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: P1435310

Luminaire Tested: **GALN-SB7D-735-U-T4LG**

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:	P1435310
Test Lab:	INNOVATION CENTER(G1)
Issue Date:	03/24/202
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GALN-SB7D-735-U-T4LG
Description:	GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 7xLight Square PACKAGE 70CRI 3500K FIXTURE w/ TYPE IV LOW GLARE
Light Source:	(182) 3500K CCT, 70 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:	70809.2 lumens
Efficiency:	N/A
Efficacy:	138.1 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B4 - U0 - G5

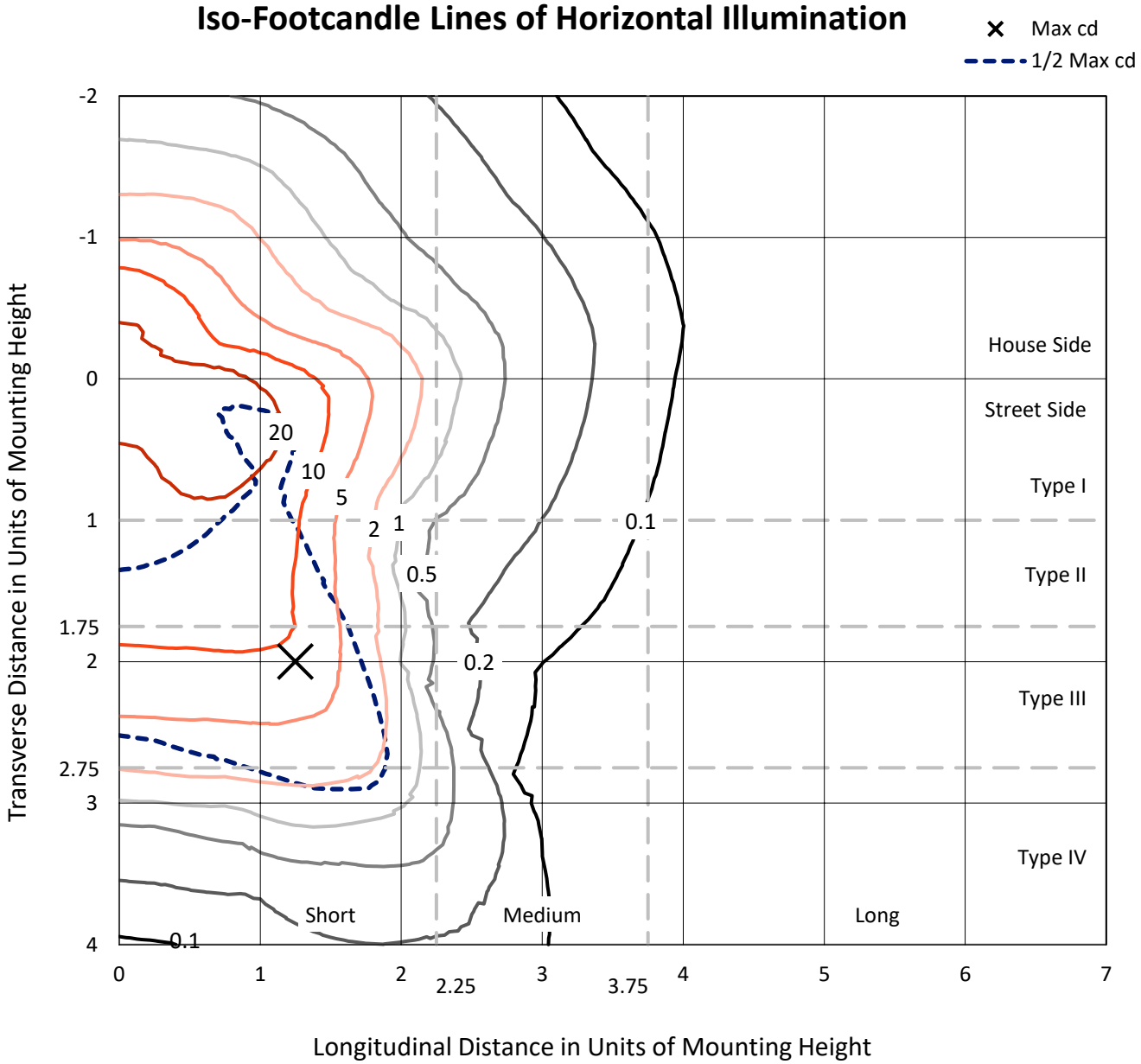
Input Watts (W):	512.8
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.97
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

Iso-Footcandle Lines of Horizontal Illumination



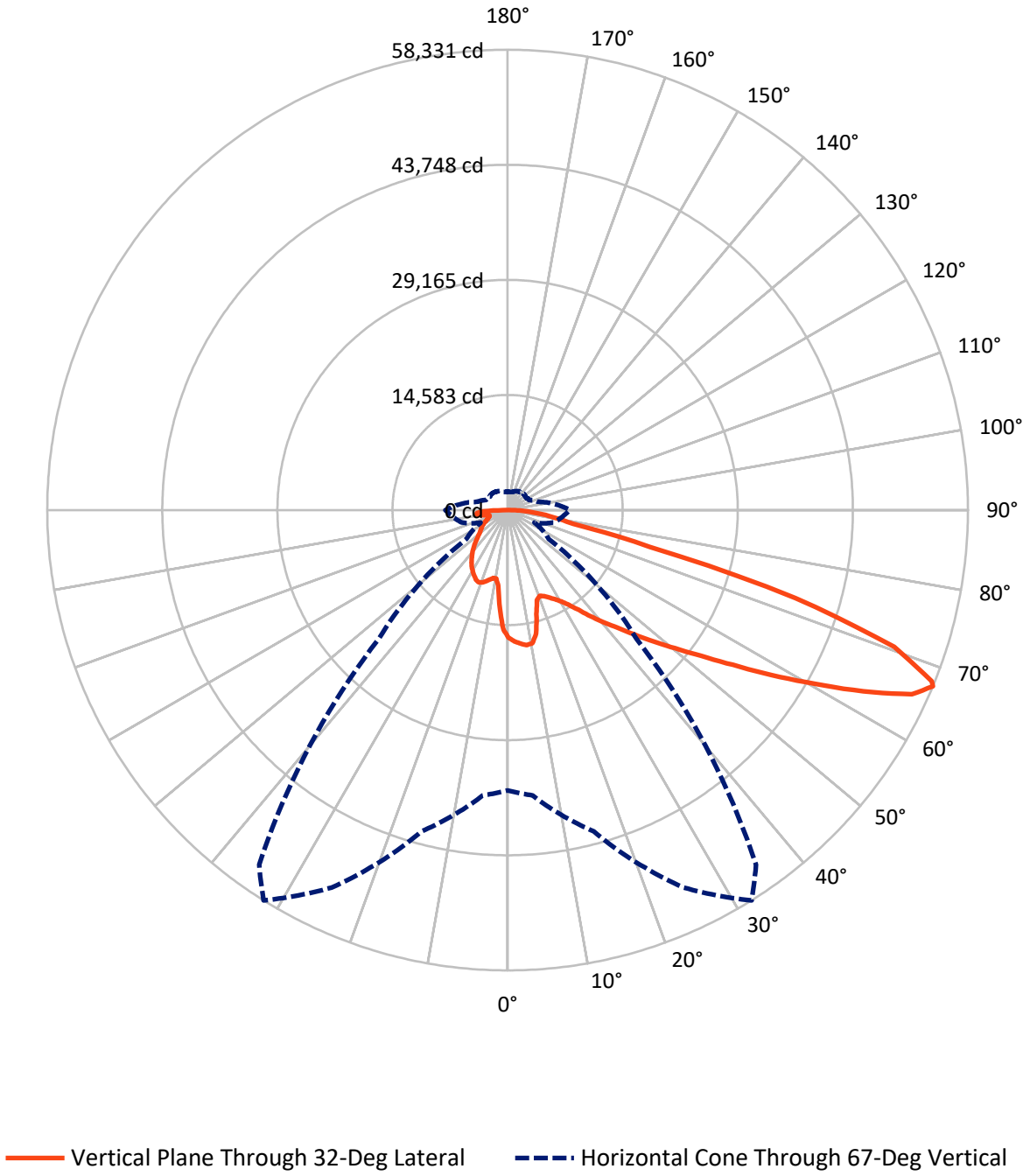
Based on 20 foot mounting height. Maximum calculated value = 43.7 fc
Type IV - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

Luminous Intensity Polar Plot



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

Scaled Data Report

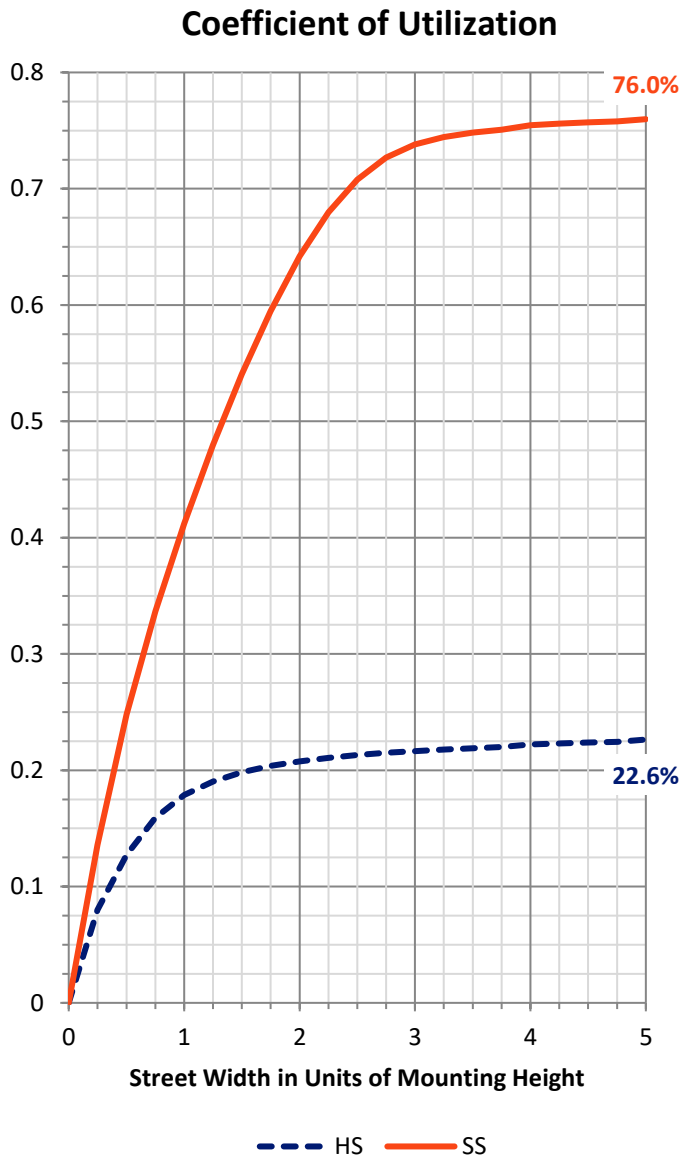
REPORT NUMBER: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16763.8	0.0	16763.8
	% Fixture	23.7	0.0	23.7
Street Side	Lumens	54045.4	0.0	54045.4
	% Fixture	76.3	0.0	76.3
Total	Lumens	70809.2	0.0	70809.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1413.6	2.0
10°-20°	3753.2	5.3
20°-30°	6129.2	8.7
30°-40°	9033.9	12.8
40°-50°	12458.2	17.6
50°-60°	15738.5	22.2
60°-70°	15232.0	21.5
70°-80°	5436.2	7.7
80°-90°	1614.3	2.3
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°	70809.2	100.0
0°-180°	70809.2	100.0



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

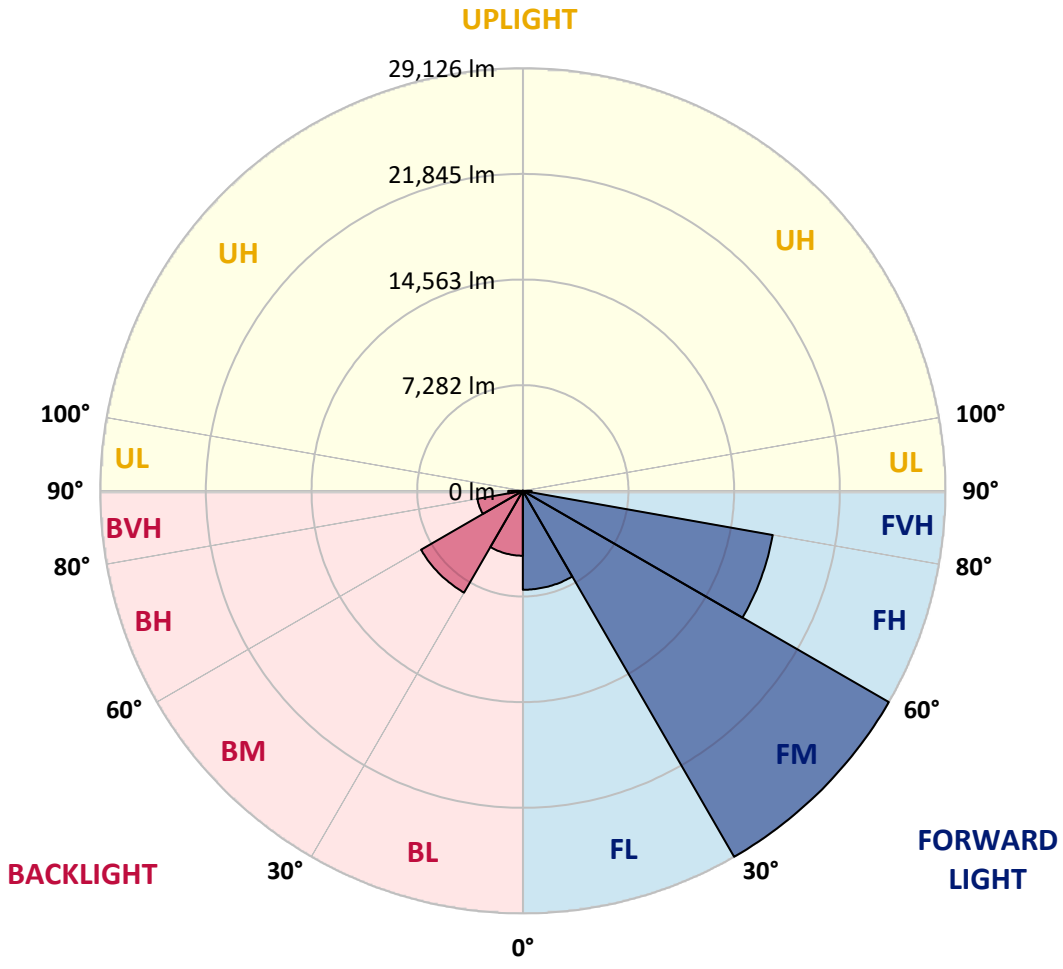
Scaled Data Report

REPORT NUMBER: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	6822.6	9.6			
FM	(30°-60°)	29126.1	41.1			
FH	(60°-80°)	17488.4	24.7			G5
FVH	(80°-90°)	608.3	0.9			G4/750
BL	(0°-30°)	4473.4	6.3	B4/5000		
BM	(30°-60°)	8104.5	11.4	B4/8500		
BH	(60°-80°)	3179.8	4.5	B4/5000		G4/5000
BVH	(80°-90°)	1006.0	1.4			G5
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
Type IV Short



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

Scaled Data Report

REPORT NUMBER: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	16178.5	16178.5	16178.5	16178.5	*16178.5*	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5
2.5°	16791.7	16744.5	16697.3	16728.8	*16665.9*	16650.2	16571.6	16540.1	16445.8	16430.1	16257.1
5°	17137.6	17043.2	17027.5	17059.0	*16996.1*	16996.1	16933.2	16886.0	16744.5	16665.9	16414.3
7.5°	17137.6	17121.8	17153.3	17263.3	*17279.1*	17279.1	17279.1	17294.8	17153.3	17043.2	16650.2
10°	16162.8	16005.5	16351.4	16901.7	*17169.0*	17326.2	17609.2	17782.2	17672.1	17593.5	17059.0
12.5°	13254.1	13269.8	13820.1	14999.3	*16068.4*	16524.4	17703.6	18332.5	18379.6	18253.9	17577.8
15°	11241.6	11320.2	11603.2	12452.3	*13678.6*	14354.7	17153.3	18819.9	19197.2	19071.4	18206.7
17.5°	10628.4	10675.6	10801.4	11288.8	*11980.6*	12530.9	15659.6	19134.3	20187.7	20030.5	18914.2
20°	10534.1	10565.5	10722.8	11131.6	*11603.2*	11917.7	14134.6	18882.8	21115.4	21052.5	19558.8
22.5°	10549.8	10581.3	10785.7	11351.7	*11839.1*	12106.4	13647.2	18301.0	22090.2	22153.1	20219.2
25°	10581.3	10597.0	10911.4	11666.1	*12279.3*	12609.5	13961.6	17782.2	22907.7	23442.3	20942.4
27.5°	10754.2	10801.4	11225.9	12074.9	*12798.1*	13175.5	14700.6	17955.1	23803.9	24904.5	21807.2
30°	11225.9	11257.3	11776.2	12656.6	*13442.8*	13835.8	15581.0	18646.9	24904.5	26413.9	22656.2
32.5°	11964.9	11996.3	12593.8	13505.7	*14354.7*	14826.4	16728.8	19967.6	26130.9	28001.8	23505.2
35°	12986.8	13002.5	13678.6	14653.4	*15549.6*	16084.2	18065.2	21461.3	27404.4	29354.0	24134.1
37.5°	14197.5	14307.5	14999.3	16021.3	*17074.7*	17562.1	19637.5	23206.5	28536.4	30501.7	24495.7
40°	15864.0	15895.5	16571.6	17562.1	*18678.4*	19150.1	21209.7	24857.3	29778.5	31177.8	24825.9
42.5°	17577.8	17845.1	18411.1	19511.7	*20345.0*	20722.3	23002.1	26366.7	30769.0	31209.2	24684.4
45°	19873.3	20077.7	20643.7	21618.5	*22451.8*	22892.0	24935.9	27750.3	31272.1	30942.0	24369.9
47.5°	22499.0	22624.7	23080.7	23961.1	*24888.8*	25203.2	26948.4	28536.4	31460.8	30753.3	24228.4
50°	25596.3	25596.3	25926.5	26681.1	*27530.2*	27970.4	28803.7	29008.1	32011.1	30423.1	24590.1
52.5°	28206.2	28332.0	28772.2	29841.4	*30690.4*	31193.5	30250.2	29731.3	30894.8	28583.6	24700.1
55°	30706.1	30847.6	31838.1	33174.6	*34621.0*	35171.3	32058.3	29369.7	27137.1	25895.0	23945.4
57.5°	33095.9	33394.7	34636.8	37246.7	*39432.1*	39385.0	34353.7	26130.9	22153.1	22923.5	22294.6
60°	36429.1	36743.6	38724.6	42010.6	*44683.5*	43567.2	34385.2	21744.3	17263.3	18301.0	19197.2
62.5°	39212.0	39746.6	42655.2	48126.7	*50579.4*	48834.2	31539.4	16650.2	11461.7	12766.7	14842.1
65°	38960.5	39668.0	44180.3	52623.3	*56286.7*	54667.3	27372.9	10534.1	5911.7	8726.0	10392.6
67°	*35532.9*	*36303.3*	*42152.1*	*52780.6*	*58330.6*	*54871.7*	*23112.1*	*6367.6*	*3757.7*	*6053.2*	*7216.6*
67.5°	33567.6	34699.6	41145.9	52481.8	*57953.3*	54006.9	21194.0	5329.9	3537.6	5628.7	6572.0
70°	20643.7	22467.5	30879.1	46397.2	*51947.3*	45202.3	11776.2	3018.7	2877.2	3773.4	4543.8
72.5°	6210.4	6760.7	11917.7	29762.8	*38127.2*	33504.7	5298.5	2326.9	2578.5	3034.4	3506.1
75°	3018.7	3223.1	4921.2	12169.2	*18568.3*	18474.0	2955.8	1996.8	2389.8	2547.1	2767.2
77.5°	1933.9	2059.7	3065.9	6807.9	*8505.9*	7578.3	2138.3	1745.2	2122.5	2091.1	2059.7
80°	1210.6	1273.5	1965.3	3946.4	*6273.3*	5235.6	1572.3	1430.8	1823.8	1619.4	1462.2
82.5°	786.1	864.7	1257.8	2405.5	*4480.9*	3899.2	1037.7	1022.0	1509.4	1289.2	1132.0
85°	518.8	581.7	801.8	1415.0	*2657.1*	2782.9	676.1	707.5	1163.5	974.8	864.7
87.5°	188.7	235.8	408.8	628.9	*1242.1*	1540.8	283.0	267.3	566.0	456.0	361.6
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: P1435310
CATALOG NUMBER: GALN-SB7D-735-U-T4LG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5	16178.5
2.5°	16225.7	16178.5	15958.4	15769.7	15628.2	15439.5	15235.1	14999.3	14842.1	14873.5	14826.4
5°	16304.3	16178.5	15754.0	15109.4	14480.5	13694.3	12688.1	12090.6	11634.7	11398.8	11461.7
7.5°	16477.2	16257.1	15360.9	14055.9	12420.8	10817.1	9826.6	9260.6	8993.3	8883.2	8867.5
10°	16775.9	16398.6	14857.8	12420.8	10282.5	9197.7	8836.1	8678.8	8647.4	8647.4	8631.7
12.5°	17137.6	16540.1	14008.8	10832.8	9260.6	8867.5	8804.6	8820.3	8867.5	8914.7	8836.1
15°	17577.8	16603.0	12955.4	9873.8	9056.2	8961.8	9056.2	9166.2	9244.9	9307.7	9229.1
17.5°	18018.0	16540.1	11964.9	9417.8	9087.6	9213.4	9402.1	9575.0	9622.2	9716.5	9653.6
20°	18332.5	16320.0	11115.8	9244.9	9166.2	9449.2	9685.1	9873.8	9968.1	10031.0	9968.1
22.5°	18568.3	16037.0	10502.7	9071.9	9166.2	9512.1	9795.1	10015.3	10125.3	10188.2	10109.6
25°	18772.7	15643.9	10031.0	8820.3	8977.6	9307.7	9622.2	9842.3	9999.5	10093.9	10046.7
27.5°	19024.3	15329.5	9590.7	8443.0	8584.5	8899.0	9229.1	9496.4	9795.1	9952.4	9920.9
30°	19307.3	15172.2	9166.2	8034.2	8128.6	8443.0	8836.1	9197.7	9606.5	9810.9	9810.9
32.5°	19637.5	15062.2	8773.2	7641.2	7719.8	8065.7	8443.0	8773.2	9213.4	9543.6	9527.9
35°	19779.0	14936.4	8458.7	7279.5	7436.8	7719.8	8018.5	8238.6	8694.6	9087.6	9119.1
37.5°	19920.5	14889.2	8301.5	6996.5	7122.3	7342.4	7499.7	7609.7	8034.2	8443.0	8458.7
40°	20093.4	15109.4	8411.6	6807.9	6697.8	6917.9	6996.5	7059.4	7279.5	7546.8	7546.8
42.5°	19983.3	15266.6	8663.1	6634.9	6179.0	6430.5	6462.0	6446.2	6462.0	6477.7	6462.0
45°	19700.3	15109.4	8663.1	6367.6	5628.7	5896.0	5880.2	5801.6	5675.8	5345.7	5298.5
47.5°	19637.5	15015.0	8332.9	5927.4	5078.4	5298.5	5329.9	5172.7	4811.1	4465.2	4355.1
50°	19904.7	15188.0	7814.1	5392.8	4606.7	4795.4	4874.0	4606.7	4197.9	3836.3	3773.4
52.5°	20297.8	15408.1	7059.4	4811.1	4213.6	4402.3	4496.6	4197.9	3773.4	3490.4	3459.0
55°	20250.6	15408.1	6210.4	4276.5	3914.9	4056.4	4213.6	3899.2	3569.0	3411.8	3396.1
57.5°	19228.7	14826.4	5581.5	3899.2	3631.9	3757.7	3962.1	3663.4	3348.9	3380.3	3427.5
60°	17231.9	13317.0	5109.8	3647.6	3380.3	3506.1	3726.2	3380.3	2971.6	2861.5	2861.5
62.5°	14197.5	10974.3	4732.5	3396.1	3144.5	3301.7	3411.8	2955.8	2688.6	2562.8	2562.8
65°	10644.2	8490.2	4339.4	3191.7	2940.1	3113.1	2987.3	2767.2	2499.9	2405.5	2421.3
67°	*7892.7*	*6587.7*	*4009.2*	*3018.7*	*2814.3*	*2892.9*	*2798.6*	*2641.4*	*2374.1*	*2295.5*	*2374.1*
67.5°	7090.9	6257.6	3930.6	2971.6	2782.9	2845.8	2751.4	2625.7	2342.7	2264.0	2342.7
70°	4874.0	4811.1	3506.1	2751.4	2609.9	2547.1	2594.2	2437.0	2201.2	2169.7	2248.3
72.5°	3710.5	3836.3	3144.5	2562.8	2421.3	2342.7	2452.7	2295.5	2059.7	2106.8	2185.4
75°	2908.7	3097.3	2814.3	2295.5	2201.2	2216.9	2437.0	2374.1	2185.4	2232.6	2248.3
77.5°	2154.0	2499.9	2405.5	1996.8	1918.1	2138.3	2751.4	2940.1	2609.9	2531.3	2421.3
80°	1572.3	1792.4	2028.2	1650.9	1603.7	2059.7	3396.1	3757.7	3223.1	2908.7	2830.1
82.5°	1163.5	1257.8	1666.6	1320.7	1163.5	1839.5	3773.4	4418.0	3836.3	3238.8	3144.5
85°	833.3	974.8	1320.7	974.8	770.4	1509.4	3694.8	4323.7	3804.9	3065.9	2987.3
87.5°	298.7	424.5	566.0	440.2	393.1	1037.7	3050.2	3113.1	2374.1	1084.9	1100.6
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: SP1-2407-184-5

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-735-U-5WQ

Data in this report applies to families of products including GSS-SB1A-735-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

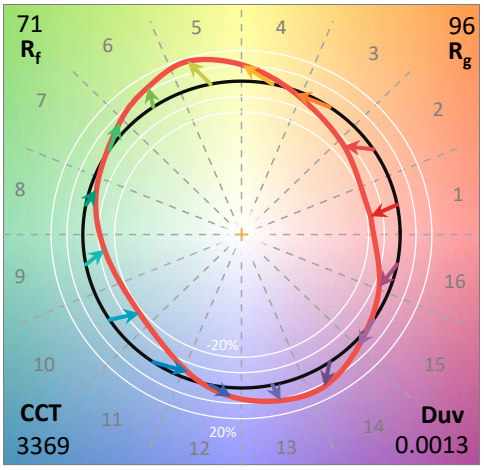
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-184-5
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-735-U-5WQ**
Description:	GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3500K CCT 26 LEDS

Spectral Parameters

CCT (K):	3369
CIE u':	0.2386
CIE v':	0.5156
Duv:	0.0013
CIE x:	0.4143
CIE y:	0.3980
CIE z:	0.1877
Peak Wavelength (nm):	590
Dominant Wavelength (nm):	580
Purity:	43.80166
Rf:	71.4
Rg:	96

CRI (Ra):	70.1
R1:	66.6
R2:	77.6
R3:	88.5
R4:	69.5
R5:	66.4
R6:	69.6
R7:	77.5
R8:	44.9
R9:	-40.2
R10:	49.1
R11:	66.3
R12:	45.7
R13:	68.0
R14:	93.4
R15:	57.6



Test Conditions

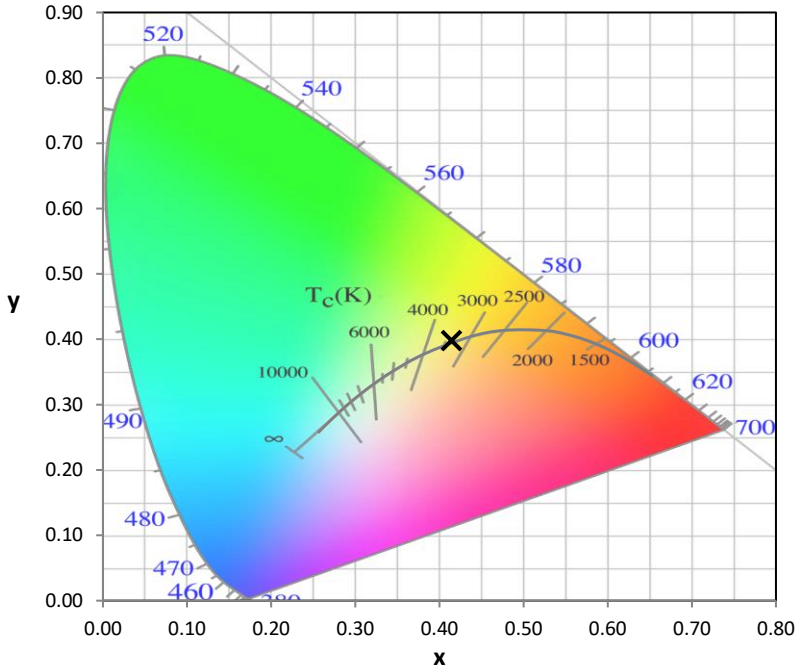
Stabilization Time:	21M
Operation Time:	1H 21M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-184-5

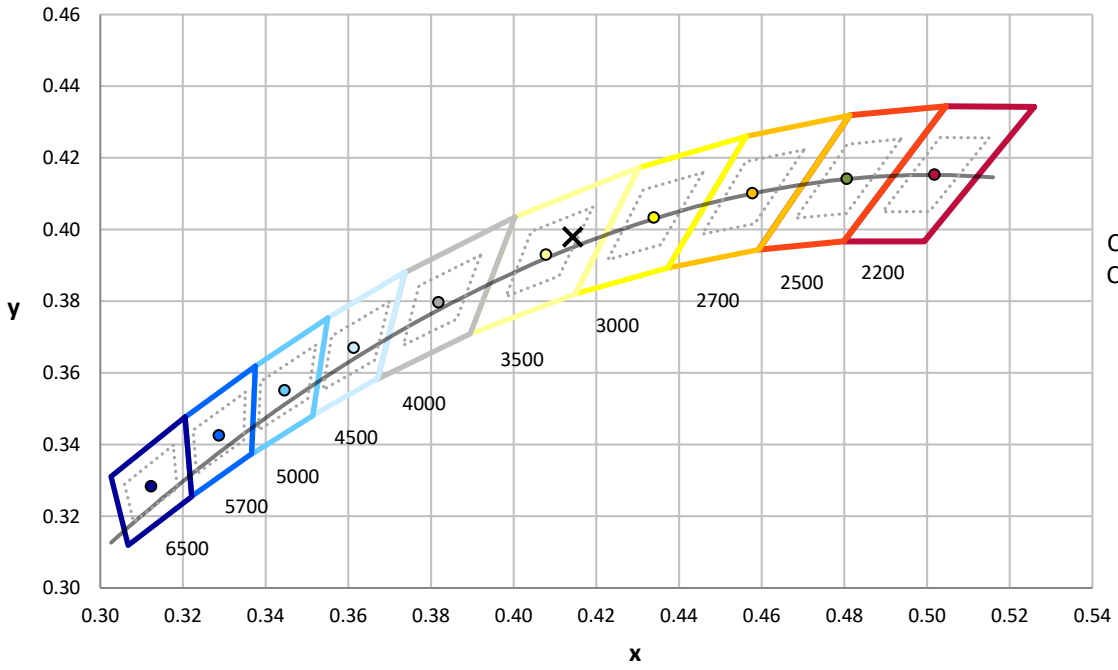
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-5

CIE 1931 Chromaticity Diagram



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

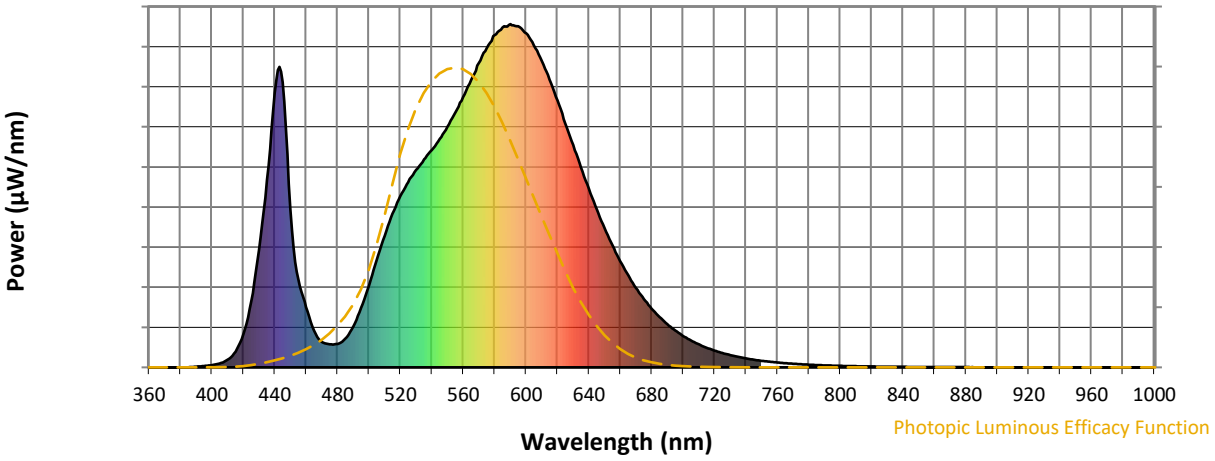


CCT = 3369K
CIE x = 0.4143
CIE y = 0.3980
Duv = 0.0013

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-5

Photopic Flux vs. Wavelength

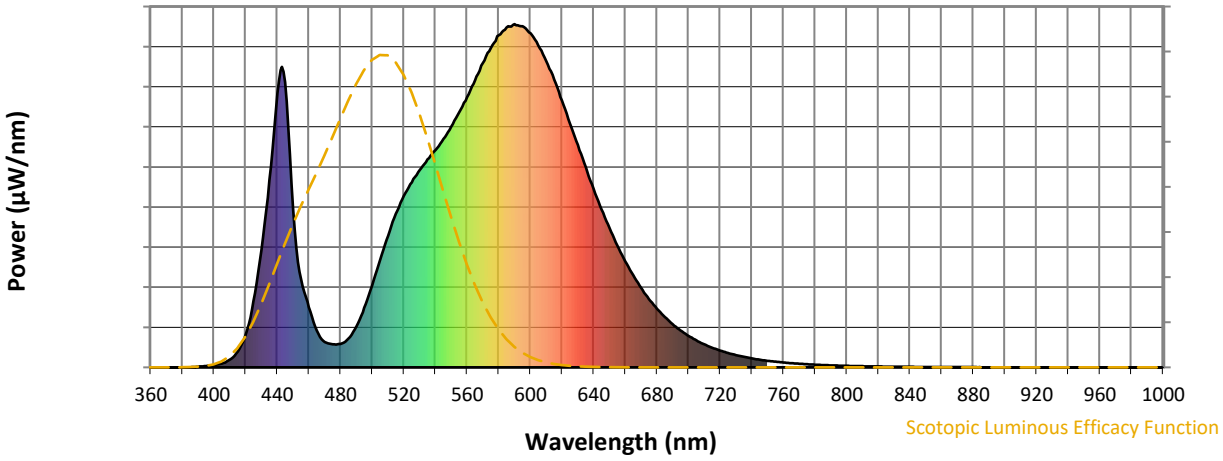


Photopic Lumens: NR

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	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-5

Scotopic Flux vs. Wavelength

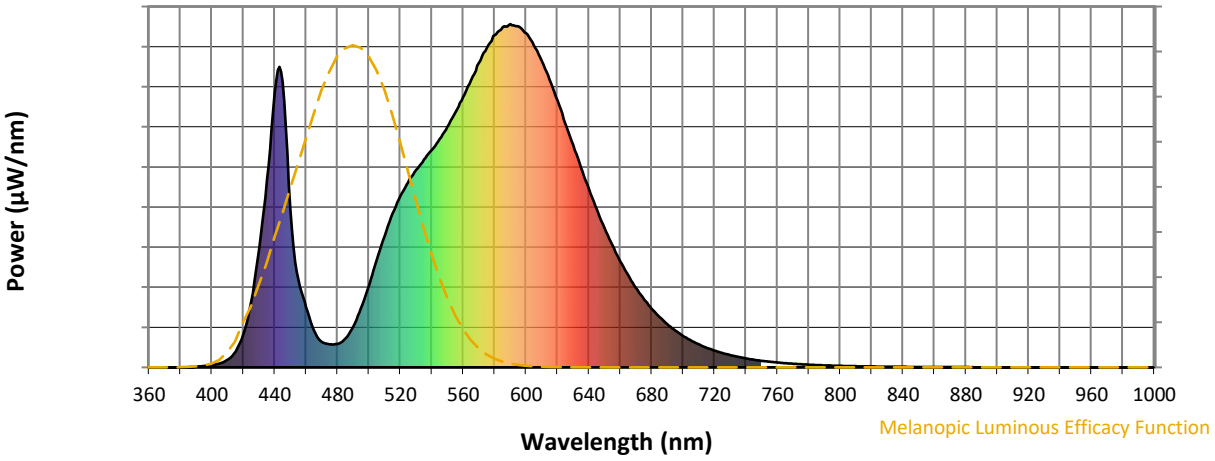


Scotopic Lumens: NR **S/P: 1.29**

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	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.36**

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	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

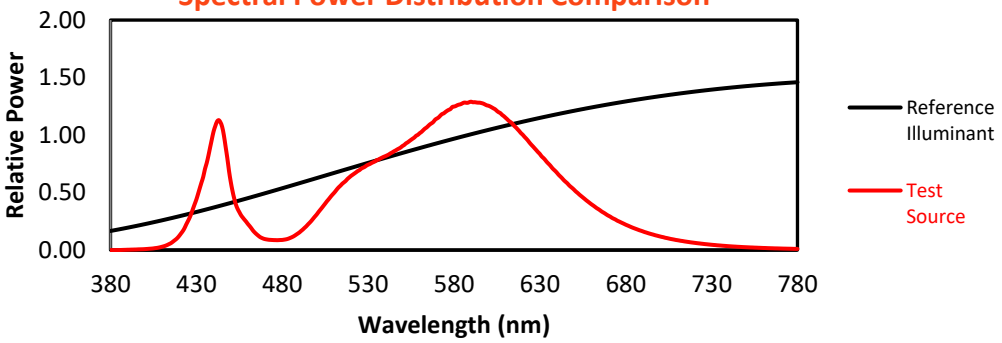
REPORT NUMBER: SP1-2407-184-5

TM-30-18

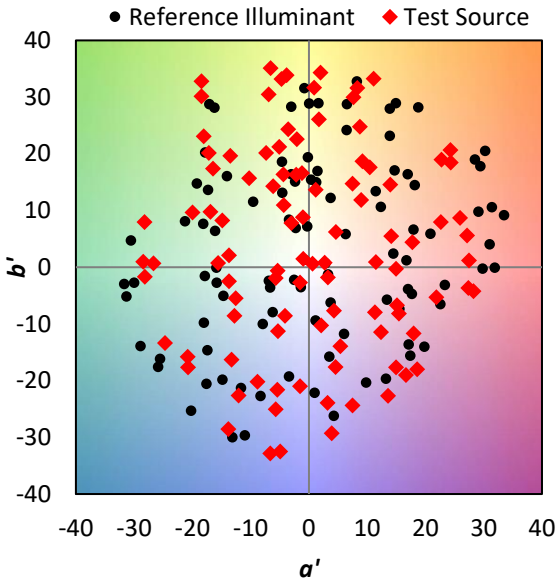
Summary

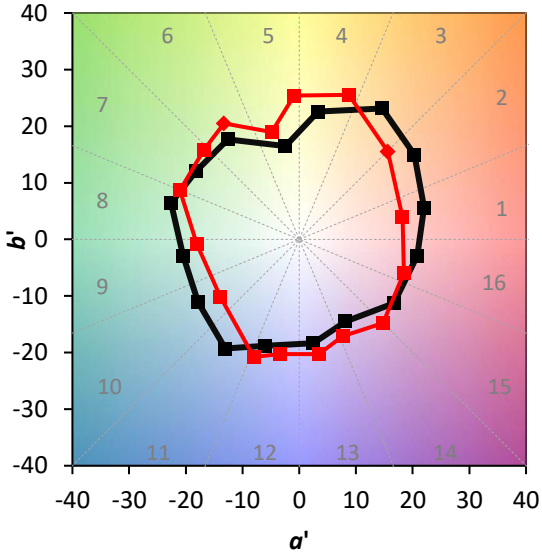
R_f = 71.4
R_g = 96
CIE R_a = 70.1
R_9 = -40.2

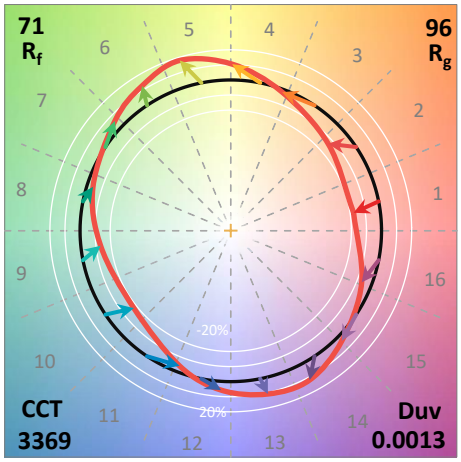
Spectral Power Distribution Comparison

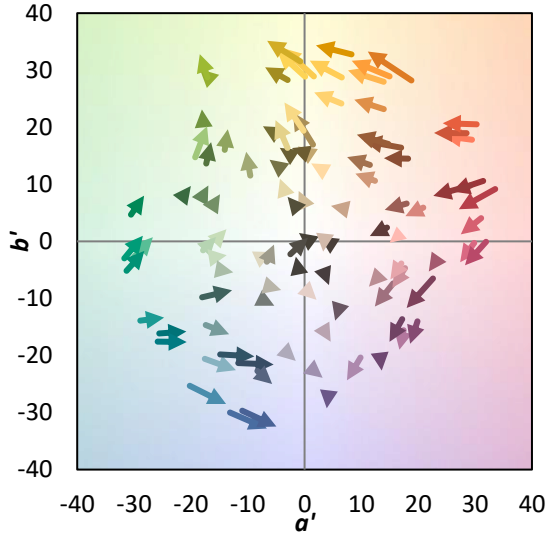


Color Vector Graphics







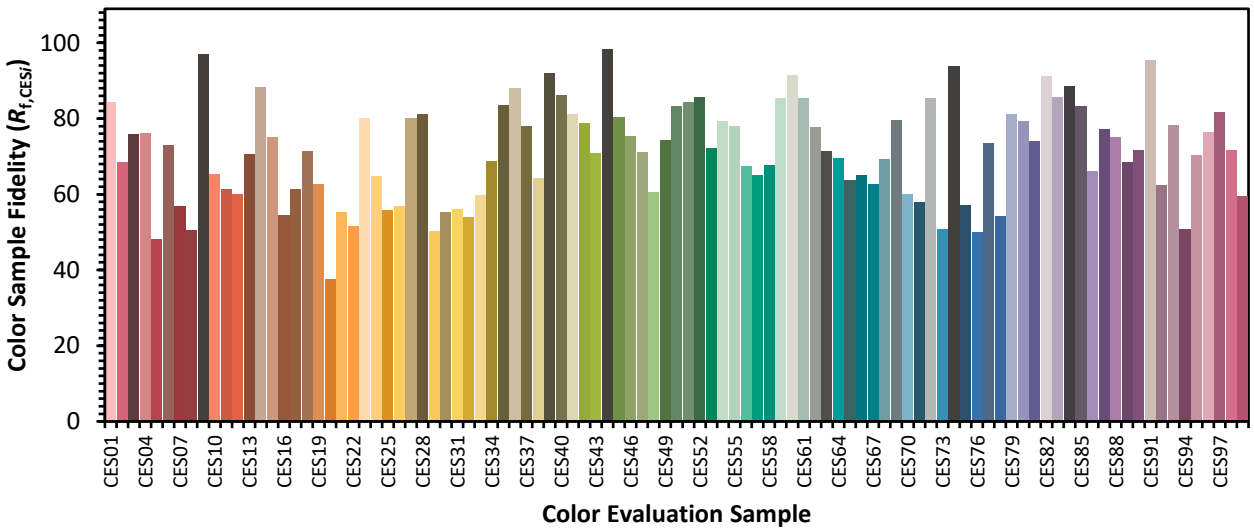


REPORT NUMBER: SP1-2407-184-5

TM-30-18

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

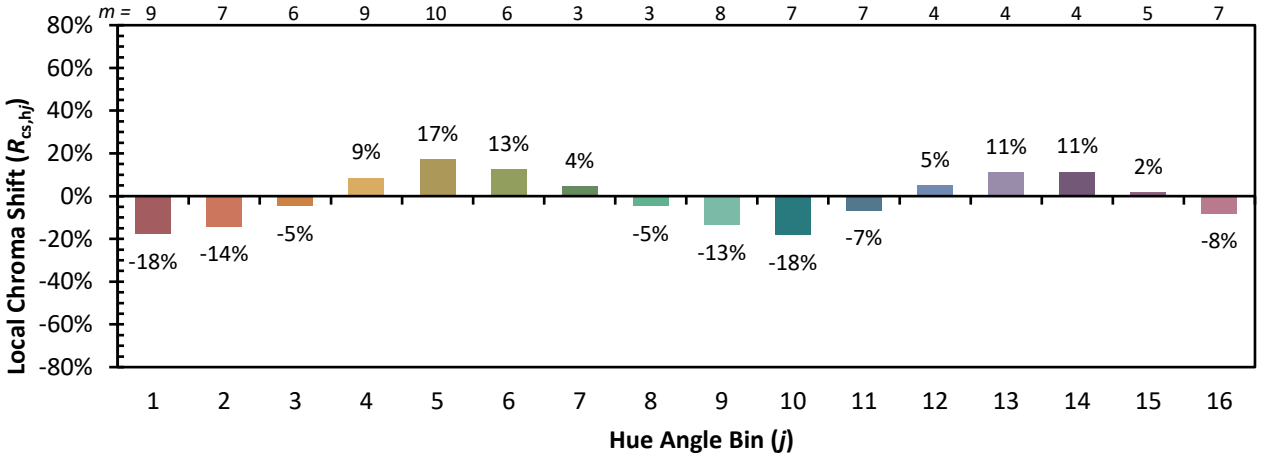
CES01 = 86	CES26 = 57	CES51 = 84	CES76 = 50
CES02 = 62	CES27 = 80	CES52 = 86	CES77 = 74
CES03 = 31	CES28 = 81	CES53 = 72	CES78 = 54
CES04 = 70	CES29 = 50	CES54 = 79	CES79 = 81
CES05 = 48	CES30 = 55	CES55 = 78	CES80 = 79
CES06 = 51	CES31 = 56	CES56 = 67	CES81 = 74
CES07 = 40	CES32 = 54	CES57 = 65	CES82 = 91
CES08 = 39	CES33 = 60	CES58 = 68	CES83 = 86
CES09 = 29	CES34 = 69	CES59 = 85	CES84 = 89
CES10 = 75	CES35 = 83	CES60 = 91	CES85 = 83
CES11 = 58	CES36 = 88	CES61 = 85	CES86 = 66
CES12 = 64	CES37 = 78	CES62 = 78	CES87 = 77
CES13 = 43	CES38 = 64	CES63 = 71	CES88 = 75
CES14 = 74	CES39 = 92	CES64 = 70	CES89 = 68
CES15 = 71	CES40 = 86	CES65 = 64	CES90 = 72
CES16 = 47	CES41 = 81	CES66 = 65	CES91 = 95
CES17 = 50	CES42 = 79	CES67 = 63	CES92 = 62
CES18 = 56	CES43 = 71	CES68 = 69	CES93 = 78
CES19 = 72	CES44 = 98	CES69 = 80	CES94 = 51
CES20 = 65	CES45 = 80	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 75	CES71 = 58	CES96 = 76
CES22 = 79	CES47 = 71	CES72 = 85	CES97 = 82
CES23 = 92	CES48 = 61	CES73 = 51	CES98 = 72
CES24 = 91	CES49 = 74	CES74 = 94	CES99 = 60
CES25 = 72	CES50 = 83	CES75 = 57	

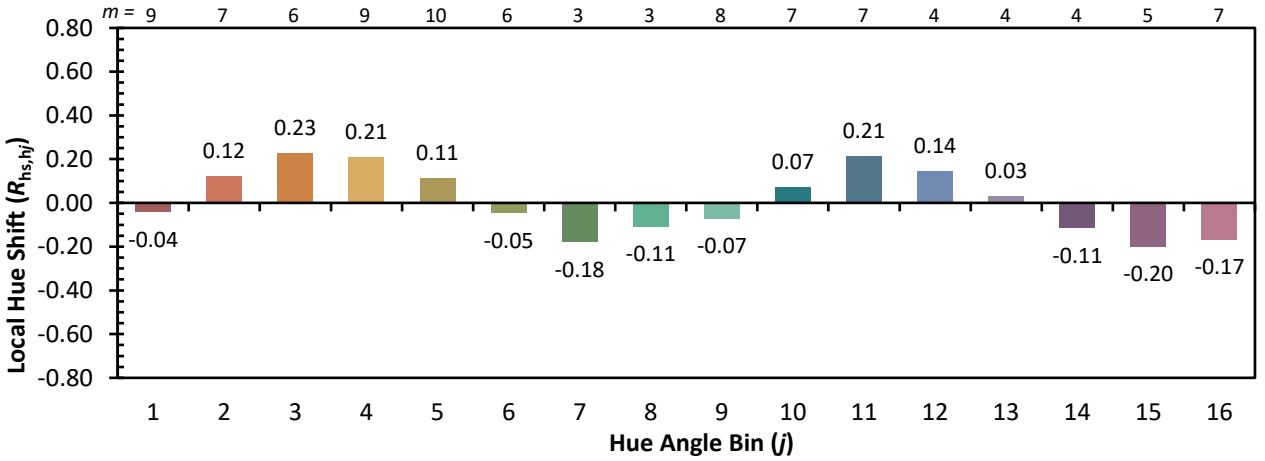


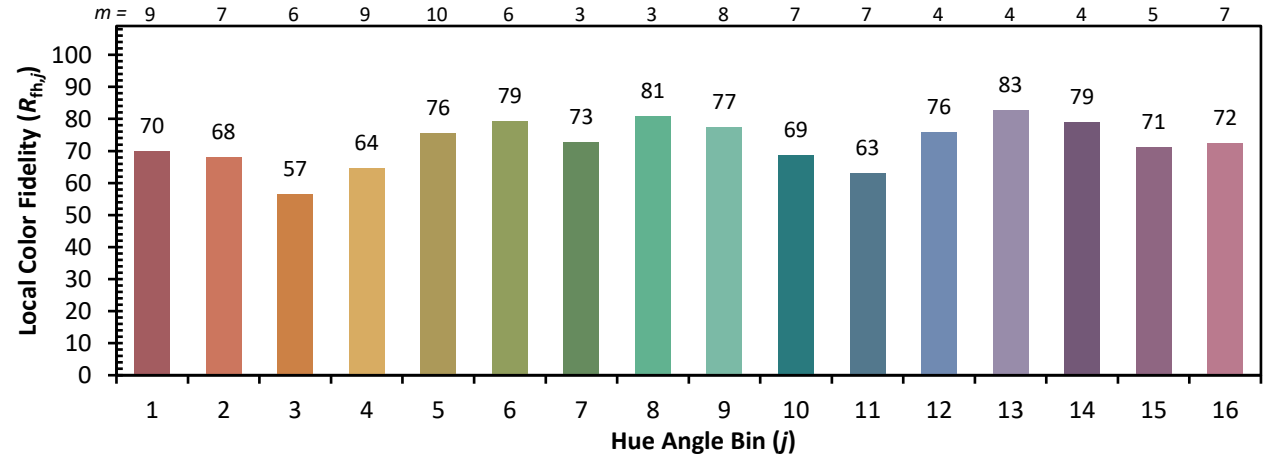
REPORT NUMBER: SP1-2407-184-5

TM-30-18

Color Rendition by Hue-Angle Bin



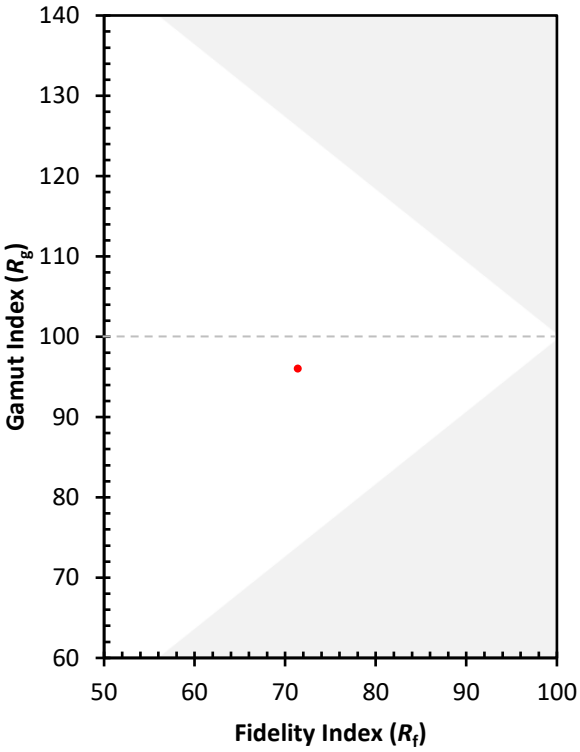


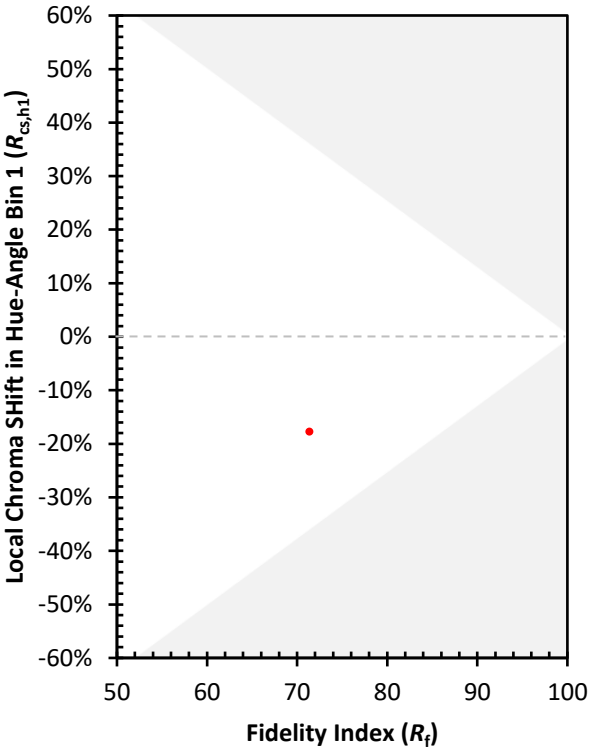


REPORT NUMBER: SP1-2407-184-5

TM-30-18

Measure Comparisons





(END OF REPORT)