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: P324639

Luminaire Tested: **GLEON-SA5B-830-U-SLR-HSS**

Issue Date: 3/3/2020

Report Generated By E0585644

Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P324639
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab:	INNOVATION CENTER
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GLEON-SA5B-830-U-SLR-HSS
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(5) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	16825 lumens
Efficiency:	N/A
Efficacy:	80.1 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type IV - Medium
BUG Rating:	B2 - U0 - G3

Input Watts (W):	210
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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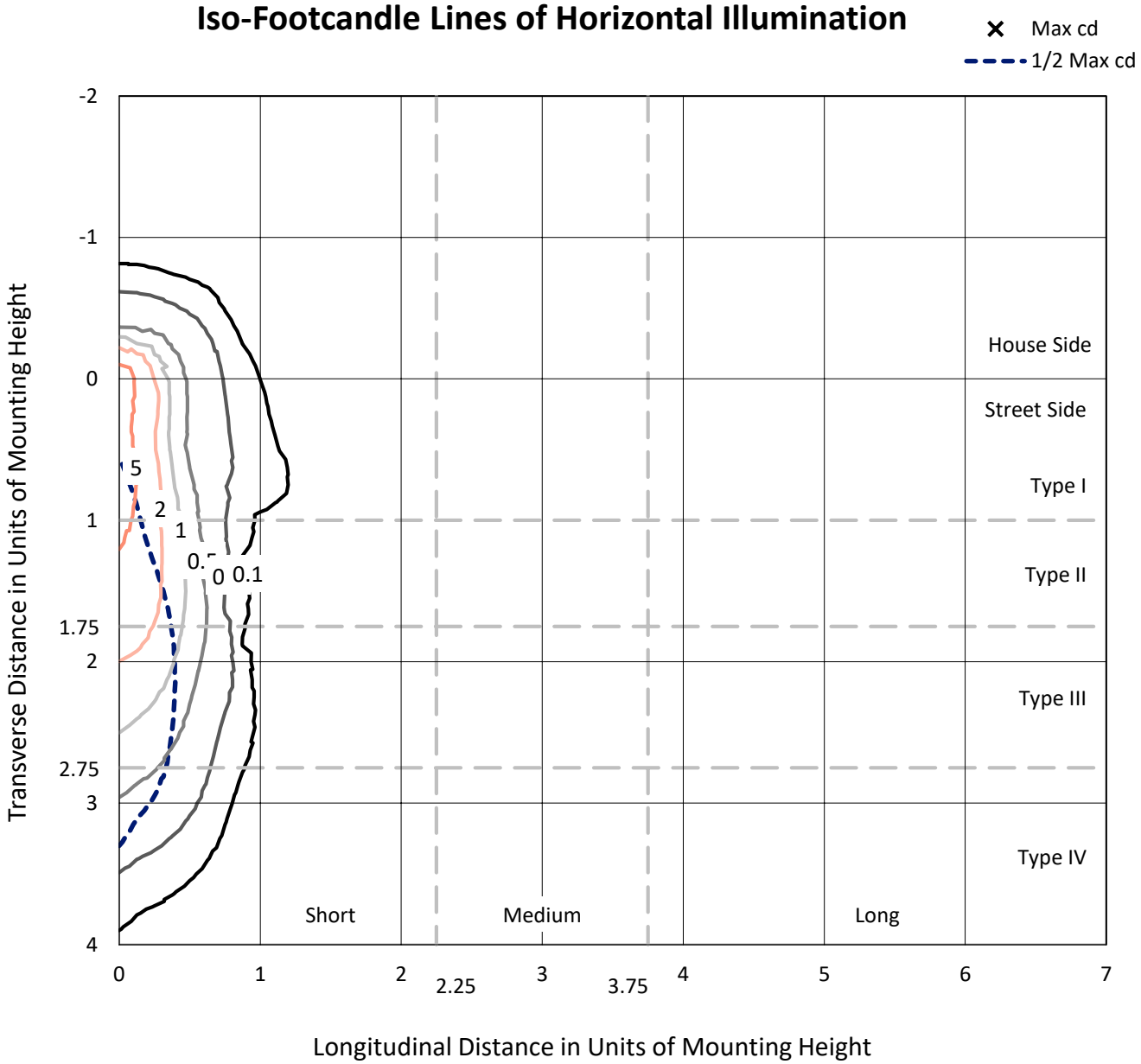
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
Type IV - Medium - N/A

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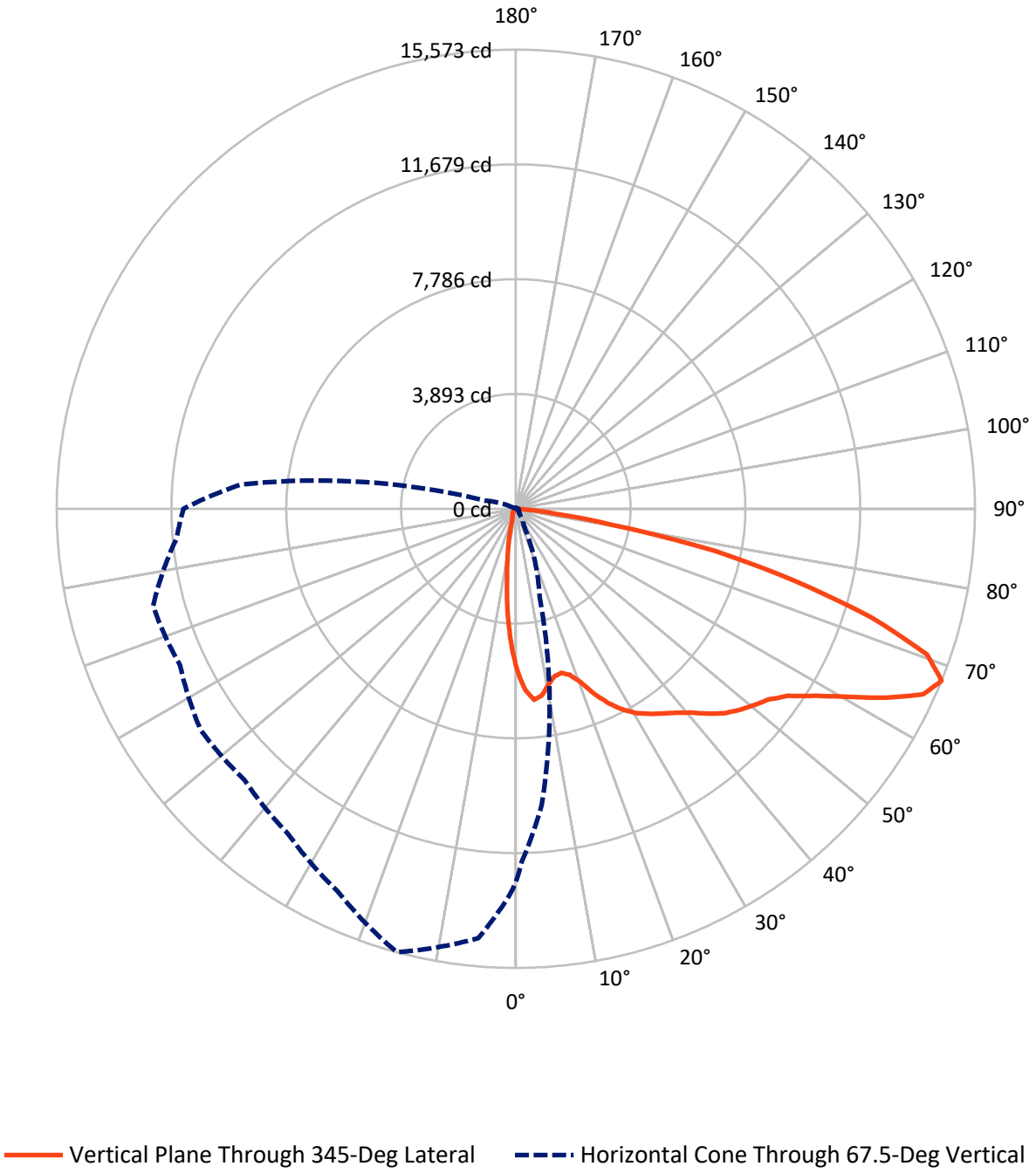
Luminous Intensity Polar Plot



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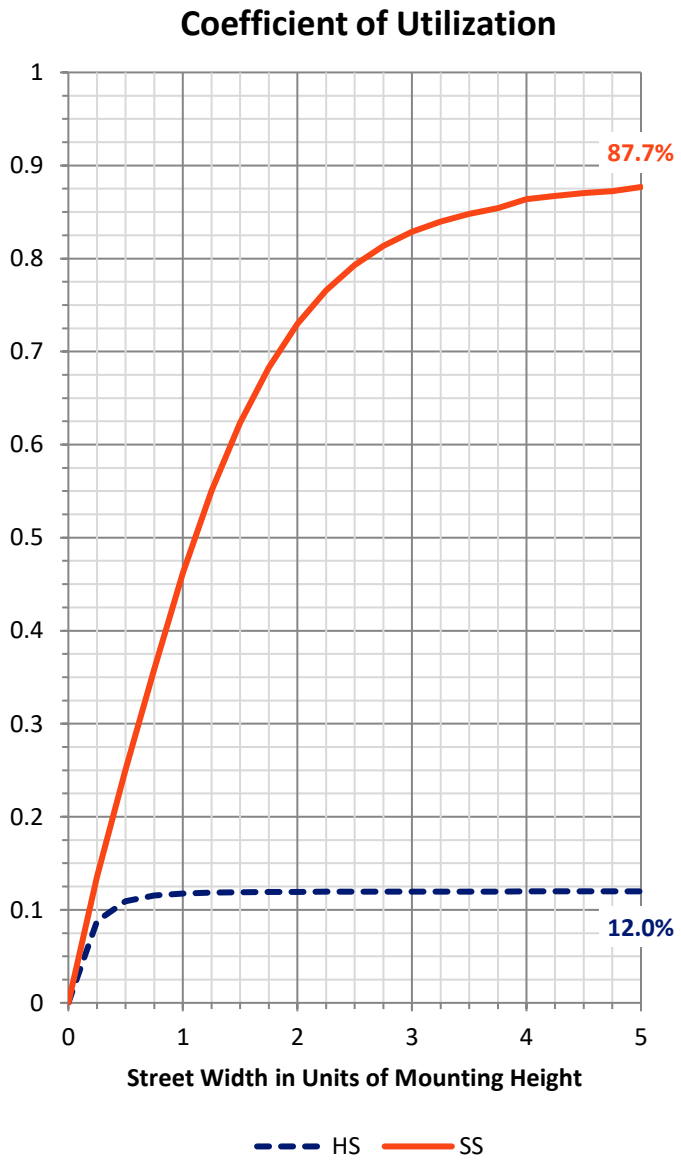
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2036.4	0.0	2036.4
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	14788.6	0.0	14788.6
	% Fixture	87.9	0.0	87.9
Total	Lumens	16825.0	0.0	16825.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.6	2.5
10°-20°	837.3	5.0
20°-30°	1188.9	7.1
30°-40°	1756.1	10.4
40°-50°	2532.7	15.1
50°-60°	3555.4	21.1
60°-70°	4144.6	24.6
70°-80°	2118.8	12.6
80°-90°	270.6	1.6
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°	16825.0	100.0
0°-180°	16825.0	100.0



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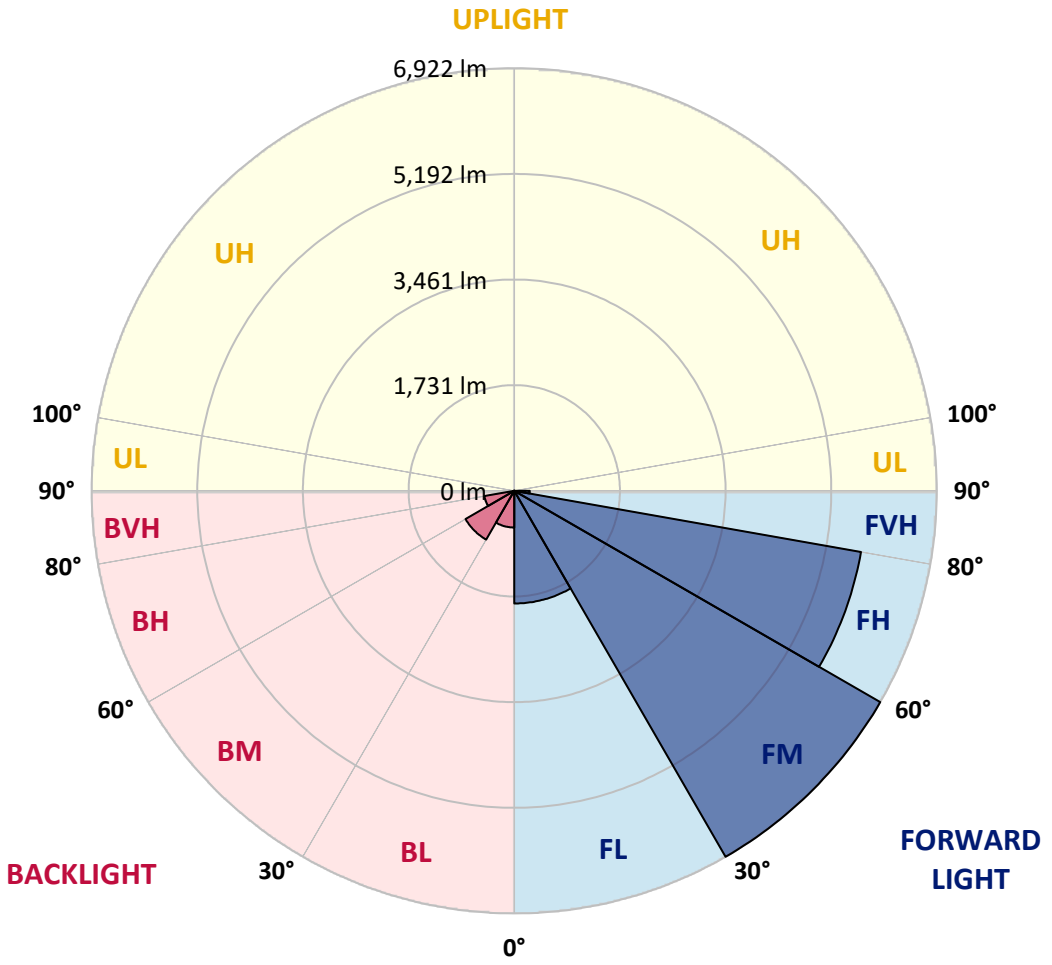
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1845.4	11.0			
FM	(30°-60°)	6922.1	41.1			
FH	(60°-80°)	5767.0	34.3			G3/7500
FVH	(80°-90°)	254.2	1.5			G3/500
BL	(0°-30°)	601.5	3.6	B2/1000		
BM	(30°-60°)	922.1	5.5	B1/1000		
BH	(60°-80°)	496.3	2.9	B1/500		G1/500
BVH	(80°-90°)	16.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7
2.5°	6001.2	5955.0	5904.0	5737.4	5582.7	5405.8	5261.5	5161.1	5035.1	4871.7	4830.3
5°	5958.2	5908.7	5748.5	5377.9	5053.5	4737.8	4433.4	4254.8	4033.2	3808.4	3752.6
7.5°	5525.3	5473.5	5242.4	4734.6	4297.8	3841.9	3446.6	3201.9	2951.6	2745.9	2636.7
10°	5075.0	5018.4	4758.6	4142.4	3604.4	3192.3	2902.2	2668.6	2431.9	2211.9	2036.5
12.5°	4764.9	4690.8	4408.6	3710.4	3241.7	2961.9	2690.9	2411.2	2090.7	1854.8	1661.9
15°	4635.0	4550.5	4252.4	3543.8	3113.4	2785.0	2431.9	2088.3	1712.9	1442.7	1265.8
17.5°	4735.4	4625.4	4305.8	3532.7	2952.4	2505.2	2058.9	1655.5	1248.2	974.8	848.9
20°	5076.6	4932.3	4526.6	3529.5	2757.1	2172.8	1606.9	1151.0	822.6	661.6	595.4
22.5°	5613.8	5423.3	4843.8	3555.0	2555.4	1823.7	1160.5	781.9	617.7	534.0	495.0
25°	6262.6	6041.9	5300.6	3645.0	2378.5	1484.2	843.3	617.7	521.3	459.9	427.2
27.5°	6879.6	6700.2	5877.7	3775.0	2241.4	1210.0	684.7	523.7	445.6	404.9	378.6
30°	7495.7	7270.2	6469.9	3929.6	2076.4	1024.2	601.8	477.5	399.3	356.3	339.6
32.5°	7943.7	7756.4	6933.8	4041.2	1900.2	903.1	538.0	436.8	373.0	329.2	304.5
35°	8470.6	8258.5	7331.5	4065.9	1787.1	826.6	483.8	393.0	323.6	284.6	258.3
37.5°	9039.7	8775.8	7790.6	4011.7	1698.6	789.1	443.2	373.0	302.1	262.2	234.3
40°	9669.4	9371.3	8231.4	3933.6	1611.7	776.4	412.1	357.9	285.4	244.7	216.0
42.5°	10332.5	9981.0	8613.2	3851.5	1556.7	732.5	408.9	342.7	272.6	228.8	200.1
45°	10889.7	10533.4	9005.4	3824.4	1517.6	684.7	422.5	332.4	263.8	216.0	188.1
47.5°	11333.7	10996.5	9407.1	3885.0	1495.3	640.9	385.0	345.9	259.1	204.8	177.7
50°	11863.7	11481.9	9973.0	4065.9	1462.6	597.0	348.3	396.1	259.1	197.7	169.0
52.5°	12528.5	12150.7	10604.3	4346.5	1397.3	536.4	313.3	396.9	261.4	188.1	157.8
55°	13364.6	13090.4	11505.8	4654.1	1292.9	447.2	271.0	341.1	251.9	170.6	147.5
57.5°	14166.5	13942.5	12327.6	4864.6	1153.4	349.1	235.9	275.0	230.4	149.9	131.5
59°	14385.7	14141.0	12628.9	4874.1	1049.0	304.5	218.4	227.2	225.6	140.3	122.0
60°	14385.7	14125.8	12715.8	4823.1	973.2	279.8	207.2	202.5	235.1	133.9	116.4
62.5°	14125.0	13760.0	12433.6	4478.0	793.9	238.3	180.9	167.4	211.2	120.4	102.8
65°	13583.0	13051.4	11472.4	3853.9	707.8	218.4	156.2	137.1	146.7	106.0	90.1
67.5°	*12679.1*	*11958.6*	*10086.2*	*3113.4*	*673.5*	*212.8*	*134.7*	*116.4*	*110.8*	*90.9*	*78.9*
70°	11087.4	10287.9	8403.6	2447.8	644.0	210.4	113.2	98.0	89.3	76.5	67.0
72.5°	8069.6	7235.9	5966.1	1913.8	626.5	215.2	90.9	82.1	73.3	59.8	51.8
75°	4615.9	4069.9	3353.3	1264.2	534.0	205.6	70.1	68.5	52.6	43.0	35.9
77.5°	2384.9	2312.3	2009.4	485.4	255.9	90.1	46.2	39.9	31.1	26.3	21.5
80°	1029.0	1017.9	880.8	140.3	67.8	50.2	26.3	16.7	14.3	11.2	8.8
82.5°	355.5	355.5	313.3	47.0	30.3	24.7	3.2	0.0	0.0	0.0	0.0
85°	71.7	80.5	56.6	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7
2.5°	4780.1	4683.6	4677.3	4616.7	4541.0	4506.7	4486.8	4521.8	4564.9	4569.7	4634.2
5°	3710.4	3609.2	3651.4	3543.8	3565.3	3543.8	3508.7	3515.1	3534.2	3474.5	3548.6
7.5°	2605.6	2529.1	2577.8	2549.1	2587.3	2602.5	2580.9	2549.1	2455.0	2443.8	2508.4
10°	1964.0	1877.1	1825.3	1771.1	1783.1	1807.8	1799.8	1776.7	1716.9	1720.1	1782.3
12.5°	1578.2	1481.0	1378.1	1245.0	1212.4	1230.7	1212.4	1198.8	1141.4	1146.2	1201.2
15°	1197.2	1117.5	1009.9	903.1	844.9	850.5	799.5	763.6	727.7	684.7	718.2
17.5°	808.2	759.6	727.7	695.8	626.5	610.6	546.0	476.7	449.6	429.6	444.0
20°	572.3	546.0	533.2	531.7	491.8	471.9	408.9	365.9	352.3	348.3	357.1
22.5°	478.2	459.1	440.8	430.4	410.5	387.4	339.6	318.0	308.5	303.7	310.1
25°	416.1	401.7	382.6	365.1	357.1	332.4	298.1	282.2	275.8	271.0	274.2
27.5°	369.8	357.1	334.8	323.6	317.2	295.7	266.2	253.5	247.9	246.3	245.5
30°	333.2	321.2	300.5	287.7	276.6	257.5	239.9	227.2	221.6	220.0	218.4
32.5°	296.5	286.9	273.4	260.6	248.7	231.2	216.0	205.6	196.9	195.3	194.5
35°	250.3	240.7	233.5	232.7	221.6	204.8	193.7	180.1	173.0	170.6	171.4
37.5°	222.4	209.6	193.7	199.3	196.1	184.1	169.0	155.4	148.3	146.7	146.7
40°	204.8	191.3	173.0	163.4	173.0	170.6	146.7	133.1	125.9	125.1	123.5
42.5°	188.1	174.6	153.8	137.9	142.7	149.9	126.7	114.0	106.8	105.2	102.8
45°	176.2	161.8	138.7	120.4	110.8	125.9	108.4	92.5	88.5	85.3	83.7
47.5°	165.0	151.4	125.1	104.4	88.5	90.9	86.9	75.7	70.9	67.8	67.0
50°	155.4	141.1	113.2	89.3	73.3	67.0	70.1	59.8	55.8	52.6	51.0
52.5°	144.3	130.7	100.4	77.3	61.4	52.6	53.4	47.0	43.0	40.7	39.9
55°	135.5	122.0	90.1	67.8	54.2	43.0	38.3	36.7	34.3	32.7	31.9
57.5°	123.5	110.8	79.7	57.4	46.2	35.1	29.5	29.5	28.7	27.1	26.3
59°	116.4	105.2	73.3	51.8	42.2	30.3	26.3	27.1	26.3	24.7	23.9
60°	110.8	100.4	68.5	47.8	39.9	27.9	23.9	25.5	24.7	23.1	22.3
62.5°	98.0	90.9	59.0	39.9	35.1	22.3	19.9	21.5	21.5	20.7	19.9
65°	86.1	78.1	50.2	33.5	32.7	19.1	15.9	19.1	19.9	18.3	16.7
67.5°	*74.9*	*67.0*	*43.8*	*27.1*	*30.3*	*15.1*	*12.0*	*15.9*	*21.5*	*16.7*	*15.1*
70°	63.8	55.8	34.3	21.5	31.9	10.4	9.6	14.3	25.5	18.3	14.3
72.5°	49.4	43.0	23.9	15.9	34.3	7.2	7.2	12.0	28.7	19.9	13.6
75°	34.3	27.9	14.3	9.6	27.9	4.8	4.8	11.2	27.1	18.3	12.8
77.5°	19.9	15.1	4.8	0.8	14.3	0.0	0.8	8.0	19.1	11.2	5.6
80°	7.2	3.2	0.0	0.0	8.8	0.0	0.0	0.0	1.6	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7
2.5°	4651.0	4758.6	4855.0	5000.9	5173.8	5373.1	5544.5	5728.6	5901.6	5973.3	6022.7
5°	3563.7	3696.9	3852.3	4066.7	4352.0	4703.6	5032.8	5405.0	5805.1	6005.2	6193.3
7.5°	2519.6	2655.1	2848.0	3075.9	3421.1	3839.5	4270.0	4784.1	5326.1	5642.5	5954.2
10°	1811.8	1978.3	2158.5	2470.1	2820.9	3217.8	3661.0	4234.9	4839.1	5189.8	5565.2
12.5°	1233.1	1422.8	1695.4	2044.5	2456.6	2845.6	3230.6	3778.2	4479.6	4827.1	5229.6
15°	739.7	844.9	1133.4	1537.6	2042.9	2527.5	2949.2	3498.4	4246.0	4671.7	5090.1
17.5°	455.9	504.6	661.6	993.2	1524.0	2137.0	2714.8	3403.5	4279.5	4797.6	5245.6
20°	363.5	382.6	432.8	586.6	1009.9	1706.5	2451.0	3384.4	4552.9	5190.6	5671.2
22.5°	315.6	334.0	367.5	426.4	635.3	1277.7	2200.7	3401.9	4945.1	5779.6	6340.8
25°	278.2	294.1	326.0	374.6	465.5	899.9	1932.9	3480.0	5456.0	6510.5	7106.8
27.5°	248.7	262.2	291.7	336.4	399.3	628.1	1629.2	3574.9	6061.8	7258.2	7846.4
30°	221.6	233.5	259.8	301.3	346.7	483.0	1296.0	3639.5	6668.4	7846.4	8374.9
32.5°	198.5	207.2	231.2	266.2	301.3	385.0	985.2	3629.1	7118.7	8335.8	8755.1
35°	174.6	183.3	204.1	234.3	262.2	318.0	774.8	3435.4	7510.9	8843.6	9190.3
37.5°	148.3	159.4	179.3	206.4	225.6	279.8	626.5	3201.9	7908.6	9423.9	9675.7
40°	125.9	137.1	154.6	184.1	196.1	265.4	481.4	2917.3	8355.8	10072.7	10208.2
42.5°	104.4	114.8	133.1	158.6	184.9	228.8	356.3	2592.1	8785.4	10627.4	10693.6
45°	84.5	94.9	114.0	139.5	197.7	189.7	275.8	2243.8	9132.1	11089.0	11110.5
47.5°	67.0	76.5	96.4	131.5	184.1	151.4	196.9	1970.4	9423.1	11449.2	11392.6
50°	51.8	59.8	80.5	150.6	161.0	125.1	149.1	1879.5	9683.7	11672.4	11525.8
52.5°	40.7	47.8	66.2	141.1	125.1	103.6	125.1	1964.8	10040.8	11857.3	11600.7
55°	32.7	39.9	51.8	80.5	85.3	87.7	106.8	2044.5	10656.9	12291.0	12043.1
57.5°	27.1	34.3	42.2	56.6	64.6	74.1	94.9	2053.3	11383.1	13011.5	12777.2
59°	24.7	31.1	38.3	50.2	56.6	67.8	89.3	2005.4	11638.9	13273.8	13156.6
60°	23.1	29.5	35.9	46.2	52.6	63.8	86.1	1960.0	11650.1	13264.2	13318.4
62.5°	19.9	26.3	31.9	39.1	44.6	54.2	77.3	1791.8	11178.2	12829.8	13221.1
65°	17.5	23.1	28.7	33.5	38.3	48.6	70.1	1485.0	10372.4	12129.1	12555.6
67.5°	*15.9*	*19.9*	*26.3*	*29.5*	*34.3*	*43.0*	*62.2*	*1058.5*	*9365.7*	*11272.3*	*11548.9*
70°	14.3	19.1	23.9	27.1	31.1	37.5	53.4	608.2	7908.6	10017.7	10214.6
72.5°	13.6	18.3	21.5	25.5	27.9	33.5	48.6	286.2	5790.8	8025.0	8539.1
75°	12.0	16.7	19.9	23.9	26.3	30.3	41.4	137.1	3851.5	5807.5	6391.8
77.5°	7.2	13.6	18.3	21.5	23.1	26.3	34.3	78.9	2458.2	4019.7	4734.6
80°	0.0	4.8	13.6	18.3	19.9	22.3	26.3	62.2	1315.2	2296.4	2756.3
82.5°	0.0	0.0	9.6	14.3	13.6	15.1	19.9	39.1	593.0	1500.9	1691.4
85°	0.0	0.0	3.2	11.2	9.6	7.2	13.6	13.6	129.9	759.6	947.7
87.5°	0.0	0.0	0.0	0.8	4.8	3.2	5.6	1.6	0.8	56.6	229.6
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: P324639
CATALOG NUMBER: GLEON-SA5B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5480.7	5480.7	5480.7	5480.7	5480.7	5480.7	*5480.7*	5480.7	5480.7	5480.7
2.5°	6195.7	6254.7	6354.3	6401.3	6378.2	6280.2	*6163.0*	6043.5	5973.3	6001.2
5°	6576.7	6880.4	7055.7	7113.9	7016.7	6796.7	*6508.9*	6129.5	5994.8	5958.2
7.5°	6576.7	7148.2	7510.1	7573.8	7357.0	6925.8	*6386.2*	5794.0	5597.1	5525.3
10°	6345.5	7123.5	7628.0	7729.3	7426.4	6781.5	*6058.6*	5382.7	5149.1	5075.0
12.5°	6084.9	6922.6	7454.3	7593.8	7345.1	6638.1	*5831.4*	5104.5	4829.5	4764.9
15°	5924.7	6675.5	7115.5	7216.7	7111.5	6554.4	*5777.2*	5020.8	4697.2	4635.0
17.5°	5982.1	6484.2	6642.9	6701.8	6772.8	6524.9	*5924.7*	5204.1	4794.4	4735.4
20°	6198.1	6282.6	6200.5	6274.6	6465.9	6553.6	*6276.2*	5647.3	5155.5	5076.6
22.5°	6564.7	6178.2	5947.8	5977.3	6210.0	6648.4	*6813.4*	6280.2	5712.7	5613.8
25°	6992.0	6262.6	5807.5	5781.2	6020.3	6773.6	*7304.4*	6968.9	6371.8	6262.6
27.5°	7529.2	6452.4	5778.8	5752.5	5954.2	6890.7	*7712.5*	7649.6	7066.1	6879.6
30°	7943.7	6638.9	5864.1	5803.5	6020.3	6972.0	*8040.1*	8227.4	7619.3	7495.7
32.5°	8241.0	6858.9	6002.8	5915.1	6206.9	7112.3	*8292.8*	8756.7	8131.0	7943.7
35°	8467.4	7098.0	6226.8	6082.5	6463.5	7325.2	*8529.5*	9320.2	8675.4	8470.6
37.5°	8679.4	7433.6	6576.7	6404.5	6866.0	7667.9	*8779.8*	9959.5	9284.4	9039.7
40°	8975.1	7813.8	7116.3	6963.3	7542.8	8135.0	*9092.3*	10625.9	9977.0	9669.4
42.5°	9270.8	8221.9	7668.7	7710.1	8386.9	8702.5	*9495.6*	11330.5	10660.9	10332.5
45°	9541.0	8642.7	8455.4	8646.7	9170.4	9325.0	*9896.5*	11737.8	11206.9	10889.7
47.5°	9781.7	9168.8	9237.3	9746.7	10061.5	9888.6	*10196.2*	12089.3	11613.4	11333.7
50°	10061.5	9849.5	10268.0	10988.5	11087.4	10398.7	*10468.8*	12505.4	12088.5	11863.7
52.5°	10367.6	10566.9	11409.4	12044.7	12012.8	10952.7	*10743.0*	12971.7	12739.7	12528.5
55°	10715.1	11146.3	12414.5	13033.0	13005.9	11571.2	*11197.4*	13547.9	13555.9	13364.6
57.5°	11230.8	11645.3	13096.8	13832.5	13877.9	12285.4	*11967.3*	14193.6	14294.0	14166.5
59°	11600.7	11968.9	13367.0	14166.5	14351.4	12837.7	*12530.1*	14568.2	14502.0	14385.7
60°	11874.9	12174.6	13500.9	14341.0	14626.4	13212.4	*12945.4*	14788.2	14526.8	14385.7
62.5°	12553.2	12622.5	13742.4	14538.7	14942.8	14044.5	*14113.9*	15162.8	14355.4	14125.0
65°	12869.6	12905.5	13739.2	14184.8	14636.8	14692.6	*15174.0*	15174.0	13936.9	13583.0
67.5°	*12737.3*	*12564.4*	*13057.7*	*13011.5*	*13462.7*	*14307.6*	*15572.5*	*14617.6*	*13136.7*	*12679.1*
70°	11661.3	10995.7	10776.5	10796.4	11141.6	12444.8	*14783.4*	12980.4	11622.2	11087.4
72.5°	9702.8	8106.3	7565.1	8182.8	8272.9	9564.1	*12598.6*	9775.4	8571.0	8069.6
75°	7804.2	5714.3	4834.3	5486.3	5639.3	6999.1	*9745.9*	6088.1	5006.5	4615.9
77.5°	5606.7	4101.8	3468.9	3423.5	3621.1	4438.9	*6915.5*	3064.0	2555.4	2384.9
80°	3185.1	2699.7	2906.9	2742.7	2842.4	2775.4	*3285.6*	1343.9	1100.8	1029.0
82.5°	1922.6	1595.8	1728.1	1438.7	1820.5	1585.4	*1265.8*	430.4	373.8	355.5
85°	1250.6	872.0	454.3	304.5	627.3	1013.1	*283.0*	117.2	90.1	71.7
87.5°	431.2	222.4	22.3	9.6	67.0	188.9	*10.4*	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0

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

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

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

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

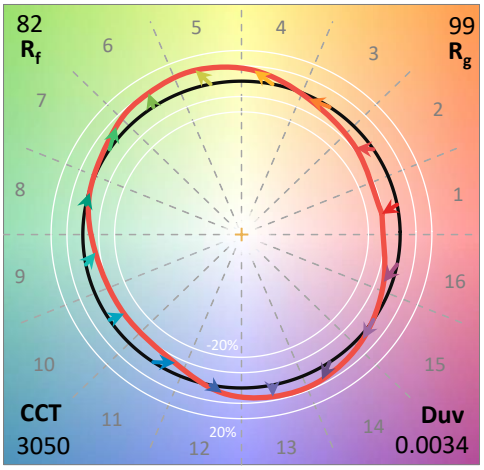
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				
Rf:	81.5				
Rg:	99.2				



Test Conditions

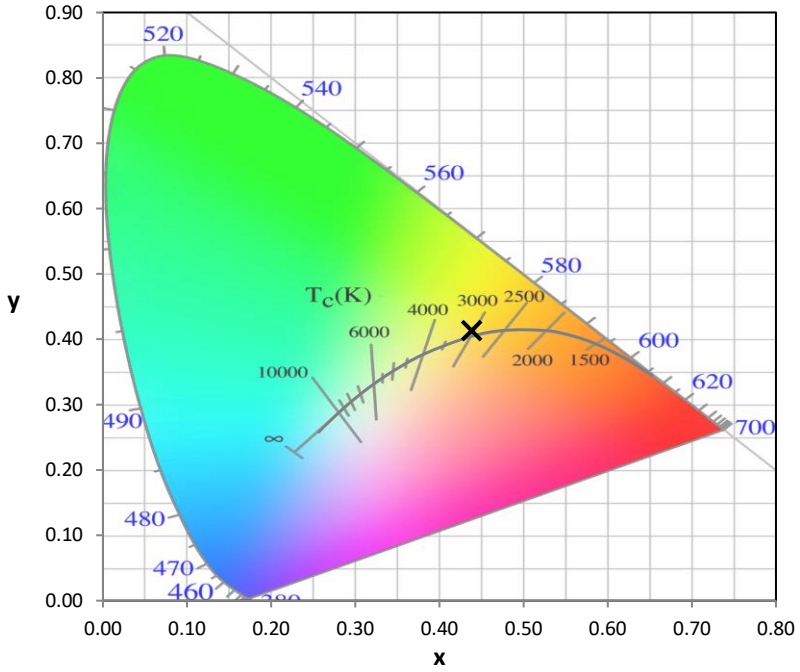
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

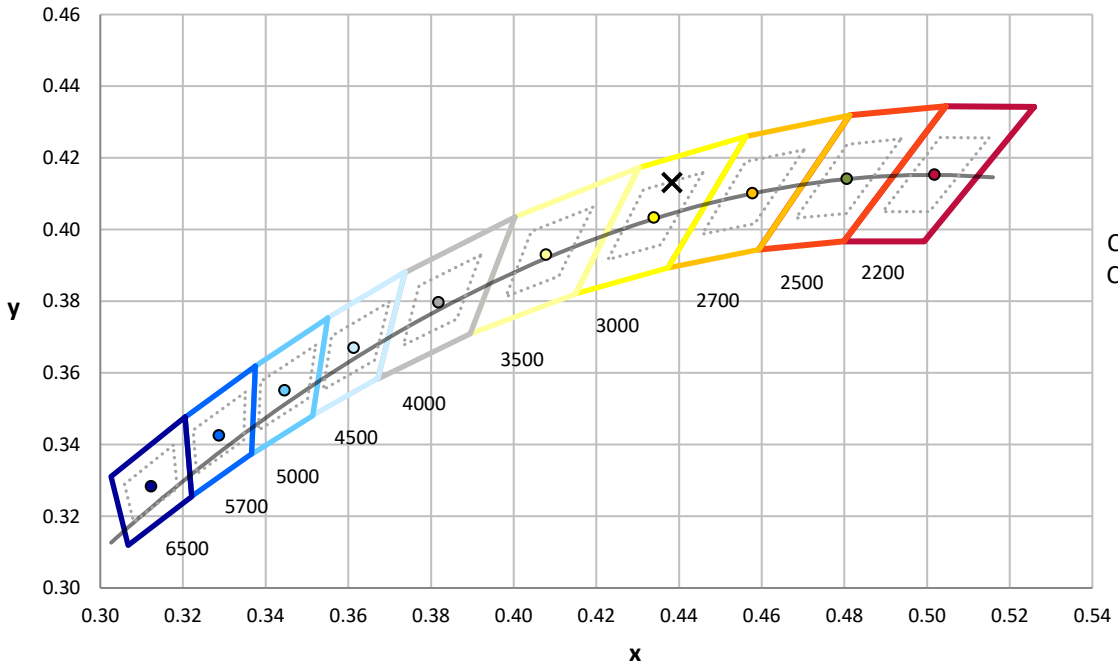
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

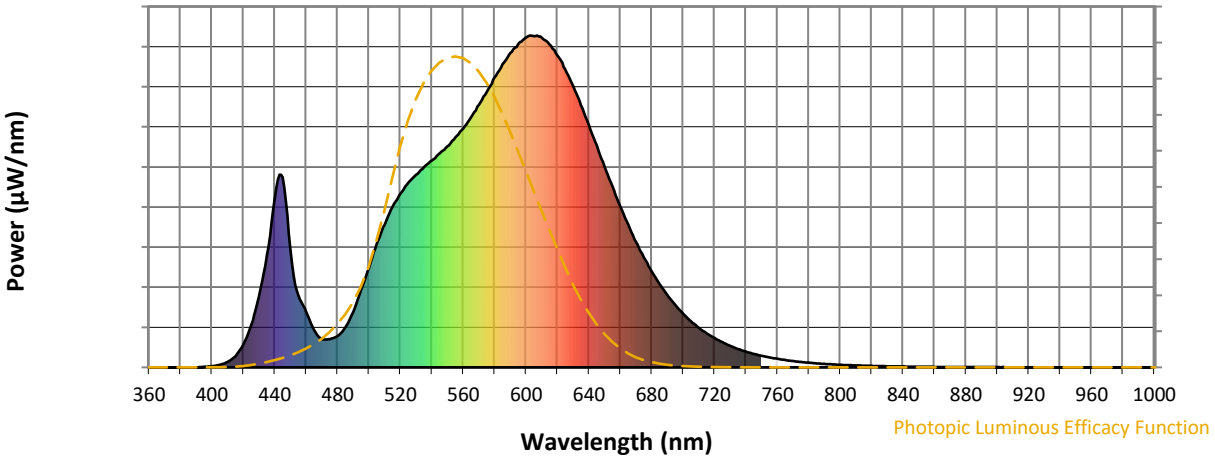


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

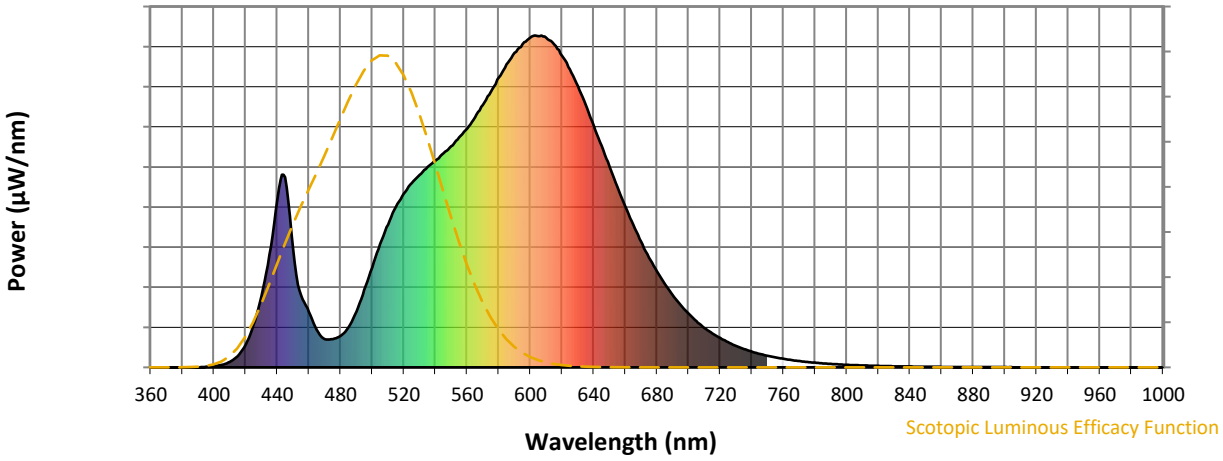


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

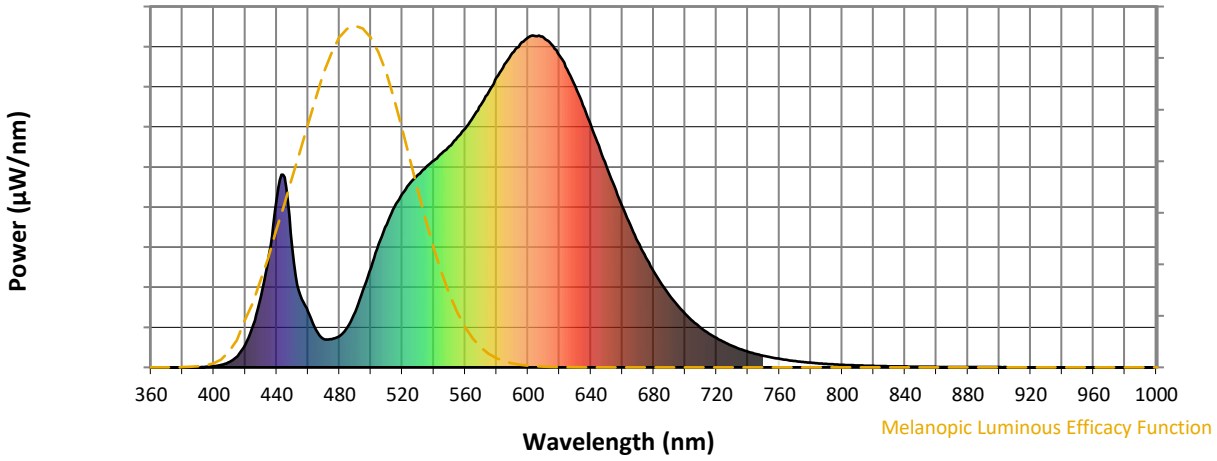


Scotopic Lumens: NR **S/P: 1.27**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

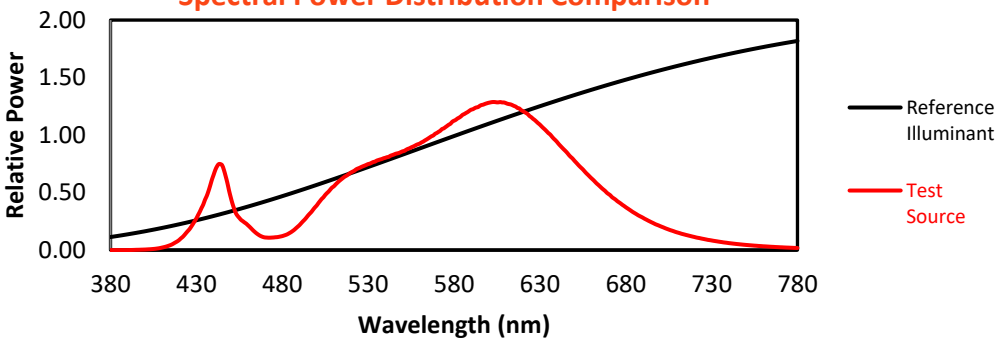
REPORT NUMBER: SP1-2408-195-9

TM-30-18

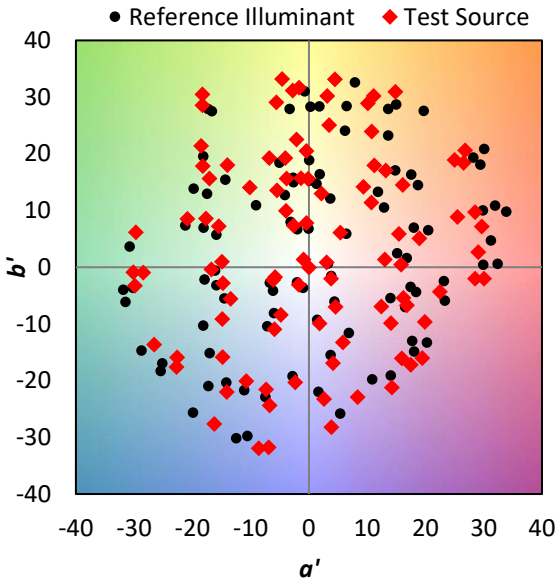
Summary

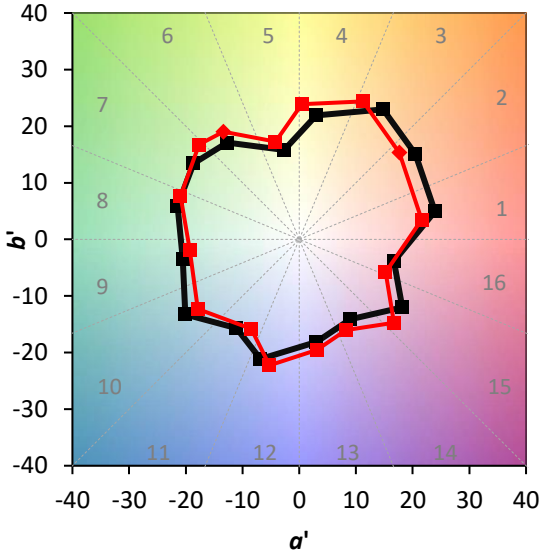
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

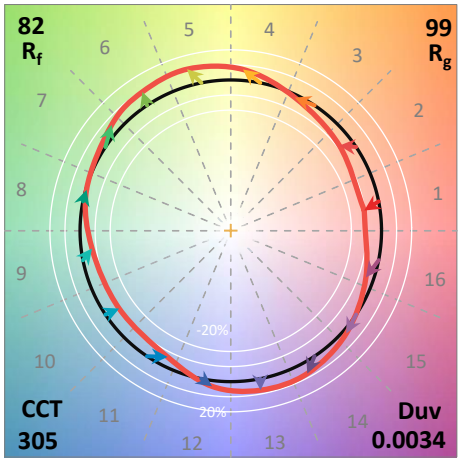
Spectral Power Distribution Comparison

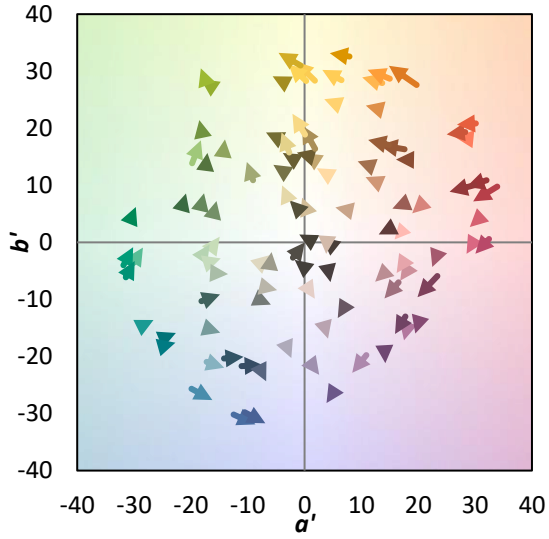


Color Vector Graphics









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

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
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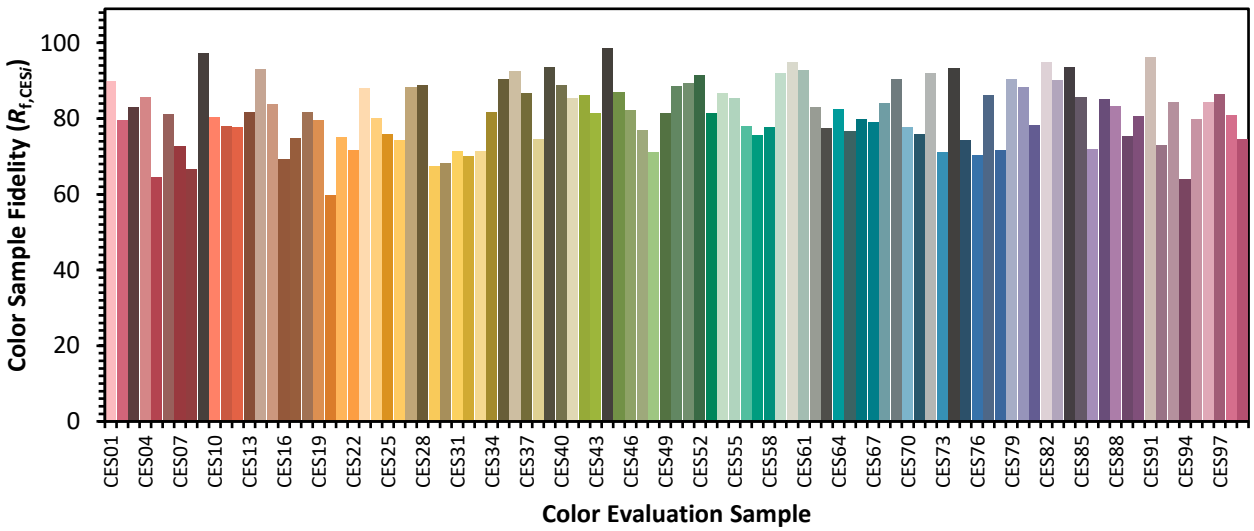

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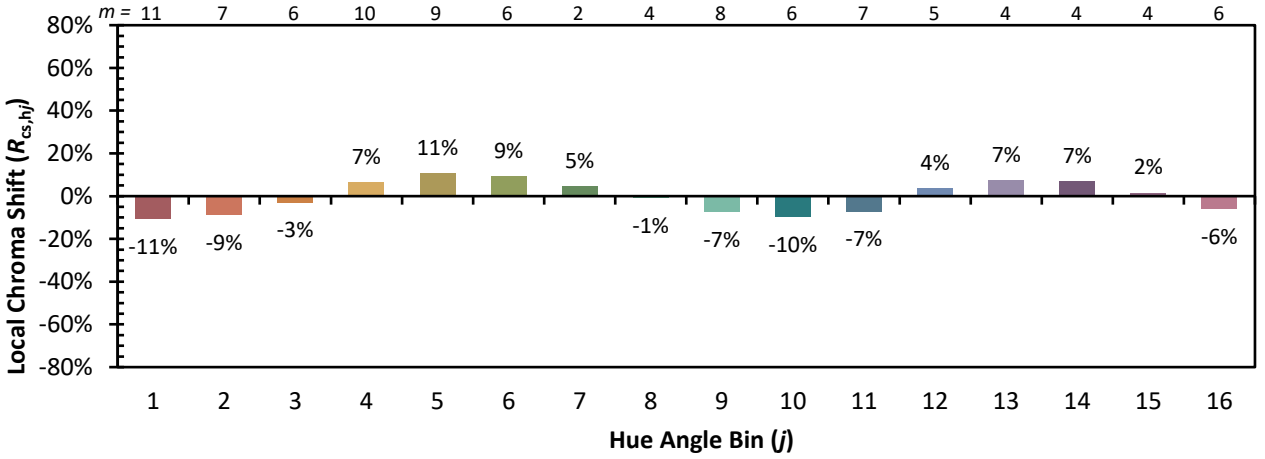
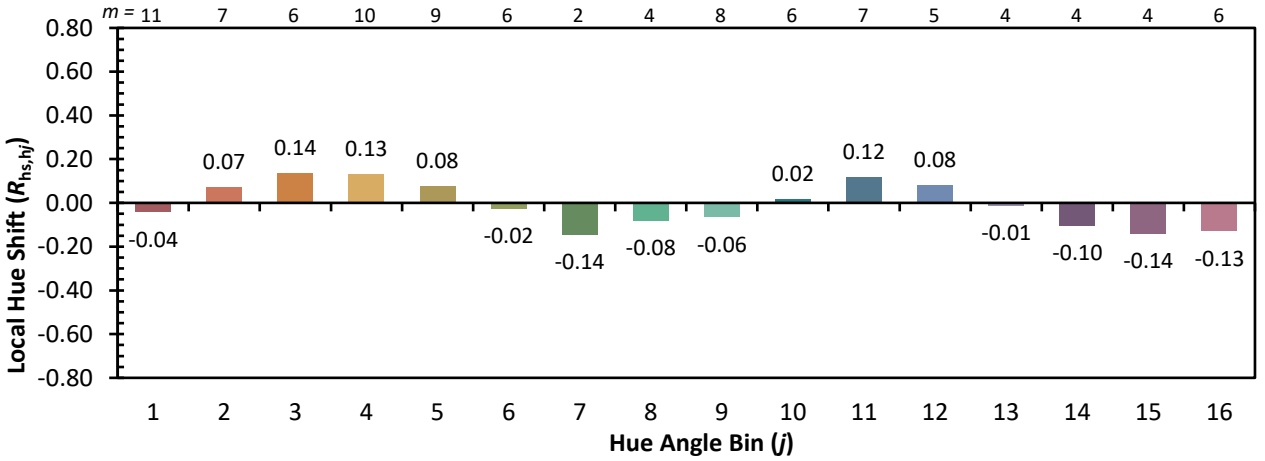
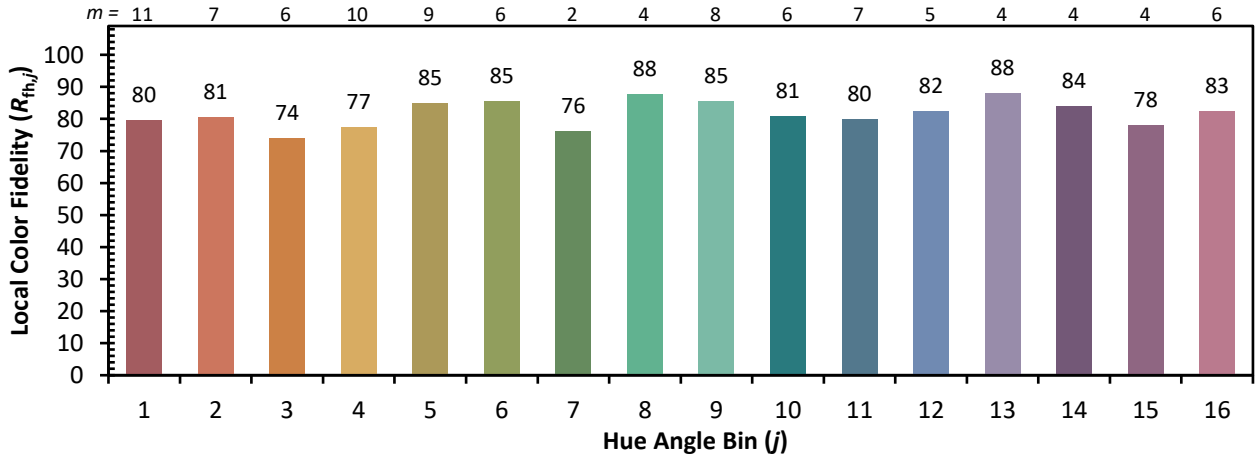
Color Rendition by Hue-Angle Bin







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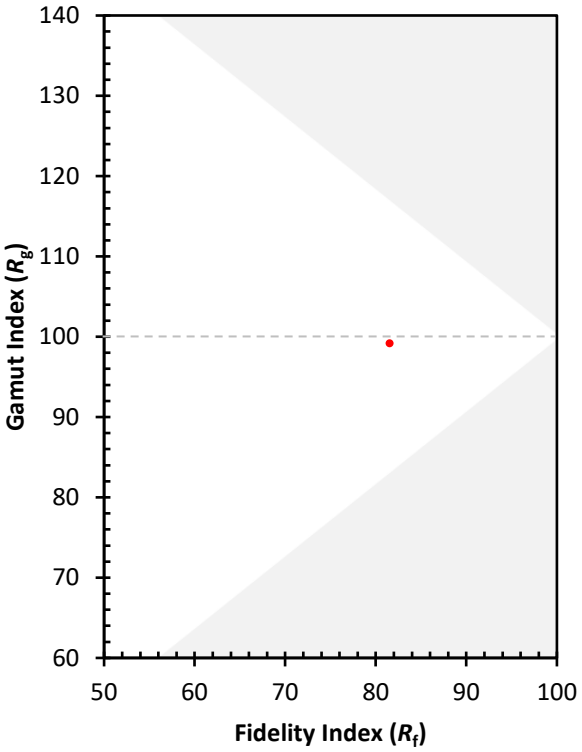
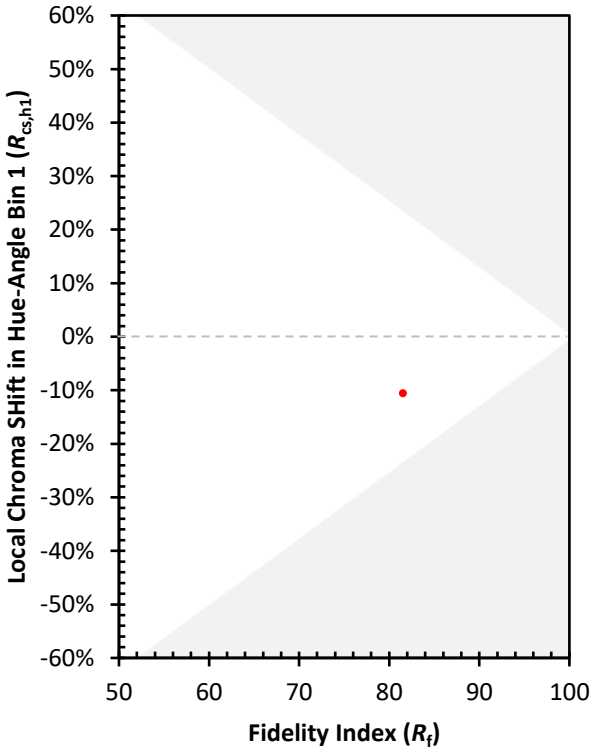
Measure Comparisons





(END OF REPORT)