Signify Classified - Internal
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: P1434552

Luminaire Tested: **GALN-SB7B-940-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

Test Information

Test Method:	LM-79-08
Report Number:	P1434552
Test Lab:	INNOVATION CENTER(G1)
Issue Date:	03/24/202
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GALN-SB7B-940-U-T2LG
Description:	GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 7xLight Square PACKAGE 90CRI 4000K FIXTURE w/ TYPE II LOW GLARE
Light Source:	(182) 4000K CCT, 90 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Luminaire Equipment:

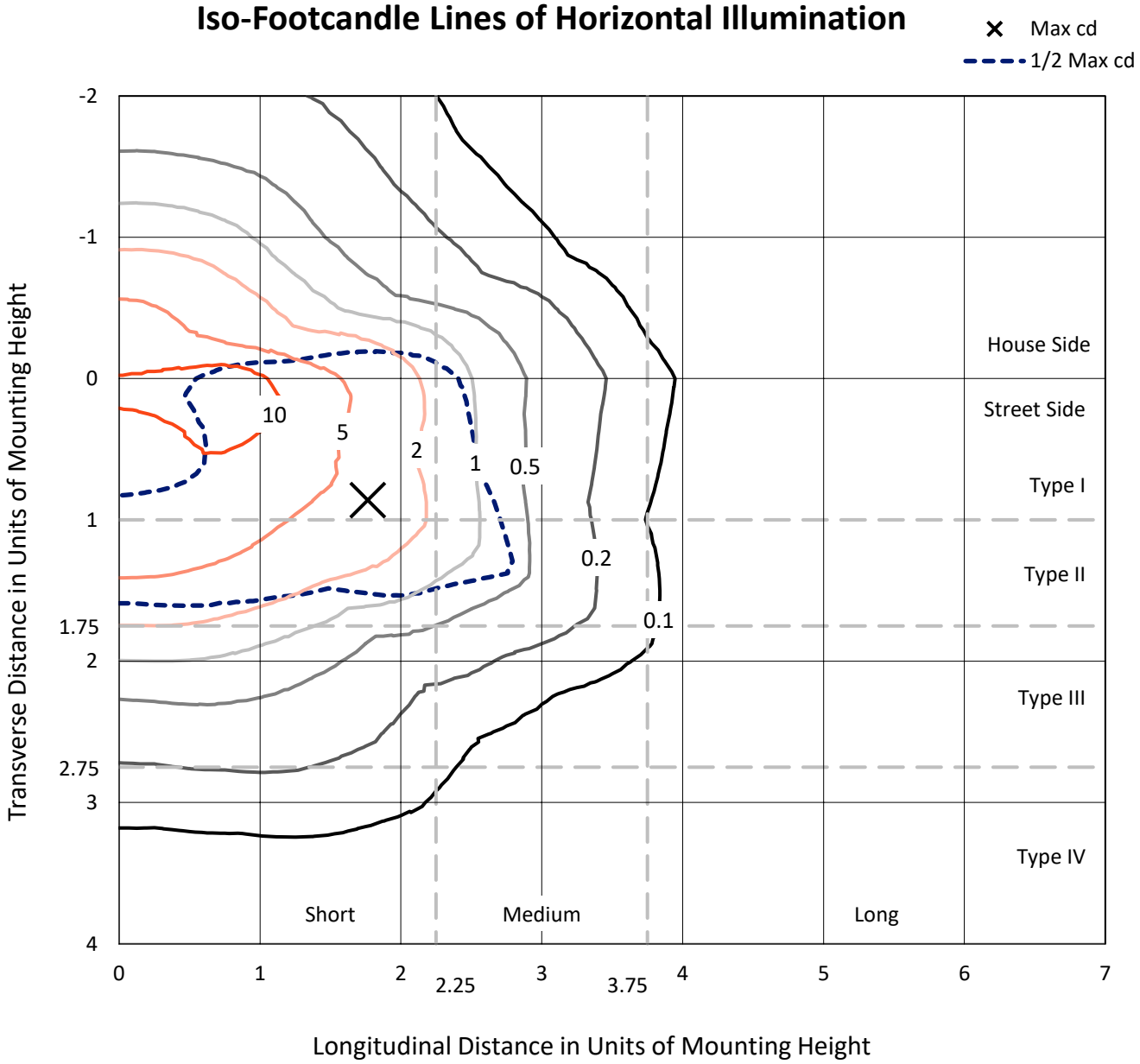
Sample No.	Condition	Description
a	good	reflector
b	good	lens
c	good	housing
d	good	cord

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	28076.2 lumens
Efficiency:	N/A
Efficacy:	109.4 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):	256.7
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

REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

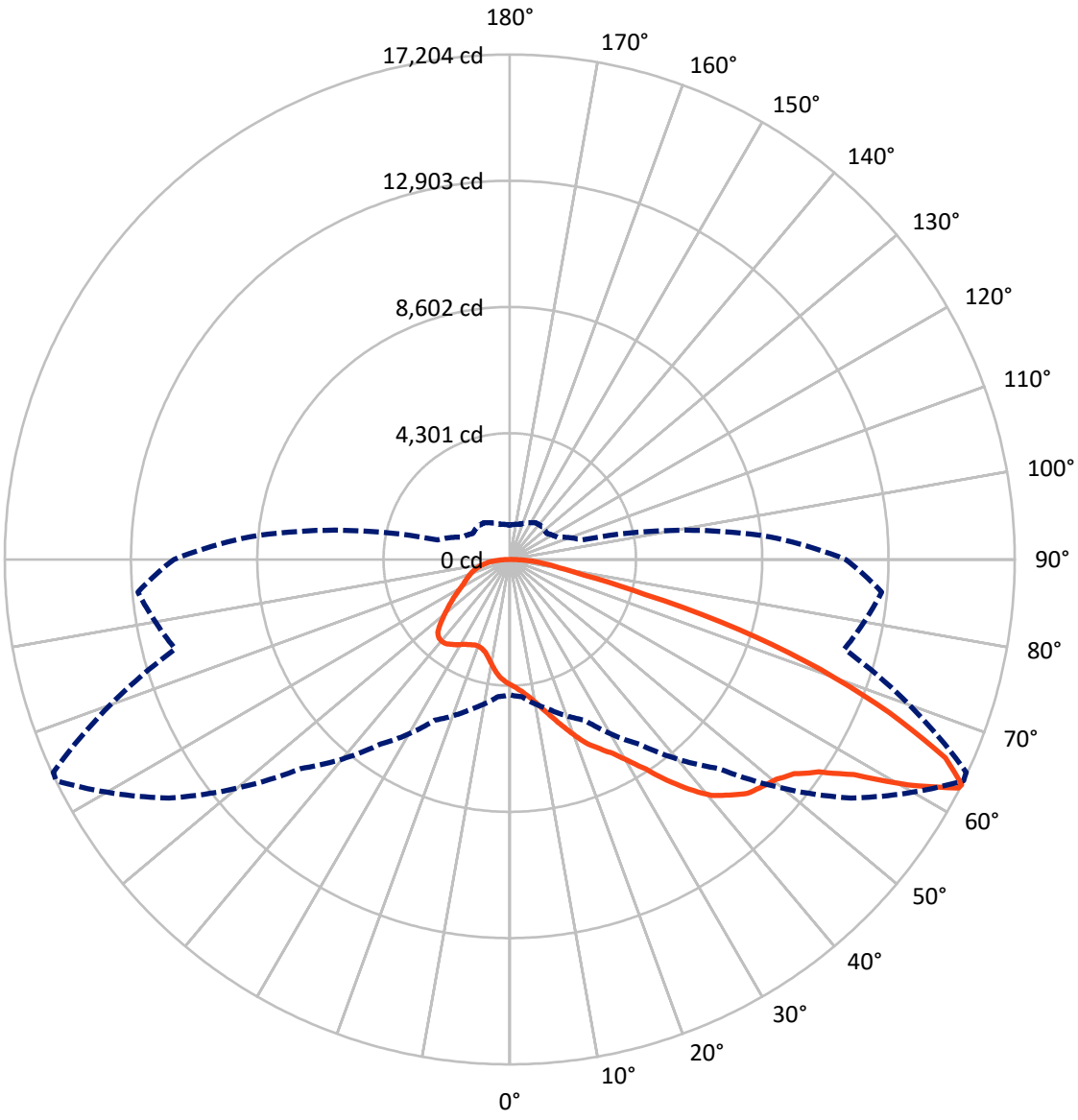
Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 16.5 fc
Type II - Short - N/A

REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

Luminous Intensity Polar Plot



Vertical Plane Through 64-Deg Lateral Horizontal Cone Through 63-Deg Vertical

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

Scaled Data Report

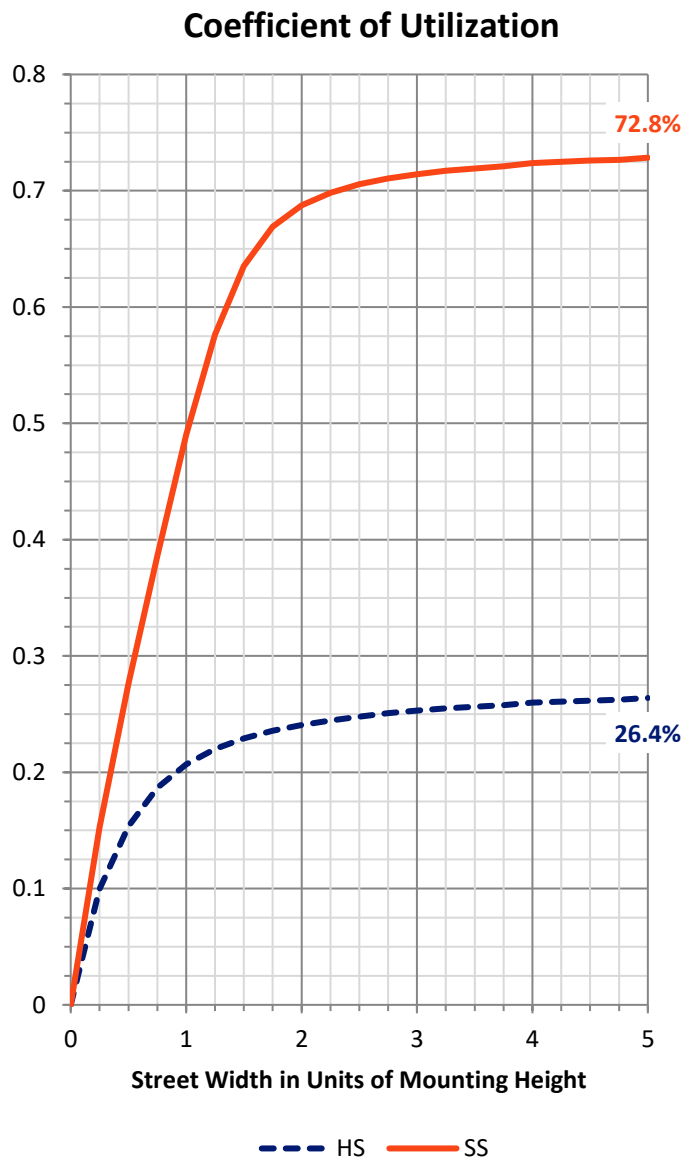
REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7543.3	0.0	7543.3
	% Fixture	26.9	0.0	26.9
Street Side	Lumens	20532.9	0.0	20532.9
	% Fixture	73.1	0.0	73.1
Total	Lumens	28076.2	0.0	28076.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.6	1.4
10°-20°	1208.5	4.3
20°-30°	2210.0	7.9
30°-40°	3801.5	13.5
40°-50°	5606.2	20.0
50°-60°	6719.4	23.9
60°-70°	5393.0	19.2
70°-80°	2167.1	7.7
80°-90°	577.8	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°	28076.2	100.0
0°-180°	28076.2	100.0

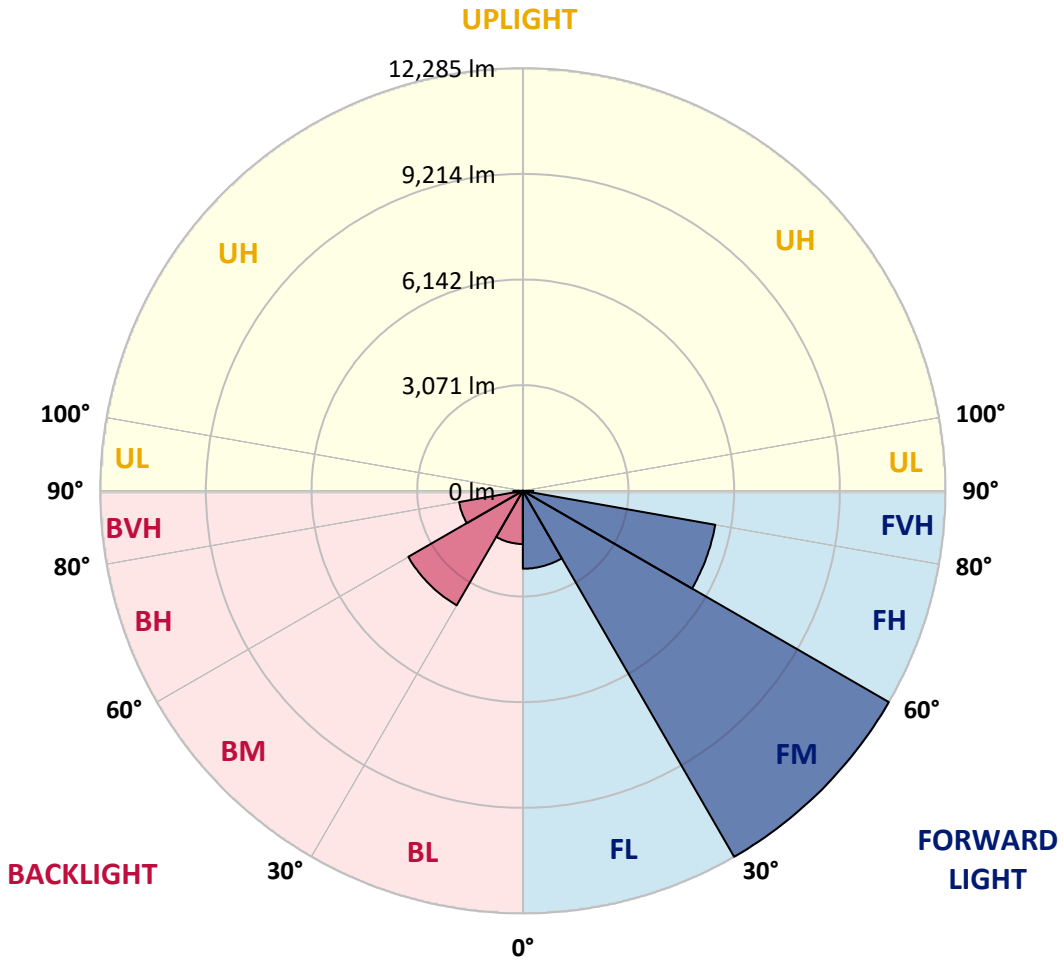


REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2265.2	8.1			
FM	(30°-60°)	12284.8	43.8			
FH	(60°-80°)	5679.3	20.2			G3/7500
FVH	(80°-90°)	303.6	1.1			G3/500
BL	(0°-30°)	1545.9	5.5	B3/2500		
BM	(30°-60°)	3842.4	13.7	B3/5000		
BH	(60°-80°)	1880.8	6.7	B3/2500		G3/2500
BVH	(80°-90°)	274.2	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



REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	*4275.7*	4275.7	4275.7	4275.7
2.5°	4452.3	4458.6	4439.7	4433.3	4446.0	4420.7	4414.4	*4389.2*	4376.6	4351.4	4319.8
5°	4578.4	4584.7	4572.1	4572.1	4584.7	4565.8	4559.5	*4534.2*	4521.6	4496.4	4433.3
7.5°	4572.1	4578.4	4591.0	4641.5	4704.5	4729.7	4748.7	*4729.7*	4723.4	4685.6	4622.5
10°	4471.2	4477.5	4509.0	4584.7	4742.4	4855.9	4975.7	*4975.7*	4988.3	4956.8	4843.3
12.5°	4332.4	4338.8	4414.4	4534.2	4742.4	4937.9	5183.8	*5284.7*	5278.4	5259.5	5127.0
15°	3998.2	3998.2	4111.7	4338.8	4673.0	4994.6	5360.4	*5631.5*	5637.9	5656.8	5499.1
17.5°	3714.4	3720.7	3815.3	4017.1	4452.3	4963.1	5549.6	*6016.2*	6035.2	6142.4	5915.3
20°	3739.7	3739.7	3771.2	3859.5	4212.6	4837.0	5656.8	*6426.1*	6489.2	6741.5	6457.7
22.5°	3935.1	3935.1	3960.4	3954.1	4168.5	4755.0	5726.1	*6836.1*	6949.6	7473.0	7107.2
25°	4294.6	4288.3	4263.1	4225.2	4351.4	4843.3	5883.8	*7151.4*	7372.1	8280.2	7857.7
27.5°	4736.1	4723.4	4685.6	4622.5	4710.8	5108.1	6155.0	*7485.6*	7725.3	9163.1	8652.3
30°	5284.7	5246.9	5209.0	5127.0	5221.6	5543.3	6558.6	*7958.6*	8185.6	10165.8	9610.8
32.5°	5934.3	5978.4	5852.3	5738.8	5839.7	6136.1	7157.7	*8519.8*	8765.8	11212.6	10607.2
35°	6905.4	7037.9	7000.0	6426.1	6520.7	6848.7	7857.7	*9245.1*	9465.8	12164.9	11628.9
37.5°	7864.0	7832.5	7864.0	7384.7	7233.4	7630.7	8608.1	*9938.8*	10153.2	12940.6	12530.7
40°	8633.4	8728.0	8728.0	8337.0	8141.5	8406.3	9289.2	*10575.7*	10783.8	13369.4	13180.2
42.5°	9472.1	9484.7	9459.5	9118.9	9043.3	9112.6	9888.3	*10979.3*	11149.6	13590.1	13621.7
45°	10418.1	10411.7	10304.5	10020.8	9907.2	9844.2	10260.4	*11370.3*	11540.6	13691.0	13861.3
47.5°	11200.0	11231.6	11237.9	10935.2	10746.0	10474.8	10582.0	*11565.8*	11761.3	13577.5	13911.8
50°	11244.2	11294.6	11534.3	11622.6	11584.7	11149.6	10878.4	*11773.9*	11969.4	13602.7	14094.6
52.5°	10966.7	11017.2	11326.2	11691.9	12133.4	11925.3	11345.1	*12133.4*	12335.2	13848.7	14510.9
55°	10222.6	10304.5	10764.9	11275.7	12064.0	12360.4	12171.2	*12782.9*	12972.1	14044.2	14996.4
57.5°	8898.2	8999.1	9636.1	10449.6	11528.0	12259.5	13369.4	*13823.5*	13981.1	14182.9	15002.8
60°	6653.2	6735.2	7731.6	8828.9	10449.6	11628.9	14082.0	*15608.2*	15696.4	13432.5	14151.4
62.5°	4900.0	4982.0	5650.5	6438.8	8210.8	10468.5	14220.8	*17153.2*	17165.8	12076.6	12978.4
63°	*4616.2*	*4698.2*	*5303.6*	*6041.5*	*7681.1*	*10077.5*	*14176.6*	*17203.7*	*17159.5*	*11799.1*	*12719.9*
65°	3594.6	3739.7	4370.3	4931.5	5757.7	8021.6	13609.1	*16308.2*	16371.2	10979.3	11420.8
67.5°	2446.9	2554.1	3355.0	4004.5	4351.4	5108.1	11162.2	*13955.9*	14056.8	10128.0	9112.6
70°	1891.9	1942.3	2409.0	3172.1	3518.9	3247.8	7277.5	*11237.9*	11237.9	7908.1	6457.7
72.5°	1482.0	1500.9	1816.2	2478.4	2831.5	2497.3	4055.0	*8173.0*	7870.3	4691.9	4307.2
75°	1059.5	1084.7	1368.5	1847.8	2257.7	1967.6	2591.9	*4761.3*	4578.4	2699.1	2875.7
77.5°	838.7	851.4	1021.6	1362.2	1828.8	1500.9	1973.9	*2598.2*	2573.0	1898.2	1847.8
80°	662.2	687.4	800.9	977.5	1412.6	1173.0	1469.4	*1715.3*	1664.9	1305.4	1185.6
82.5°	473.0	517.1	618.0	744.1	1046.9	838.7	964.9	*1210.8*	1210.8	983.8	782.0
85°	290.1	327.9	365.8	460.4	744.1	542.3	510.8	*782.0*	800.9	737.8	504.5
87.5°	138.7	151.4	176.6	195.5	271.2	245.9	201.8	*296.4*	302.7	327.9	208.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0

REPORT NUMBER: P1434552
CATALOG NUMBER: GALN-SB7B-940-U-T2LG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7	4275.7
2.5°	4313.5	4300.9	4237.9	4174.8	4105.4	4042.4	3979.3	3928.8	3872.1	3884.7	3891.0
5°	4395.5	4364.0	4225.2	4061.3	3846.9	3645.1	3449.6	3310.8	3222.5	3197.3	3146.9
7.5°	4572.1	4496.4	4244.2	3897.3	3500.0	3184.7	3001.8	2919.8	2894.6	2900.9	2888.3
10°	4773.9	4660.4	4269.4	3701.8	3197.3	2982.9	2957.7	3008.1	3033.3	3058.6	3064.9
12.5°	5038.8	4855.9	4256.8	3487.4	3052.3	3014.4	3109.0	3203.6	3260.4	3298.2	3291.9
15°	5347.8	5101.8	4218.9	3310.8	3033.3	3134.2	3254.1	3361.3	3430.6	3468.5	3449.6
17.5°	5719.8	5391.9	4174.8	3197.3	3090.1	3209.9	3336.0	3443.3	3518.9	3544.2	3525.2
20°	6180.2	5719.8	4099.1	3146.9	3134.2	3241.5	3355.0	3455.9	3518.9	3544.2	3518.9
22.5°	6722.5	6110.8	4036.0	3146.9	3153.2	3241.5	3323.4	3399.1	3455.9	3474.8	3443.3
25°	7416.2	6564.9	4010.8	3197.3	3159.5	3209.9	3254.1	3298.2	3329.7	3342.4	3329.7
27.5°	8122.5	7088.3	4023.4	3260.4	3153.2	3165.8	3165.8	3172.1	3178.4	3184.7	3178.4
30°	8936.1	7618.0	4073.9	3342.4	3165.8	3102.7	3083.8	3046.0	3014.4	2989.2	2964.0
32.5°	9724.4	8122.5	4162.2	3462.2	3153.2	3033.3	2995.5	2900.9	2812.6	2736.9	2736.9
35°	10575.7	8646.0	4319.8	3550.5	3140.6	2970.3	2863.1	2755.9	2661.3	2554.1	2554.1
37.5°	11307.2	9093.7	4446.0	3651.4	3127.9	2894.6	2724.3	2604.5	2503.6	2396.4	2383.8
40°	11818.1	9352.3	4521.6	3689.2	3083.8	2793.7	2591.9	2440.5	2295.5	2150.5	2144.2
42.5°	12064.0	9339.7	4477.5	3676.6	3001.8	2667.6	2478.4	2276.6	2081.1	1948.7	1936.0
45°	12196.4	9257.7	4307.2	3569.4	2869.4	2535.1	2333.3	2118.9	1923.4	1803.6	1778.4
47.5°	12171.2	9055.9	4073.9	3304.5	2692.8	2390.1	2188.3	1967.6	1809.9	1740.5	1740.5
50°	12240.6	8898.2	3809.0	3001.8	2453.2	2219.8	2055.9	1854.1	1759.5	1671.2	1639.6
52.5°	12549.6	9030.7	3582.0	2718.0	2226.1	2055.9	1942.3	1772.1	1652.3	1595.5	1576.6
55°	12959.5	9314.4	3367.6	2465.8	2005.4	1910.8	1854.1	1696.4	1557.7	1500.9	1469.4
57.5°	13035.2	9509.9	3159.5	2219.8	1822.5	1797.3	1778.4	1564.0	1450.5	1406.3	1381.1
60°	12511.8	9364.9	2888.3	1999.1	1677.5	1690.1	1639.6	1482.0	1349.6	1305.4	1280.2
62.5°	11622.6	8986.5	2617.1	1809.9	1564.0	1589.2	1538.7	1381.1	1248.7	1204.5	1191.9
63°	*11446.0*	*8885.6*	*2554.1*	*1791.0*	*1538.7*	*1570.3*	*1526.1*	*1368.5*	*1236.0*	*1191.9*	*1173.0*
65°	10392.8	8280.2	2333.3	1690.1	1456.8	1456.8	1463.1	1305.4	1191.9	1173.0	1160.4
67.5°	8475.7	6911.7	2093.7	1570.3	1368.5	1387.4	1418.9	1330.6	1286.5	1273.9	1261.3
70°	6407.2	5202.7	1885.6	1456.8	1273.9	1336.9	1551.4	1513.5	1349.6	1236.0	1210.8
72.5°	4540.6	3544.2	1702.7	1343.2	1160.4	1318.0	1608.1	1444.1	1217.1	1084.7	1059.5
75°	3039.6	2282.9	1519.8	1223.4	1034.2	1217.1	1519.8	1318.0	1059.5	1027.9	990.1
77.5°	1910.8	1627.0	1336.9	1084.7	895.5	1084.7	1381.1	1173.0	914.4	927.0	870.3
80°	1166.7	1160.4	1122.5	920.7	718.9	864.0	1160.4	990.1	731.5	731.5	649.6
82.5°	693.7	838.7	952.3	763.1	523.4	618.0	838.7	744.1	611.7	592.8	555.0
85°	466.7	567.6	756.8	586.5	334.2	378.4	580.2	624.3	561.3	491.9	460.4
87.5°	170.3	227.0	346.8	239.6	145.0	227.0	435.1	454.1	340.5	264.9	239.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

McGRAW-EDISON

Report Number: SP1-2106-271-4

Luminaire Tested: GFLD-SA1-A-940-U-WR-X-BK

Test Date: 06/15/2021

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.09

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

Test Information

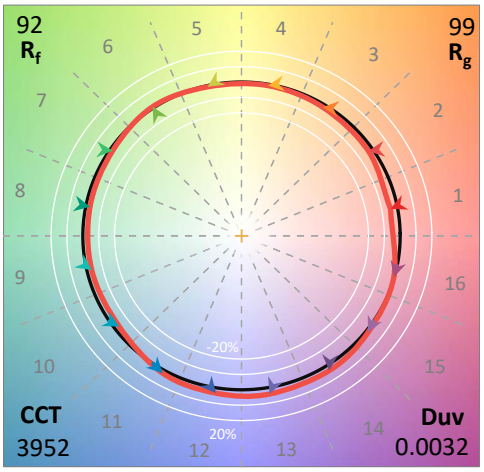
Test Method:	LM-79-08
Report Number:	SP1-2106-271-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1
Measurement Geometry:	4π
Issue Date:	06/15/2021
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	**GFLD-SA1-A-940-U-WR-X-BK**
Description:	MCGRAW EDISON

N6, BLACK

Spectral Parameters

CCT (K):	3952	CRI (Ra):	92.2		
CIE u':	0.2242	R1:	92.0	R9:	63.3
CIE v':	0.5064	R2:	93.7	R10:	84.3
Duv:	0.0032	R3:	94.4	R11:	92.7
CIE x:	0.3848	R4:	93.1	R12:	75.6
CIE y:	0.3864	R5:	91.2	R13:	92.2
CIE z:	0.2287	R6:	91.1	R14:	96.5
Peak Wavelength (nm):	614	R7:	95.4		
Dominant Wavelength (nm):	577	R8:	86.5		
Purity:	31.6				

Rf:	92.2
Rg:	98.9



Test Conditions

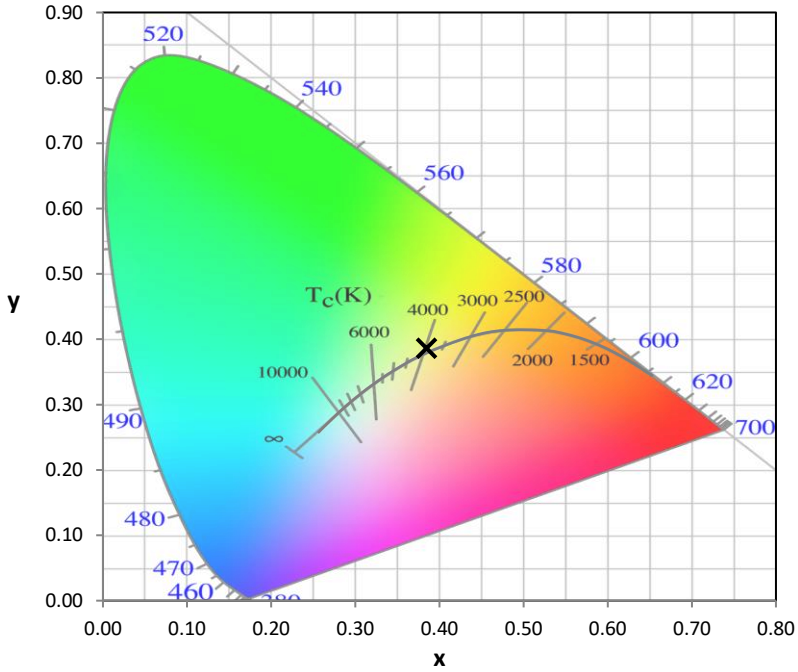
Stabilization Time:	72M
Operation Time:	12H
Room Temperature (°C) / RH%:	24.8/42%
Sphere Temperature (°C):	24.9

REPORT NUMBER: SP1-2106-271-4

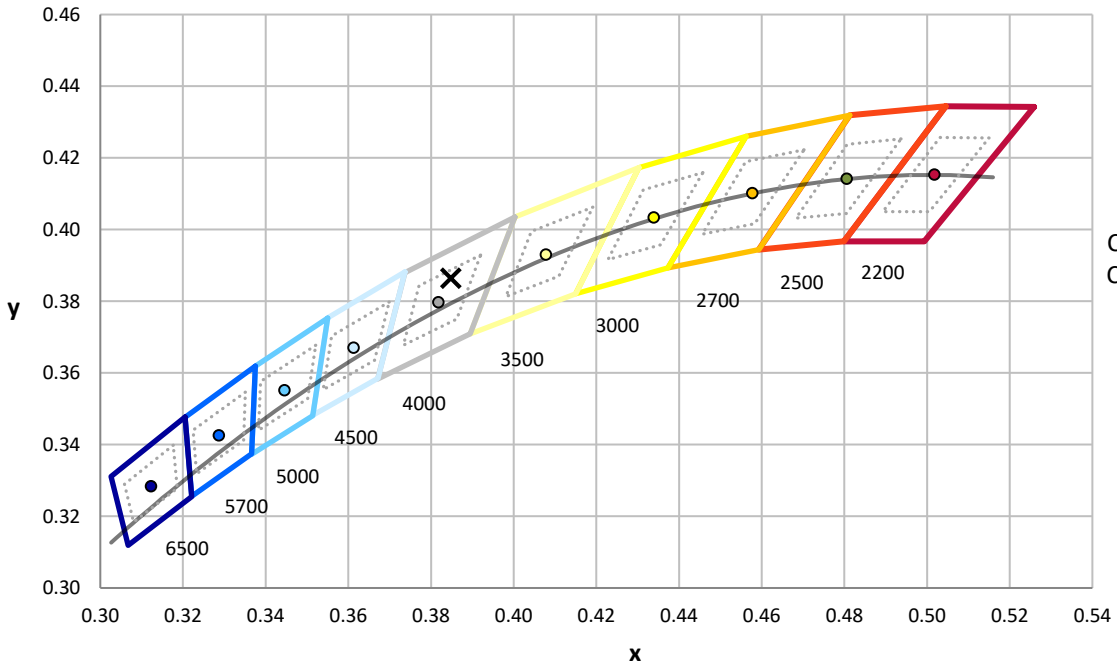
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	1/31/2021	7/31/2021
Power Meter	XITRON 2801 IN0071	12/1/2020	12/1/2021
AC Power Source	CHROMA 61603 IN0063	12/1/2020	12/1/2021
DC Power Source	AGILENT E3634A IN0208	12/1/2020	12/1/2021
Sphere Thermometer	ONSET IN0085	12/1/2020	12/1/2021
Room Thermometer	ONSET IN0046	12/1/2020	12/1/2021

REPORT NUMBER: SP1-2106-271-4

CIE 1931 Chromaticity Diagram



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



CCT = 3952K
CIE x = 0.3848
CIE y = 0.3864
Duv = 0.0032

Point lies inside the ANSI 4000K 4-step quadrangle

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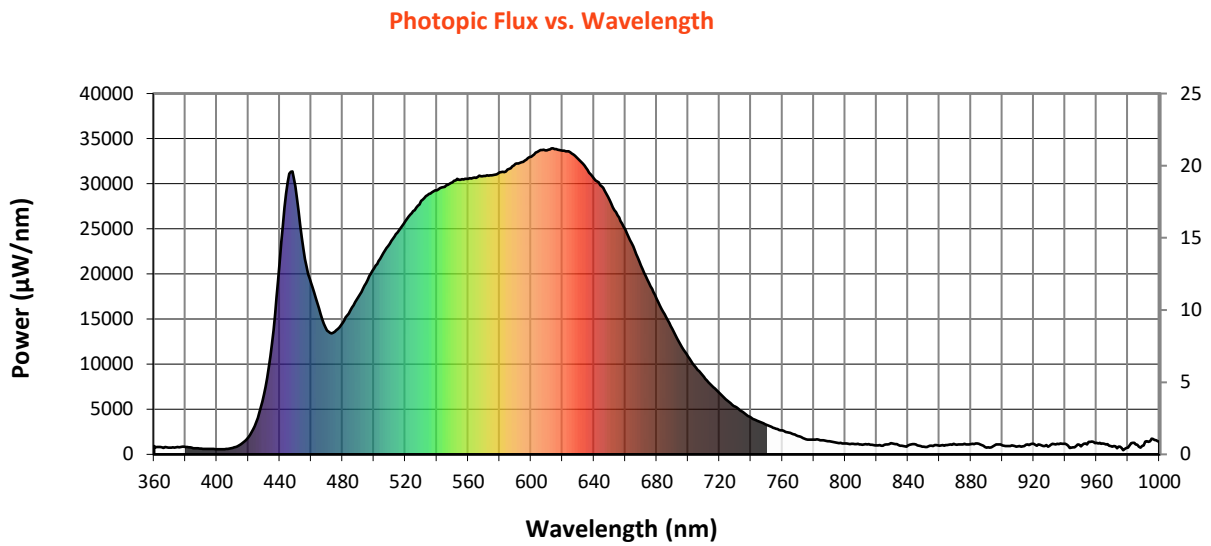

######

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	910	NR	490	17463	NR	620	33665	NR	750	3275	NR	880	1122	NR
365	784	NR	495	18986	NR	625	33477	NR	755	2901	NR	885	1170	NR
370	741	NR	500	20627	NR	630	32742	NR	760	2665	NR	890	751	NR
375	805	NR	505	21980	NR	635	31767	NR	765	2371	NR	895	990	NR
380	830	NR	510	23346	NR	640	30561	NR	770	2039	NR	900	982	NR
385	690	NR	515	24600	NR	645	29699	NR	775	1676	NR	905	936	NR
390	625	NR	520	25854	NR	650	28202	NR	780	1616	NR	910	888	NR
395	599	NR	525	26952	NR	655	26484	NR	785	1573	NR	915	1068	NR
400	568	NR	530	28081	NR	660	24930	NR	790	1452	NR	920	1179	NR
405	577	NR	535	28884	NR	665	23070	NR	795	1263	NR	925	1008	NR
410	720	NR	540	29271	NR	670	20926	NR	800	1203	NR	930	927	NR
415	1084	NR	545	29657	NR	675	19011	NR	805	1175	NR	935	1185	NR
420	1884	NR	550	30152	NR	680	17237	NR	810	1108	NR	940	1166	NR
425	3574	NR	555	30445	NR	685	15540	NR	815	1125	NR	945	779	NR
430	6636	NR	560	30559	NR	690	13894	NR	820	988	NR	950	905	NR
435	12267	NR	565	30663	NR	695	12196	NR	825	1070	NR	955	1369	NR
440	21326	NR	570	30877	NR	700	10840	NR	830	1219	NR	960	1280	NR
445	30150	NR	575	30916	NR	705	9613	NR	835	944	NR	965	1177	NR
450	29740	NR	580	31248	NR	710	8583	NR	840	983	NR	970	868	NR
455	22827	NR	585	31581	NR	715	7631	NR	845	1097	NR	975	843	NR
460	19023	NR	590	32218	NR	720	6779	NR	850	856	NR	980	744	NR
465	16163	NR	595	32417	NR	725	5950	NR	855	949	NR	985	1113	NR
470	13739	NR	600	32976	NR	730	5282	NR	860	954	NR	990	1002	NR
475	13571	NR	605	33620	NR	735	4673	NR	865	1019	NR	995	1732	NR
480	14597	NR	610	33704	NR	740	4087	NR	870	1089	NR	1000	1390	NR
485	15964	NR	615	33846	NR	745	3658	NR	875	1089	NR			

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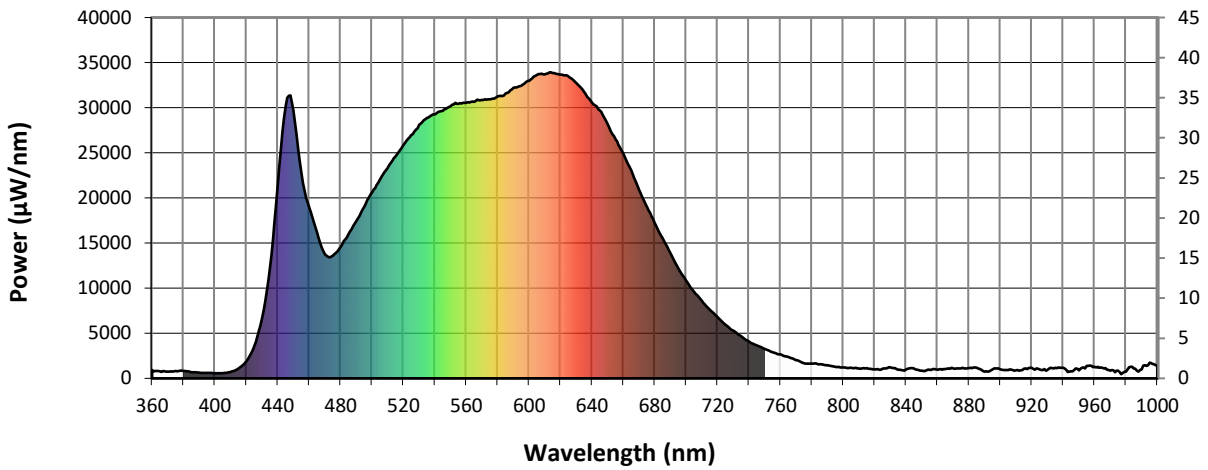
Scotopic Flux vs. Wavelength



Scotopic Lumens: 3705.7 **S/P: 1.75**

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	910	NR	490	17463	NR	620	33665	NR	750	3275	NR	880	1122	NR
365	784	NR	495	18986	NR	625	33477	NR	755	2901	NR	885	1170	NR
370	741	NR	500	20627	NR	630	32742	NR	760	2665	NR	890	751	NR
375	805	NR	505	21980	NR	635	31767	NR	765	2371	NR	895	990	NR
380	830	NR	510	23346	NR	640	30561	NR	770	2039	NR	900	982	NR
385	690	NR	515	24600	NR	645	29699	NR	775	1676	NR	905	936	NR
390	625	NR	520	25854	NR	650	28202	NR	780	1616	NR	910	888	NR
395	599	NR	525	26952	NR	655	26484	NR	785	1573	NR	915	1068	NR
400	568	NR	530	28081	NR	660	24930	NR	790	1452	NR	920	1179	NR
405	577	NR	535	28884	NR	665	23070	NR	795	1263	NR	925	1008	NR
410	720	NR	540	29271	NR	670	20926	NR	800	1203	NR	930	927	NR
415	1084	NR	545	29657	NR	675	19011	NR	805	1175	NR	935	1185	NR
420	1884	NR	550	30152	NR	680	17237	NR	810	1108	NR	940	1166	NR
425	3574	NR	555	30445	NR	685	15540	NR	815	1125	NR	945	779	NR
430	6636	NR	560	30559	NR	690	13894	NR	820	988	NR	950	905	NR
435	12267	NR	565	30663	NR	695	12196	NR	825	1070	NR	955	1369	NR
440	21326	NR	570	30877	NR	700	10840	NR	830	1219	NR	960	1280	NR
445	30150	NR	575	30916	NR	705	9613	NR	835	944	NR	965	1177	NR
450	29740	NR	580	31248	NR	710	8583	NR	840	983	NR	970	868	NR
455	22827	NR	585	31581	NR	715	7631	NR	845	1097	NR	975	843	NR
460	19023	NR	590	32218	NR	720	6779	NR	850	856	NR	980	744	NR
465	16163	NR	595	32417	NR	725	5950	NR	855	949	NR	985	1113	NR
470	13739	NR	600	32976	NR	730	5282	NR	860	954	NR	990	1002	NR
475	13571	NR	605	33620	NR	735	4673	NR	865	1019	NR	995	1732	NR
480	14597	NR	610	33704	NR	740	4087	NR	870	1089	NR	1000	1390	NR
485	15964	NR	615	33846	NR	745	3658	NR	875	1089	NR			

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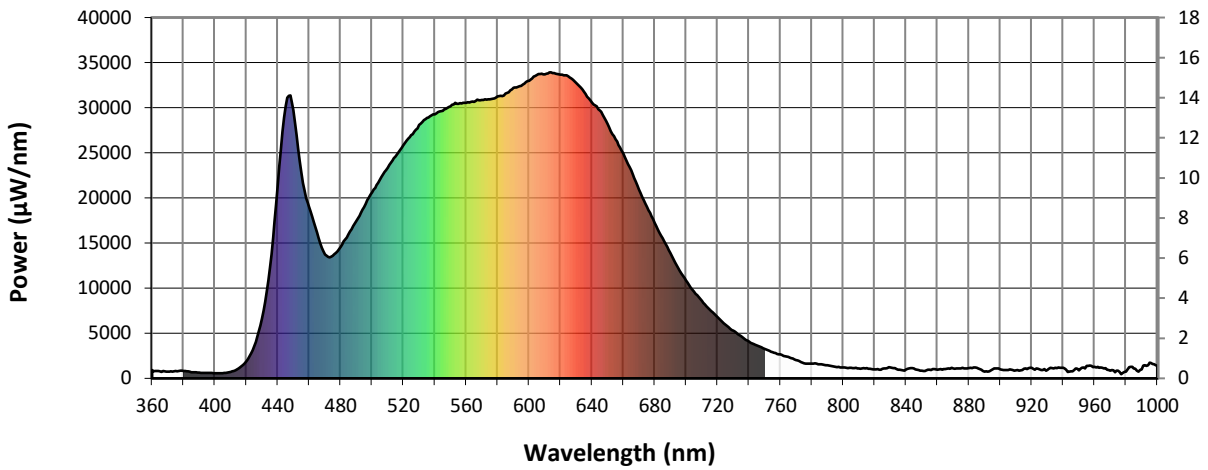
Melanopic Flux vs. Wavelength



Melanopic Lumens: 1498.3 **S/P: 0.71**

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	910	NR	490	17463	NR	620	33665	NR	750	3275	NR	880	1122	NR
365	784	NR	495	18986	NR	625	33477	NR	755	2901	NR	885	1170	NR
370	741	NR	500	20627	NR	630	32742	NR	760	2665	NR	890	751	NR
375	805	NR	505	21980	NR	635	31767	NR	765	2371	NR	895	990	NR
380	830	NR	510	23346	NR	640	30561	NR	770	2039	NR	900	982	NR
385	690	NR	515	24600	NR	645	29699	NR	775	1676	NR	905	936	NR
390	625	NR	520	25854	NR	650	28202	NR	780	1616	NR	910	888	NR
395	599	NR	525	26952	NR	655	26484	NR	785	1573	NR	915	1068	NR
400	568	NR	530	28081	NR	660	24930	NR	790	1452	NR	920	1179	NR
405	577	NR	535	28884	NR	665	23070	NR	795	1263	NR	925	1008	NR
410	720	NR	540	29271	NR	670	20926	NR	800	1203	NR	930	927	NR
415	1084	NR	545	29657	NR	675	19011	NR	805	1175	NR	935	1185	NR
420	1884	NR	550	30152	NR	680	17237	NR	810	1108	NR	940	1166	NR
425	3574	NR	555	30445	NR	685	15540	NR	815	1125	NR	945	779	NR
430	6636	NR	560	30559	NR	690	13894	NR	820	988	NR	950	905	NR
435	12267	NR	565	30663	NR	695	12196	NR	825	1070	NR	955	1369	NR
440	21326	NR	570	30877	NR	700	10840	NR	830	1219	NR	960	1280	NR
445	30150	NR	575	30916	NR	705	9613	NR	835	944	NR	965	1177	NR
450	29740	NR	580	31248	NR	710	8583	NR	840	983	NR	970	868	NR
455	22827	NR	585	31581	NR	715	7631	NR	845	1097	NR	975	843	NR
460	19023	NR	590	32218	NR	720	6779	NR	850	856	NR	980	744	NR
465	16163	NR	595	32417	NR	725	5950	NR	855	949	NR	985	1113	NR
470	13739	NR	600	32976	NR	730	5282	NR	860	954	NR	990	1002	NR
475	13571	NR	605	33620	NR	735	4673	NR	865	1019	NR	995	1732	NR
480	14597	NR	610	33704	NR	740	4087	NR	870	1089	NR	1000	1390	NR
485	15964	NR	615	33846	NR	745	3658	NR	875	1089	NR			

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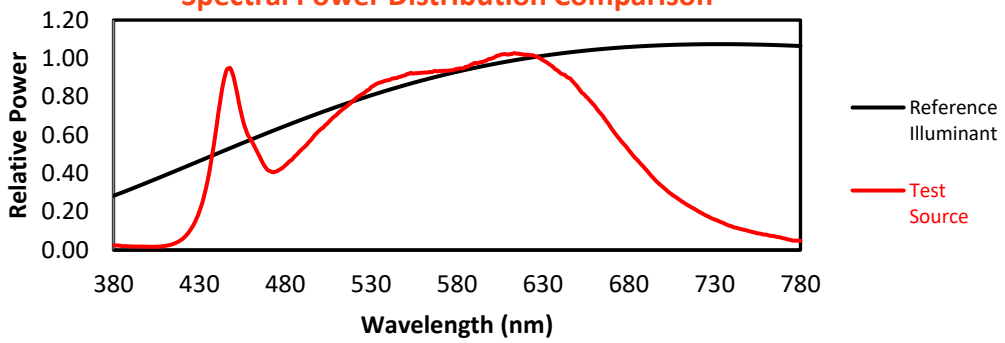
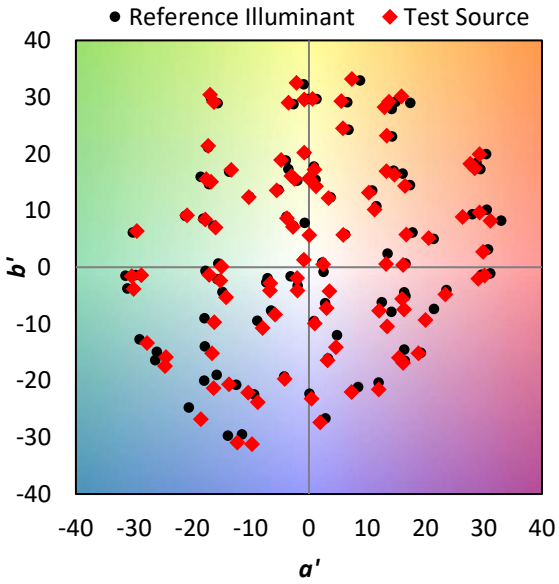
Summary

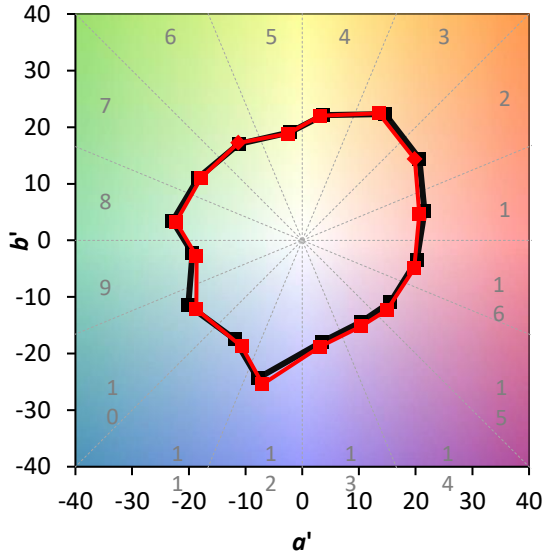
R_f = 92.2
R_g = 98.9
CIE R_a = 92.2
R_9 = 63.3

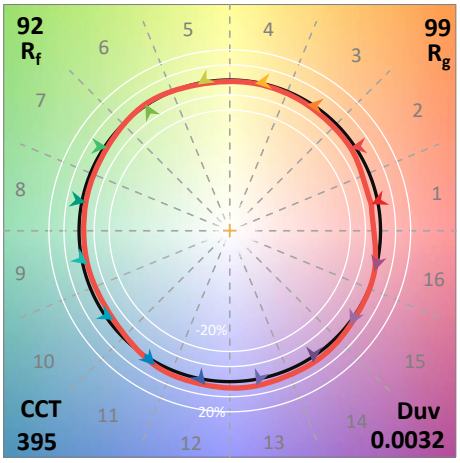
Spectral Power Distribution Comparison

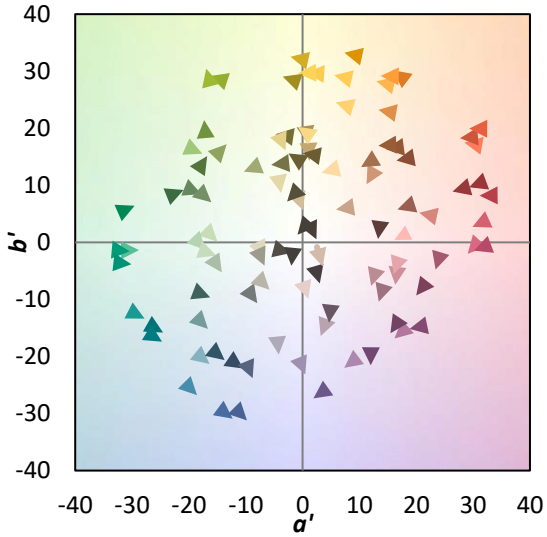


Color Vector Graphics









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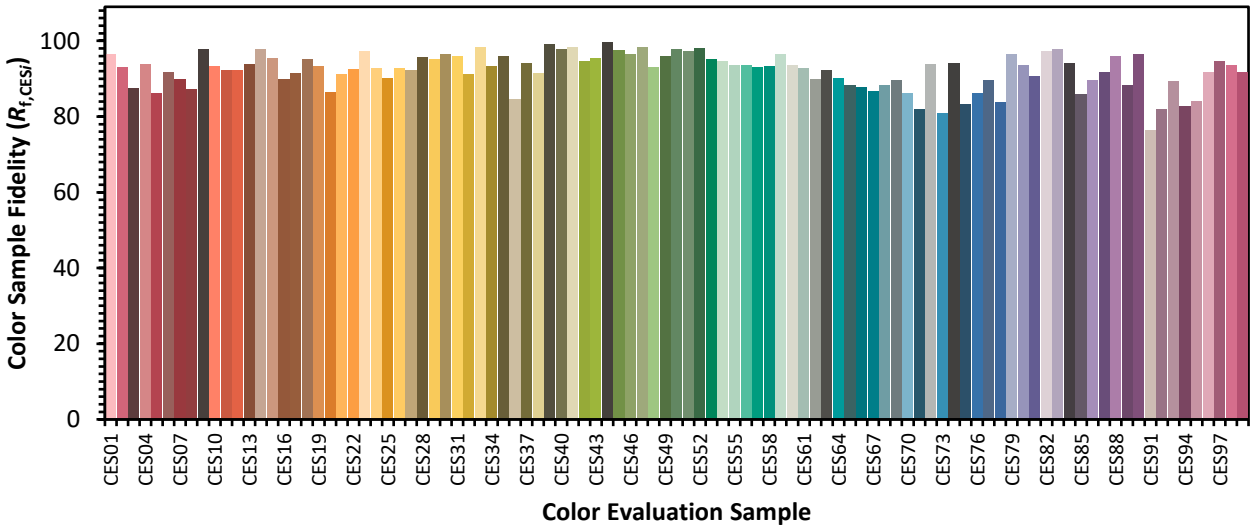
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 93	CES51 = 97	CES76 = 86
CES02 = 61	CES27 = 92	CES52 = 98	CES77 = 90
CES03 = 31	CES28 = 96	CES53 = 95	CES78 = 84
CES04 = 69	CES29 = 95	CES54 = 95	CES79 = 97
CES05 = 49	CES30 = 97	CES55 = 94	CES80 = 94
CES06 = 50	CES31 = 96	CES56 = 94	CES81 = 91
CES07 = 42	CES32 = 91	CES57 = 93	CES82 = 97
CES08 = 41	CES33 = 98	CES58 = 93	CES83 = 98
CES09 = 29	CES34 = 93	CES59 = 96	CES84 = 94
CES10 = 74	CES35 = 96	CES60 = 94	CES85 = 86
CES11 = 57	CES36 = 85	CES61 = 93	CES86 = 90
CES12 = 63	CES37 = 94	CES62 = 90	CES87 = 92
CES13 = 43	CES38 = 91	CES63 = 92	CES88 = 96
CES14 = 74	CES39 = 99	CES64 = 90	CES89 = 88
CES15 = 71	CES40 = 98	CES65 = 88	CES90 = 96
CES16 = 47	CES41 = 98	CES66 = 88	CES91 = 76
CES17 = 49	CES42 = 95	CES67 = 87	CES92 = 82
CES18 = 56	CES43 = 95	CES68 = 88	CES93 = 89
CES19 = 71	CES44 = 100	CES69 = 90	CES94 = 83
CES20 = 66	CES45 = 97	CES70 = 86	CES95 = 84
CES21 = 85	CES46 = 97	CES71 = 82	CES96 = 92
CES22 = 78	CES47 = 98	CES72 = 94	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 81	CES98 = 93
CES24 = 90	CES49 = 96	CES74 = 94	CES99 = 92
CES25 = 71	CES50 = 98	CES75 = 83	



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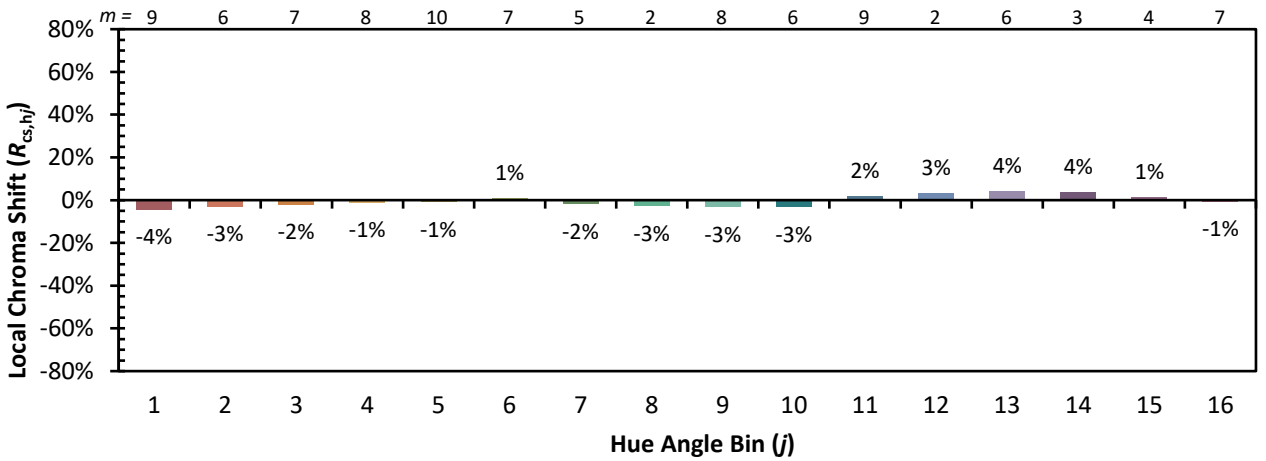
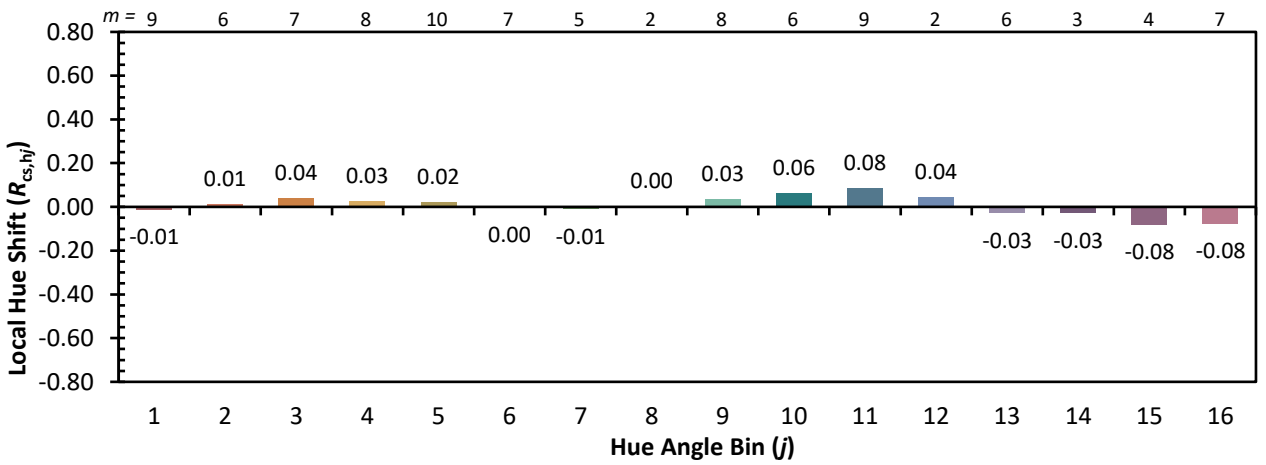
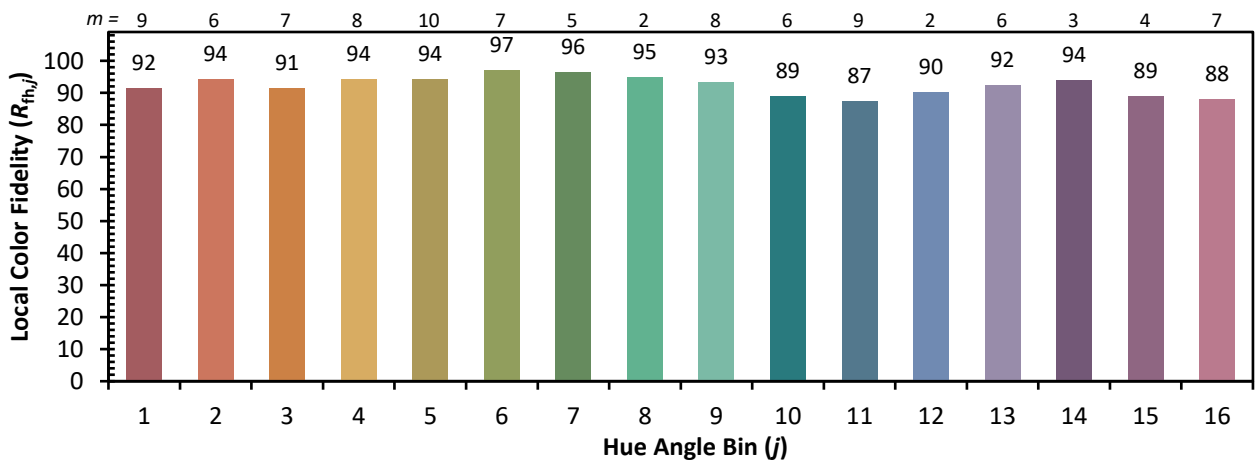
Color Rendition by Hue-Angle Bin







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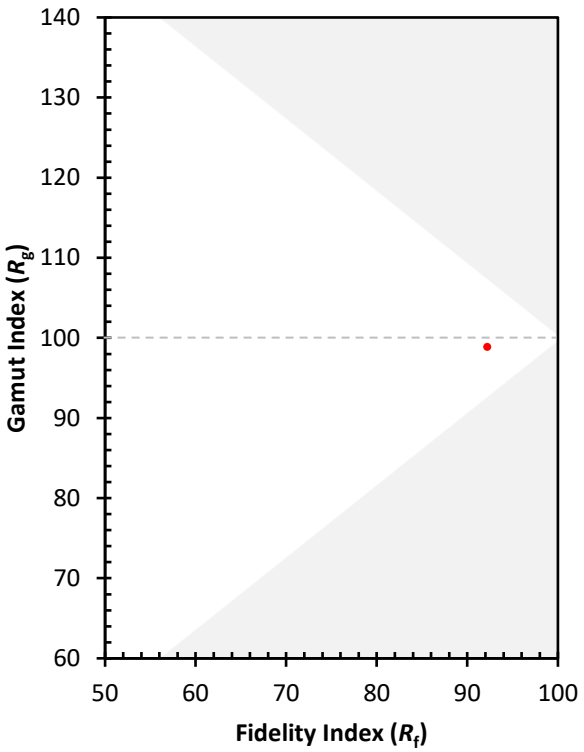
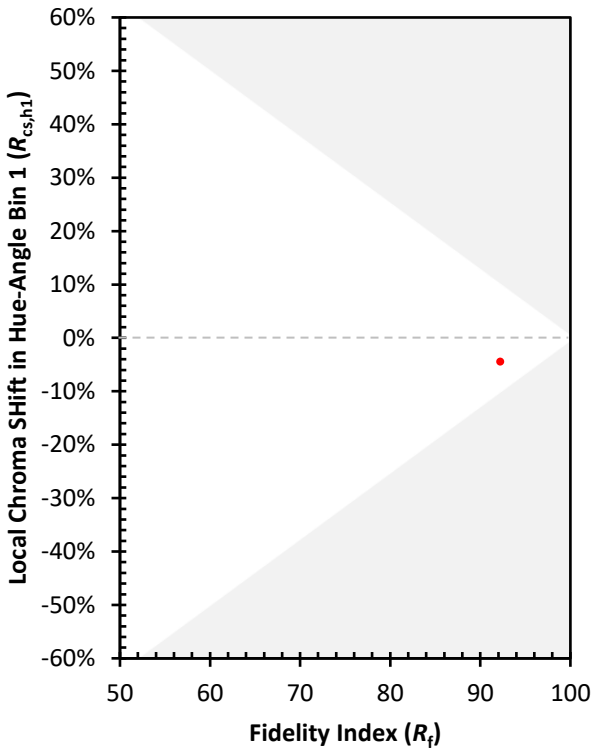
Measure Comparisons





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