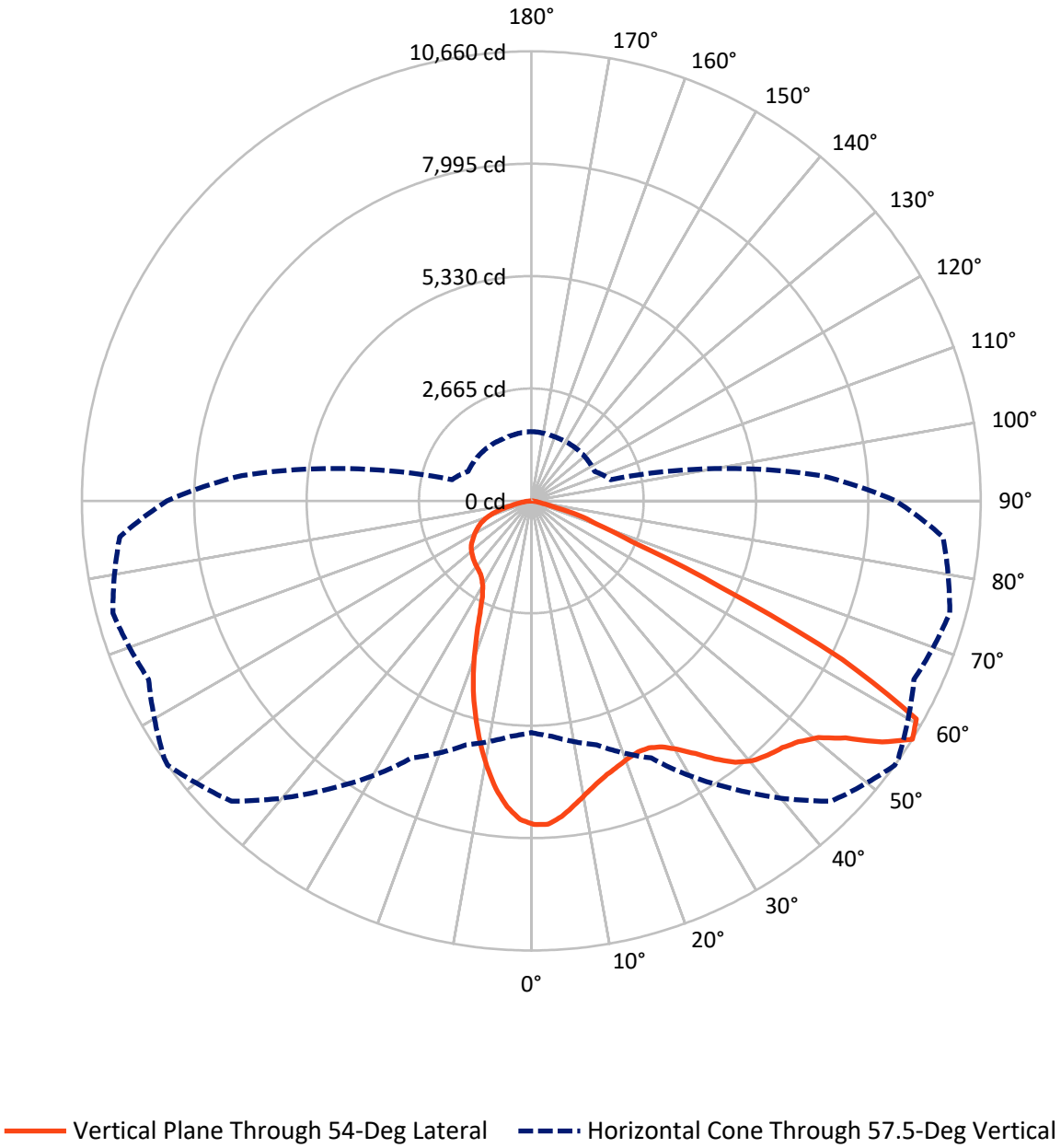
Based on 25 foot mounting height. Maximum calculated value = 12.3 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

Luminous Intensity Polar Plot



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

Scaled Data Report

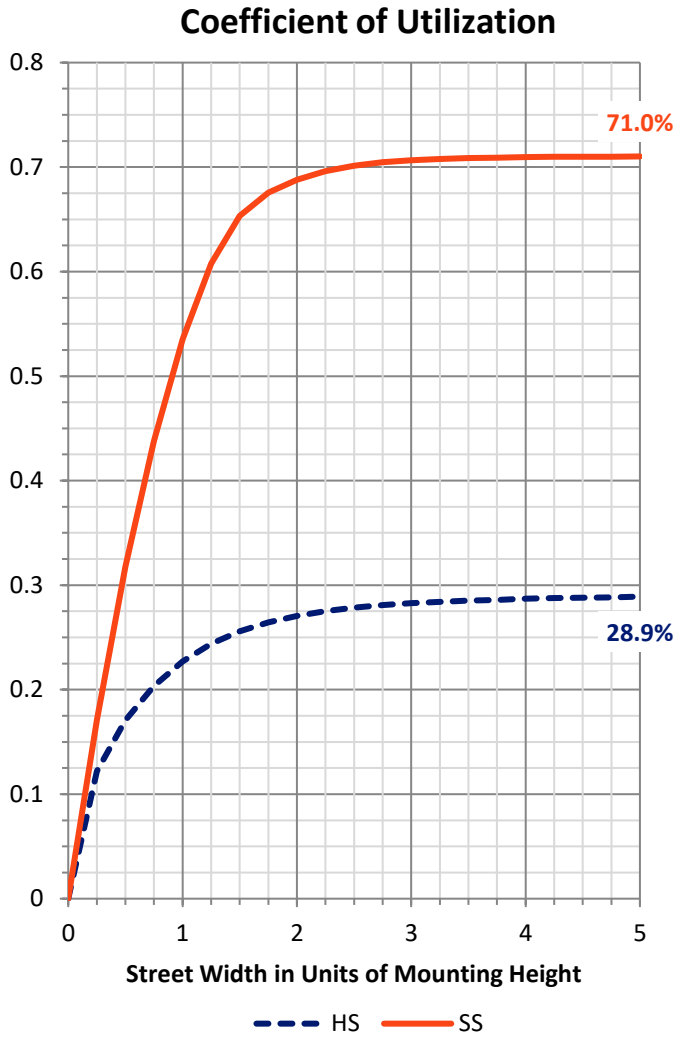
REPORT NUMBER: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5809.9	0.0	5809.9
	% Fixture	29.1	0.0	29.1
Street Side	Lumens	14175.1	0.0	14175.1
	% Fixture	70.9	0.0	70.9
Total	Lumens	19985.0	0.0	19985.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.4	3.4
10°-20°	1609.3	8.1
20°-30°	2227.0	11.1
30°-40°	3094.4	15.5
40°-50°	4086.7	20.4
50°-60°	4856.5	24.3
60°-70°	2690.6	13.5
70°-80°	670.0	3.4
80°-90°	76.2	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°	19985.0	100.0
0°-180°	19985.0	100.0



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

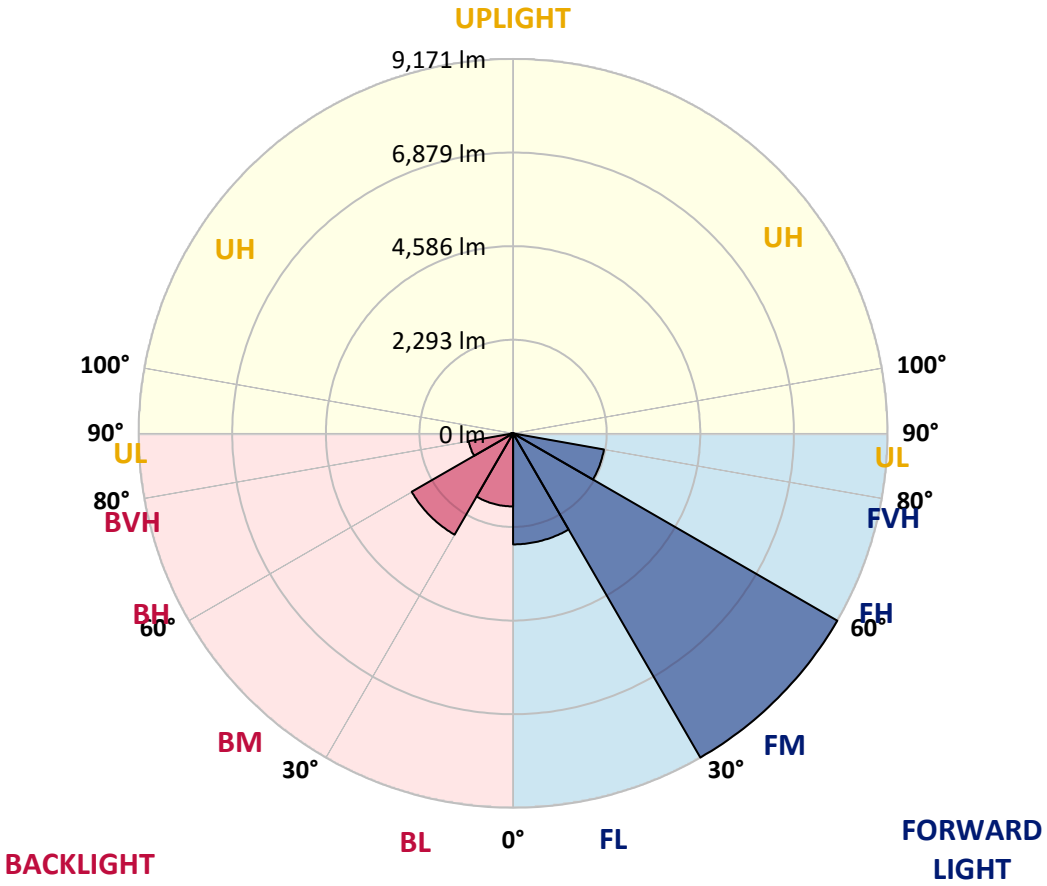
Scaled Data Report

REPORT NUMBER: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2720.3	13.6			
FM	(30°-60°)	9171.4	45.9			
FH	(60°-80°)	2259.6	11.3			G2/5000
FVH	(80°-90°)	23.8	0.1			G1/100
BL	(0°-30°)	1790.4	9.0	B3/2500		
BM	(30°-60°)	2866.2	14.3	B3/5000		
BH	(60°-80°)	1101.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	52.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type II Short



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

Scaled Data Report

REPORT NUMBER: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	*7672.7*	7672.7	7672.7	7672.7	7672.7
2.5°	7529.0	7544.4	7554.7	7590.6	7621.4	7648.7	*7677.8*	7677.8	7676.1	7671.0	7660.7
5°	7231.3	7248.4	7272.4	7322.0	7388.7	7436.6	*7515.3*	7522.1	7556.4	7570.1	7563.2
7.5°	6885.8	6890.9	6921.7	6986.7	7092.8	7178.3	*7291.2*	7304.9	7387.0	7434.9	7426.3
10°	6507.7	6490.6	6545.3	6641.1	6779.7	6923.4	*7068.8*	7080.8	7212.5	7303.2	7296.3
12.5°	6162.1	6163.8	6218.6	6334.9	6507.7	6685.6	*6880.6*	6908.0	7070.5	7186.8	7174.9
15°	5873.0	5879.8	5946.6	6078.3	6275.0	6487.1	*6730.1*	6755.7	6961.0	7115.0	7080.8
17.5°	5642.0	5648.9	5707.0	5857.6	6068.0	6324.6	*6620.6*	6646.2	6901.1	7084.2	7014.1
20°	5482.9	5479.5	5536.0	5679.7	5896.9	6175.8	*6524.8*	6562.4	6882.3	7096.2	6969.6
22.5°	5417.9	5416.2	5457.3	5575.3	5778.9	6061.2	*6466.6*	6517.9	6902.9	7149.2	6942.2
25°	5450.4	5443.6	5479.5	5566.8	5729.3	6016.7	*6483.7*	6538.5	6990.1	7258.7	6947.3
27.5°	5551.4	5542.8	5573.6	5652.3	5775.5	6062.9	*6603.5*	6666.8	7174.9	7458.9	7015.8
30°	5705.3	5700.2	5731.0	5806.3	5914.0	6216.9	*6832.7*	6904.6	7460.6	7770.2	7164.6
32.5°	5885.0	5876.4	5931.2	6018.4	6143.3	6497.4	*7140.7*	7234.7	7799.3	8170.5	7414.4
35°	6086.8	6080.0	6155.3	6281.9	6461.5	6887.5	*7513.6*	7616.2	8144.9	8623.9	7746.3
37.5°	6283.6	6283.6	6429.0	6617.2	6843.0	7311.7	*7864.3*	7929.3	8384.4	9025.9	8102.1
40°	6458.1	6468.3	6687.3	6969.6	7257.0	7694.9	*8095.2*	8150.0	8490.4	9303.0	8411.7
42.5°	6651.4	6659.9	6914.8	7284.4	7626.5	8004.6	*8235.5*	8262.9	8511.0	9441.6	8630.7
45°	6805.3	6817.3	7133.8	7529.0	7948.1	8237.2	*8346.7*	8370.7	8540.0	9516.9	8789.8
47.5°	6885.8	6902.9	7265.5	7725.7	8165.4	8446.0	*8529.8*	8540.0	8659.8	9648.6	8981.4
50°	6872.1	6906.3	7315.1	7823.2	8326.2	8656.4	*8824.0*	8841.1	8904.4	9841.9	9205.5
52.5°	6993.5	7008.9	7421.2	7939.6	8555.4	9044.7	*9335.5*	9359.5	9330.4	9987.3	9339.0
55°	6791.7	6865.2	7289.5	7922.5	8904.4	9645.2	*10093.4*	10081.4	9717.0	10149.9	9561.4
57.5°	*5493.2*	*5601.0*	*5989.3*	*6724.9*	*8329.6*	*10066.0*	*10659.7*	*10630.6*	*10016.4*	*10274.7*	*9802.6*
60°	3803.0	3820.1	4170.8	4692.6	6429.0	8892.5	*10493.7*	10557.0	10071.2	10117.4	9356.1
62.5°	3041.7	3036.6	3069.1	3082.8	4088.7	6251.1	*8283.4*	8514.4	8367.3	7883.1	6630.9
65°	2596.9	2615.7	2711.5	2661.9	2668.8	3520.7	*4949.2*	4981.7	4879.0	4704.6	3507.0
67.5°	2032.4	2064.9	2234.2	2427.5	2366.0	2266.7	*2567.8*	2552.4	2011.8	1556.8	1286.5
70°	1272.8	1293.3	1474.7	1905.8	2059.7	1861.3	*1650.9*	1644.0	1077.8	886.2	971.7
72.5°	742.5	745.9	797.2	1062.4	1366.9	1272.8	*1214.6*	1170.2	692.9	706.5	775.0
75°	408.9	408.9	407.2	458.5	538.9	477.3	*461.9*	449.9	463.6	525.2	576.5
77.5°	85.5	87.2	92.4	121.5	157.4	191.6	*241.2*	242.9	302.8	350.7	391.8
80°	39.3	41.1	51.3	65.0	83.8	111.2	*147.1*	148.8	183.0	220.7	248.1
82.5°	20.5	22.2	27.4	34.2	44.5	58.2	*82.1*	82.1	109.5	130.0	147.1
85°	6.8	6.8	10.3	13.7	18.8	24.0	*32.5*	32.5	47.9	63.3	73.6
87.5°	0.0	0.0	0.0	0.0	1.7	3.4	*6.8*	6.8	8.6	10.3	17.1
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: P640454
CATALOG NUMBER: GWS-SA5D-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7	7672.7
2.5°	7638.5	7585.4	7587.2	7597.4	7564.9	7515.3	7482.8	7441.7	7416.1	7411.0	7429.8
5°	7529.0	7467.4	7424.6	7380.2	7287.8	7178.3	7092.8	7022.6	6976.4	6959.3	6938.8
7.5°	7378.4	7298.0	7190.3	7065.4	6897.7	6702.7	6565.8	6437.5	6348.6	6322.9	6310.9
10°	7227.9	7111.6	6920.0	6687.3	6408.5	6145.0	5896.9	5707.0	5556.5	5471.0	5498.3
12.5°	7072.2	6928.5	6629.1	6271.6	5883.3	5486.4	5161.3	4846.5	4603.6	4482.2	4446.2
15°	6935.4	6740.3	6322.9	5838.8	5322.1	4822.6	4352.1	3880.0	3572.0	3404.4	3358.2
17.5°	6819.0	6565.8	5999.6	5397.4	4779.8	4068.2	3489.9	3052.0	2841.5	2749.2	2742.3
20°	6704.4	6394.8	5679.7	4921.8	4153.7	3356.5	2839.8	2634.5	2559.3	2526.8	2525.1
22.5°	6601.8	6215.1	5342.7	4446.2	3531.0	2821.0	2537.0	2448.1	2427.5	2427.5	2424.1
25°	6514.5	6035.5	4997.1	3941.6	2968.1	2511.4	2379.6	2342.0	2350.6	2366.0	2367.7
27.5°	6478.6	5895.2	4663.5	3423.2	2579.8	2331.7	2271.9	2266.7	2290.7	2314.6	2318.1
30°	6516.2	5799.4	4321.3	2927.1	2347.1	2222.3	2194.9	2205.2	2234.2	2258.2	2258.2
32.5°	6632.6	5751.5	3972.4	2564.4	2212.0	2145.3	2136.7	2147.0	2169.2	2182.9	2184.6
35°	6829.3	5770.3	3611.4	2319.8	2124.7	2088.8	2087.1	2094.0	2102.5	2111.1	2112.8
37.5°	7077.4	5854.2	3224.8	2177.8	2068.3	2047.8	2044.3	2042.6	2044.3	2044.3	2046.1
40°	7320.3	5980.8	2879.2	2094.0	2028.9	2011.8	2003.3	1991.3	1989.6	1986.2	1984.5
42.5°	7499.9	6078.3	2603.8	2034.1	1993.0	1972.5	1962.2	1943.4	1941.7	1940.0	1938.3
45°	7635.1	6160.4	2374.5	1975.9	1955.4	1936.6	1914.3	1897.2	1900.6	1904.1	1904.1
47.5°	7787.3	6232.2	2206.9	1921.2	1909.2	1890.4	1863.0	1851.0	1863.0	1875.0	1875.0
50°	7972.1	6333.2	2070.0	1866.4	1861.3	1839.1	1815.1	1810.0	1823.7	1840.8	1840.8
52.5°	8107.2	6420.4	1972.5	1811.7	1811.7	1782.6	1762.1	1760.4	1775.8	1792.9	1794.6
55°	8360.4	6624.0	1938.3	1748.4	1741.5	1719.3	1703.9	1691.9	1710.7	1726.1	1726.1
57.5°	*8646.1*	*6894.3*	*1946.8*	*1657.7*	*1649.2*	*1642.3*	*1630.3*	*1616.7*	*1621.8*	*1638.9*	*1640.6*
60°	8040.5	6370.8	1852.7	1567.0	1561.9	1558.5	1543.1	1519.1	1526.0	1539.7	1541.4
62.5°	5616.4	4234.1	1498.6	1454.1	1471.2	1469.5	1449.0	1421.6	1423.3	1442.2	1442.2
65°	2915.1	2290.7	1315.6	1351.5	1377.2	1366.9	1332.7	1308.7	1305.3	1329.2	1324.1
67.5°	1257.4	1250.6	1197.5	1243.7	1271.1	1248.8	1212.9	1173.6	1177.0	1185.5	1178.7
70°	1012.8	1043.6	1065.8	1115.4	1137.6	1096.6	1057.2	1035.0	1016.2	1014.5	1002.5
72.5°	809.2	852.0	901.6	952.9	959.7	918.7	869.1	848.5	819.4	817.7	805.8
75°	609.0	645.0	684.3	725.4	725.4	686.0	653.5	643.2	609.0	598.8	588.5
77.5°	415.7	438.0	468.7	479.0	489.3	473.9	441.4	424.3	384.9	374.7	361.0
80°	261.7	277.1	296.0	302.8	313.1	294.2	268.6	249.8	222.4	213.8	207.0
82.5°	157.4	167.7	179.6	183.0	191.6	177.9	154.0	140.3	124.9	118.0	112.9
85°	80.4	85.5	92.4	94.1	92.4	78.7	70.1	63.3	53.0	51.3	47.9
87.5°	20.5	24.0	25.7	24.0	22.2	17.1	12.0	8.6	3.4	3.4	1.7
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

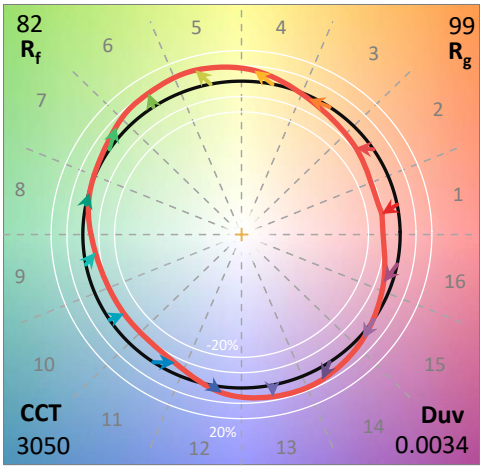
Test Information

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

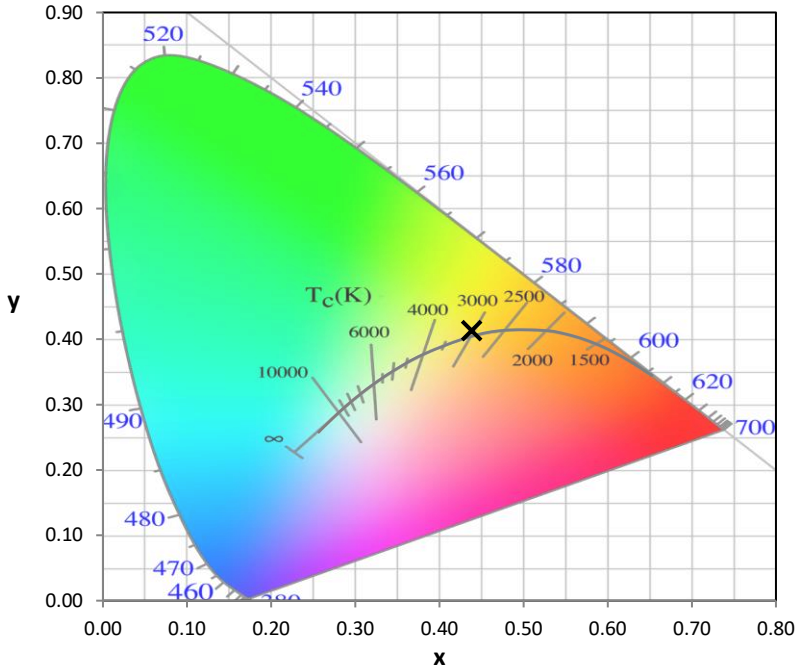
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

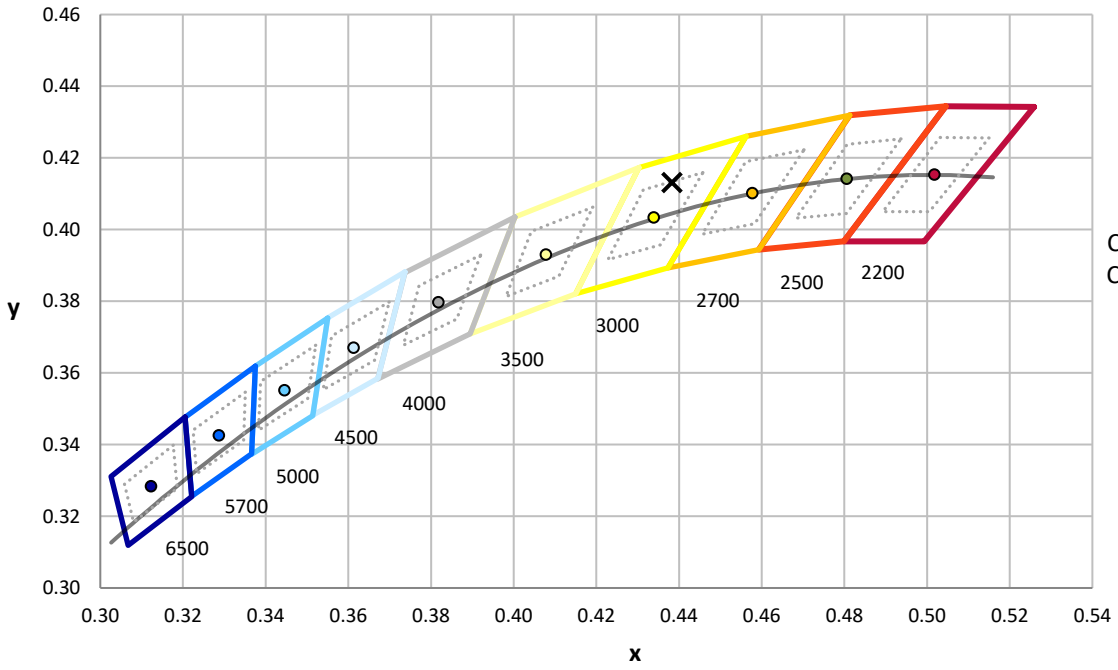
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

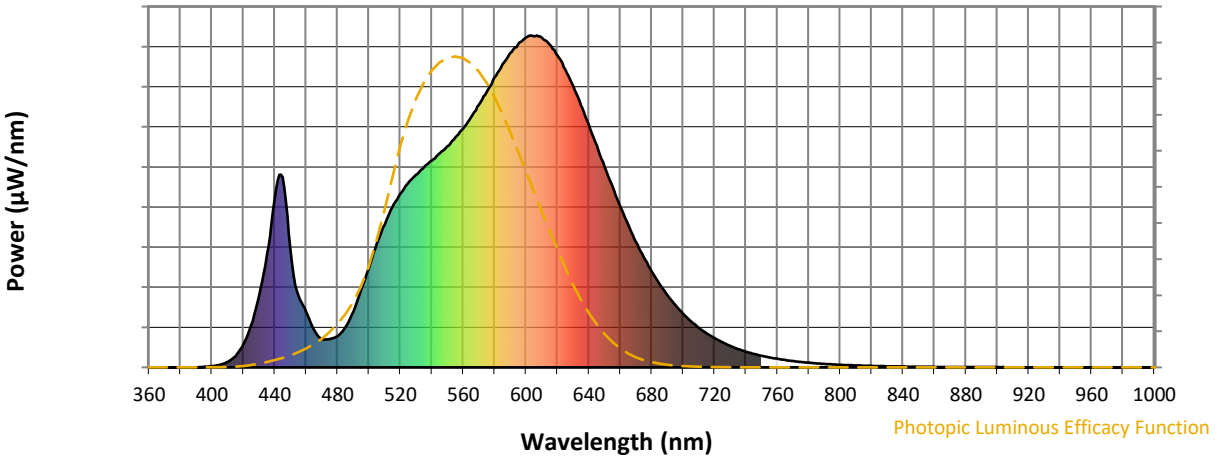


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

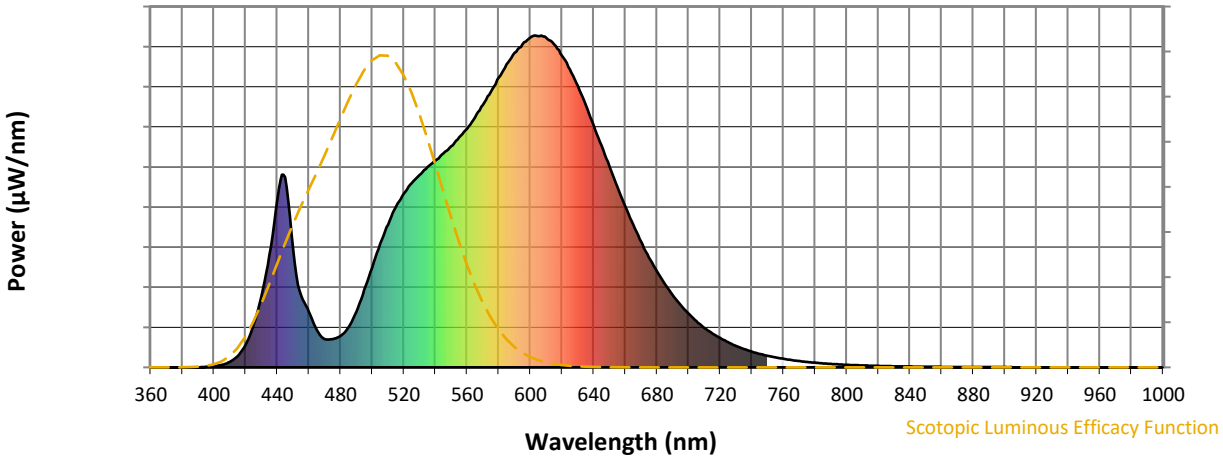


Photopic Lumens: NR

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

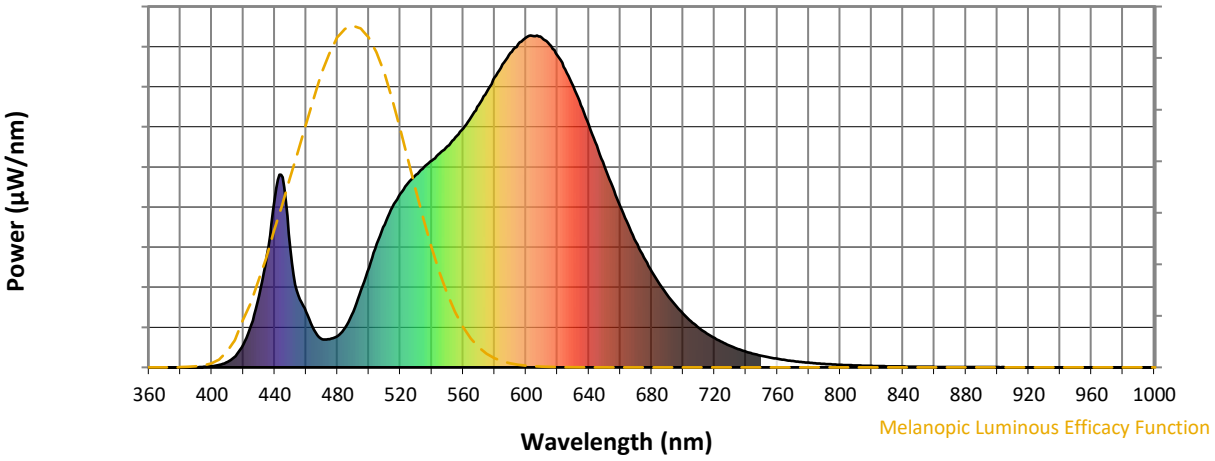


Scotopic Lumens: NR **S/P: 1.27**

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			

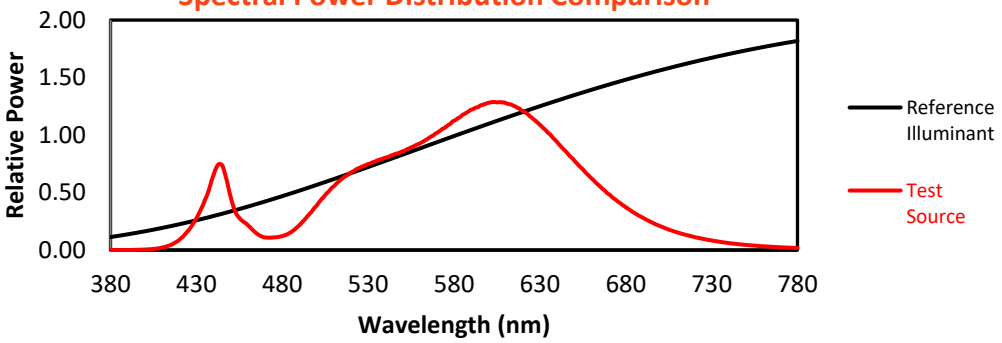
REPORT NUMBER: SP1-2408-195-9

TM-30-18

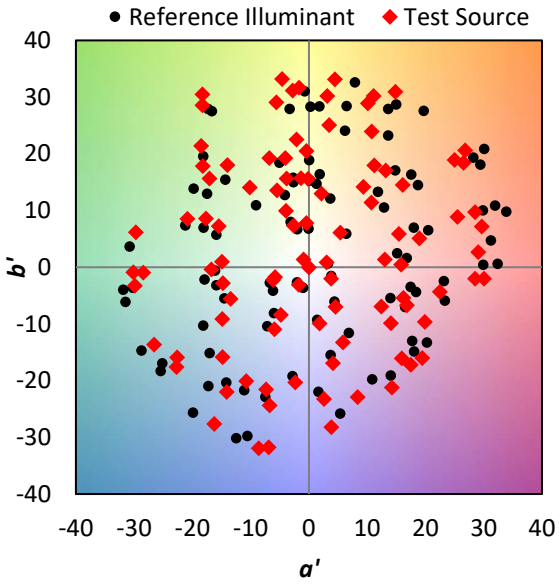
Summary

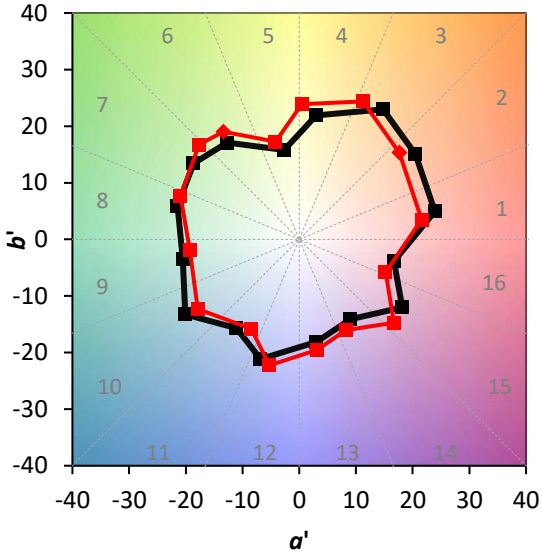
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

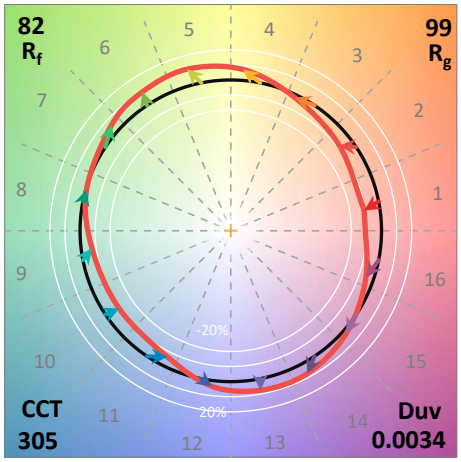
Spectral Power Distribution Comparison

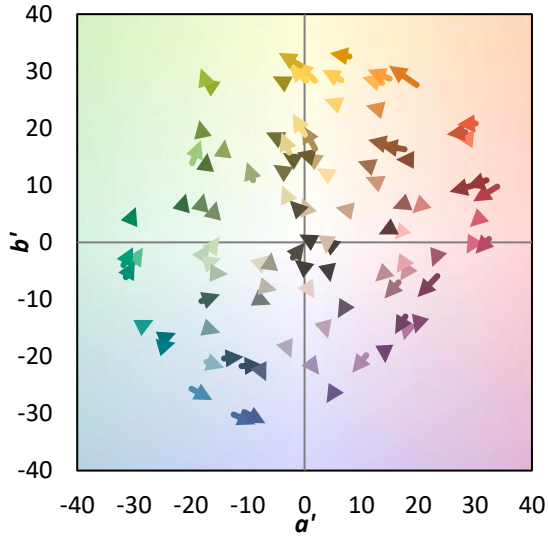


Color Vector Graphics







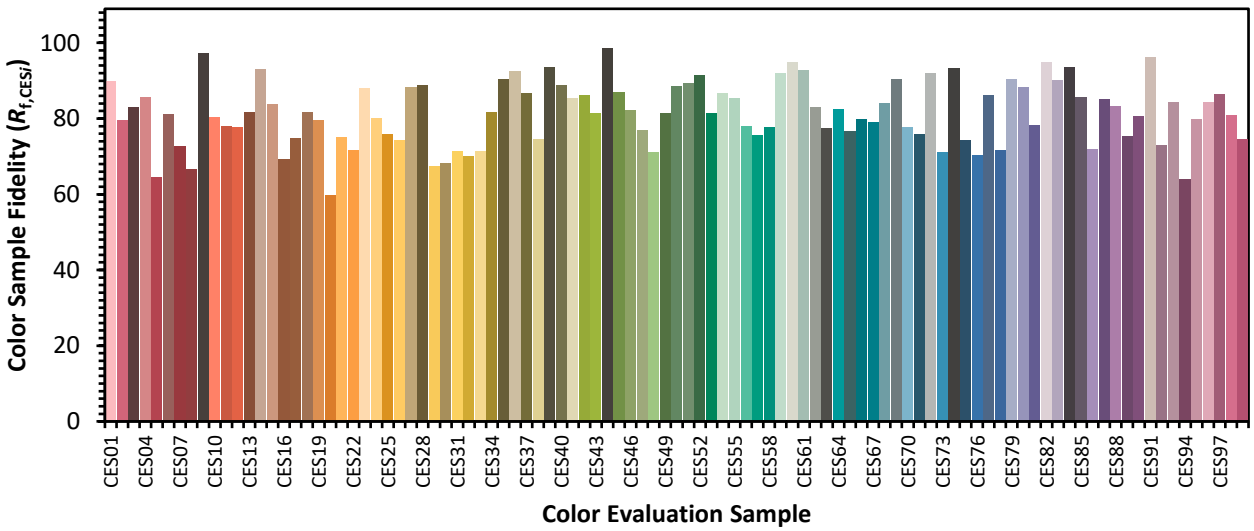


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

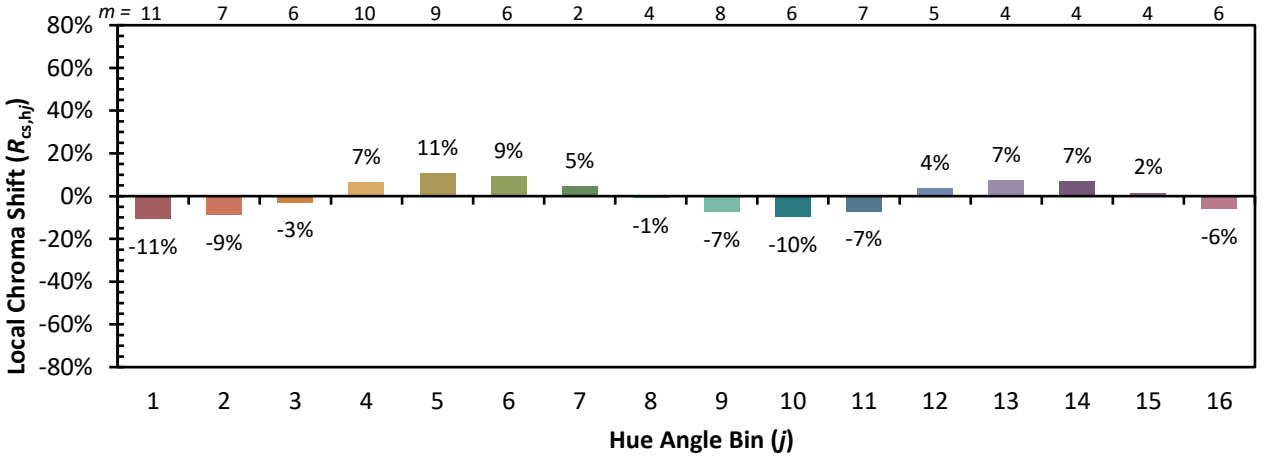
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

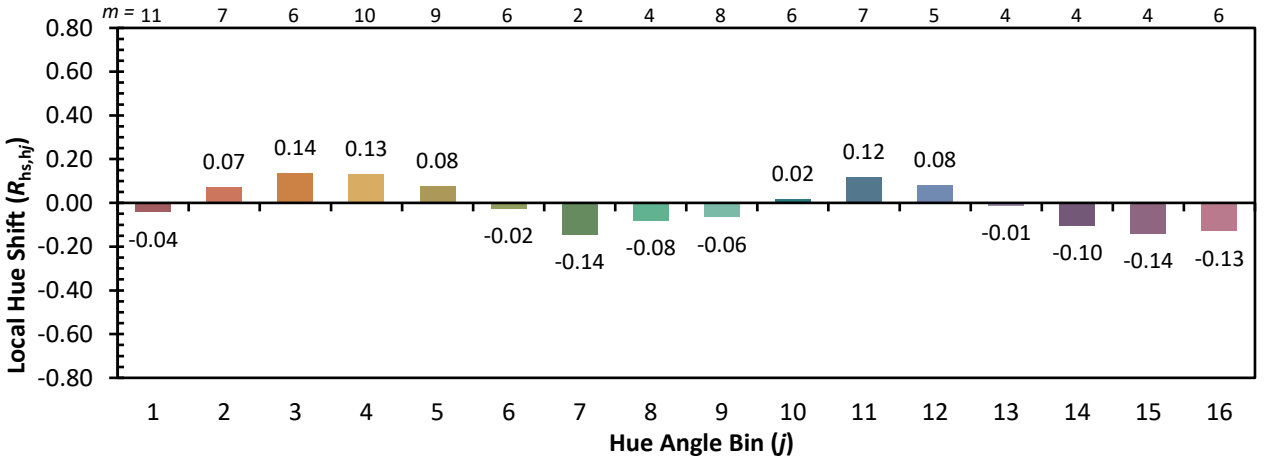


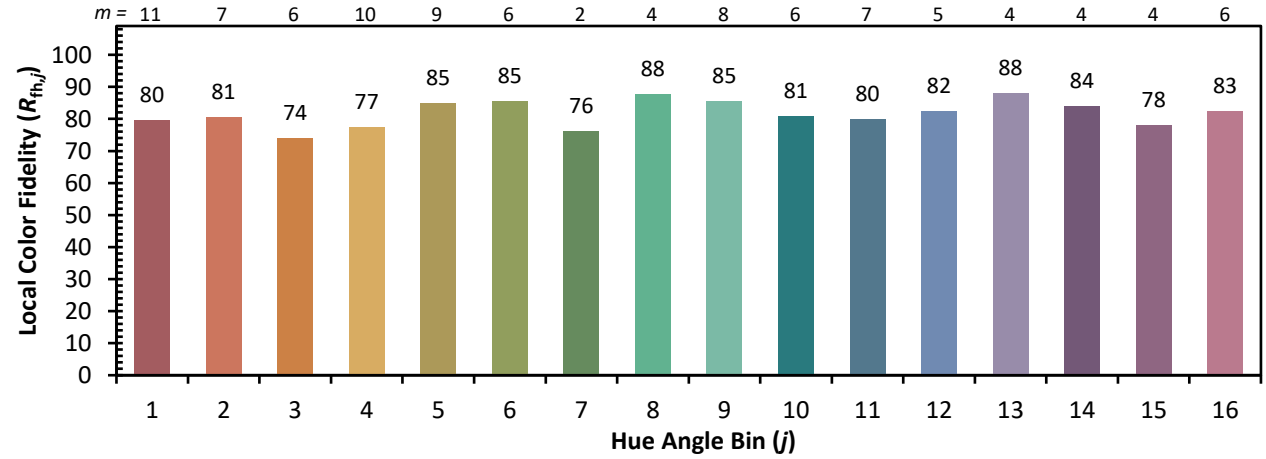
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



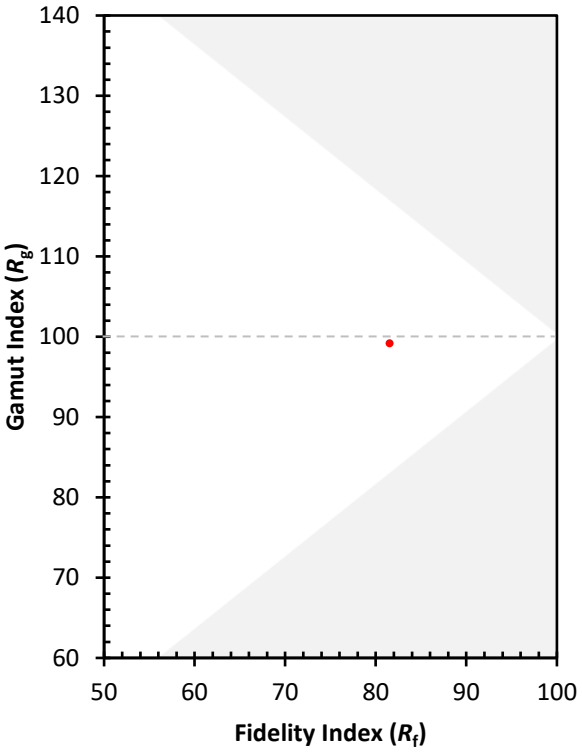


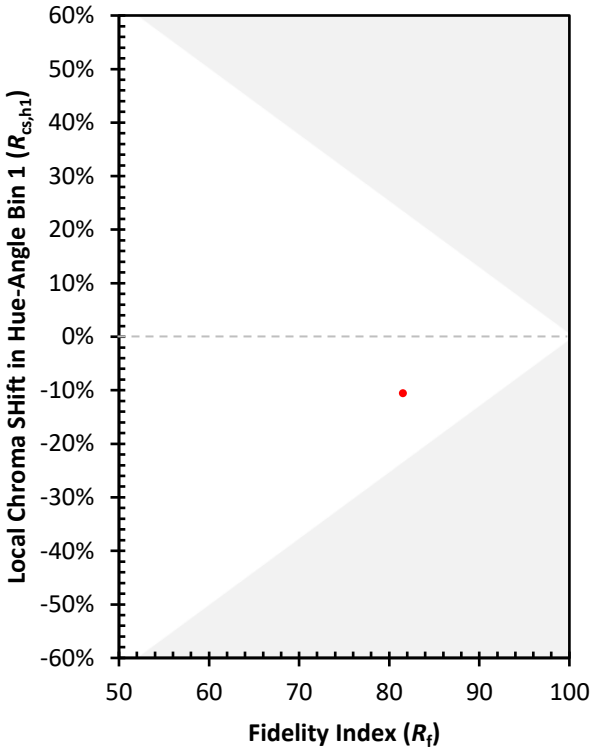


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)