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

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1434863

Luminaire Tested: **GALN-SB4A-830-U-T3LG**

Issue Date: 03/24/202

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Report Generated By 670245763

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P1434863
Test Lab:	INNOVATION CENTER(G1)
Issue Date:	03/24/202
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GALN-SB4A-830-U-T3LG
Description:	GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 4xLight Square PACKAGE 80CRI 3000K FIXTURE w/ TYPE III LOW GLARE
Light Source:	(104) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Luminaire Equipment:

Sample No.	Condition	Description
a	good	reflector
b	good	lens
c	good	housing
d	good	cord

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15750.9 lumens
Efficiency:	N/A
Efficacy:	138.2 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G2

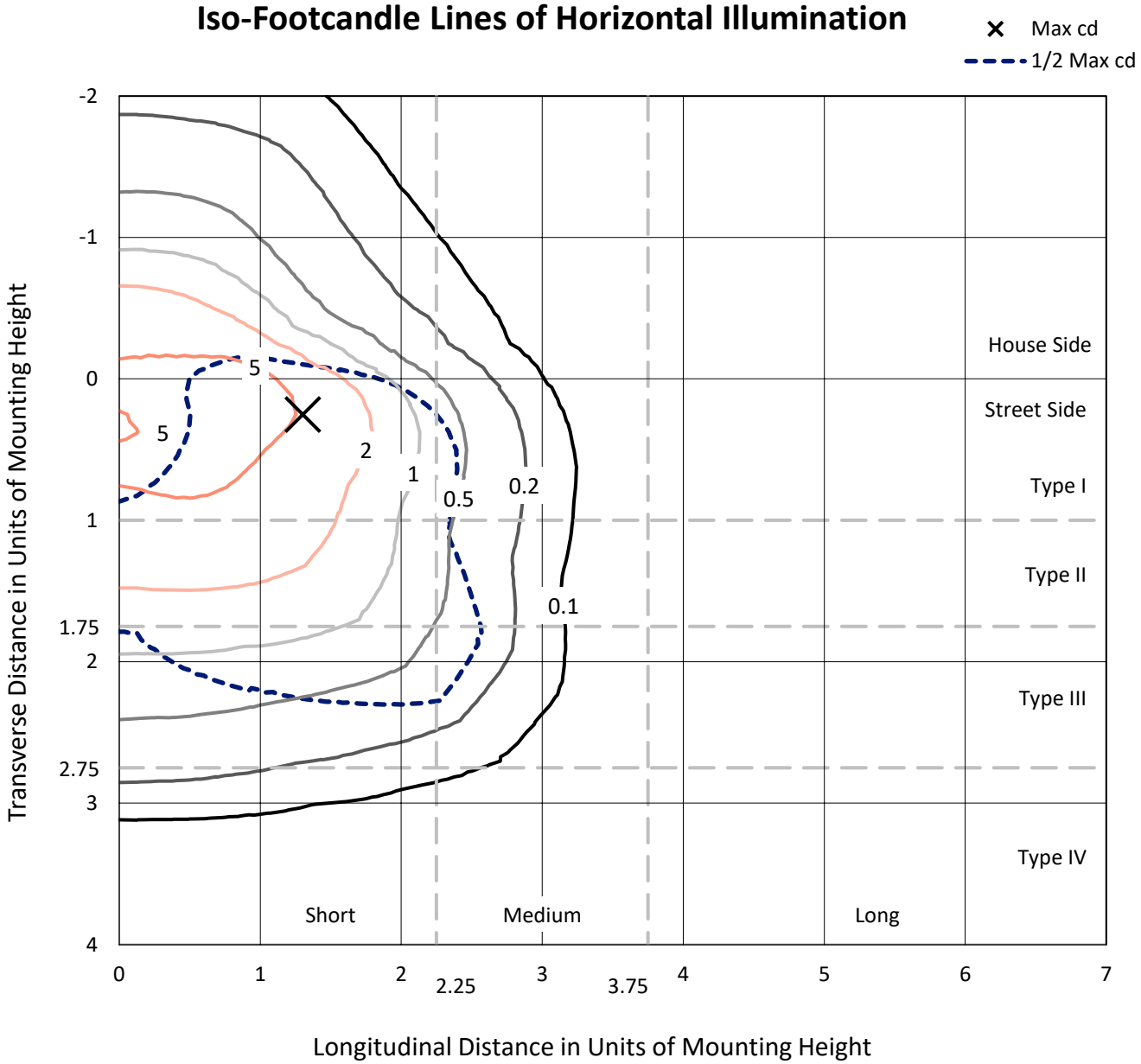
Input Watts (W):	114
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.97
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

Iso-Footcandle Lines of Horizontal Illumination



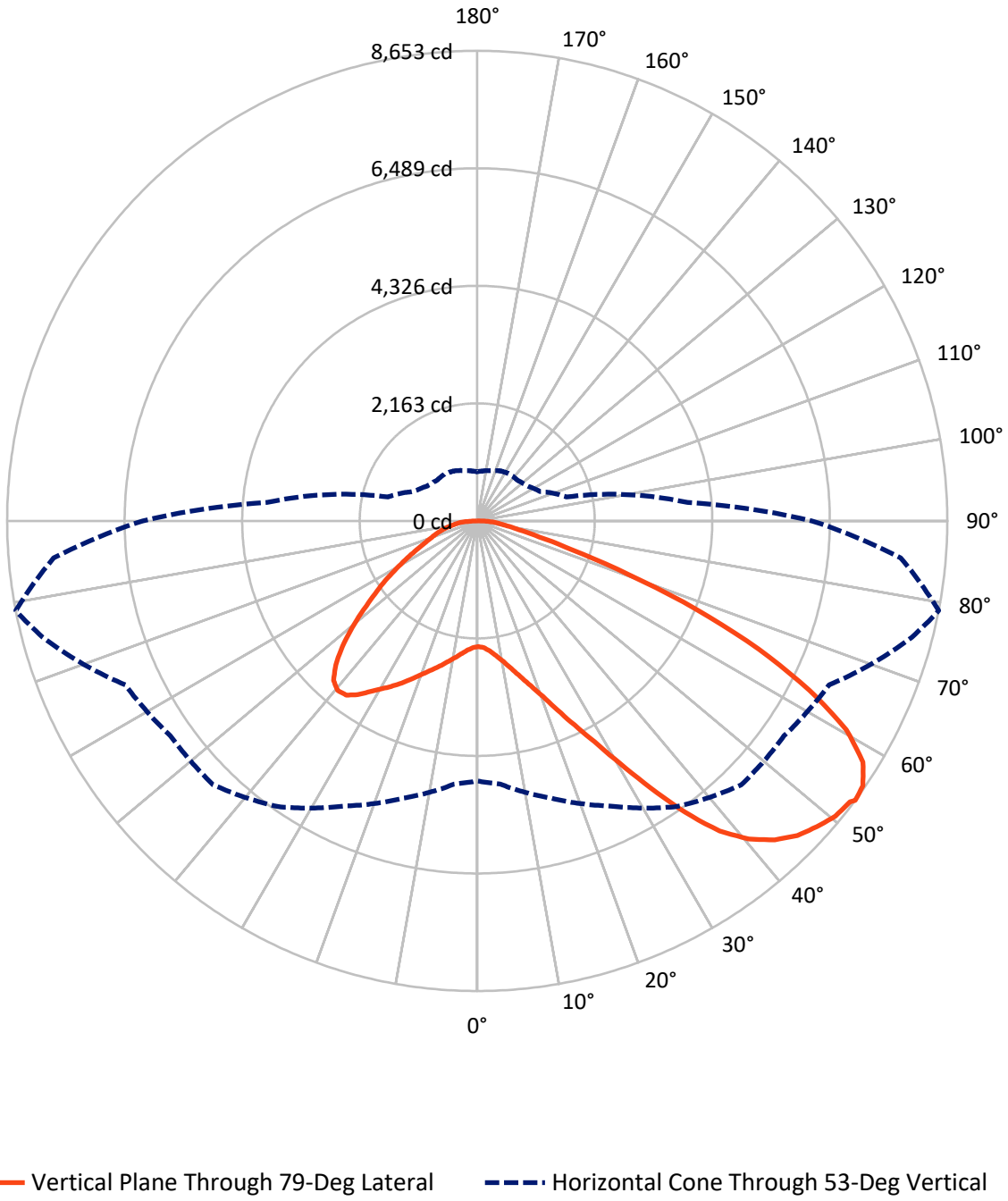
Based on 20 foot mounting height. Maximum calculated value = 9 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

Luminous Intensity Polar Plot



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

Scaled Data Report

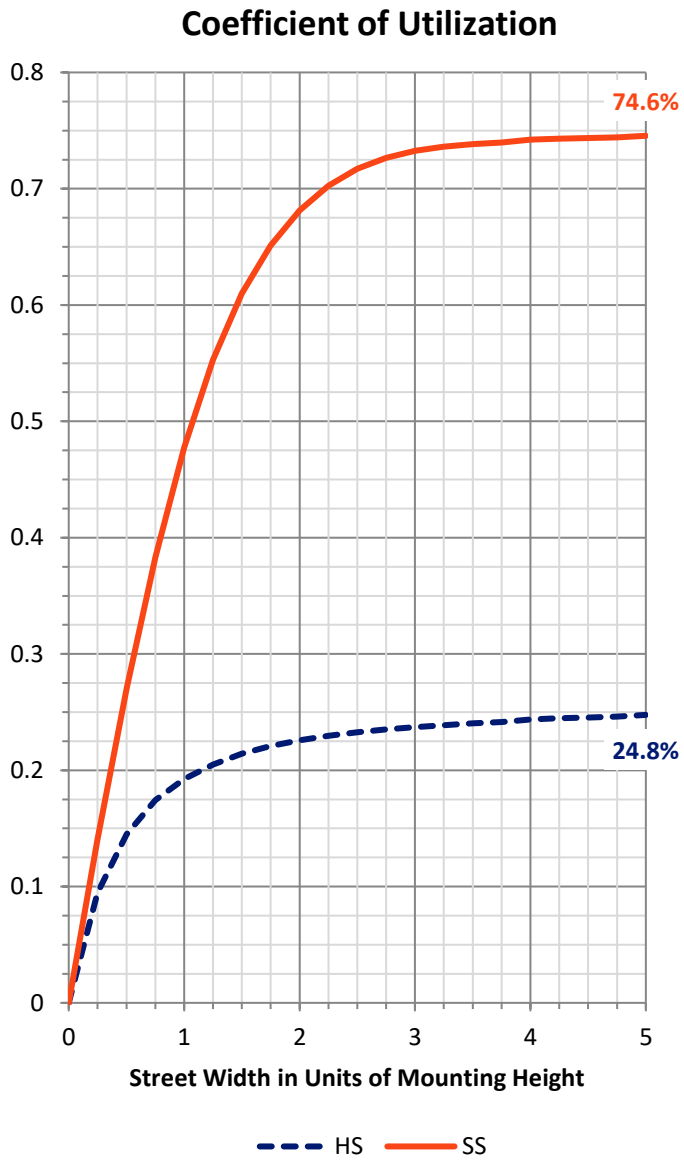
REPORT NUMBER: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3970.7	0.0	3970.7
	% Fixture	25.2	0.0	25.2
Street Side	Lumens	11780.2	0.0	11780.2
	% Fixture	74.8	0.0	74.8
Total	Lumens	15750.9	0.0	15750.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.3	1.4
10°-20°	682.3	4.3
20°-30°	1304.4	8.3
30°-40°	2239.6	14.2
40°-50°	3137.0	19.9
50°-60°	3560.1	22.6
60°-70°	3122.0	19.8
70°-80°	1220.7	7.8
80°-90°	264.5	1.7
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°	15750.9	100.0
0°-180°	15750.9	100.0



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

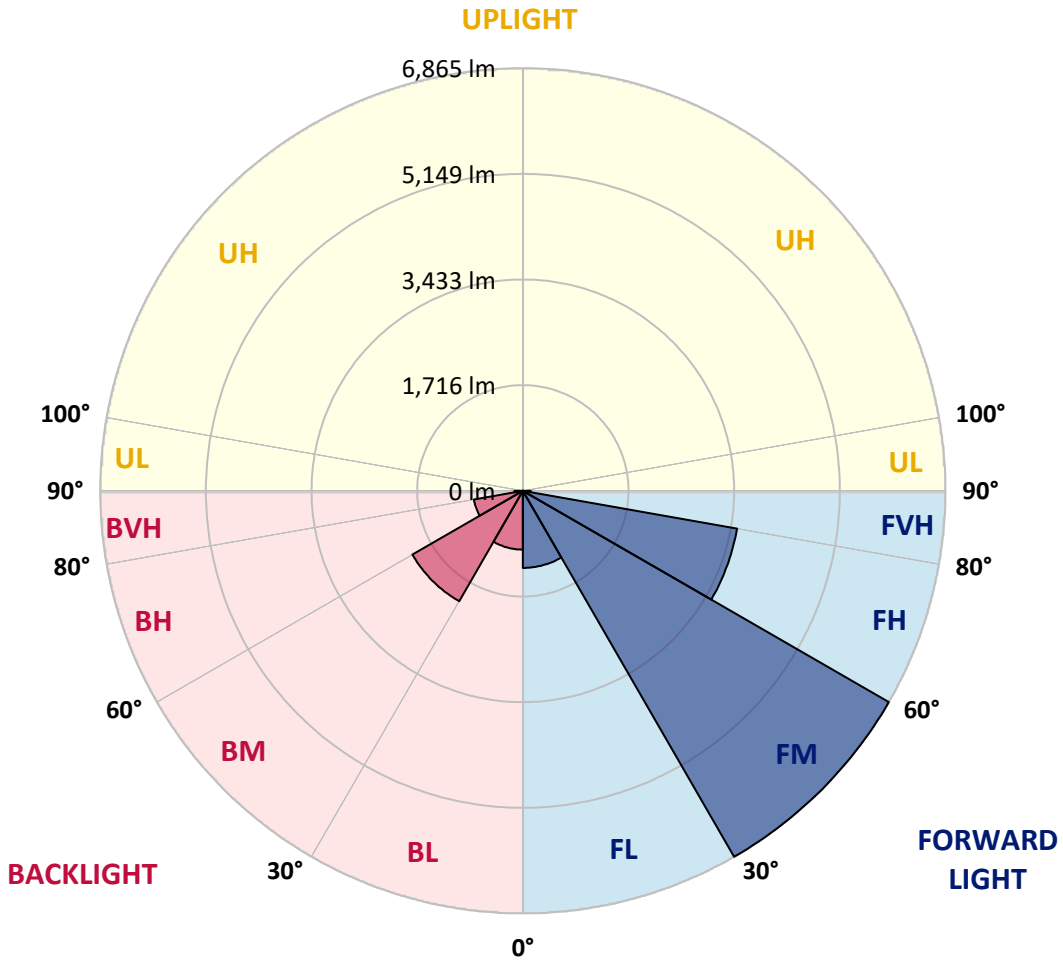
Scaled Data Report

REPORT NUMBER: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1252.0	7.9			
FM	(30°-60°)	6865.2	43.6			
FH	(60°-80°)	3534.6	22.4			G2/5000
FVH	(80°-90°)	128.3	0.8			G2/225
BL	(0°-30°)	955.0	6.1	B2/1000		
BM	(30°-60°)	2071.4	13.2	B2/2500		
BH	(60°-80°)	808.1	5.1	B2/1000		G2/1000
BVH	(80°-90°)	136.2	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
Type III Short



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

Scaled Data Report

REPORT NUMBER: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	*2312.3*	2312.3
2.5°	2315.8	2315.8	2301.7	2315.8	2308.8	2319.3	2326.3	2326.3	2340.3	*2336.8*	2336.8
5°	2277.2	2270.2	2266.7	2291.2	2305.3	2333.3	2364.9	2378.9	2403.5	*2403.5*	2407.0
7.5°	2175.4	2171.9	2189.5	2238.6	2284.2	2354.4	2421.0	2459.6	2498.2	*2505.2*	2505.2
10°	2112.3	2108.8	2129.8	2189.5	2263.1	2364.9	2470.2	2550.9	2614.0	*2631.6*	2631.6
12.5°	2112.3	2112.3	2129.8	2189.5	2266.7	2389.5	2533.3	2670.2	2768.4	*2789.5*	2782.4
15°	2171.9	2168.4	2189.5	2252.6	2326.3	2442.1	2617.5	2800.0	2933.3	*2971.9*	2975.4
17.5°	2235.1	2231.6	2263.1	2343.8	2431.6	2547.4	2726.3	2950.9	3140.3	*3189.5*	3200.0
20°	2333.3	2329.8	2368.4	2445.6	2554.4	2687.7	2873.7	3129.8	3393.0	*3445.6*	3459.6
22.5°	2445.6	2449.1	2491.2	2586.0	2694.7	2870.2	3098.2	3382.4	3698.2	*3778.9*	3793.0
25°	2680.7	2670.2	2705.2	2771.9	2887.7	3098.2	3378.9	3687.7	4063.1	*4161.4*	4178.9
27.5°	2993.0	2975.4	3014.0	3080.7	3164.9	3361.4	3684.2	4028.0	4480.7	*4603.5*	4607.0
30°	3273.7	3263.1	3315.8	3452.6	3540.3	3691.2	4035.1	4428.0	4996.5	*5175.4*	5182.4
32.5°	3515.8	3512.3	3610.5	3785.9	3985.9	4147.3	4480.7	4933.3	5649.1	*5856.1*	5810.5
35°	3747.3	3757.9	3880.7	4063.1	4329.8	4652.6	4989.4	5505.2	6336.8	*6585.9*	6512.2
37.5°	3982.4	3989.5	4150.9	4385.9	4666.6	5087.7	5540.3	6126.3	6933.3	*7242.1*	7080.7
40°	4200.0	4221.0	4438.6	4691.2	5056.1	5484.2	5989.4	6557.9	7392.9	*7698.2*	7522.8
42.5°	4417.5	4449.1	4684.2	5031.6	5421.0	5866.6	6301.7	6821.0	7687.7	*8028.0*	7757.9
45°	4642.1	4663.1	4954.4	5315.8	5757.9	6168.4	6480.7	6989.4	7891.2	*8259.6*	7891.2
47.5°	4793.0	4835.1	5154.4	5571.9	6014.0	6400.0	6624.5	7059.6	8021.0	*8410.5*	7940.3
50°	4852.6	4912.3	5256.1	5719.3	6224.5	6617.5	6736.8	7098.2	8164.9	*8543.8*	7929.8
52.5°	4842.1	4898.2	5273.7	5785.9	6392.9	6817.5	6845.6	7140.3	8266.6	*8589.4*	7838.6
53°	*4785.9*	*4863.1*	*5284.2*	*5789.4*	*6417.5*	*6870.1*	*6894.7*	*7143.8*	*8280.7*	*8652.6*	*7824.5*
55°	4593.0	4635.1	5175.4	5785.9	6533.3	7066.6	7031.5	7249.1	8319.3	*8610.5*	7670.1
57.5°	4417.5	4459.6	4929.8	5719.3	6628.0	7343.8	7252.6	7231.5	8108.7	*8371.9*	7280.7
60°	4305.2	4319.3	4715.8	5508.7	6589.4	7536.8	7396.5	7024.5	7589.4	*7807.0*	6596.5
62.5°	4210.5	4207.0	4557.9	5207.0	6442.1	7564.9	7424.5	6512.2	6828.0	*6863.1*	5684.2
65°	3996.5	3971.9	4312.3	4866.6	6136.8	7438.6	7080.7	5736.8	5817.5	*5701.7*	4564.9
67.5°	3571.9	3519.3	3821.0	4347.3	5515.8	7080.7	6424.5	4835.1	4585.9	*4354.4*	3438.6
70°	2557.9	2557.9	2800.0	3326.3	4428.0	6119.3	5515.8	3659.6	3157.9	*2950.9*	2298.2
72.5°	1252.6	1284.2	1536.8	1964.9	2968.4	4442.1	4224.5	2371.9	1915.8	*1814.0*	1473.7
75°	533.3	536.8	656.1	870.2	1505.3	2628.1	2645.6	1368.4	1228.1	*1178.9*	975.4
77.5°	371.9	378.9	431.6	512.3	715.8	1207.0	1375.4	828.1	824.6	*789.5*	694.7
80°	284.2	291.2	326.3	382.5	480.7	617.5	712.3	561.4	589.5	*554.4*	501.8
82.5°	214.0	221.1	245.6	287.7	343.9	414.0	400.0	414.0	435.1	*414.0*	361.4
85°	143.9	147.4	164.9	200.0	221.1	249.1	249.1	301.8	315.8	*308.8*	284.2
87.5°	73.7	73.7	87.7	105.3	112.3	115.8	101.8	133.3	150.9	*164.9*	133.3
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: P1434863
CATALOG NUMBER: GALN-SB4A-830-U-T3LG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3	2312.3
2.5°	2336.8	2340.3	2329.8	2326.3	2322.8	2305.3	2305.3	2287.7	2284.2	2287.7	2277.2
5°	2414.0	2407.0	2378.9	2357.9	2333.3	2284.2	2256.1	2217.5	2207.0	2196.5	2186.0
7.5°	2508.8	2498.2	2449.1	2393.0	2326.3	2231.6	2178.9	2115.8	2094.7	2077.2	2070.2
10°	2628.1	2607.0	2529.8	2410.5	2287.7	2171.9	2098.2	2021.0	1986.0	1978.9	1961.4
12.5°	2782.4	2743.8	2600.0	2414.0	2252.6	2101.7	2021.0	1961.4	1947.4	1943.8	1926.3
15°	2954.4	2898.2	2666.7	2417.5	2207.0	2042.1	1993.0	1961.4	1961.4	1957.9	1947.4
17.5°	3164.9	3073.7	2729.8	2403.5	2150.9	2024.6	2000.0	1971.9	1964.9	1968.4	1954.4
20°	3417.5	3266.6	2796.5	2386.0	2126.3	2028.1	2000.0	1961.4	1943.8	1940.3	1929.8
22.5°	3708.8	3487.7	2870.2	2357.9	2126.3	2024.6	1978.9	1926.3	1891.2	1877.2	1863.1
25°	4042.1	3743.8	2947.4	2347.4	2133.3	2010.5	1936.8	1852.6	1796.5	1775.4	1764.9
27.5°	4445.6	4014.0	3003.5	2357.9	2129.8	1978.9	1863.1	1754.4	1691.2	1656.1	1649.1
30°	4891.2	4305.2	3042.1	2375.4	2108.8	1919.3	1775.4	1652.6	1564.9	1522.8	1512.3
32.5°	5417.5	4631.6	3080.7	2375.4	2056.1	1835.1	1673.7	1540.3	1449.1	1400.0	1393.0
35°	6000.0	5031.6	3115.8	2371.9	1993.0	1743.9	1571.9	1435.1	1340.3	1291.2	1287.7
37.5°	6494.7	5333.3	3133.3	2336.8	1905.3	1638.6	1477.2	1340.3	1242.1	1189.5	1186.0
40°	6800.0	5459.6	3098.2	2266.7	1800.0	1529.8	1371.9	1245.6	1147.4	1084.2	1070.2
42.5°	6915.8	5400.0	2985.9	2150.9	1673.7	1421.0	1284.2	1150.9	1021.0	968.4	957.9
45°	6877.2	5168.4	2747.4	1986.0	1533.3	1322.8	1207.0	1056.1	971.9	926.3	922.8
47.5°	6747.3	4810.5	2449.1	1778.9	1386.0	1235.1	1105.3	1031.6	954.4	905.3	901.7
50°	6519.3	4428.0	2091.2	1543.9	1252.6	1143.9	1080.7	1021.0	957.9	919.3	912.3
52.5°	6228.0	3996.5	1761.4	1315.8	1136.8	1063.2	1056.1	1014.0	964.9	922.8	905.3
53°	*6161.4*	*3884.2*	*1698.2*	*1277.2*	*1119.3*	*1052.6*	*1049.1*	*1014.0*	*957.9*	*919.3*	*905.3*
55°	5842.1	3536.8	1498.2	1140.3	1031.6	1017.5	1049.1	1010.5	940.3	908.8	898.2
57.5°	5329.8	3080.7	1305.3	1014.0	940.3	975.4	1038.6	996.5	919.3	863.2	845.6
60°	4712.3	2557.9	1157.9	929.8	873.7	922.8	996.5	947.4	842.1	814.0	810.5
62.5°	3975.4	2070.2	1045.6	859.6	817.5	866.7	933.3	849.1	771.9	750.9	743.9
65°	3105.2	1645.6	957.9	807.0	761.4	800.0	845.6	793.0	743.9	726.3	722.8
67.5°	2308.8	1291.2	887.7	761.4	705.3	729.8	782.5	768.4	726.3	715.8	712.3
70°	1593.0	1049.1	824.6	719.3	635.1	663.2	743.9	754.4	712.3	705.3	701.8
72.5°	1115.8	887.7	757.9	673.7	578.9	607.0	726.3	726.3	680.7	691.2	684.2
75°	838.6	747.4	680.7	617.5	508.8	550.9	701.8	694.7	649.1	694.7	677.2
77.5°	631.6	603.5	589.5	547.4	445.6	487.7	652.6	638.6	578.9	582.5	550.9
80°	459.6	466.7	505.3	466.7	371.9	403.5	550.9	543.9	470.2	484.2	445.6
82.5°	329.8	347.4	431.6	375.4	270.2	287.7	378.9	410.5	368.4	347.4	354.4
85°	249.1	259.6	347.4	277.2	168.4	189.5	259.6	294.7	287.7	266.7	270.2
87.5°	105.3	119.3	161.4	129.8	98.2	98.2	161.4	207.0	186.0	157.9	164.9
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: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

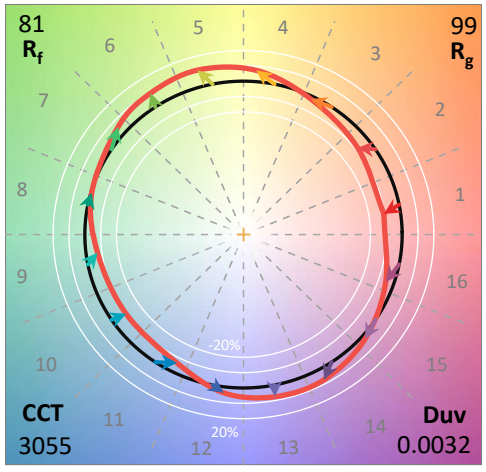
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-184-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	10/15/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGraw-Edison
Catalog Number:	**GSS-SB1A-830-U-5WQ**
Description:	GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3000K CCT 26 LEDS

Spectral Parameters

CCT (K):	3055
CIE u':	0.2475
CIE v':	0.5247
Duv:	0.0032
CIE x:	0.4377
CIE y:	0.4124
CIE z:	0.1499
Peak Wavelength (nm):	604
Dominant Wavelength (nm):	581
Purity:	55.16339
Rf:	81.5
Rg:	99.2

CRI (Ra):	80.9
R1:	79.5
R2:	85.6
R3:	92.1
R4:	82.4
R5:	78.9
R6:	81.7
R7:	85.1
R8:	61.9
R9:	6.8
R10:	67.1
R11:	82.5
R12:	63.4
R13:	80.2
R14:	95.1
R15:	71.7



Test Conditions

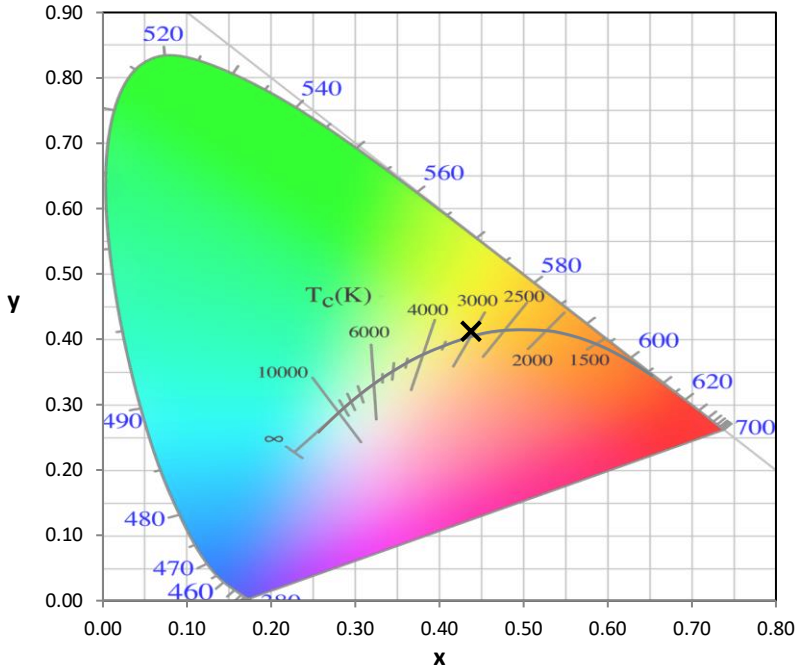
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-184-9

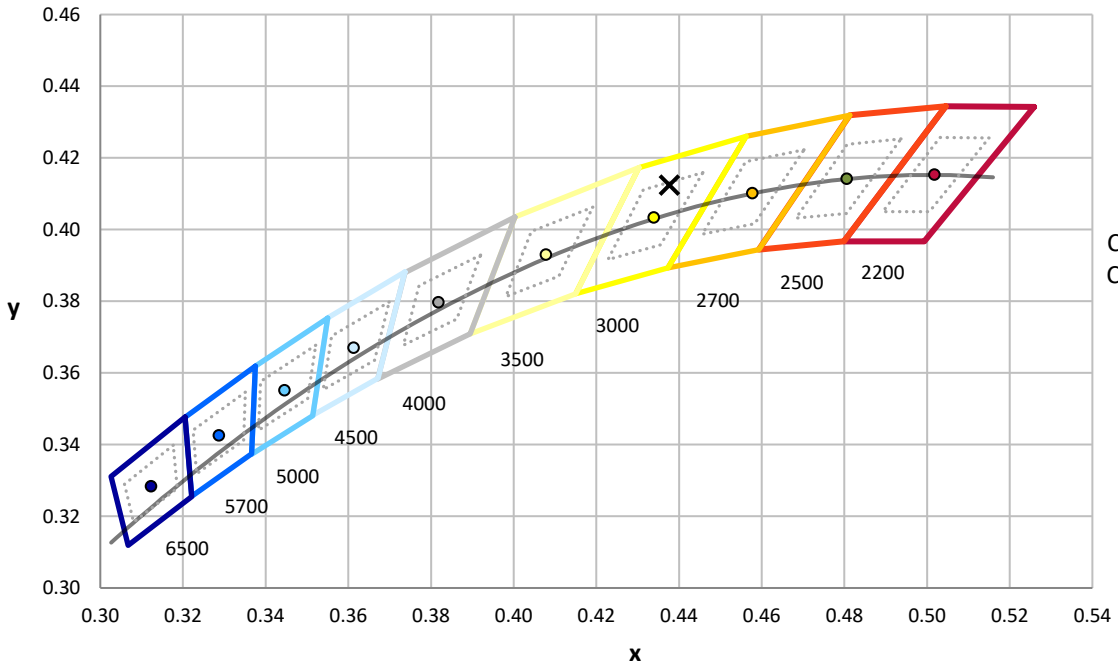
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-184-9

CIE 1931 Chromaticity Diagram



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

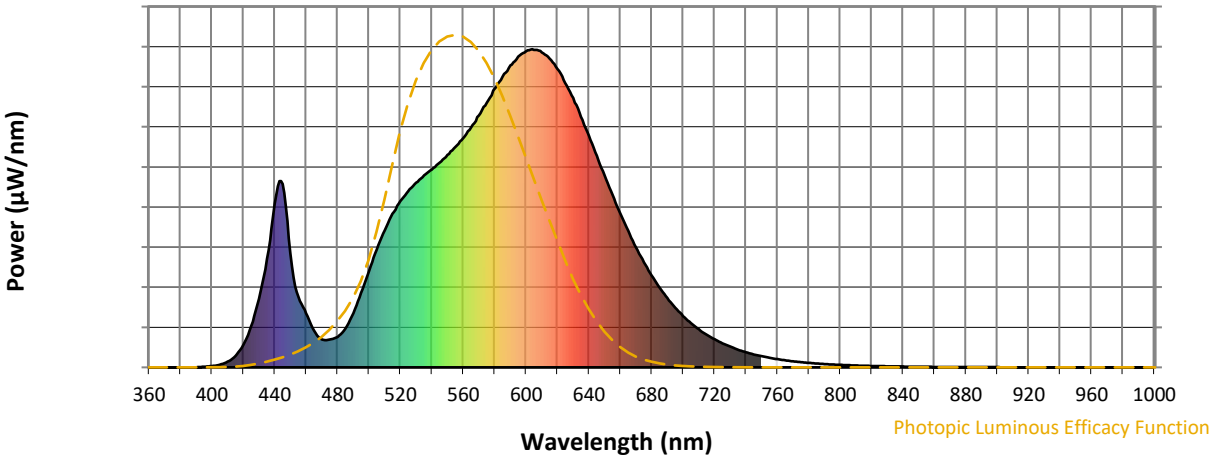


CCT = 3055K
CIE x = 0.4377
CIE y = 0.4124
Duv = 0.0032

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

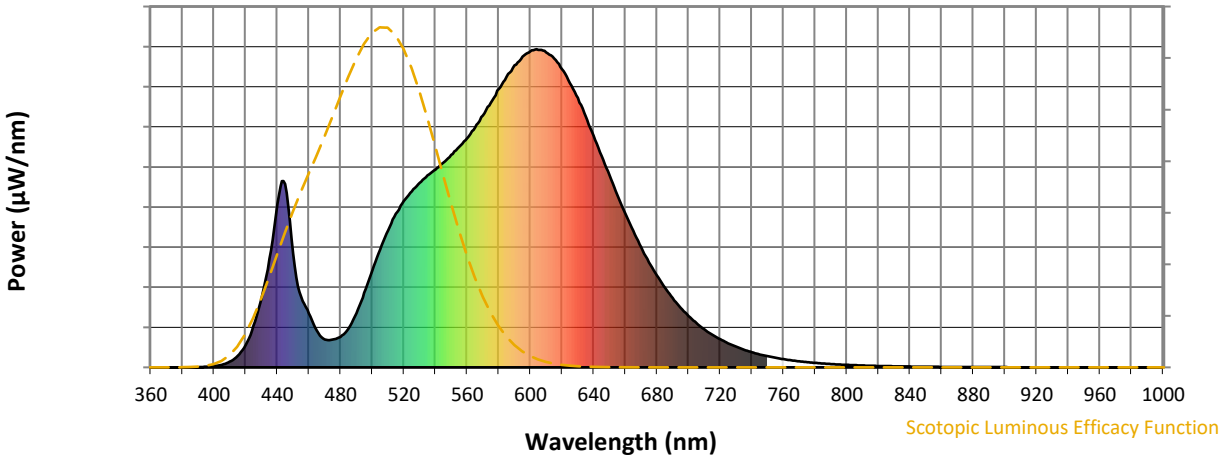


Photopic Lumens: NR

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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

Scotopic Flux vs. Wavelength

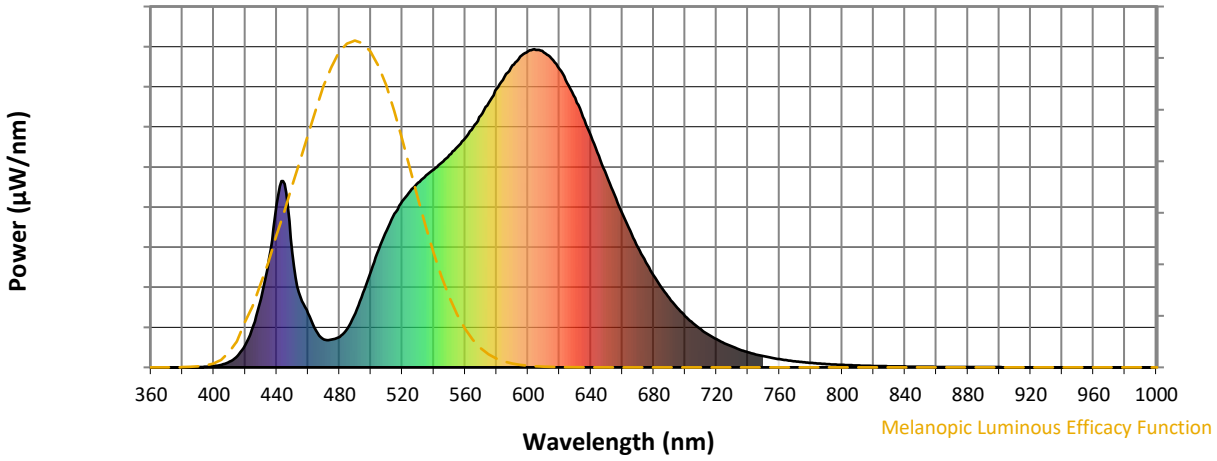


Scotopic Lumens: NR **S/P: 1.28**

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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.33**

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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

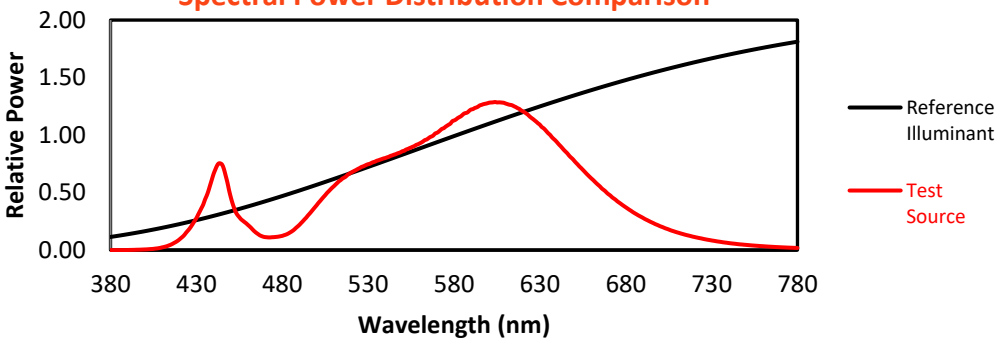
REPORT NUMBER: SP1-2407-184-9

TM-30-18

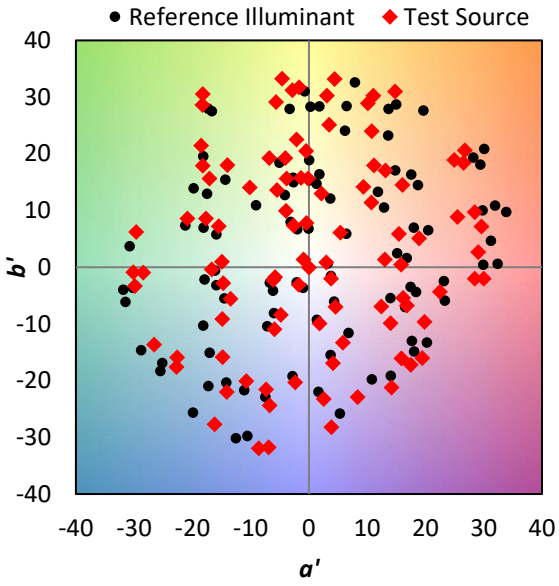
Summary

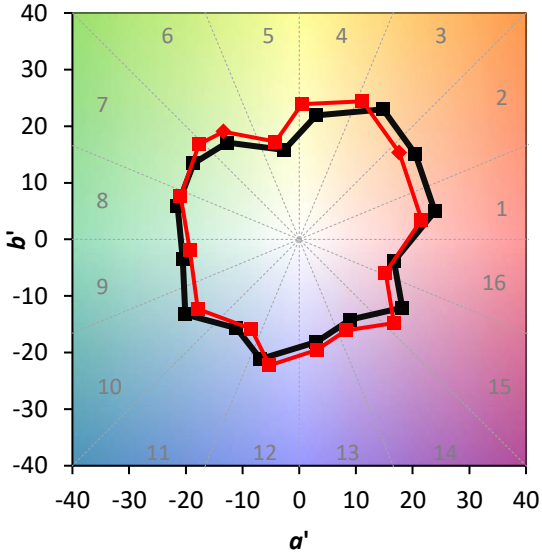
R_f = 81.5
R_g = 99.2
CIE R_a = 80.9
R_9 = 6.8

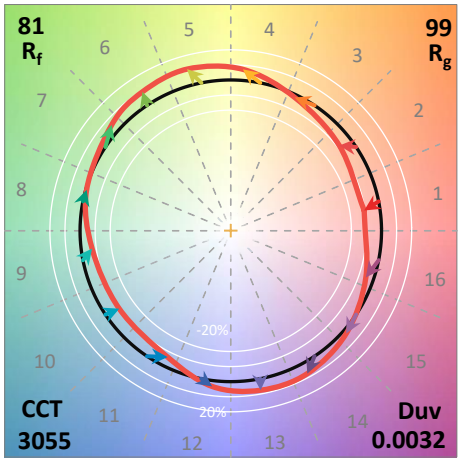
Spectral Power Distribution Comparison

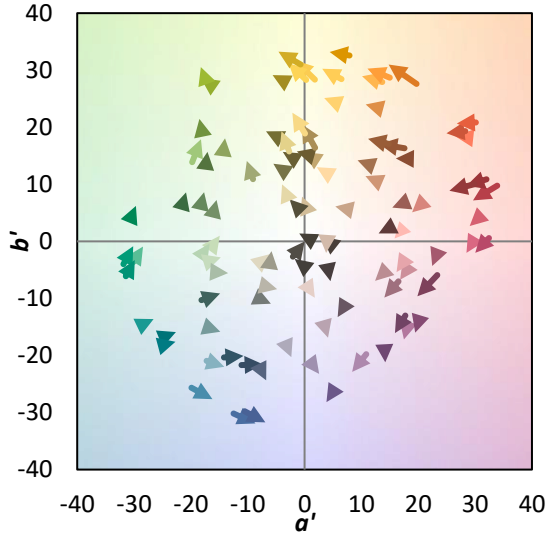


Color Vector Graphics







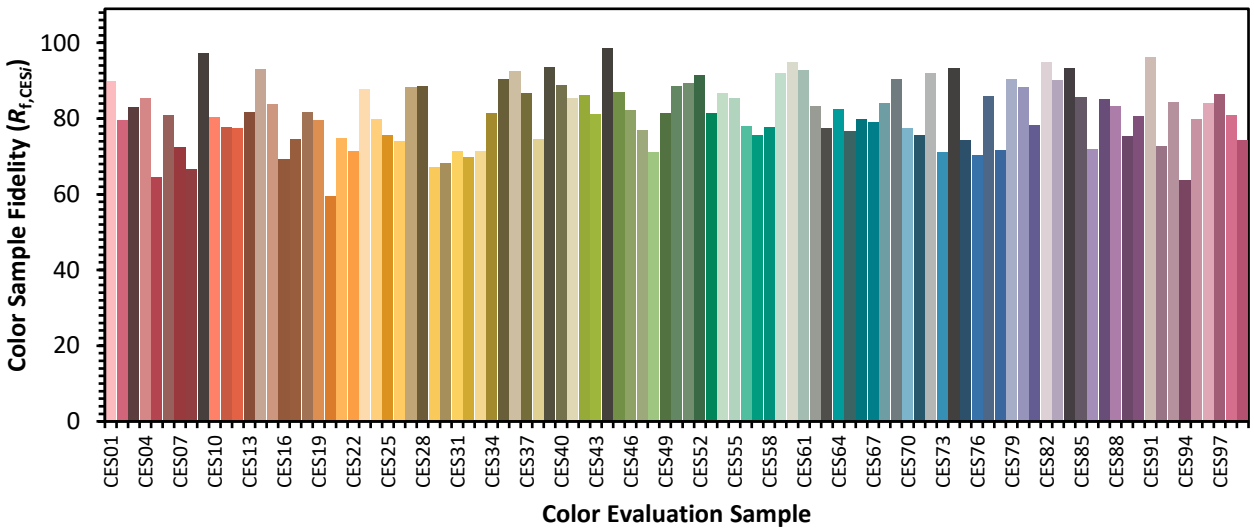


REPORT NUMBER: SP1-2407-184-9

TM-30-18

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

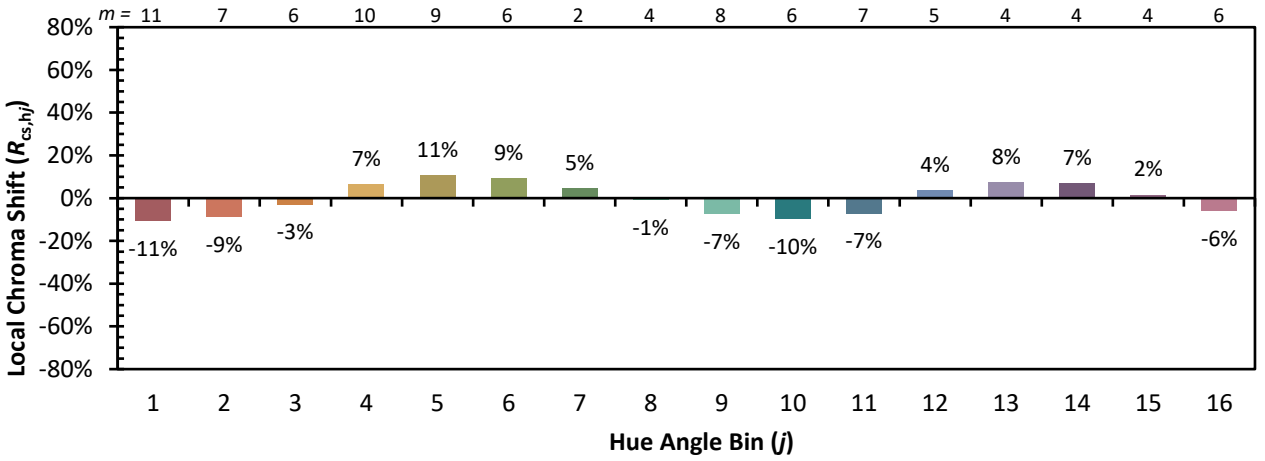
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 93
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 = 90	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 77	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	

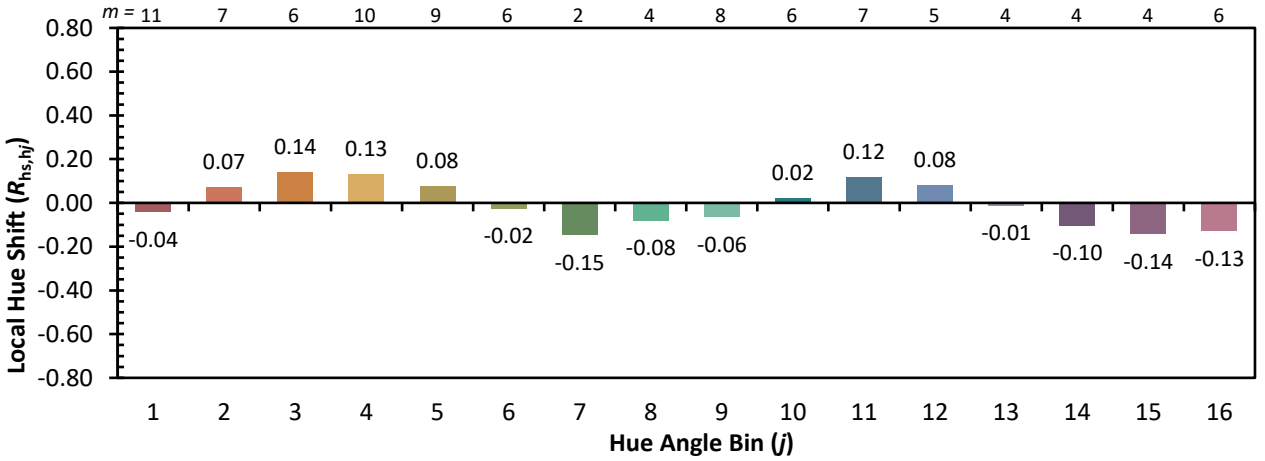


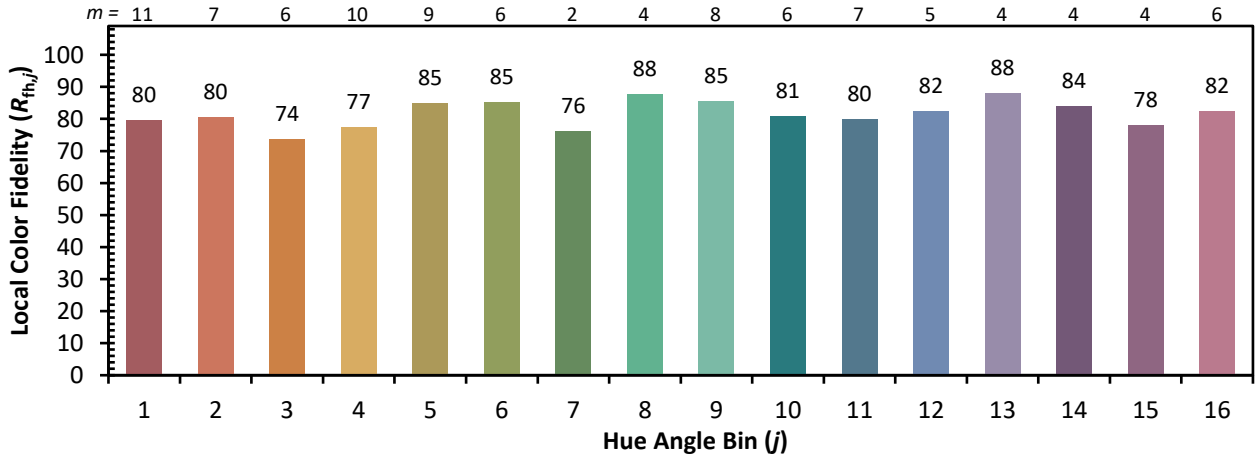
REPORT NUMBER: SP1-2407-184-9

TM-30-18

Color Rendition by Hue-Angle Bin



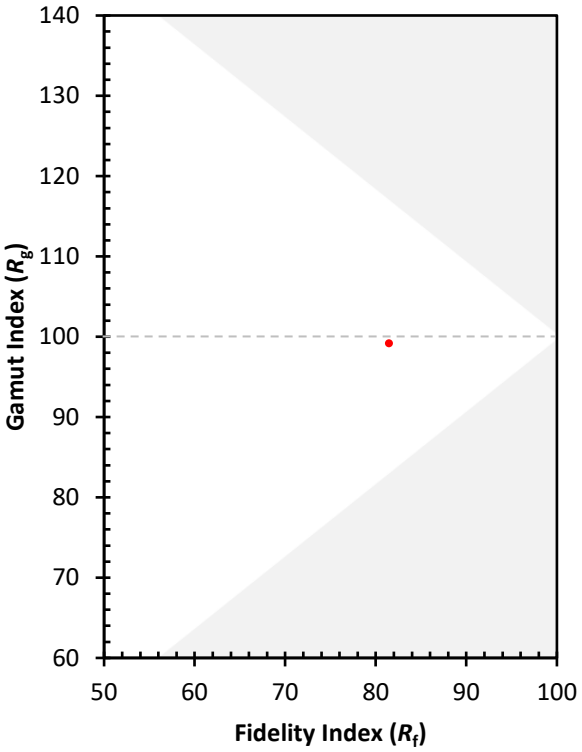


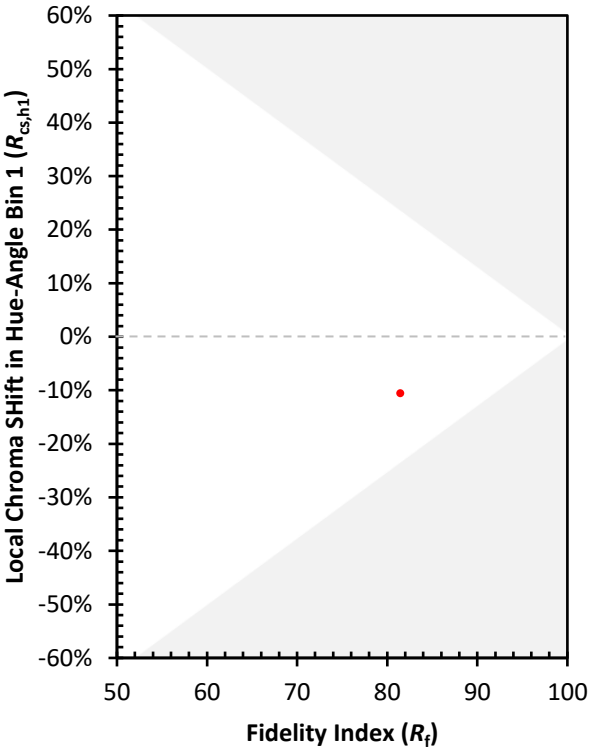


REPORT NUMBER: SP1-2407-184-9

TM-30-18

Measure Comparisons





(END OF REPORT)