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: P1434047

Luminaire Tested: **GALN-SB7A-722-U-T2LG**

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:	P1434047
Test Lab:	INNOVATION CENTER(G1)
Issue Date:	03/24/202
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GALN-SB7A-722-U-T2LG
Description:	GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 350mA 7xLight Square PACKAGE 70CRI 2200K FIXTURE w/ TYPE II LOW GLARE
Light Source:	(182) 2200K 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:	25500.5 lumens
Efficiency:	N/A
Efficacy:	128.1 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G3

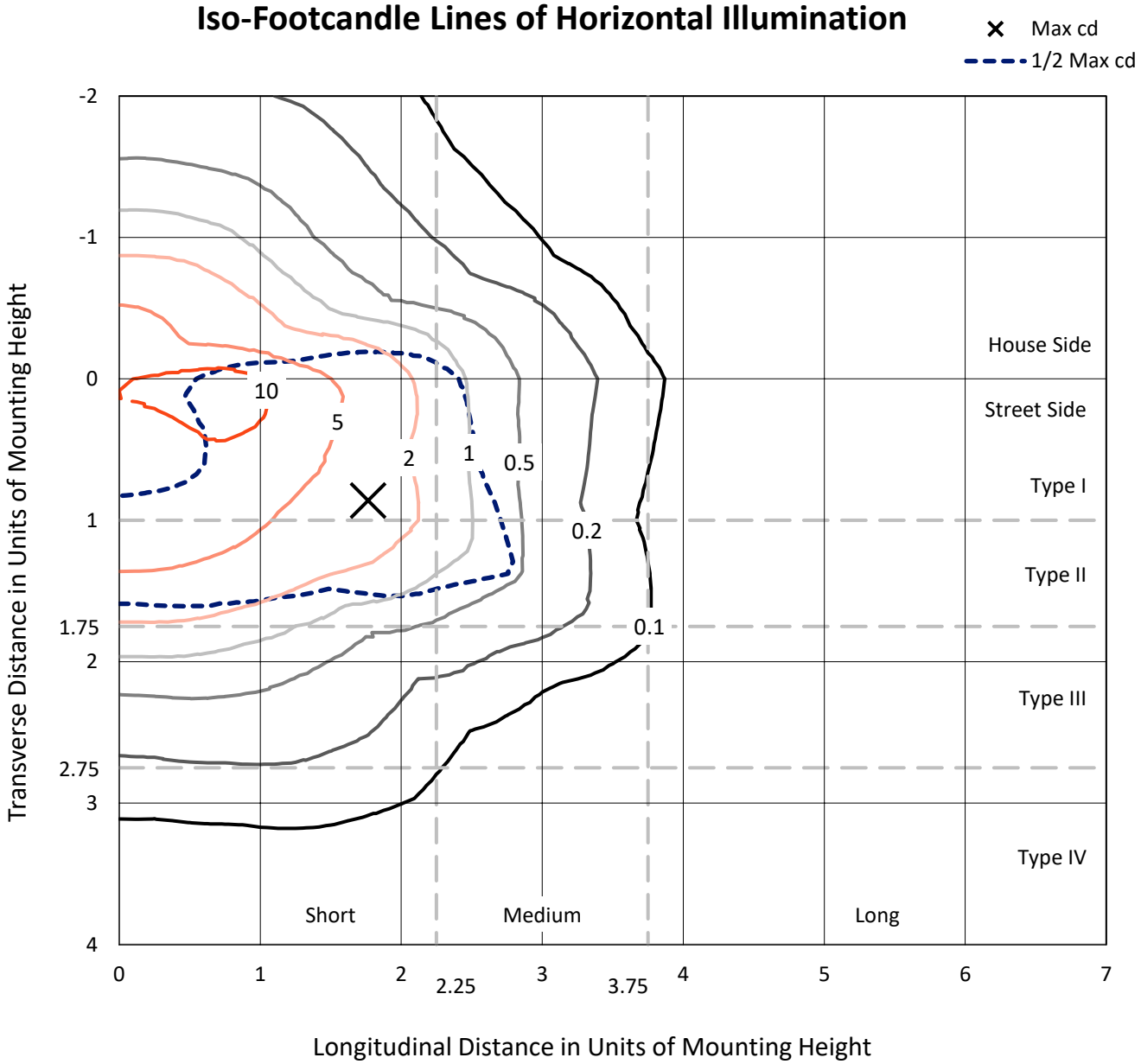
Input Watts (W):	199.1
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.97
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

Iso-Footcandle Lines of Horizontal Illumination



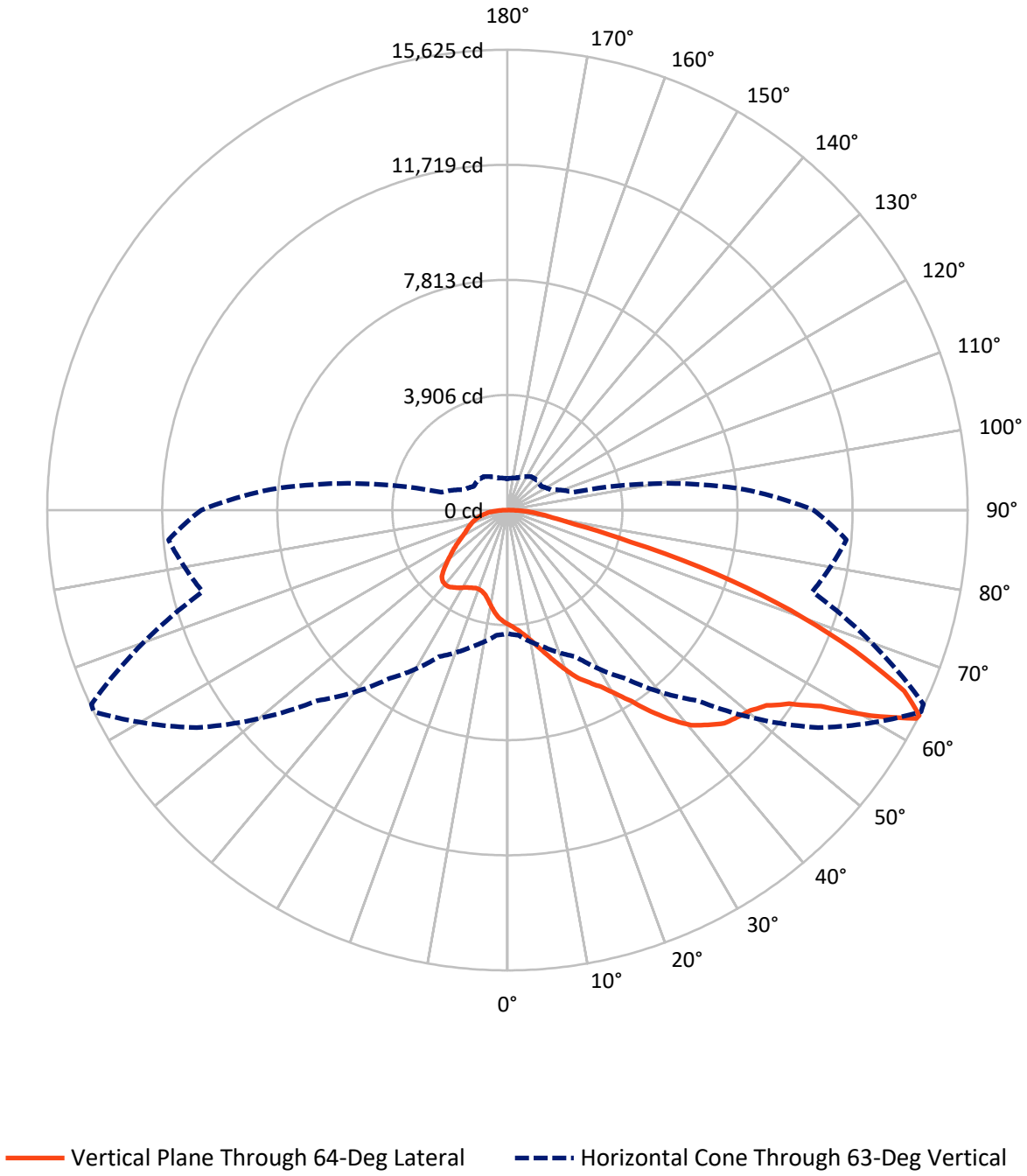
Based on 20 foot mounting height. Maximum calculated value = 15 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

Luminous Intensity Polar Plot



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

Scaled Data Report

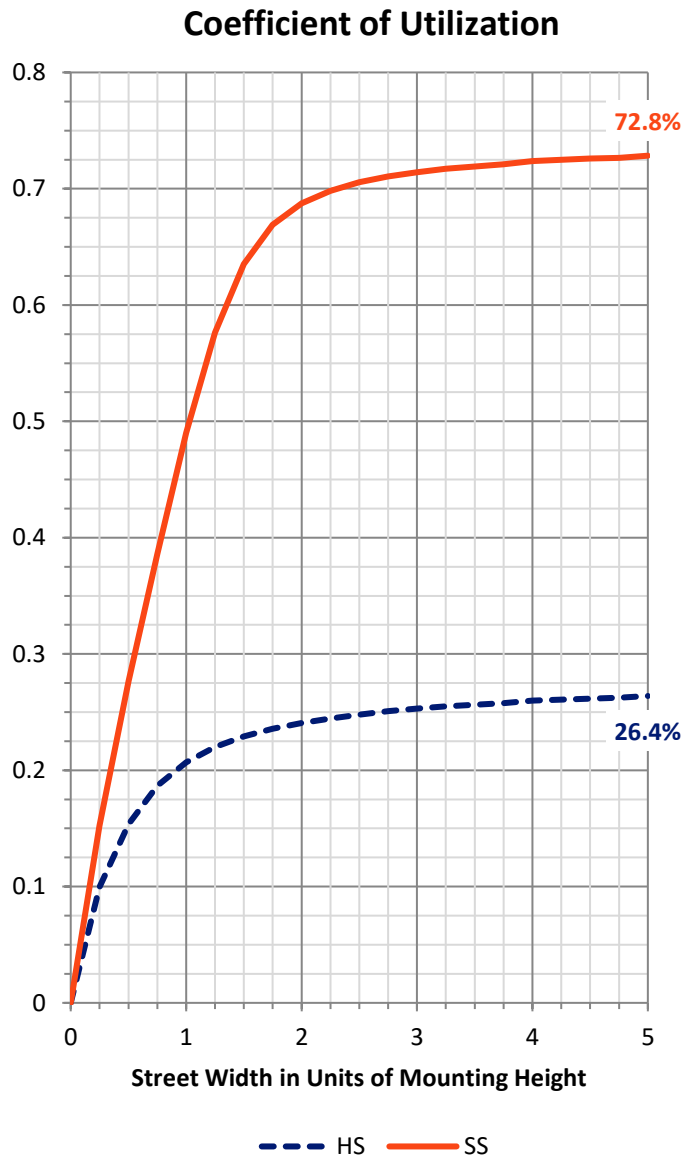
REPORT NUMBER: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6851.3	0.0	6851.3
	% Fixture	26.9	0.0	26.9
Street Side	Lumens	18649.2	0.0	18649.2
	% Fixture	73.1	0.0	73.1
Total	Lumens	25500.5	0.0	25500.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.6	1.4
10°-20°	1097.7	4.3
20°-30°	2007.2	7.9
30°-40°	3452.8	13.5
40°-50°	5091.9	20.0
50°-60°	6103.0	23.9
60°-70°	4898.2	19.2
70°-80°	1968.3	7.7
80°-90°	524.8	2.1
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°	25500.5	100.0
0°-180°	25500.5	100.0



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

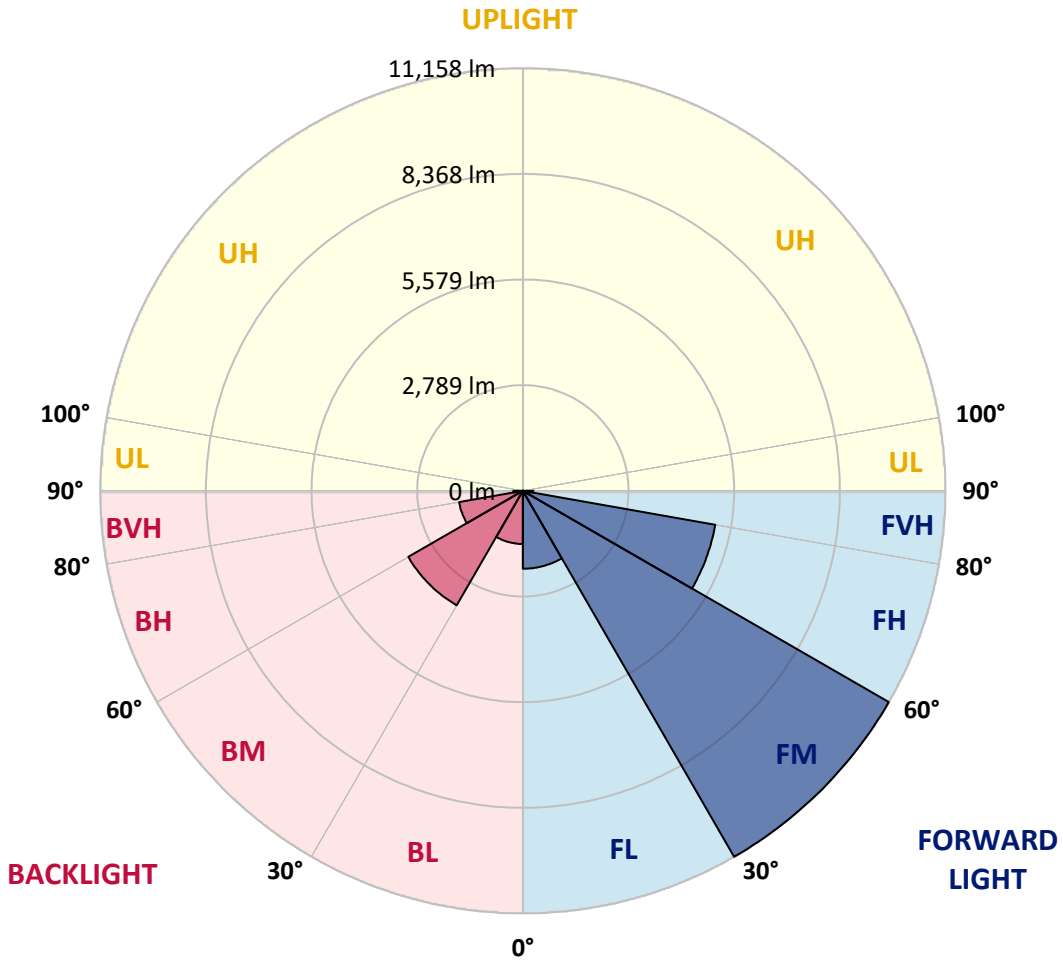
Scaled Data Report

REPORT NUMBER: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2057.4	8.1			
FM	(30°-60°)	11157.8	43.8			
FH	(60°-80°)	5158.3	20.2			G3/7500
FVH	(80°-90°)	275.7	1.1			G3/500
BL	(0°-30°)	1404.1	5.5	B3/2500		
BM	(30°-60°)	3489.9	13.7	B3/5000		
BH	(60°-80°)	1708.2	6.7	B3/2500		G3/2500
BVH	(80°-90°)	249.1	1.0			G3/500
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: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	*3883.4*	3883.4	3883.4	3883.4
2.5°	4043.8	4049.5	4032.4	4026.6	4038.1	4015.2	4009.4	*3986.5*	3975.1	3952.2	3923.5
5°	4158.4	4164.1	4152.6	4152.6	4164.1	4146.9	4141.2	*4118.3*	4106.8	4083.9	4026.6
7.5°	4152.6	4158.4	4169.8	4215.6	4272.9	4295.8	4313.0	*4295.8*	4290.1	4255.7	4198.5
10°	4061.0	4066.7	4095.4	4164.1	4307.3	4410.4	4519.2	*4519.2*	4530.7	4502.0	4398.9
12.5°	3935.0	3940.7	4009.4	4118.3	4307.3	4484.9	4708.2	*4799.9*	4794.2	4777.0	4656.7
15°	3631.4	3631.4	3734.5	3940.7	4244.3	4536.4	4868.6	*5114.9*	5120.6	5137.8	4994.6
17.5°	3373.7	3379.4	3465.3	3648.6	4043.8	4507.8	5040.4	*5464.3*	5481.5	5578.9	5372.7
20°	3396.6	3396.6	3425.2	3505.4	3826.2	4393.2	5137.8	*5836.6*	5893.9	6123.0	5865.2
22.5°	3574.1	3574.1	3597.0	3591.3	3786.1	4318.7	5200.8	*6208.9*	6312.0	6787.4	6455.2
25°	3900.6	3894.9	3872.0	3837.6	3952.2	4398.9	5344.0	*6495.3*	6695.8	7520.6	7136.8
27.5°	4301.6	4290.1	4255.7	4198.5	4278.7	4639.5	5590.3	*6798.9*	7016.5	8322.5	7858.5
30°	4799.9	4765.5	4731.1	4656.7	4742.6	5034.7	5956.9	*7228.5*	7434.7	9233.2	8729.1
32.5°	5389.8	5429.9	5315.4	5212.3	5303.9	5573.1	6501.0	*7738.2*	7961.6	10184.0	9634.1
35°	6271.9	6392.2	6357.8	5836.6	5922.5	6220.4	7136.8	*8396.9*	8597.4	11048.9	10562.0
37.5°	7142.5	7113.9	7142.5	6707.2	6569.8	6930.6	7818.4	*9027.0*	9221.7	11753.4	11381.1
40°	7841.3	7927.2	7927.2	7572.1	7394.6	7635.1	8437.0	*9605.5*	9794.5	12142.9	11971.1
42.5°	8603.1	8614.6	8591.7	8282.4	8213.6	8276.6	8981.2	*9972.1*	10126.7	12343.4	12372.0
45°	9462.3	9456.6	9359.2	9101.4	8998.3	8941.1	9319.1	*10327.2*	10481.8	12435.0	12589.7
47.5°	10172.5	10201.2	10206.9	9932.0	9760.1	9513.8	9611.2	*10504.7*	10682.3	12331.9	12635.5
50°	10212.6	10258.5	10476.1	10556.3	10521.9	10126.7	9880.4	*10693.8*	10871.3	12354.8	12801.6
52.5°	9960.6	10006.4	10287.1	10619.3	11020.2	10831.2	10304.3	*11020.2*	11203.5	12578.2	13179.6
55°	9284.7	9359.2	9777.3	10241.3	10957.2	11226.4	11054.6	*11610.2*	11782.0	12755.8	13620.7
57.5°	8081.9	8173.5	8752.0	9490.9	10470.4	11134.8	12142.9	*12555.3*	12698.5	12881.8	13626.4
60°	6042.8	6117.3	7022.3	8018.9	9490.9	10562.0	12790.1	*14176.3*	14256.4	12200.2	12853.1
62.5°	4450.5	4524.9	5132.1	5848.1	7457.6	9508.1	12916.1	*15579.6*	15591.0	10968.7	11787.8
63°	*4192.7*	*4267.2*	*4817.1*	*5487.2*	*6976.4*	*9153.0*	*12876.0*	*15625.4*	*15585.3*	*10716.7*	*11552.9*
65°	3264.8	3396.6	3969.4	4479.1	5229.5	7285.7	12360.5	*14812.0*	14869.3	9972.1	10373.0
67.5°	2222.4	2319.8	3047.2	3637.1	3952.2	4639.5	10138.2	*12675.6*	12767.2	9198.8	8276.6
70°	1718.3	1764.2	2188.0	2881.1	3196.1	2949.8	6609.9	*10206.9*	10206.9	7182.6	5865.2
72.5°	1346.0	1363.2	1649.6	2251.0	2571.8	2268.2	3683.0	*7423.2*	7148.3	4261.5	3912.1
75°	962.3	985.2	1242.9	1678.2	2050.5	1787.1	2354.1	*4324.5*	4158.4	2451.5	2611.9
77.5°	761.8	773.3	927.9	1237.2	1661.1	1363.2	1792.8	*2359.8*	2336.9	1724.1	1678.2
80°	601.4	624.3	727.4	887.8	1283.0	1065.4	1334.6	*1558.0*	1512.1	1185.7	1076.8
82.5°	429.6	469.7	561.3	675.9	950.8	761.8	876.4	*1099.7*	1099.7	893.5	710.2
85°	263.5	297.8	332.2	418.1	675.9	492.6	464.0	*710.2*	727.4	670.2	458.2
87.5°	126.0	137.5	160.4	177.6	246.3	223.4	183.3	*269.2*	274.9	297.8	189.0
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: P1434047
CATALOG NUMBER: GALN-SB7A-722-U-T2LG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4	3883.4
2.5°	3917.8	3906.3	3849.1	3791.8	3728.8	3671.5	3614.2	3568.4	3516.9	3528.3	3534.0
5°	3992.3	3963.6	3837.6	3688.7	3493.9	3310.7	3133.1	3007.1	2926.9	2904.0	2858.2
7.5°	4152.6	4083.9	3854.8	3539.8	3178.9	2892.5	2726.4	2652.0	2629.1	2634.8	2623.3
10°	4335.9	4232.8	3877.7	3362.2	2904.0	2709.2	2686.3	2732.2	2755.1	2778.0	2783.7
12.5°	4576.5	4410.4	3866.3	3167.5	2772.2	2737.9	2823.8	2909.7	2961.3	2995.6	2989.9
15°	4857.2	4633.8	3831.9	3007.1	2755.1	2846.7	2955.5	3052.9	3115.9	3150.3	3133.1
17.5°	5195.1	4897.3	3791.8	2904.0	2806.6	2915.4	3030.0	3127.4	3196.1	3219.0	3201.8
20°	5613.2	5195.1	3723.1	2858.2	2846.7	2944.1	3047.2	3138.8	3196.1	3219.0	3196.1
22.5°	6105.8	5550.2	3665.8	2858.2	2863.9	2944.1	3018.5	3087.3	3138.8	3156.0	3127.4
25°	6735.9	5962.6	3642.9	2904.0	2869.6	2915.4	2955.5	2995.6	3024.3	3035.7	3024.3
27.5°	7377.4	6438.0	3654.3	2961.3	2863.9	2875.3	2875.3	2881.1	2886.8	2892.5	2886.8
30°	8116.3	6919.2	3700.1	3035.7	2875.3	2818.1	2800.9	2766.5	2737.9	2715.0	2692.1
32.5°	8832.2	7377.4	3780.3	3144.6	2863.9	2755.1	2720.7	2634.8	2554.6	2485.9	2485.9
35°	9605.5	7852.8	3923.5	3224.7	2852.4	2697.8	2600.4	2503.0	2417.1	2319.8	2319.8
37.5°	10269.9	8259.5	4038.1	3316.4	2841.0	2629.1	2474.4	2365.6	2273.9	2176.6	2165.1
40°	10733.9	8494.3	4106.8	3350.8	2800.9	2537.4	2354.1	2216.7	2084.9	1953.2	1947.4
42.5°	10957.2	8482.8	4066.7	3339.3	2726.4	2422.9	2251.0	2067.7	1890.2	1769.9	1758.4
45°	11077.5	8408.4	3912.1	3241.9	2606.1	2302.6	2119.3	1924.5	1747.0	1638.1	1615.2
47.5°	11054.6	8225.1	3700.1	3001.4	2445.8	2170.8	1987.5	1787.1	1643.9	1580.9	1580.9
50°	11117.6	8081.9	3459.6	2726.4	2228.1	2016.2	1867.3	1684.0	1598.1	1517.9	1489.2
52.5°	11398.3	8202.2	3253.4	2468.7	2021.9	1867.3	1764.2	1609.5	1500.7	1449.1	1431.9
55°	11770.6	8459.9	3058.6	2239.6	1821.4	1735.5	1684.0	1540.8	1414.8	1363.2	1334.6
57.5°	11839.3	8637.5	2869.6	2016.2	1655.3	1632.4	1615.2	1420.5	1317.4	1277.3	1254.4
60°	11363.9	8505.8	2623.3	1815.7	1523.6	1535.0	1489.2	1346.0	1225.7	1185.7	1162.7
62.5°	10556.3	8162.1	2377.0	1643.9	1420.5	1443.4	1397.6	1254.4	1134.1	1094.0	1082.6
63°	*10395.9*	*8070.4*	*2319.8*	*1626.7*	*1397.6*	*1426.2*	*1386.1*	*1242.9*	*1122.6*	*1082.6*	*1065.4*
65°	9439.4	7520.6	2119.3	1535.0	1323.1	1323.1	1328.8	1185.7	1082.6	1065.4	1053.9
67.5°	7698.1	6277.6	1901.6	1426.2	1242.9	1260.1	1288.8	1208.6	1168.5	1157.0	1145.6
70°	5819.4	4725.4	1712.6	1323.1	1157.0	1214.3	1409.0	1374.7	1225.7	1122.6	1099.7
72.5°	4124.0	3219.0	1546.5	1220.0	1053.9	1197.1	1460.6	1311.7	1105.5	985.2	962.3
75°	2760.8	2073.5	1380.4	1111.2	939.4	1105.5	1380.4	1197.1	962.3	933.6	899.3
77.5°	1735.5	1477.8	1214.3	985.2	813.3	985.2	1254.4	1065.4	830.5	842.0	790.4
80°	1059.6	1053.9	1019.5	836.3	653.0	784.7	1053.9	899.3	664.4	664.4	590.0
82.5°	630.1	761.8	864.9	693.1	475.4	561.3	761.8	675.9	555.6	538.4	504.0
85°	423.9	515.5	687.3	532.7	303.6	343.7	527.0	567.1	509.8	446.8	418.1
87.5°	154.7	206.2	315.0	217.7	131.7	206.2	395.2	412.4	309.3	240.6	217.7
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: SP1-2407-184-2

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-722-U-5WQ

Data in this report applies to families of products including GSS-SB1A-722-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

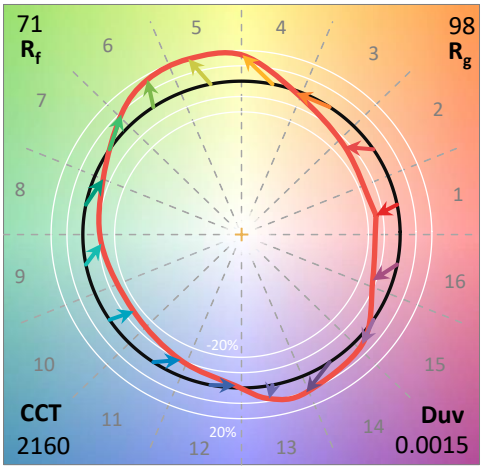
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-184-2
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-722-U-5WQ**
Description:	GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 2200K CCT 26 LEDS

Spectral Parameters

CCT (K):	2160
CIE u':	0.2927
CIE v':	0.5388
Duv:	0.0015
CIE x:	0.5130
CIE y:	0.4197
CIE z:	0.0674
Peak Wavelength (nm):	609
Dominant Wavelength (nm):	587
Purity:	79.96089
Rf:	70.6
Rg:	97.6

CRI (Ra):	71.9
R1:	68.7
R2:	82.6
R3:	95.5
R4:	66.4
R5:	65.4
R6:	75.9
R7:	77.2
R8:	43.5
R9:	-17.8
R10:	60.5
R11:	60.2
R12:	48.2
R13:	70.7
R14:	96.8
R15:	61.8



Test Conditions

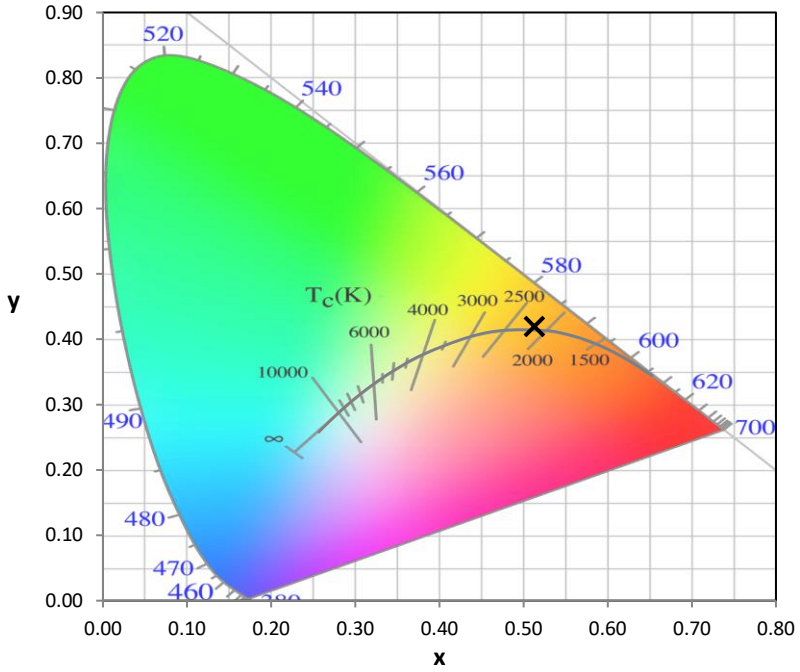
Stabilization Time:	21M
Operation Time:	1H 21M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-184-2

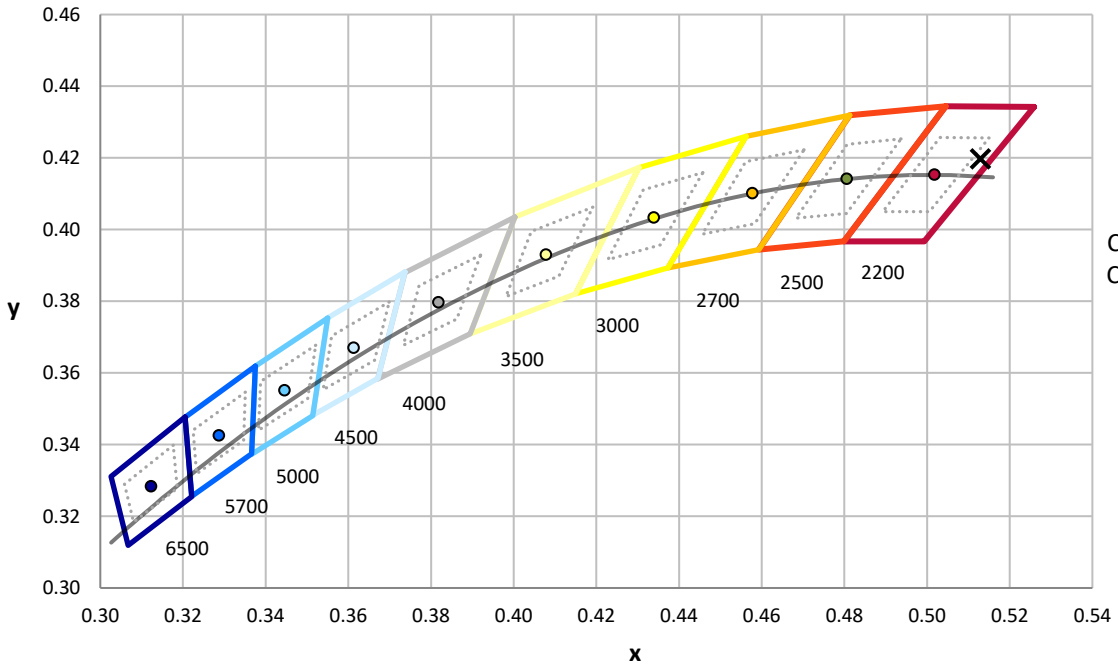
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-2

CIE 1931 Chromaticity Diagram



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

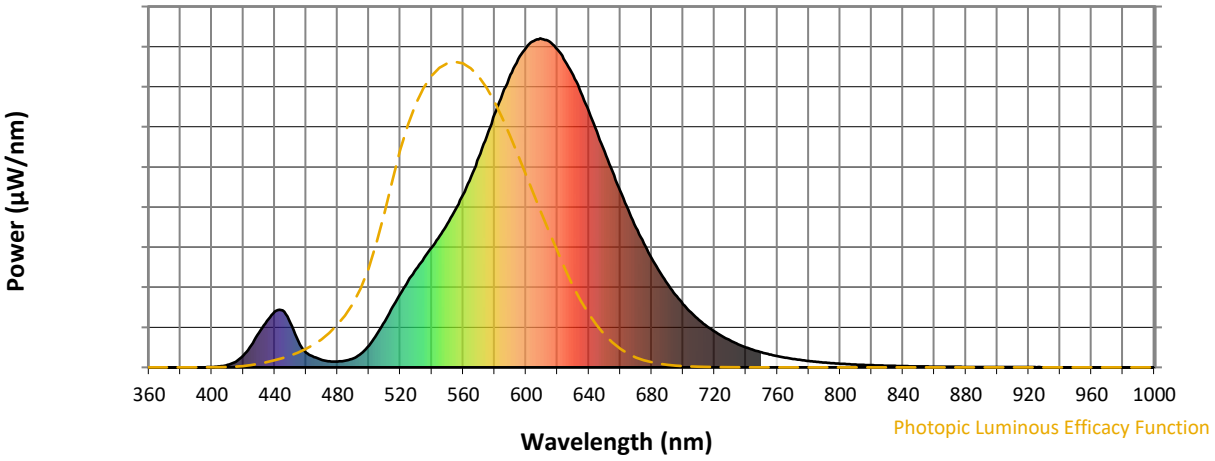


CCT = 2160K
CIE x = 0.5130
CIE y = 0.4197
Duv = 0.0015

Point lies inside the ANSI 2200K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-2

Photopic Flux vs. Wavelength

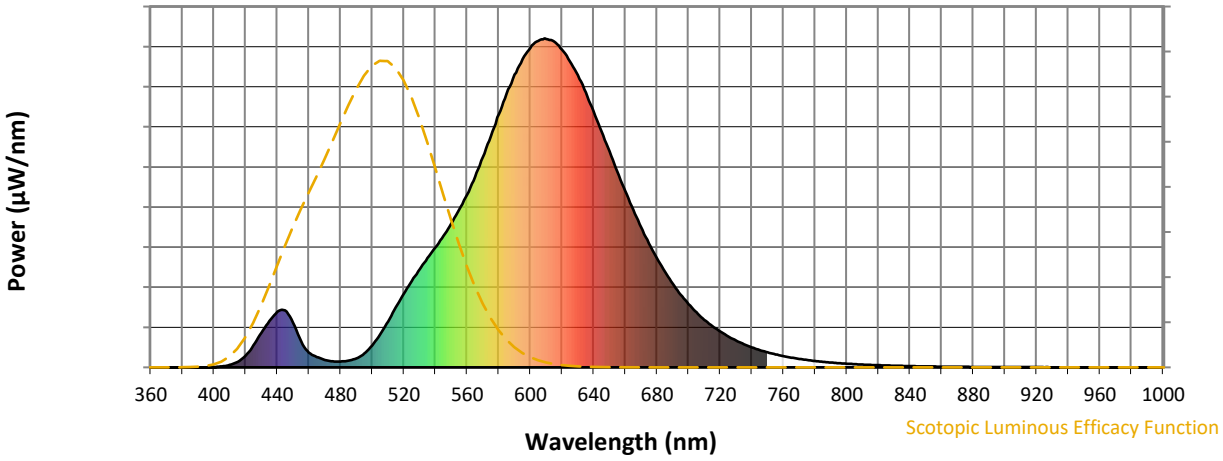


Photopic Lumens: NR

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-2

Scotopic Flux vs. Wavelength

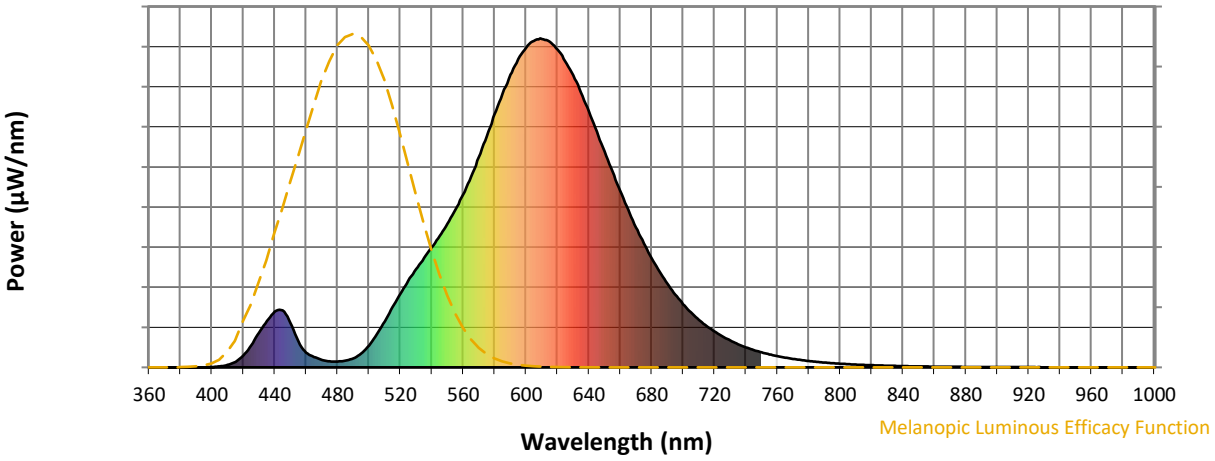


Scotopic Lumens: NR **S/P: 0.8**

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 1.21**

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

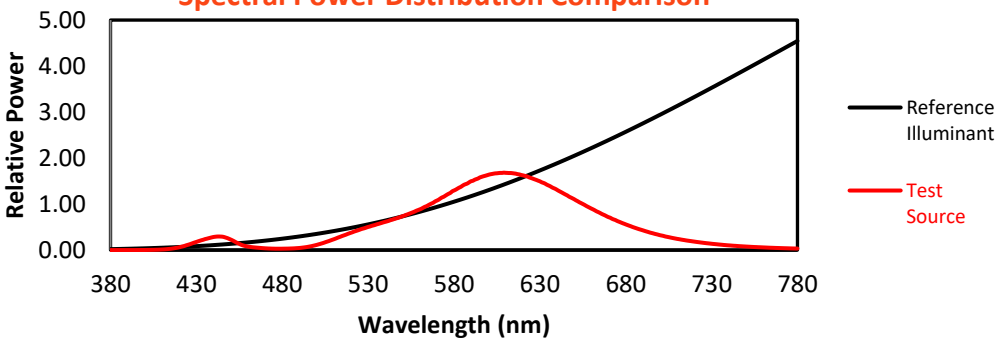
REPORT NUMBER: SP1-2407-184-2

TM-30-18

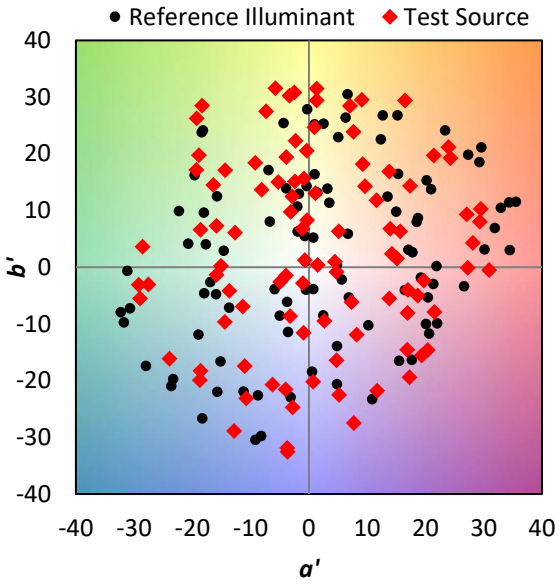
Summary

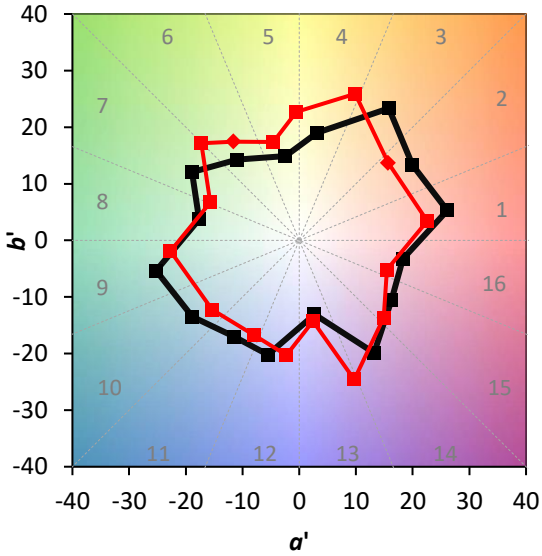
R_f = 70.6
R_g = 97.6
CIE R_a = 71.9
R_9 = -17.8

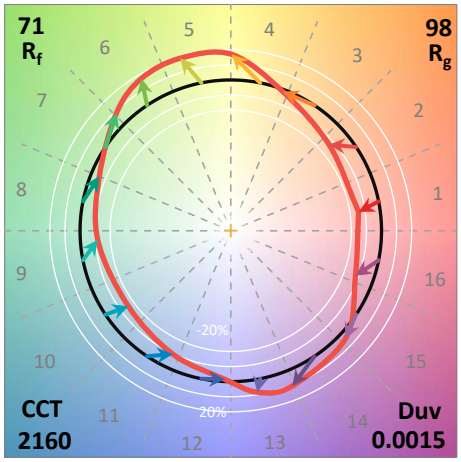
Spectral Power Distribution Comparison

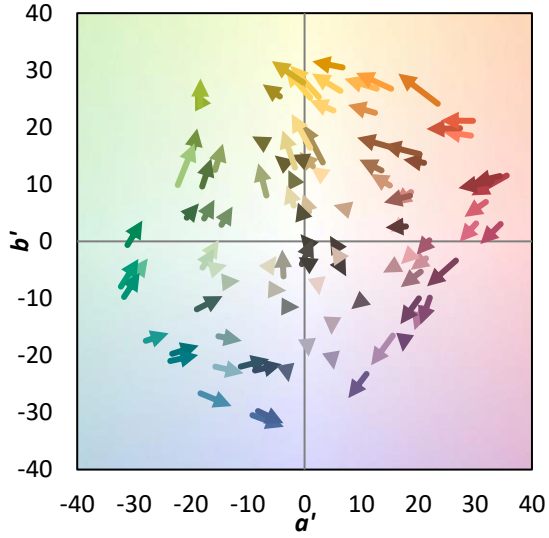


Color Vector Graphics







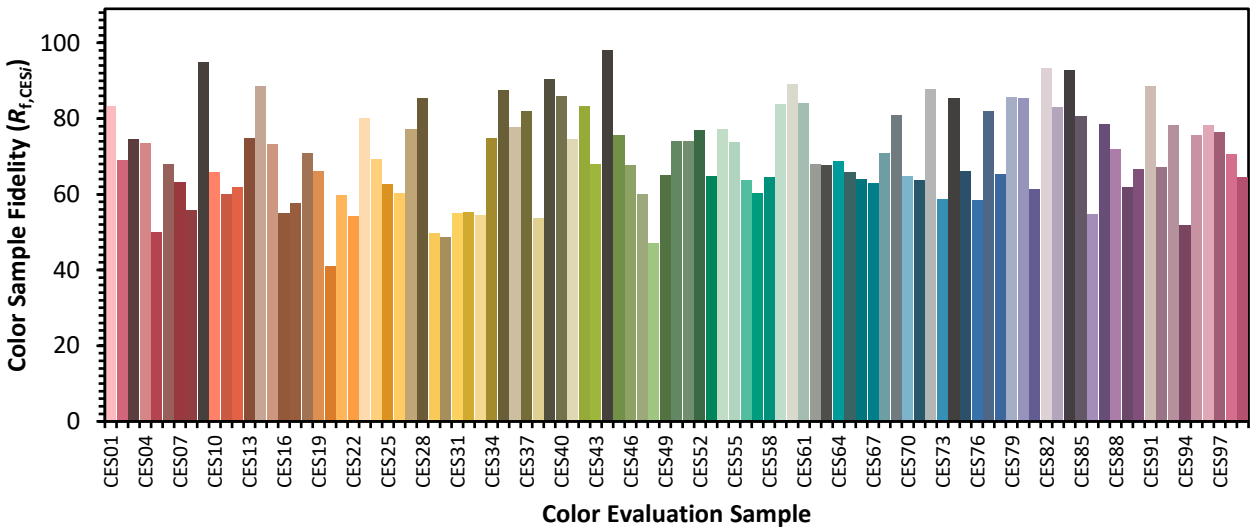


REPORT NUMBER: SP1-2407-184-2

TM-30-18

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

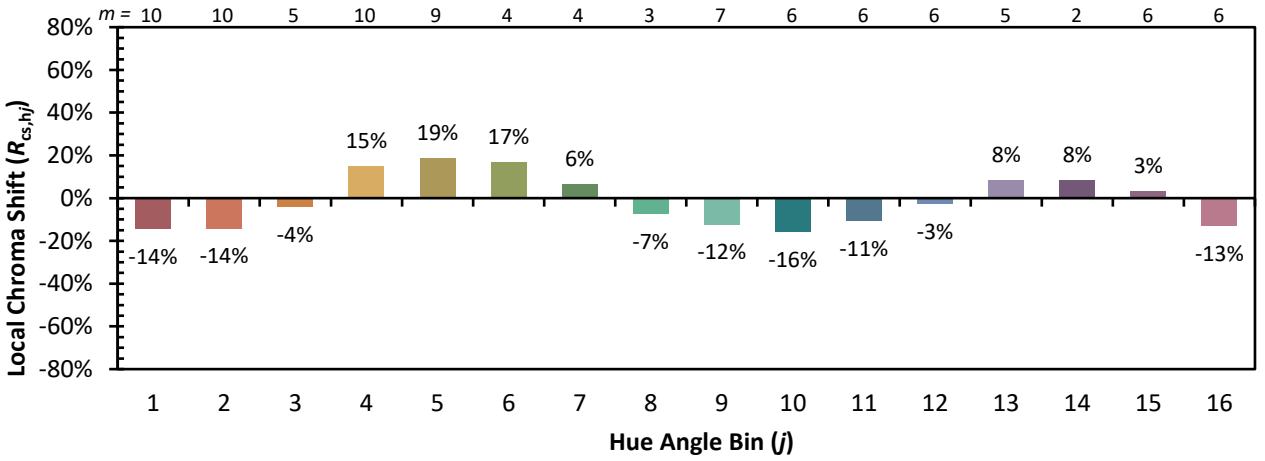
CES01 = 87	CES26 = 60	CES51 = 74	CES76 = 58
CES02 = 65	CES27 = 77	CES52 = 77	CES77 = 82
CES03 = 32	CES28 = 85	CES53 = 65	CES78 = 65
CES04 = 72	CES29 = 50	CES54 = 77	CES79 = 86
CES05 = 52	CES30 = 49	CES55 = 74	CES80 = 85
CES06 = 53	CES31 = 55	CES56 = 64	CES81 = 61
CES07 = 44	CES32 = 55	CES57 = 60	CES82 = 93
CES08 = 43	CES33 = 55	CES58 = 64	CES83 = 83
CES09 = 29	CES34 = 75	CES59 = 84	CES84 = 93
CES10 = 79	CES35 = 88	CES60 = 89	CES85 = 81
CES11 = 62	CES36 = 78	CES61 = 84	CES86 = 55
CES12 = 68	CES37 = 82	CES62 = 68	CES87 = 79
CES13 = 45	CES38 = 54	CES63 = 68	CES88 = 72
CES14 = 75	CES39 = 90	CES64 = 69	CES89 = 62
CES15 = 72	CES40 = 86	CES65 = 66	CES90 = 67
CES16 = 49	CES41 = 75	CES66 = 64	CES91 = 89
CES17 = 51	CES42 = 83	CES67 = 63	CES92 = 67
CES18 = 57	CES43 = 68	CES68 = 71	CES93 = 78
CES19 = 74	CES44 = 98	CES69 = 81	CES94 = 52
CES20 = 68	CES45 = 76	CES70 = 65	CES95 = 76
CES21 = 89	CES46 = 68	CES71 = 64	CES96 = 78
CES22 = 81	CES47 = 60	CES72 = 88	CES97 = 76
CES23 = 92	CES48 = 47	CES73 = 59	CES98 = 71
CES24 = 92	CES49 = 65	CES74 = 85	CES99 = 65
CES25 = 74	CES50 = 74	CES75 = 66	

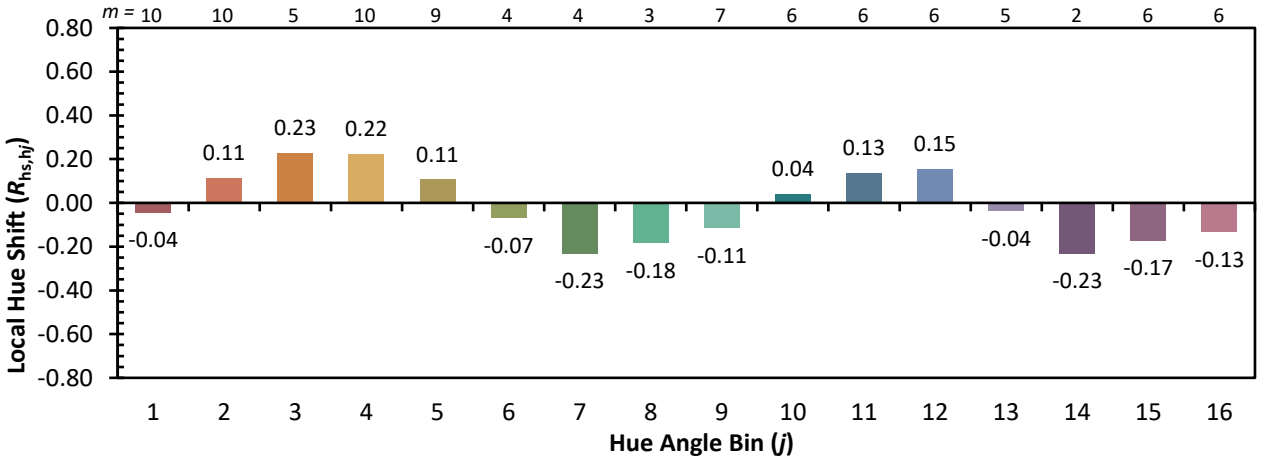


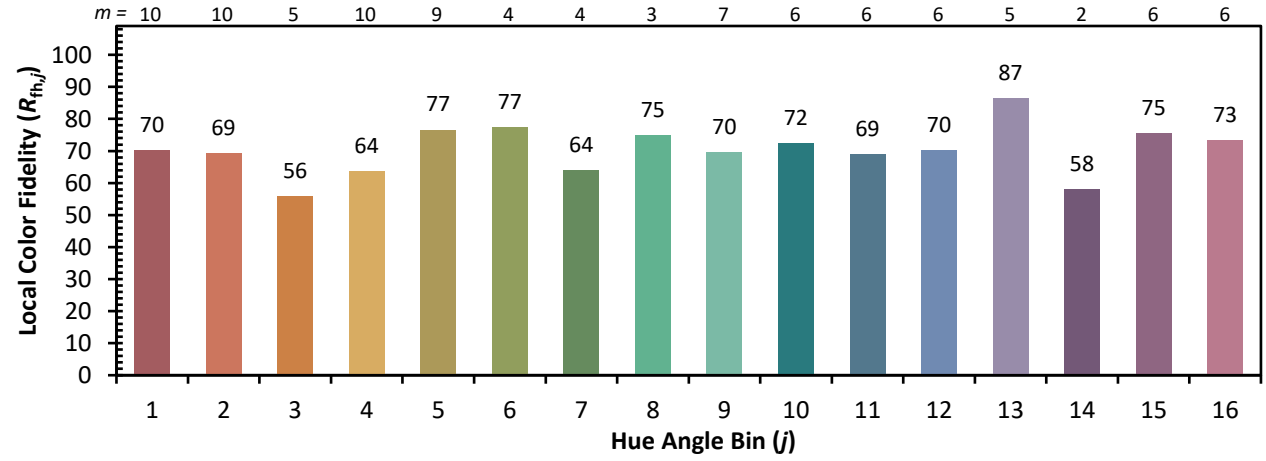
REPORT NUMBER: SP1-2407-184-2

TM-30-18

Color Rendition by Hue-Angle Bin



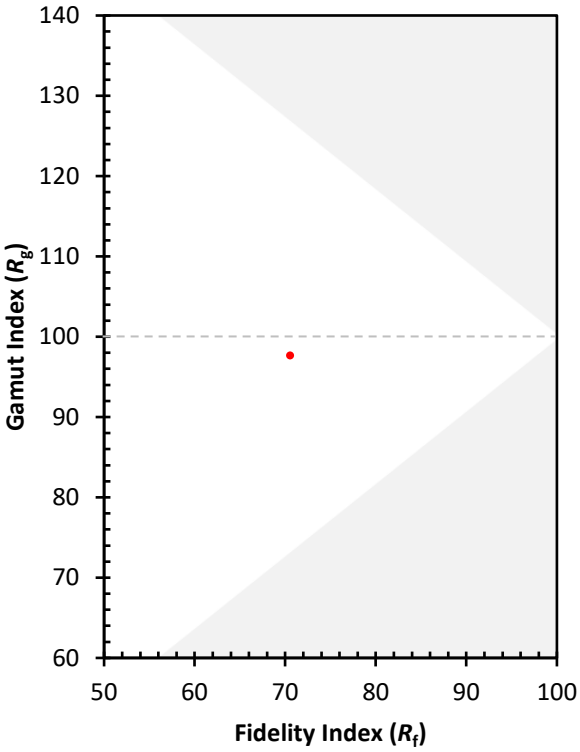


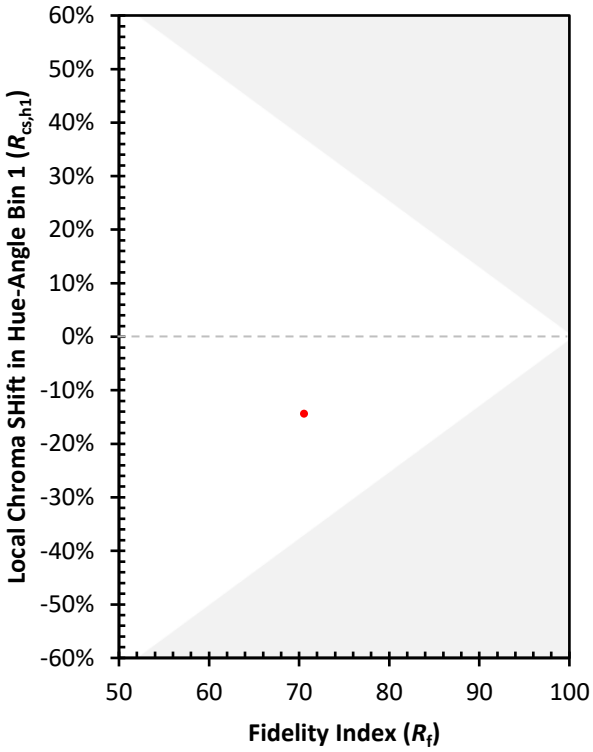


REPORT NUMBER: SP1-2407-184-2

TM-30-18

Measure Comparisons





(END OF REPORT)