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: P437085

Luminaire Tested: **ISS-SA1A-830-U-SLR-HSS**

Issue Date: 12/9/2020

Report Generated By 670245982

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:	P437085
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-23)
Test Lab:	INNOVATION CENTER
Issue Date:	12/9/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISS-SA1A-830-U-SLR-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1647 lumens
Efficiency:	N/A
Efficacy:	81.9 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B0 - U0 - G1

Input Watts (W):	20.1
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:	28.75 FT

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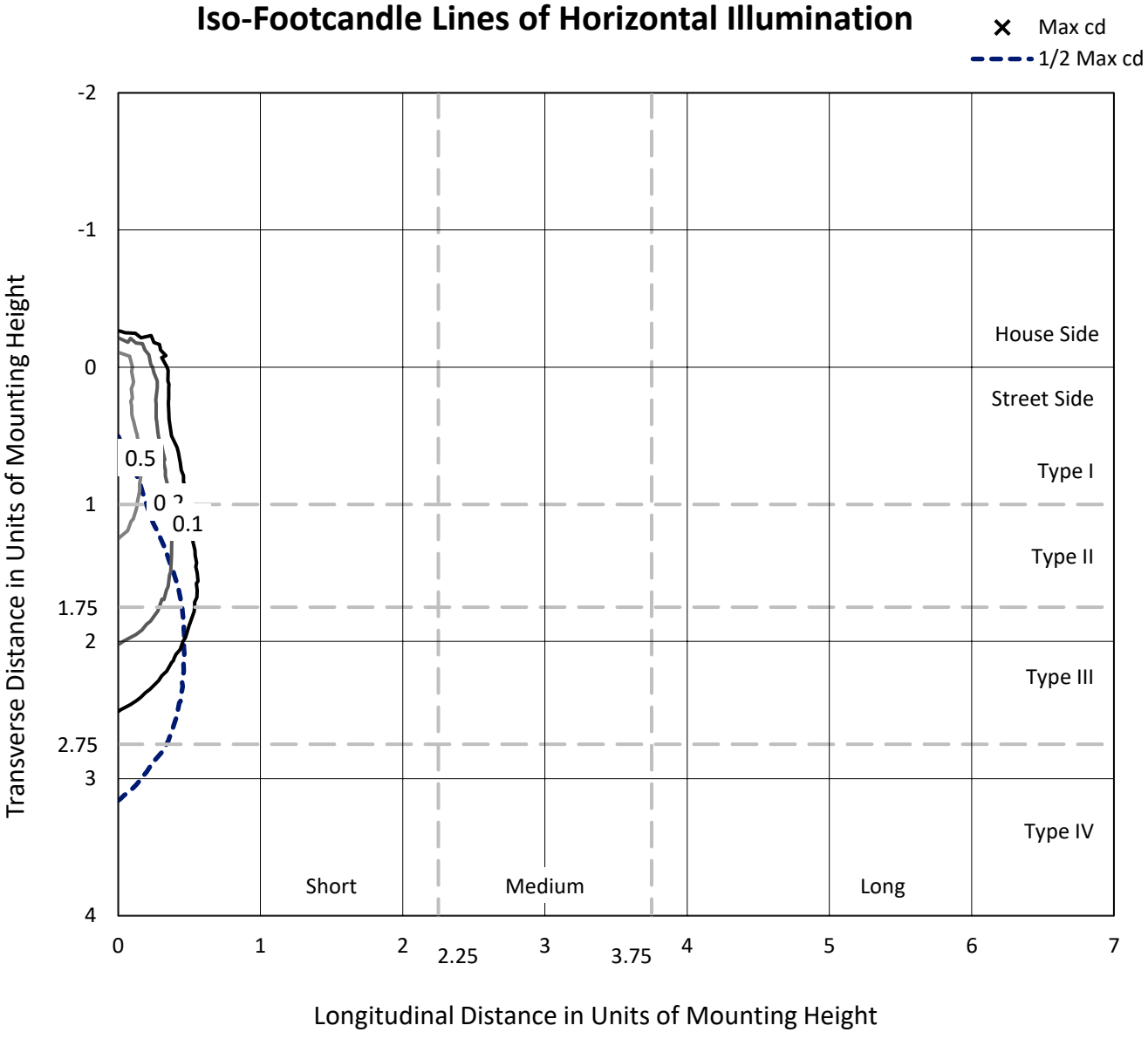
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
Type IV - Short - N/A

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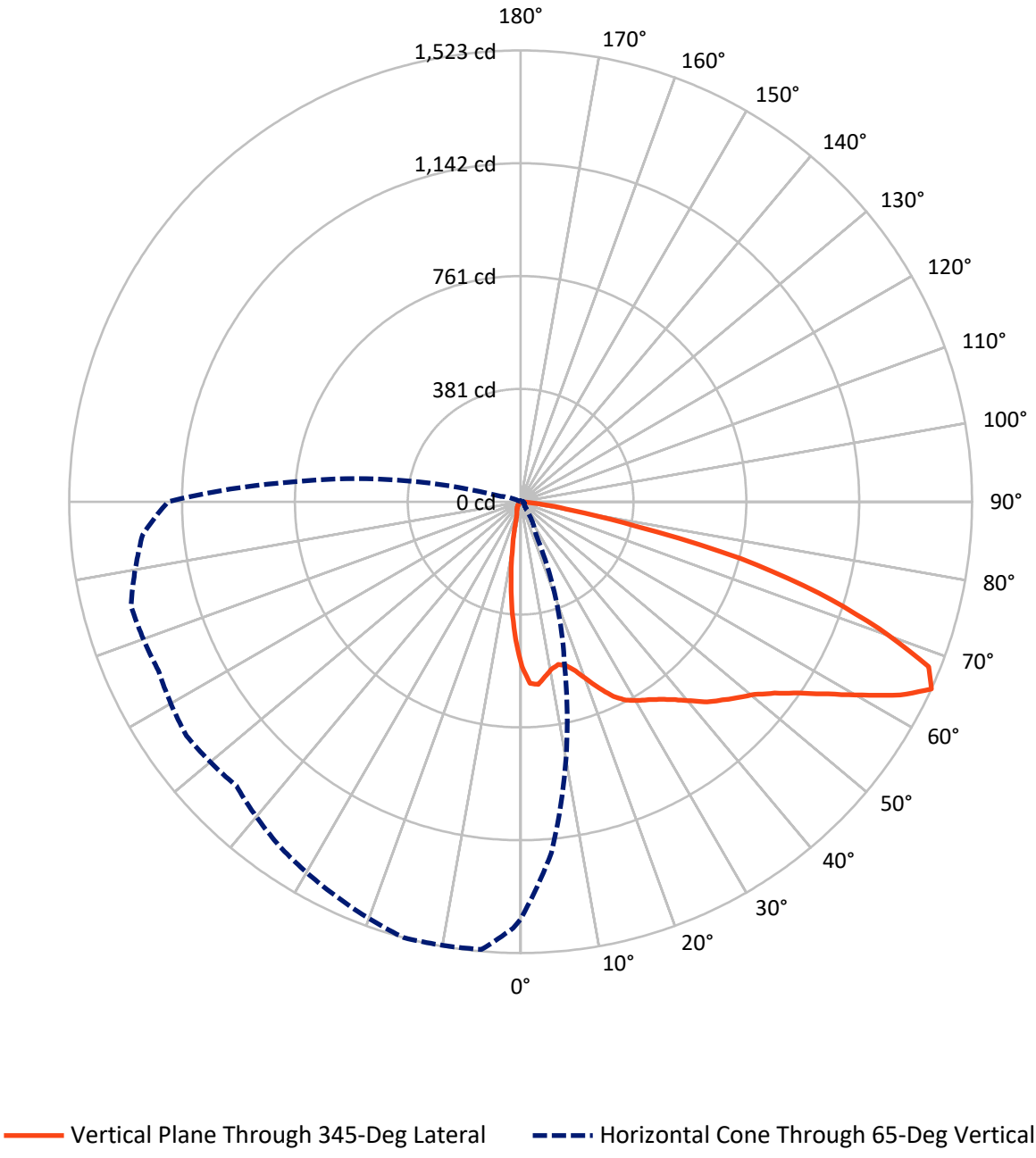
Luminous Intensity Polar Plot



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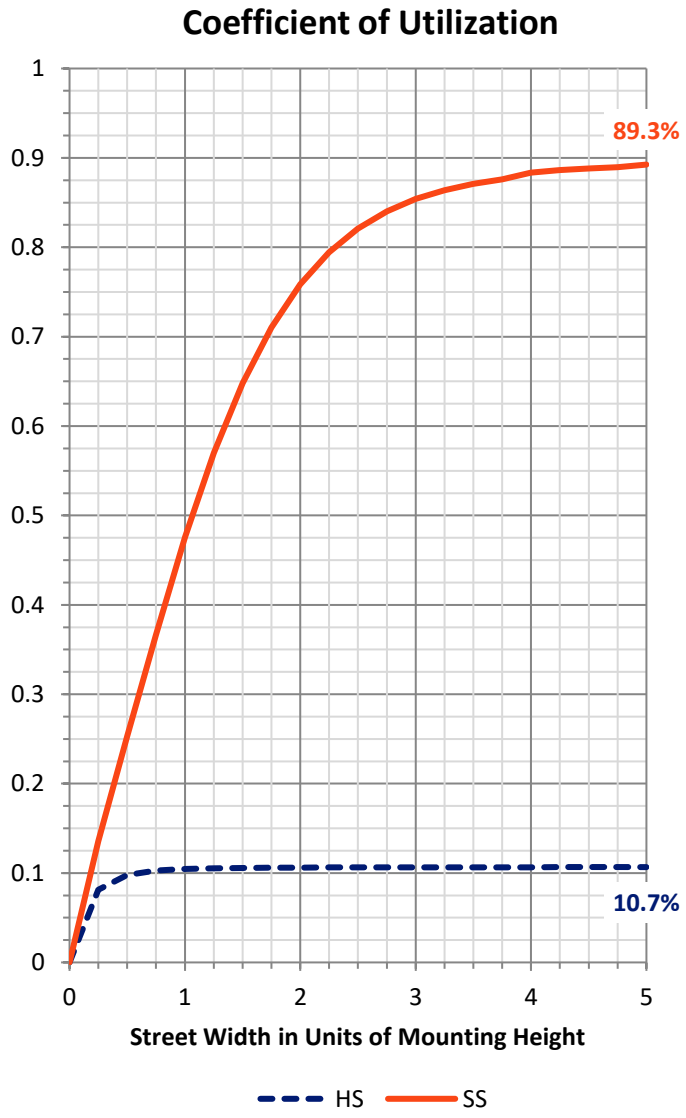
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	177.6	0.0	177.6
	% Fixture	10.8	0.0	10.8
Street Side	Lumens	1469.5	0.0	1469.5
	% Fixture	89.2	0.0	89.2
Total	Lumens	1647.0	0.0	1647.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	2.5
10°-20°	80.3	4.9
20°-30°	117.1	7.1
30°-40°	174.1	10.6
40°-50°	255.2	15.5
50°-60°	367.3	22.3
60°-70°	412.0	25.0
70°-80°	180.8	11.0
80°-90°	19.0	1.2
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°	1647.0	100.0
0°-180°	1647.0	100.0



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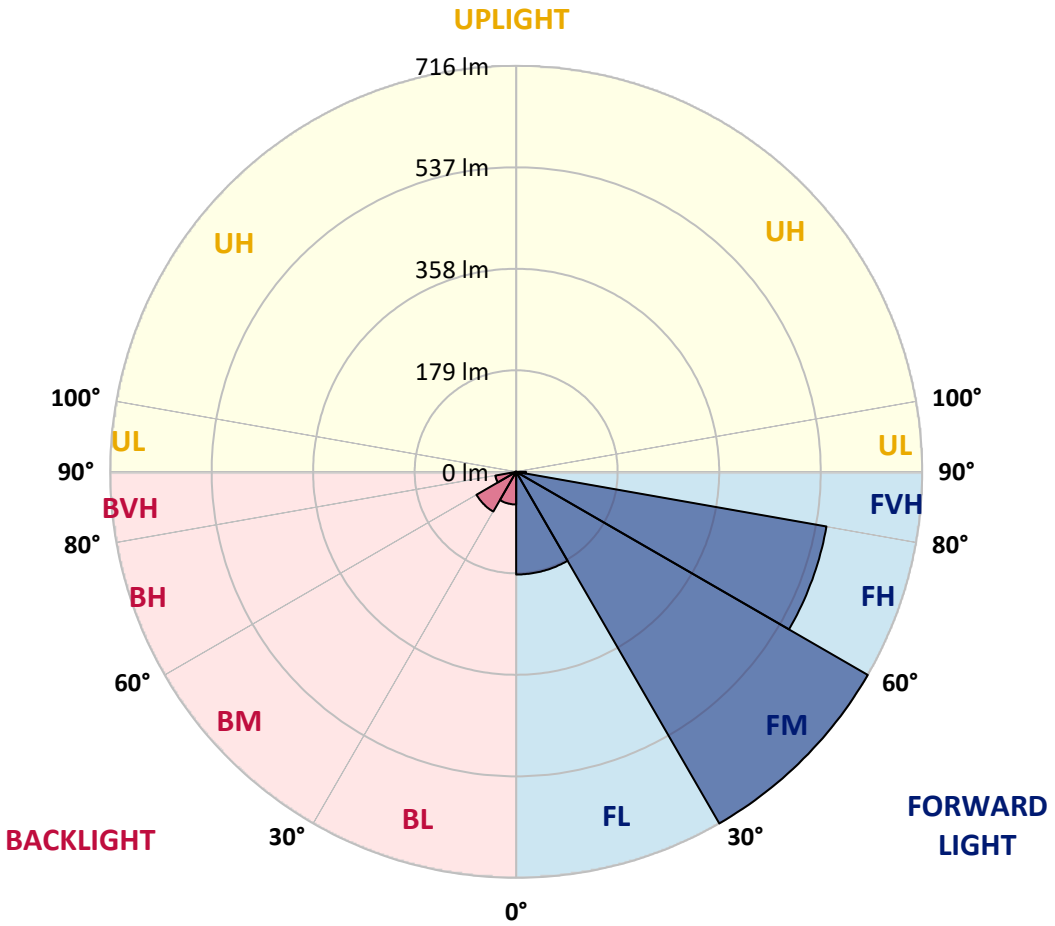
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	181.1	11.0			
FM	(30°-60°)	715.7	43.5			
FH	(60°-80°)	555.4	33.7			G0/660
FVH	(80°-90°)	17.2	1.0			G1/100
BL	(0°-30°)	57.6	3.5	B0/110		
BM	(30°-60°)	80.8	4.9	B0/220		
BH	(60°-80°)	37.3	2.3	B0/110		G0/110
BVH	(80°-90°)	1.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8
2.5°	588.2	588.2	579.5	559.0	540.0	517.1	504.4	492.6	479.9	471.2	457.8
5°	560.6	555.0	542.4	504.4	464.1	437.2	416.7	380.3	362.9	350.3	344.7
7.5°	514.7	511.5	491.0	446.7	398.5	355.0	327.3	297.3	273.6	264.1	247.5
10°	483.1	479.9	453.8	393.7	337.6	306.0	283.8	262.5	239.6	216.6	199.2
12.5°	467.3	460.9	435.6	367.6	319.4	288.6	263.3	237.2	208.7	183.4	162.9
15°	471.2	460.9	432.5	362.9	306.0	268.0	235.6	197.7	169.2	139.2	120.2
17.5°	498.9	487.8	453.0	366.9	288.6	240.4	197.7	155.0	117.0	89.3	79.9
20°	550.3	538.4	491.0	375.6	277.5	212.7	152.6	106.7	77.5	64.8	59.3
22.5°	615.9	600.1	544.0	389.8	264.9	185.0	115.4	75.9	59.3	51.4	47.4
25°	684.7	668.9	606.4	411.1	257.0	161.3	89.3	59.3	48.2	43.5	41.1
27.5°	747.2	727.4	662.6	442.8	247.5	139.9	74.3	51.4	43.5	38.0	36.4
30°	804.1	781.1	718.7	469.6	234.0	121.0	64.0	47.4	40.3	35.6	33.2
32.5°	852.3	834.1	764.5	488.6	223.0	110.7	56.9	41.9	34.8	30.8	29.3
35°	910.0	892.6	808.8	504.4	215.8	105.9	52.2	39.5	32.4	28.5	25.3
37.5°	988.3	963.0	857.8	518.7	207.9	102.0	48.2	37.2	30.8	26.1	23.7
40°	1058.7	1031.0	914.8	528.9	204.0	98.8	47.4	35.6	29.3	24.5	22.1
42.5°	1121.1	1095.8	960.6	532.9	200.8	93.3	46.6	34.8	29.3	23.7	20.6
45°	1160.7	1137.7	1015.2	543.2	200.8	89.3	43.5	34.8	28.5	22.9	19.8
47.5°	1197.0	1174.9	1062.6	554.2	197.7	86.2	39.5	38.0	28.5	22.1	18.2
50°	1250.0	1232.6	1122.7	587.4	192.1	81.4	35.6	37.2	29.3	21.3	18.2
52.5°	1317.2	1309.3	1211.3	632.5	184.2	72.7	31.6	34.8	29.3	20.6	17.4
55°	1391.5	1388.4	1303.8	673.6	174.7	62.5	29.3	31.6	28.5	19.0	15.8
57.5°	1436.6	1436.6	1363.8	696.6	166.8	49.8	26.1	26.1	27.7	17.4	14.2
60°	1453.2	1435.8	1356.7	694.2	153.4	41.1	23.7	21.3	29.3	15.0	12.7
62.5°	1451.6	1413.7	1290.3	656.2	135.2	38.0	20.6	18.2	21.3	13.4	11.1
65°	*1408.9*	*1363.1*	*1189.1*	*571.6*	*121.8*	*38.0*	*17.4*	*15.0*	*14.2*	*11.9*	*8.7*
67.5°	1291.1	1263.4	1041.3	484.7	112.3	38.0	15.0	12.7	11.1	9.5	7.9
70°	1096.6	1060.2	838.9	374.0	105.2	38.0	12.7	11.1	10.3	7.9	6.3
72.5°	714.7	694.2	513.1	257.0	86.2	37.2	11.1	10.3	9.5	7.1	5.5
75°	389.0	359.7	282.3	91.7	61.7	26.9	9.5	8.7	7.1	6.3	4.7
77.5°	168.4	162.1	143.9	24.5	18.2	7.9	5.5	5.5	4.7	4.7	3.2
80°	22.1	16.6	19.0	7.1	6.3	4.0	3.2	2.4	2.4	2.4	1.6
82.5°	0.8	0.8	0.0	0.8	2.4	1.6	0.0	0.0	0.8	0.8	0.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8
2.5°	464.1	454.6	447.5	447.5	457.0	451.5	457.8	453.8	464.9	470.4	468.8
5°	332.9	336.8	332.9	339.2	349.5	355.0	358.2	366.1	365.3	368.4	374.0
7.5°	241.1	241.1	242.7	241.1	250.6	260.9	266.4	264.1	262.5	259.3	264.9
10°	193.7	185.0	174.7	174.7	176.3	181.8	182.6	178.7	173.1	162.9	166.0
12.5°	151.8	145.5	139.2	125.7	124.9	121.8	121.0	109.9	101.2	98.0	98.0
15°	111.5	107.5	100.4	94.1	87.8	84.6	79.1	65.6	56.9	56.1	56.9
17.5°	74.3	71.9	69.6	69.6	67.2	61.7	56.1	47.4	43.5	41.9	42.7
20°	55.3	54.6	52.2	53.0	53.0	48.2	42.7	38.7	37.2	37.2	38.0
22.5°	45.9	45.1	42.7	42.7	42.7	40.3	36.4	34.0	33.2	33.2	33.2
25°	39.5	38.7	37.2	36.4	36.4	34.8	31.6	30.0	29.3	29.3	29.3
27.5°	35.6	34.8	33.2	31.6	31.6	30.0	28.5	26.1	26.1	26.1	26.1
30°	31.6	30.8	30.0	28.5	27.7	26.1	24.5	23.7	22.9	22.9	22.9
32.5°	28.5	27.7	26.9	26.1	24.5	22.9	21.3	20.6	19.8	19.8	19.8
35°	24.5	22.9	22.1	22.9	22.1	19.8	19.0	17.4	16.6	16.6	16.6
37.5°	22.1	20.6	19.0	18.2	18.2	18.2	16.6	15.0	14.2	13.4	14.2
40°	20.6	19.0	17.4	15.8	15.0	15.8	14.2	12.7	11.9	11.1	11.9
42.5°	19.0	17.4	15.0	13.4	11.9	13.4	11.9	10.3	9.5	8.7	9.5
45°	18.2	16.6	14.2	11.9	10.3	10.3	10.3	8.7	7.1	7.1	7.1
47.5°	17.4	15.8	12.7	10.3	8.7	7.9	7.9	6.3	5.5	4.7	4.7
50°	16.6	15.0	11.9	8.7	7.1	6.3	6.3	4.7	4.0	4.0	4.0
52.5°	15.8	14.2	11.1	7.9	6.3	4.7	4.0	3.2	3.2	2.4	2.4
55°	14.2	12.7	9.5	7.1	5.5	4.0	3.2	2.4	2.4	1.6	2.4
57.5°	13.4	11.9	8.7	6.3	4.7	3.2	2.4	1.6	1.6	1.6	1.6
60°	11.9	10.3	7.1	4.7	3.2	2.4	1.6	1.6	1.6	0.8	0.8
62.5°	9.5	8.7	6.3	4.0	2.4	1.6	0.8	0.8	0.8	0.8	0.8
65°	*8.7*	*7.9*	*5.5*	*3.2*	*1.6*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*	*0.8*
67.5°	7.1	6.3	4.0	2.4	0.8	0.8	0.0	0.8	0.8	0.0	0.0
70°	5.5	5.5	3.2	1.6	0.8	0.0	0.0	0.8	0.8	0.0	0.0
72.5°	4.7	4.7	3.2	0.8	0.0	0.0	0.0	0.8	0.8	0.8	0.0
75°	4.0	4.0	3.2	1.6	0.0	0.0	0.0	0.8	0.8	0.8	0.8
77.5°	3.2	2.4	1.6	0.8	0.0	0.0	0.0	0.8	0.8	0.8	0.8
80°	1.6	1.6	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.8	1.6	1.6	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	1.6	1.6	1.6
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°	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8	555.8
2.5°	472.8	485.5	499.7	508.4	527.4	544.0	563.7	581.1	601.7	612.7	616.7
5°	379.5	386.6	404.8	428.5	449.9	479.9	514.7	553.4	595.4	615.1	629.3
7.5°	261.7	268.0	294.1	316.3	351.8	390.6	438.0	491.0	545.5	573.2	598.5
10°	170.8	179.5	201.6	232.4	277.5	325.0	373.2	428.5	491.8	524.2	558.2
12.5°	98.8	109.1	136.0	176.3	220.6	271.2	321.0	381.9	452.2	487.8	522.6
15°	56.9	60.9	76.7	112.3	162.1	223.8	282.3	347.9	430.1	469.6	510.8
17.5°	42.7	45.1	49.8	64.8	103.6	171.6	253.8	337.6	432.5	485.5	521.8
20°	38.0	39.5	41.9	47.4	65.6	121.8	219.0	330.5	455.4	523.4	567.7
22.5°	34.0	35.6	38.0	41.9	49.8	82.2	182.6	329.7	493.4	579.5	629.3
25°	30.0	31.6	34.0	38.0	44.3	59.3	141.5	327.3	540.8	641.2	703.7
27.5°	26.1	27.7	30.0	34.0	39.5	49.0	107.5	320.2	597.7	707.6	774.0
30°	22.9	24.5	26.9	30.0	35.6	42.7	82.2	308.3	646.7	766.9	821.5
32.5°	19.8	21.3	23.7	26.9	31.6	37.2	66.4	283.0	684.7	813.6	860.2
35°	16.6	18.2	20.6	23.7	27.7	31.6	54.6	241.9	723.4	861.8	906.9
37.5°	14.2	15.8	17.4	20.6	24.5	28.5	45.1	215.8	751.9	921.9	966.2
40°	11.9	13.4	15.8	18.2	21.3	26.9	36.4	181.1	780.4	979.6	1020.7
42.5°	9.5	11.1	13.4	16.6	19.8	23.7	29.3	149.4	808.8	1031.8	1070.5
45°	7.1	8.7	11.1	15.0	19.8	20.6	23.7	127.3	815.9	1080.8	1114.0
47.5°	5.5	6.3	8.7	12.7	19.0	18.2	19.8	110.7	829.4	1119.5	1156.7
50°	4.0	4.7	7.1	11.9	16.6	15.0	17.4	104.4	848.4	1149.6	1169.4
52.5°	3.2	4.0	5.5	10.3	13.4	13.4	15.8	110.7	872.9	1185.2	1201.8
55°	2.4	3.2	4.7	7.1	10.3	11.9	15.0	119.4	920.3	1247.6	1244.5
57.5°	1.6	2.4	4.0	5.5	7.9	10.3	14.2	132.8	968.5	1318.0	1321.2
60°	1.6	2.4	3.2	4.7	7.1	8.7	12.7	134.4	960.6	1328.3	1374.9
62.5°	0.8	1.6	3.2	4.0	5.5	7.1	11.1	113.1	884.7	1278.5	1346.5
65°	*0.8*	*1.6*	*2.4*	*4.0*	*4.7*	*6.3*	*8.7*	*71.9*	*770.1*	*1189.9*	*1280.0*
67.5°	0.8	1.6	2.4	3.2	4.0	5.5	7.1	37.2	653.1	1098.2	1185.2
70°	0.8	1.6	2.4	3.2	4.0	4.7	6.3	18.2	494.9	925.8	1038.1
72.5°	0.8	1.6	2.4	3.2	3.2	4.0	5.5	12.7	317.8	695.8	804.1
75°	0.8	1.6	1.6	2.4	3.2	4.0	4.7	8.7	205.6	468.1	609.6
77.5°	0.8	1.6	1.6	2.4	3.2	4.0	5.5	7.9	150.2	321.0	421.4
80°	0.8	1.6	1.6	2.4	3.2	3.2	4.0	5.5	80.6	212.7	268.0
82.5°	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	41.9	136.0	181.1
85°	1.6	1.6	2.4	2.4	3.2	3.2	3.2	4.0	18.2	56.9	90.1
87.5°	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	2.4	3.2	3.2
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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Scaled Data Report

REPORT NUMBER: P437085
CATALOG NUMBER: ISS-SA1A-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	555.8	555.8	555.8	555.8	555.8	555.8	*555.8*	555.8	555.8	555.8
2.5°	628.6	638.8	643.6	639.6	636.5	627.0	*613.5*	600.1	589.0	588.2
5°	661.8	683.9	701.3	692.6	680.7	653.1	*619.1*	581.1	566.9	560.6
7.5°	654.6	702.9	732.1	724.2	700.5	648.3	*595.4*	545.5	522.6	514.7
10°	622.2	687.1	725.8	723.4	701.3	639.6	*574.0*	513.9	489.4	483.1
12.5°	592.2	656.2	693.4	695.0	687.1	630.1	*563.7*	499.7	470.4	467.3
15°	576.4	630.9	653.1	657.8	661.0	629.3	*573.2*	509.2	478.3	471.2
17.5°	579.5	605.6	611.2	607.2	628.6	630.1	*600.1*	542.4	507.6	498.9
20°	598.5	589.0	570.8	574.8	598.5	633.3	*640.4*	600.9	561.4	550.3
22.5°	634.9	588.2	551.9	548.7	579.5	638.8	*683.9*	663.3	622.2	615.9
25°	688.6	600.1	544.0	537.6	564.5	644.4	*728.2*	729.0	696.6	684.7
27.5°	740.8	619.1	543.2	536.8	564.5	651.5	*758.2*	793.8	759.8	747.2
30°	770.9	641.2	555.8	544.0	574.8	657.8	*778.0*	845.2	815.1	804.1
32.5°	798.5	664.9	569.3	555.0	594.6	675.2	*796.2*	891.8	865.7	852.3
35°	821.5	692.6	594.6	572.4	623.8	700.5	*818.3*	943.2	926.6	910.0
37.5°	843.6	720.3	630.1	617.5	672.8	736.9	*847.6*	997.0	1004.9	988.3
40°	875.2	751.9	691.0	680.7	744.8	792.2	*883.1*	1050.8	1076.8	1058.7
42.5°	905.3	792.2	752.7	762.2	831.8	856.3	*923.5*	1099.8	1129.0	1121.1
45°	933.0	842.0	842.0	865.0	925.8	926.6	*954.3*	1133.8	1164.6	1160.7
47.5°	969.3	903.7	934.5	997.8	1030.2	987.5	*987.5*	1166.2	1208.1	1197.0
50°	1004.9	985.9	1057.1	1114.8	1143.3	1061.0	*1021.5*	1209.7	1259.5	1250.0
52.5°	1043.6	1065.8	1171.7	1228.7	1245.3	1144.8	*1072.9*	1253.2	1317.2	1317.2
55°	1106.1	1133.8	1292.7	1340.1	1363.8	1214.4	*1138.5*	1314.8	1387.6	1391.5
57.5°	1170.1	1199.4	1360.7	1420.8	1451.6	1317.2	*1223.1*	1397.1	1437.4	1436.6
60°	1237.3	1268.2	1413.7	1473.0	1518.0	1422.4	*1323.5*	1472.2	1461.1	1453.2
62.5°	1320.4	1320.4	1433.4	1461.1	1515.7	1488.8	*1436.6*	1514.9	1469.8	1451.6
65°	*1360.7*	*1348.0*	*1376.5*	*1355.9*	*1418.4*	*1469.8*	*1522.8*	*1516.4*	*1439.0*	*1408.9*
67.5°	1339.3	1262.6	1213.6	1182.8	1196.2	1284.8	*1484.8*	1441.3	1314.0	1291.1
70°	1193.1	1009.6	963.8	914.8	888.7	980.4	*1283.2*	1272.9	1118.0	1096.6
72.5°	972.5	729.0	618.3	668.1	642.8	746.4	*1051.5*	898.2	733.7	714.7
75°	807.2	542.4	403.2	404.0	408.0	490.2	*768.5*	533.7	403.2	389.0
77.5°	584.3	381.9	325.7	291.7	294.9	313.1	*400.1*	227.7	185.8	168.4
80°	356.6	236.4	263.3	234.0	226.1	173.9	*172.4*	33.2	22.1	22.1
82.5°	194.5	150.2	139.9	50.6	78.3	94.9	*78.3*	1.6	0.8	0.8
85°	98.8	60.1	28.5	8.7	10.3	8.7	*1.6*	0.0	0.0	0.0
87.5°	3.2	2.4	2.4	1.6	1.6	0.8	*0.8*	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.

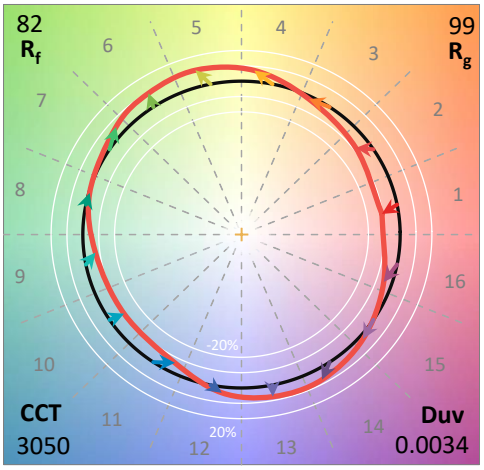
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

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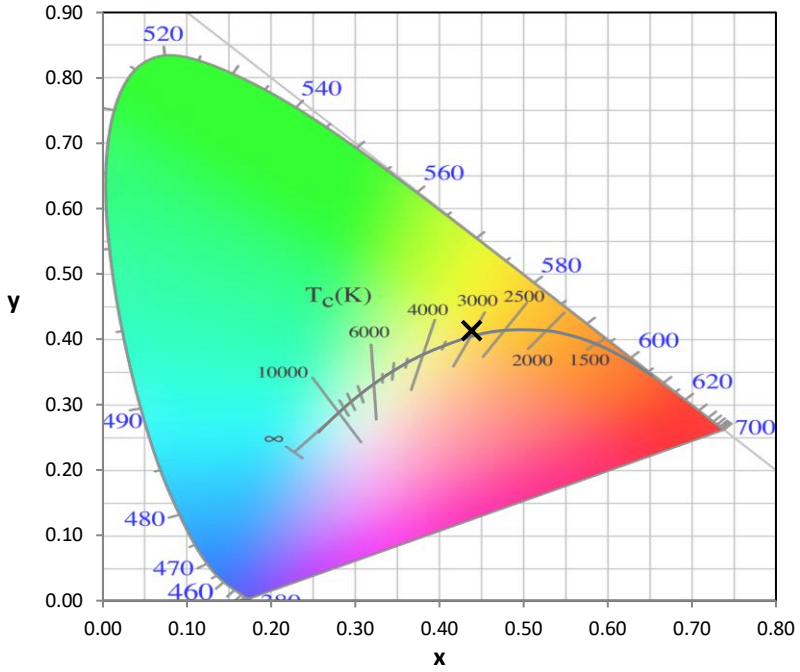
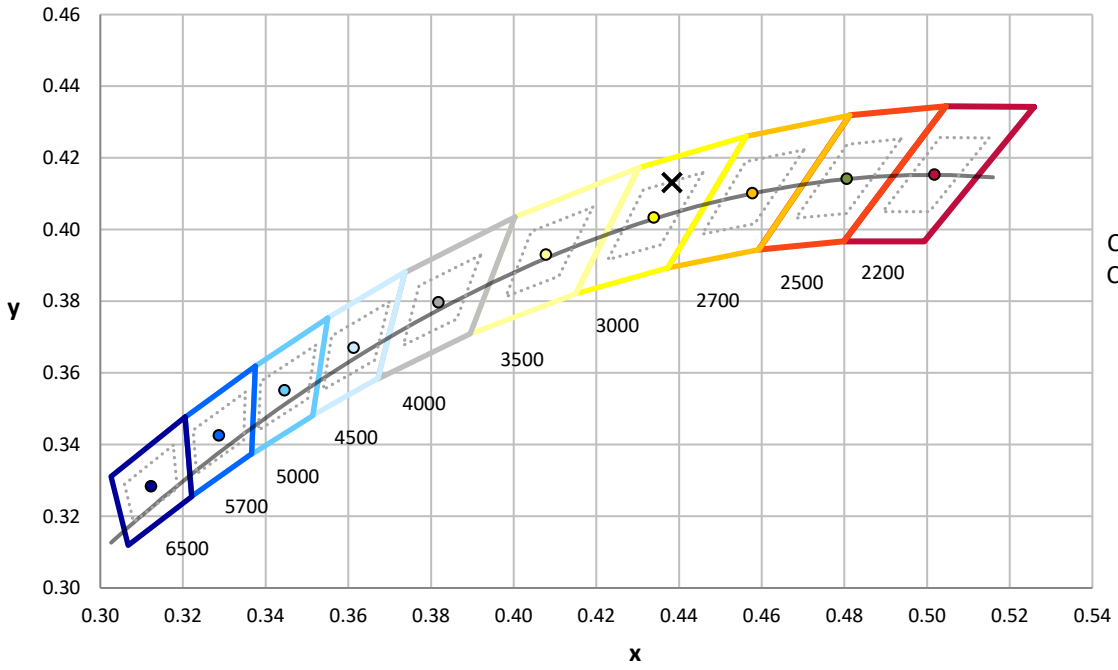
CIE 1931 Chromaticity Diagram



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

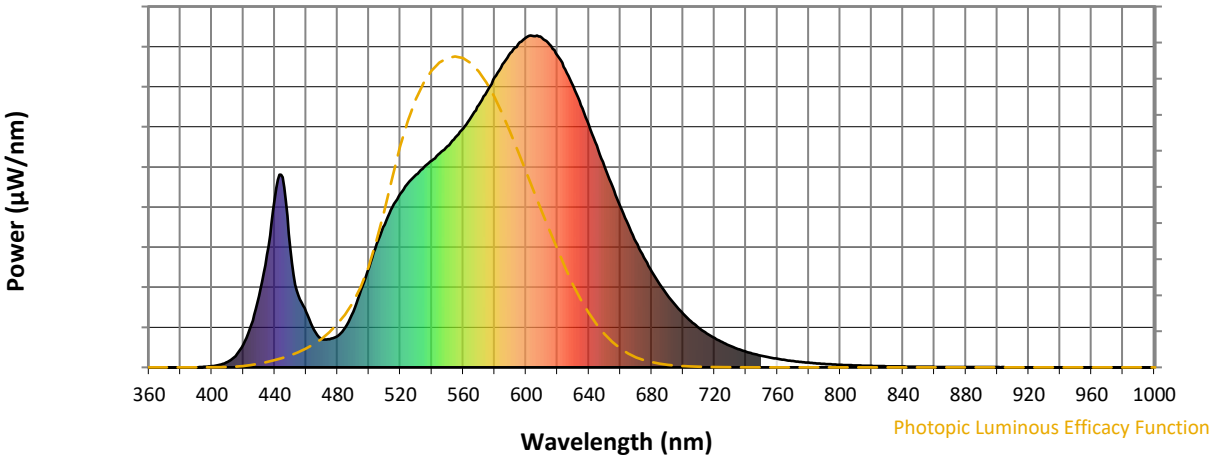


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

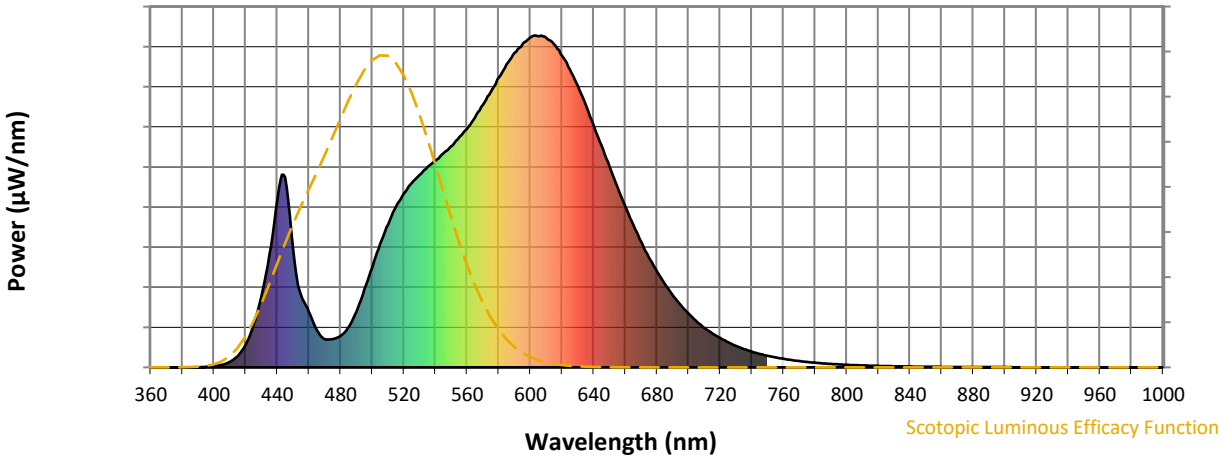


Photopic Lumens: NR

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			

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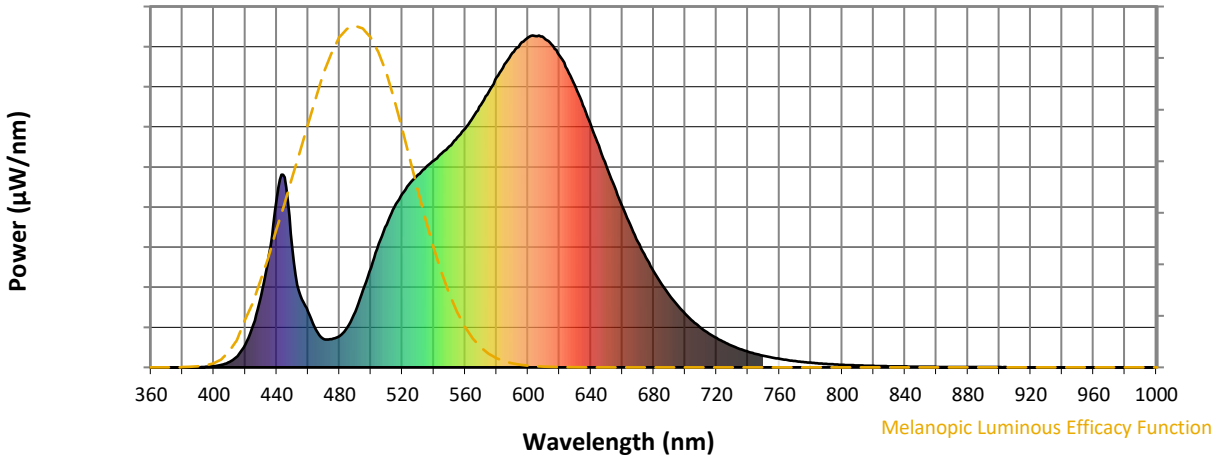
Melanopic Flux vs. Wavelength



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			

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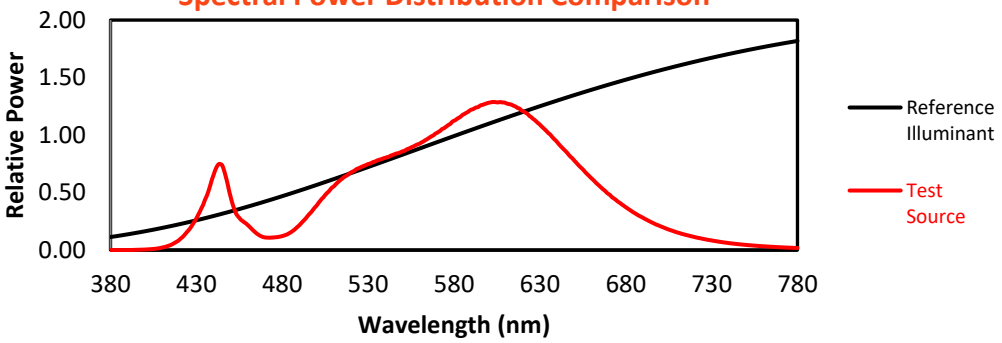
TM-30-18

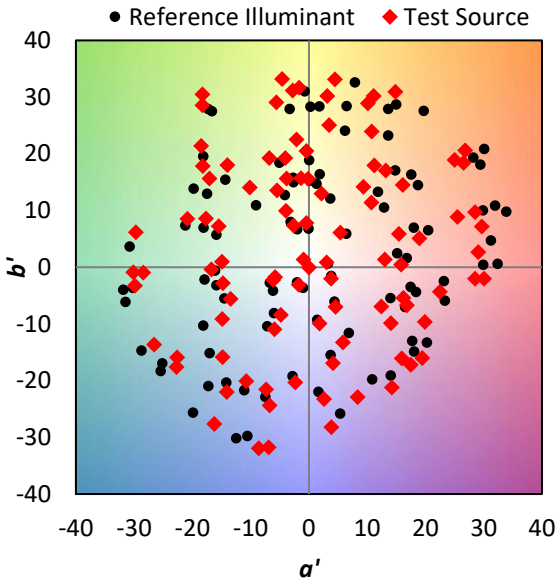
Summary

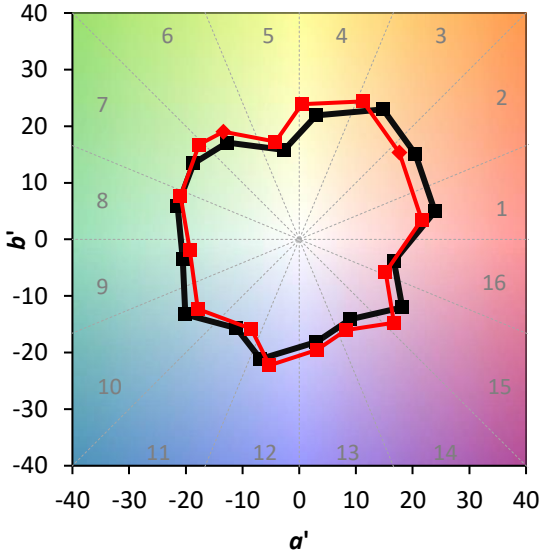
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

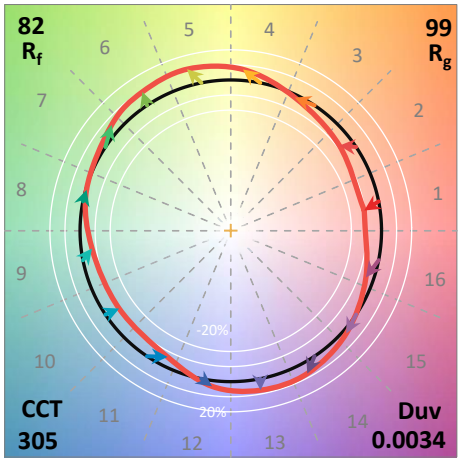
Spectral Power Distribution Comparison

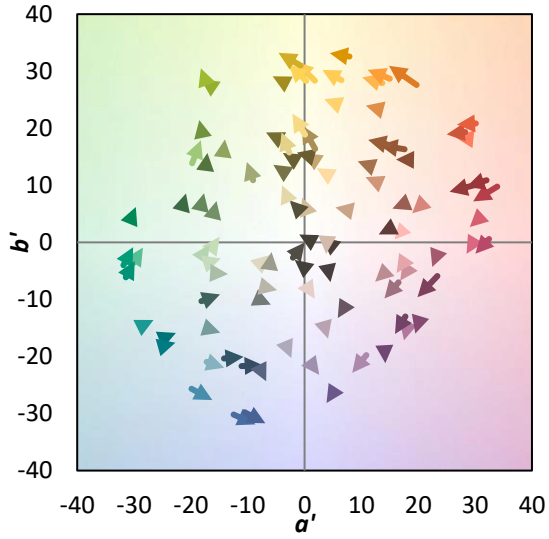


Color Vector Graphics









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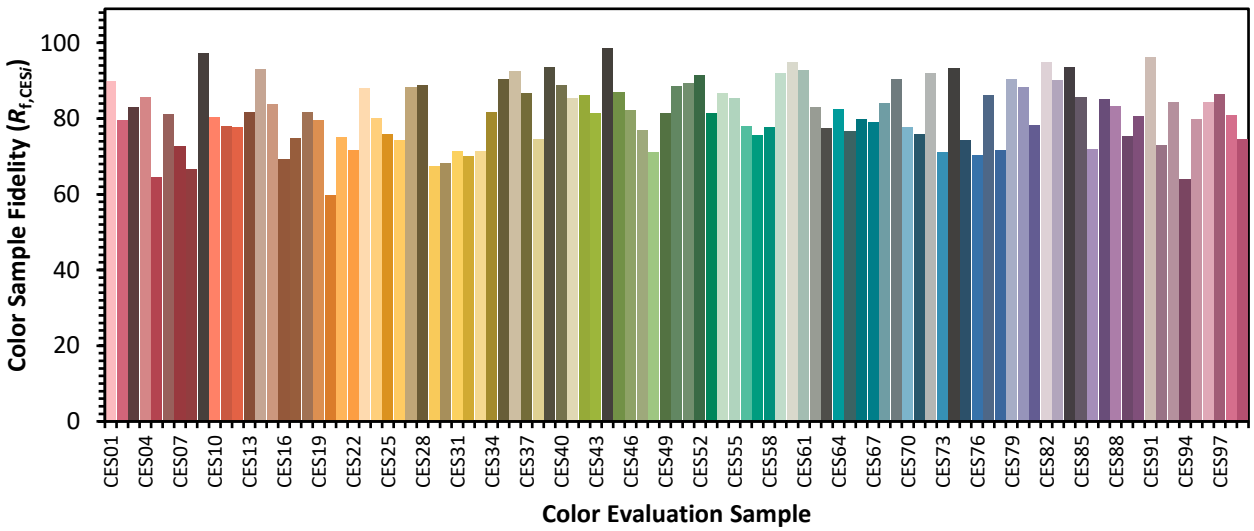
TM-30-18

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
CES25 = 72	CES50 = 89	CES75 = 74	



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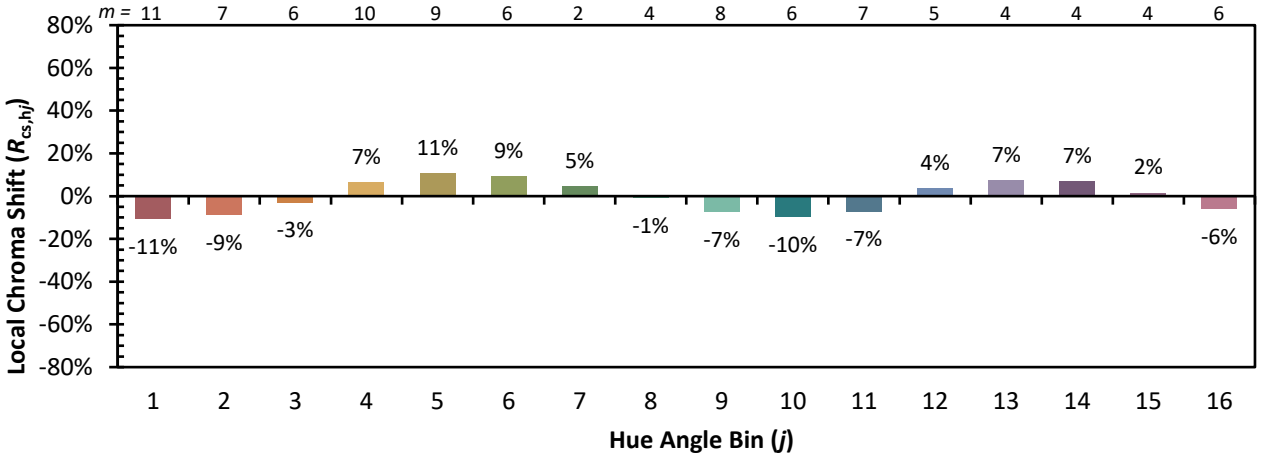
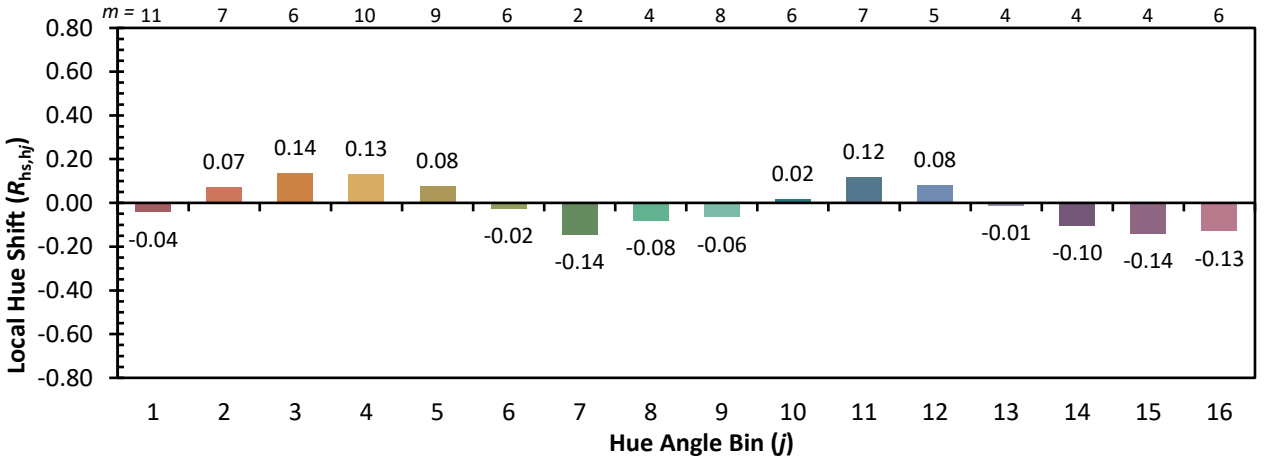
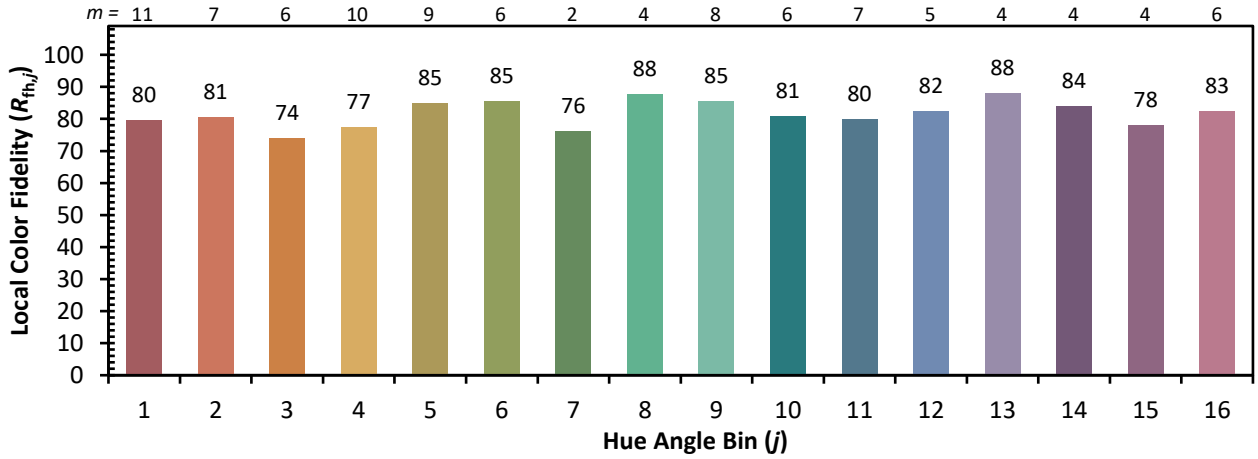
TM-30-18

Color Rendition by Hue-Angle Bin







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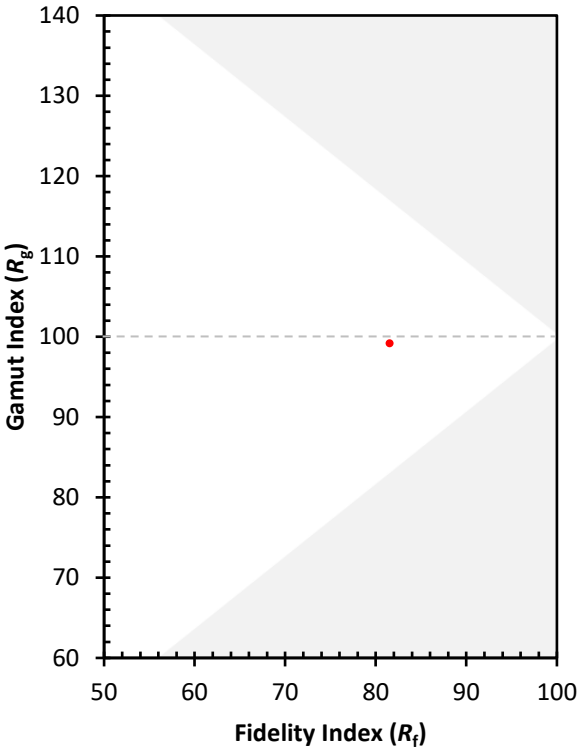
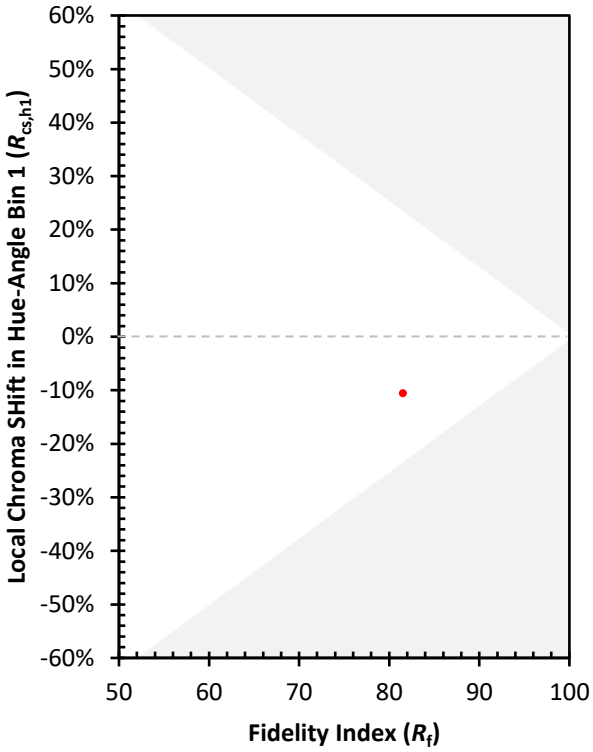
Measure Comparisons





(END OF REPORT)