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: P437256

Luminaire Tested: **ISS-SA1B-830-U-SLR-HSS**

Issue Date: 12/9/2020

Report Generated By 670245982

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437256
	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-SA1B-830-U-SLR-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 450mA 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:	2057 lumens
Efficiency:	N/A
Efficacy:	81.0 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):	25.4
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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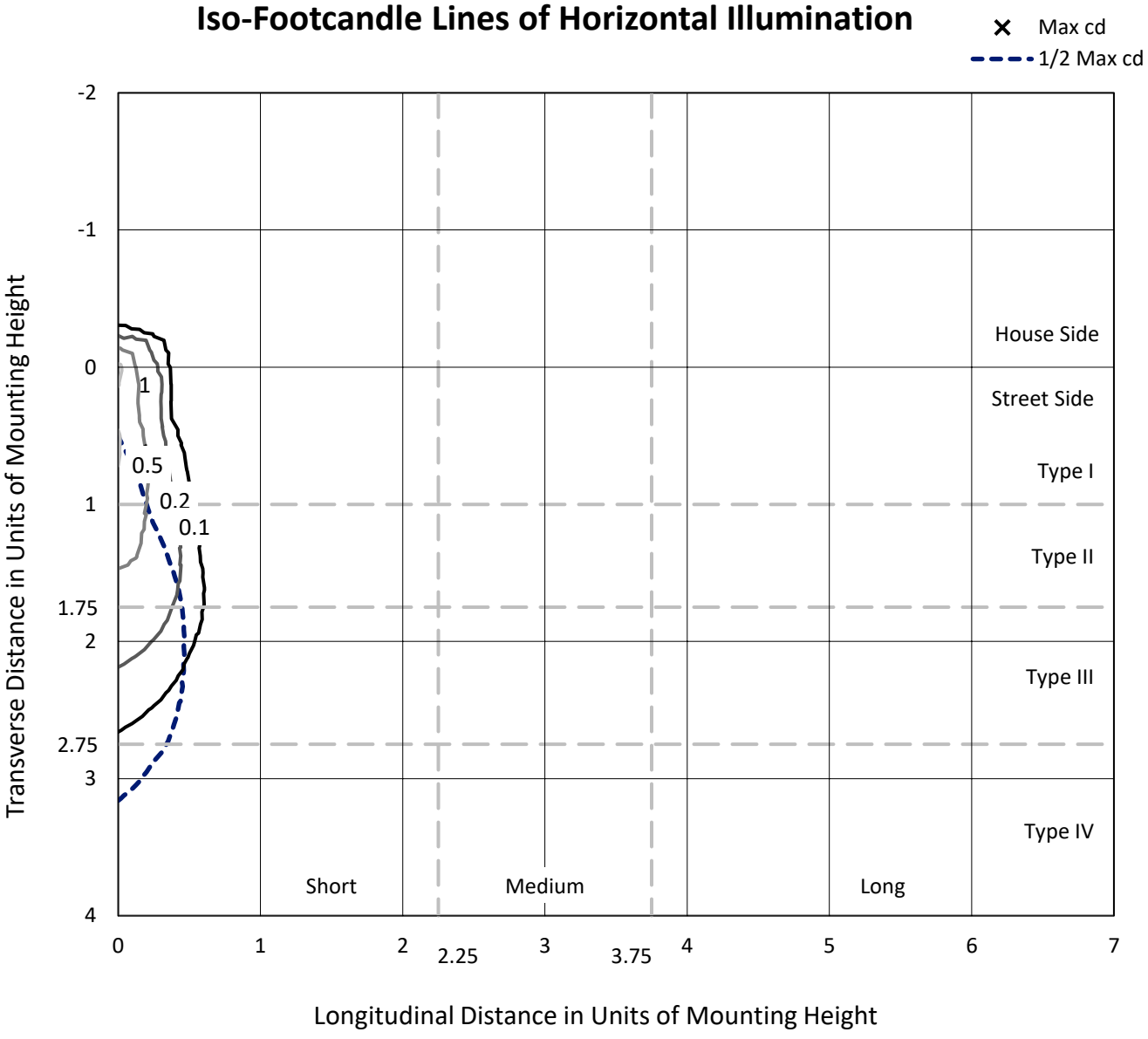
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
Type IV - Short - N/A

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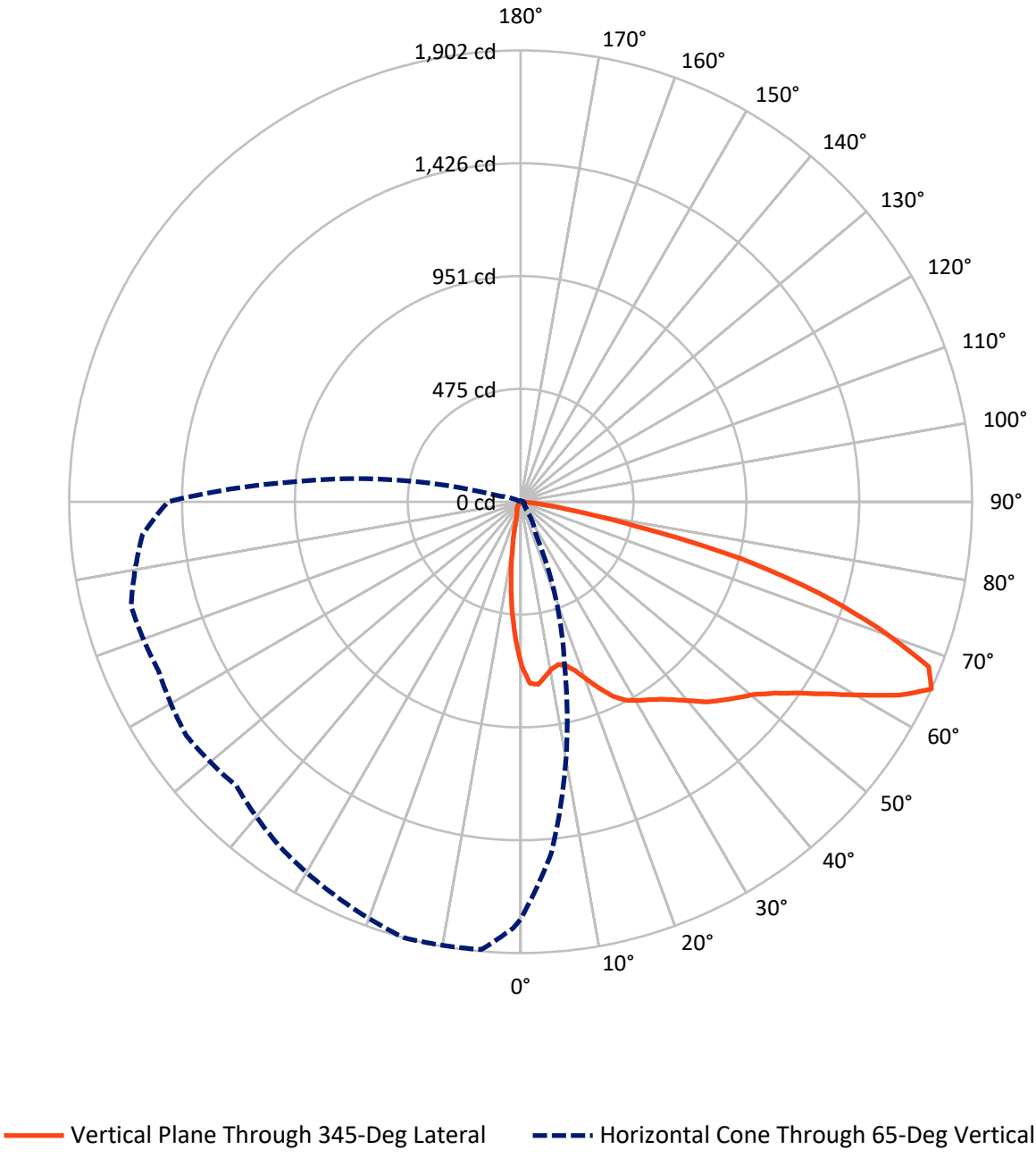
Luminous Intensity Polar Plot



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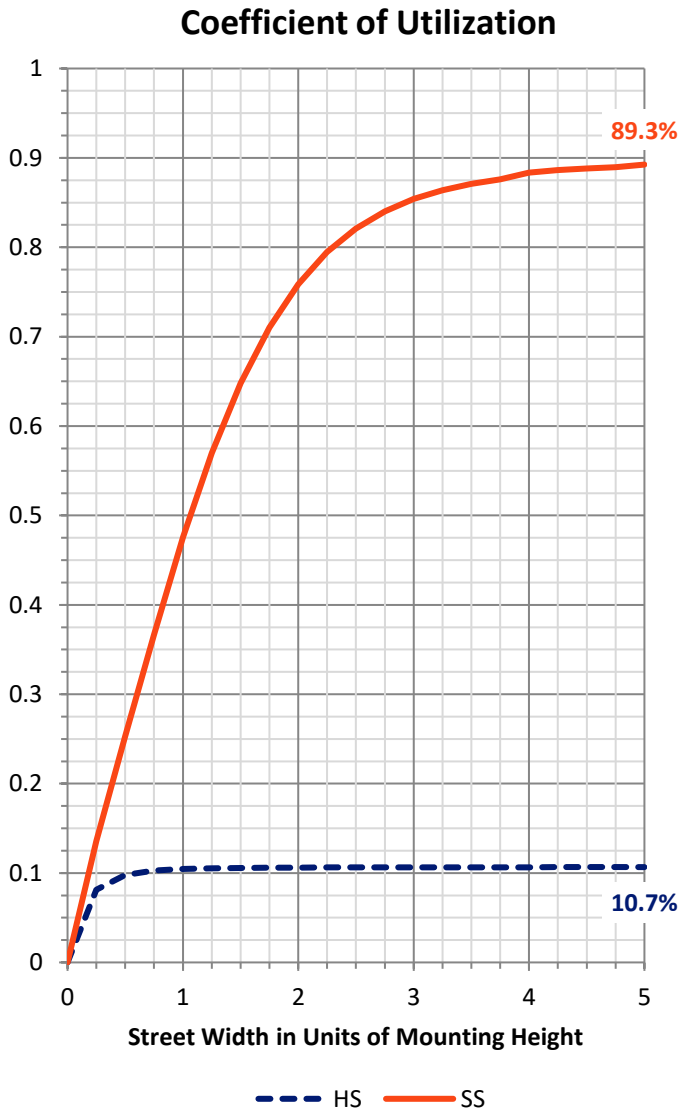
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	221.7	0.0	221.7
	% Fixture	10.8	0.0	10.8
Street Side	Lumens	1835.2	0.0	1835.2
	% Fixture	89.2	0.0	89.2
Total	Lumens	2057.0	0.0	2057.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	2.5
10°-20°	100.3	4.9
20°-30°	146.3	7.1
30°-40°	217.4	10.6
40°-50°	318.7	15.5
50°-60°	458.7	22.3
60°-70°	514.5	25.0
70°-80°	225.8	11.0
80°-90°	23.8	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°	2057.0	100.0
0°-180°	2057.0	100.0



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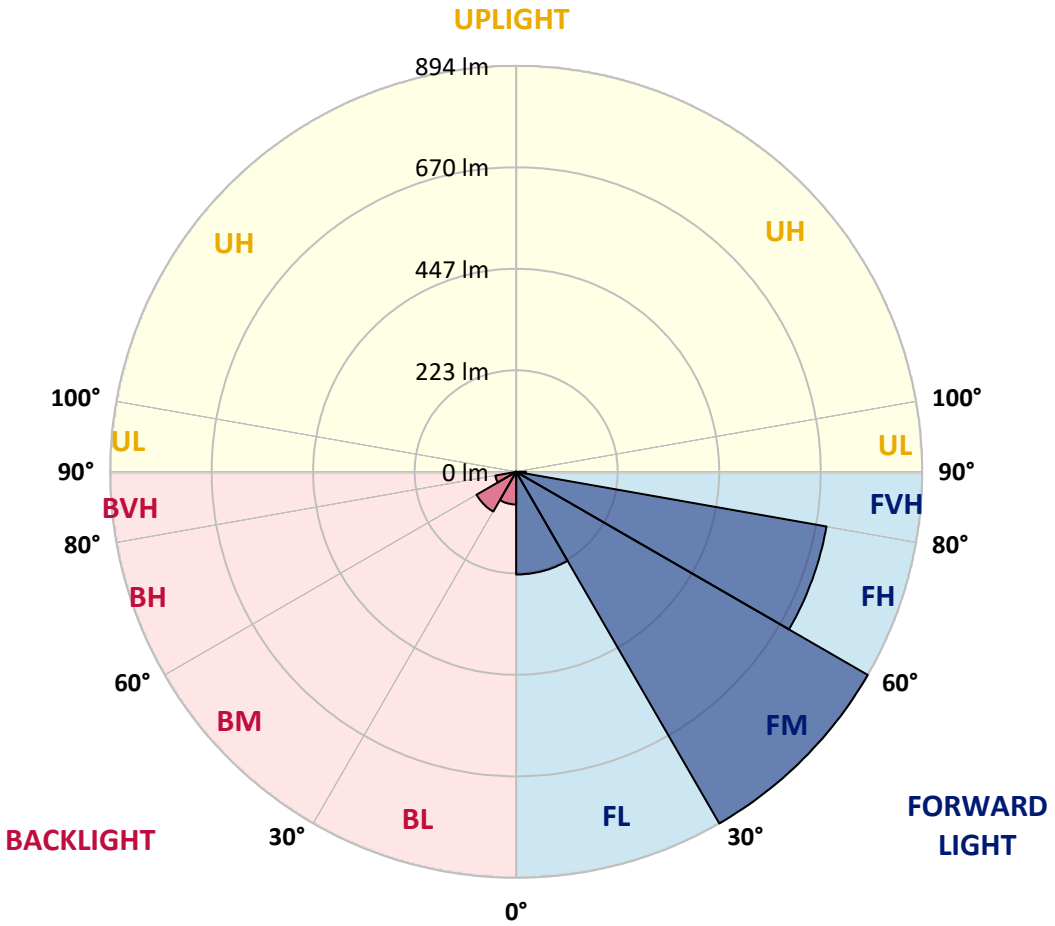
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	226.2	11.0			
FM	(30°-60°)	893.9	43.5			
FH	(60°-80°)	693.7	33.7			G1/1800
FVH	(80°-90°)	21.5	1.0			G1/100
BL	(0°-30°)	71.9	3.5	B0/110		
BM	(30°-60°)	100.9	4.9	B0/220		
BH	(60°-80°)	46.6	2.3	B0/110		G0/110
BVH	(80°-90°)	2.3	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°	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2
2.5°	734.7	734.7	723.8	698.1	674.4	645.8	630.0	615.2	599.4	588.5	571.7
5°	700.1	693.2	677.4	630.0	579.6	546.1	520.4	475.0	453.2	437.4	430.5
7.5°	642.8	638.9	613.2	557.9	497.7	443.4	408.8	371.3	341.7	329.8	309.1
10°	603.3	599.4	566.8	491.8	421.6	382.1	354.5	327.8	299.2	270.6	248.8
12.5°	583.6	575.7	544.1	459.2	398.9	360.4	328.8	296.2	260.7	229.1	203.4
15°	588.5	575.7	540.1	453.2	382.1	334.7	294.3	246.9	211.3	173.8	150.1
17.5°	623.1	609.3	565.8	458.2	360.4	300.2	246.9	193.5	146.1	111.6	99.7
20°	687.3	672.5	613.2	469.0	346.6	265.6	190.6	133.3	96.8	81.0	74.1
22.5°	769.2	749.5	679.4	486.8	330.8	231.1	144.2	94.8	74.1	64.2	59.2
25°	855.1	835.4	757.4	513.5	320.9	201.4	111.6	74.1	60.2	54.3	51.3
27.5°	933.1	908.5	827.5	553.0	309.1	174.8	92.8	64.2	54.3	47.4	45.4
30°	1004.2	975.6	897.6	586.5	292.3	151.1	80.0	59.2	50.4	44.4	41.5
32.5°	1064.5	1041.8	954.9	610.2	278.5	138.2	71.1	52.3	43.4	38.5	36.5
35°	1136.6	1114.8	1010.2	630.0	269.6	132.3	65.2	49.4	40.5	35.5	31.6
37.5°	1234.3	1202.7	1071.4	647.8	259.7	127.4	60.2	46.4	38.5	32.6	29.6
40°	1322.2	1287.6	1142.5	660.6	254.8	123.4	59.2	44.4	36.5	30.6	27.6
42.5°	1400.2	1368.6	1199.8	665.5	250.8	116.5	58.3	43.4	36.5	29.6	25.7
45°	1449.6	1421.0	1267.9	678.4	250.8	111.6	54.3	43.4	35.5	28.6	24.7
47.5°	1495.0	1467.4	1327.1	692.2	246.9	107.6	49.4	47.4	35.5	27.6	22.7
50°	1561.2	1539.4	1402.2	733.7	240.0	101.7	44.4	46.4	36.5	26.7	22.7
52.5°	1645.1	1635.2	1512.8	790.0	230.1	90.8	39.5	43.4	36.5	25.7	21.7
55°	1737.9	1734.0	1628.3	841.3	218.2	78.0	36.5	39.5	35.5	23.7	19.7
57.5°	1794.2	1794.2	1703.4	869.9	208.4	62.2	32.6	32.6	34.6	21.7	17.8
60°	1814.9	1793.2	1694.5	867.0	191.6	51.3	29.6	26.7	36.5	18.8	15.8
62.5°	1813.0	1765.6	1611.5	819.6	168.9	47.4	25.7	22.7	26.7	16.8	13.8
65°	*1759.6*	*1702.4*	*1485.1*	*713.9*	*152.1*	*47.4*	*21.7*	*18.8*	*17.8*	*14.8*	*10.9*
67.5°	1612.5	1578.0	1300.5	605.3	140.2	47.4	18.8	15.8	13.8	11.8	9.9
70°	1369.6	1324.2	1047.7	467.1	131.3	47.4	15.8	13.8	12.8	9.9	7.9
72.5°	892.7	867.0	640.9	320.9	107.6	46.4	13.8	12.8	11.8	8.9	6.9
75°	485.8	449.3	352.5	114.5	77.0	33.6	11.8	10.9	8.9	7.9	5.9
77.5°	210.3	202.4	179.7	30.6	22.7	9.9	6.9	6.9	5.9	5.9	3.9
80°	27.6	20.7	23.7	8.9	7.9	4.9	3.9	3.0	3.0	3.0	2.0
82.5°	1.0	1.0	0.0	1.0	3.0	2.0	0.0	0.0	1.0	1.0	1.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2
2.5°	579.6	567.8	558.9	558.9	570.8	563.8	571.7	566.8	580.6	587.5	585.6
5°	415.7	420.7	415.7	423.6	436.5	443.4	447.3	457.2	456.2	460.2	467.1
7.5°	301.2	301.2	303.1	301.2	313.0	325.9	332.8	329.8	327.8	323.9	330.8
10°	241.9	231.1	218.2	218.2	220.2	227.1	228.1	223.2	216.3	203.4	207.4
12.5°	189.6	181.7	173.8	157.0	156.0	152.1	151.1	137.3	126.4	122.4	122.4
15°	139.2	134.3	125.4	117.5	109.6	105.7	98.7	82.0	71.1	70.1	71.1
17.5°	92.8	89.9	86.9	86.9	83.9	77.0	70.1	59.2	54.3	52.3	53.3
20°	69.1	68.1	65.2	66.2	66.2	60.2	53.3	48.4	46.4	46.4	47.4
22.5°	57.3	56.3	53.3	53.3	53.3	50.4	45.4	42.5	41.5	41.5	41.5
25°	49.4	48.4	46.4	45.4	45.4	43.4	39.5	37.5	36.5	36.5	36.5
27.5°	44.4	43.4	41.5	39.5	39.5	37.5	35.5	32.6	32.6	32.6	32.6
30°	39.5	38.5	37.5	35.5	34.6	32.6	30.6	29.6	28.6	28.6	28.6
32.5°	35.5	34.6	33.6	32.6	30.6	28.6	26.7	25.7	24.7	24.7	24.7
35°	30.6	28.6	27.6	28.6	27.6	24.7	23.7	21.7	20.7	20.7	20.7
37.5°	27.6	25.7	23.7	22.7	22.7	22.7	20.7	18.8	17.8	16.8	17.8
40°	25.7	23.7	21.7	19.7	18.8	19.7	17.8	15.8	14.8	13.8	14.8
42.5°	23.7	21.7	18.8	16.8	14.8	16.8	14.8	12.8	11.8	10.9	11.8
45°	22.7	20.7	17.8	14.8	12.8	12.8	12.8	10.9	8.9	8.9	8.9
47.5°	21.7	19.7	15.8	12.8	10.9	9.9	9.9	7.9	6.9	5.9	5.9
50°	20.7	18.8	14.8	10.9	8.9	7.9	7.9	5.9	4.9	4.9	4.9
52.5°	19.7	17.8	13.8	9.9	7.9	5.9	4.9	3.9	3.9	3.0	3.0
55°	17.8	15.8	11.8	8.9	6.9	4.9	3.9	3.0	3.0	2.0	3.0
57.5°	16.8	14.8	10.9	7.9	5.9	3.9	3.0	2.0	2.0	2.0	2.0
60°	14.8	12.8	8.9	5.9	3.9	3.0	2.0	2.0	2.0	1.0	1.0
62.5°	11.8	10.9	7.9	4.9	3.0	2.0	1.0	1.0	1.0	1.0	1.0
65°	*10.9*	*9.9*	*6.9*	*3.9*	*2.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*
67.5°	8.9	7.9	4.9	3.0	1.0	1.0	0.0	1.0	1.0	0.0	0.0
70°	6.9	6.9	3.9	2.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0
72.5°	5.9	5.9	3.9	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0
75°	4.9	4.9	3.9	2.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
77.5°	3.9	3.0	2.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
80°	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	1.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0	2.0
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°	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2	694.2
2.5°	590.5	606.3	624.1	634.9	658.6	679.4	704.1	725.8	751.5	765.3	770.2
5°	474.0	482.9	505.6	535.2	561.9	599.4	642.8	691.2	743.6	768.2	786.0
7.5°	326.8	334.7	367.3	395.0	439.4	487.8	547.1	613.2	681.3	715.9	747.5
10°	213.3	224.2	251.8	290.3	346.6	405.8	466.1	535.2	614.2	654.7	697.1
12.5°	123.4	136.3	169.8	220.2	275.5	338.7	400.9	476.9	564.8	609.3	652.7
15°	71.1	76.0	95.8	140.2	202.4	279.5	352.5	434.5	537.2	586.5	637.9
17.5°	53.3	56.3	62.2	81.0	129.4	214.3	317.0	421.6	540.1	606.3	651.7
20°	47.4	49.4	52.3	59.2	82.0	152.1	273.5	412.8	568.8	653.7	709.0
22.5°	42.5	44.4	47.4	52.3	62.2	102.7	228.1	411.8	616.2	723.8	786.0
25°	37.5	39.5	42.5	47.4	55.3	74.1	176.8	408.8	675.4	800.8	878.8
27.5°	32.6	34.6	37.5	42.5	49.4	61.2	134.3	399.9	746.5	883.8	966.7
30°	28.6	30.6	33.6	37.5	44.4	53.3	102.7	385.1	807.7	957.8	1026.0
32.5°	24.7	26.7	29.6	33.6	39.5	46.4	82.9	353.5	855.1	1016.1	1074.4
35°	20.7	22.7	25.7	29.6	34.6	39.5	68.1	302.2	903.5	1076.3	1132.6
37.5°	17.8	19.7	21.7	25.7	30.6	35.5	56.3	269.6	939.1	1151.4	1206.7
40°	14.8	16.8	19.7	22.7	26.7	33.6	45.4	226.1	974.6	1223.5	1274.8
42.5°	11.8	13.8	16.8	20.7	24.7	29.6	36.5	186.6	1010.2	1288.6	1337.0
45°	8.9	10.9	13.8	18.8	24.7	25.7	29.6	159.0	1019.1	1349.9	1391.3
47.5°	6.9	7.9	10.9	15.8	23.7	22.7	24.7	138.2	1035.8	1398.2	1444.6
50°	4.9	5.9	8.9	14.8	20.7	18.8	21.7	130.3	1059.5	1435.8	1460.4
52.5°	3.9	4.9	6.9	12.8	16.8	16.8	19.7	138.2	1090.2	1480.2	1500.9
55°	3.0	3.9	5.9	8.9	12.8	14.8	18.8	149.1	1149.4	1558.2	1554.3
57.5°	2.0	3.0	4.9	6.9	9.9	12.8	17.8	165.9	1209.6	1646.1	1650.0
60°	2.0	3.0	3.9	5.9	8.9	10.9	15.8	167.9	1199.8	1658.9	1717.2
62.5°	1.0	2.0	3.9	4.9	6.9	8.9	13.8	141.2	1105.0	1596.7	1681.6
65°	*1.0*	*2.0*	*3.0*	*4.9*	*5.9*	*7.9*	*10.9*	*89.9*	*961.8*	*1486.1*	*1598.7*
67.5°	1.0	2.0	3.0	3.9	4.9	6.9	8.9	46.4	815.6	1371.6	1480.2
70°	1.0	2.0	3.0	3.9	4.9	5.9	7.9	22.7	618.1	1156.3	1296.5
72.5°	1.0	2.0	3.0	3.9	3.9	4.9	6.9	15.8	397.0	869.0	1004.2
75°	1.0	2.0	2.0	3.0	3.9	4.9	5.9	10.9	256.7	584.6	761.3
77.5°	1.0	2.0	2.0	3.0	3.9	4.9	6.9	9.9	187.6	400.9	526.3
80°	1.0	2.0	2.0	3.0	3.9	3.9	4.9	6.9	100.7	265.6	334.7
82.5°	2.0	2.0	3.0	3.0	3.0	3.9	4.9	4.9	52.3	169.8	226.1
85°	2.0	2.0	3.0	3.0	3.9	3.9	3.9	4.9	22.7	71.1	112.6
87.5°	2.0	3.0	3.0	3.0	3.9	3.9	3.9	3.9	3.0	3.9	3.9
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: P437256
CATALOG NUMBER: ISS-SA1B-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	694.2	694.2	694.2	694.2	694.2	694.2	*694.2*	694.2	694.2	694.2
2.5°	785.0	797.9	803.8	798.9	794.9	783.1	*766.3*	749.5	735.7	734.7
5°	826.5	854.2	875.9	865.0	850.2	815.6	*773.2*	725.8	708.0	700.1
7.5°	817.6	877.8	914.4	904.5	874.9	809.7	*743.6*	681.3	652.7	642.8
10°	777.1	858.1	906.5	903.5	875.9	798.9	*716.9*	641.8	611.2	603.3
12.5°	739.6	819.6	866.0	868.0	858.1	787.0	*704.1*	624.1	587.5	583.6
15°	719.9	788.0	815.6	821.6	825.5	786.0	*715.9*	635.9	597.4	588.5
17.5°	723.8	756.4	763.3	758.4	785.0	787.0	*749.5*	677.4	633.9	623.1
20°	747.5	735.7	712.9	717.9	747.5	791.0	*799.8*	750.5	701.1	687.3
22.5°	792.9	734.7	689.2	685.3	723.8	797.9	*854.2*	828.5	777.1	769.2
25°	860.1	749.5	679.4	671.5	705.0	804.8	*909.4*	910.4	869.9	855.1
27.5°	925.2	773.2	678.4	670.5	705.0	813.7	*947.0*	991.4	948.9	933.1
30°	962.8	800.8	694.2	679.4	717.9	821.6	*971.7*	1055.6	1018.1	1004.2
32.5°	997.3	830.5	711.0	693.2	742.6	843.3	*994.4*	1113.9	1081.3	1064.5
35°	1026.0	865.0	742.6	714.9	779.1	874.9	*1022.0*	1178.0	1157.3	1136.6
37.5°	1053.6	899.6	787.0	771.2	840.3	920.3	*1058.6*	1245.2	1255.1	1234.3
40°	1093.1	939.1	863.0	850.2	930.2	989.4	*1103.0*	1312.3	1344.9	1322.2
42.5°	1130.6	989.4	940.1	951.9	1038.8	1069.4	*1153.3*	1373.6	1410.1	1400.2
45°	1165.2	1051.6	1051.6	1080.3	1156.3	1157.3	*1191.9*	1416.0	1454.5	1449.6
47.5°	1210.6	1128.7	1167.2	1246.2	1286.7	1233.3	*1233.3*	1456.5	1508.8	1495.0
50°	1255.1	1231.4	1320.2	1392.3	1427.9	1325.2	*1275.8*	1510.8	1573.0	1561.2
52.5°	1303.4	1331.1	1463.4	1534.5	1555.2	1429.8	*1340.0*	1565.1	1645.1	1645.1
55°	1381.5	1416.0	1614.5	1673.7	1703.4	1516.7	*1421.9*	1642.1	1733.0	1737.9
57.5°	1461.4	1498.0	1699.4	1774.5	1813.0	1645.1	*1527.6*	1744.8	1795.2	1794.2
60°	1545.4	1583.9	1765.6	1839.6	1895.9	1776.4	*1653.0*	1838.6	1824.8	1814.9
62.5°	1649.1	1649.1	1790.3	1824.8	1893.0	1859.4	*1794.2*	1892.0	1835.7	1813.0
65°	*1699.4*	*1683.6*	*1719.2*	*1693.5*	*1771.5*	*1835.7*	*1901.8*	*1893.9*	*1797.2*	*1759.6*
67.5°	1672.8	1577.0	1515.7	1477.2	1494.0	1604.6	*1854.4*	1800.1	1641.2	1612.5
70°	1490.1	1261.0	1203.7	1142.5	1109.9	1224.4	*1602.6*	1589.8	1396.3	1369.6
72.5°	1214.6	910.4	772.2	834.4	802.8	932.2	*1313.3*	1121.8	916.4	892.7
75°	1008.2	677.4	503.6	504.6	509.5	612.2	*959.8*	666.5	503.6	485.8
77.5°	729.7	476.9	406.8	364.4	368.3	391.0	*499.7*	284.4	232.1	210.3
80°	445.3	295.2	328.8	292.3	282.4	217.2	*215.3*	41.5	27.6	27.6
82.5°	242.9	187.6	174.8	63.2	97.8	118.5	*97.8*	2.0	1.0	1.0
85°	123.4	75.0	35.5	10.9	12.8	10.9	*2.0*	0.0	0.0	0.0
87.5°	3.9	3.0	3.0	2.0	2.0	1.0	*1.0*	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

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.

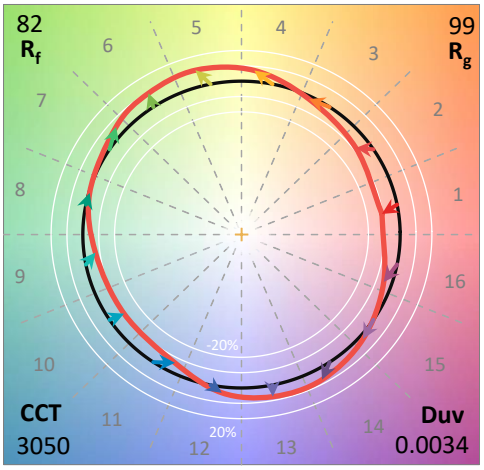
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

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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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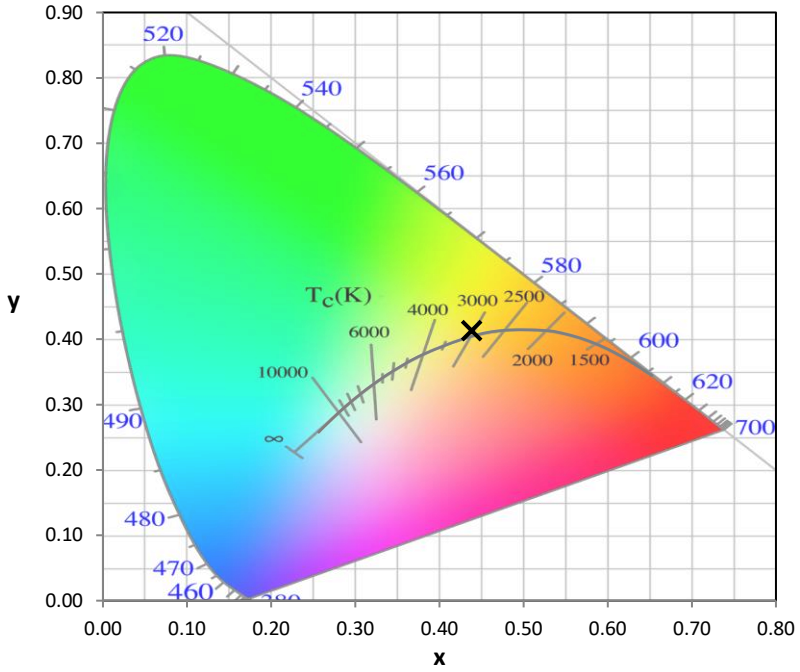
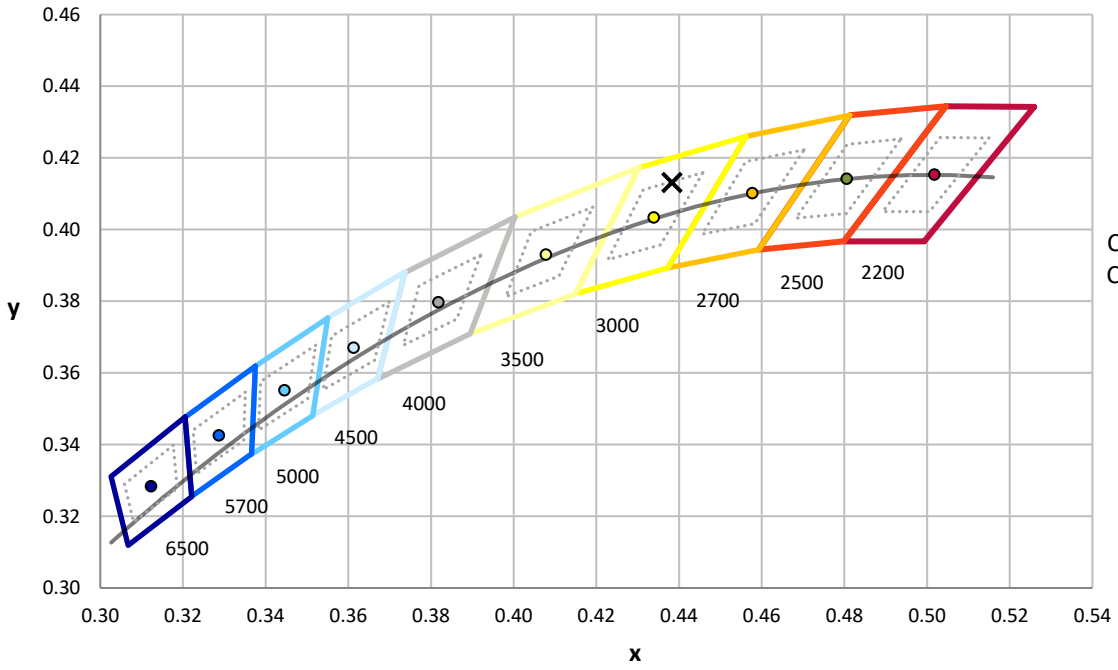
CIE 1931 Chromaticity Diagram



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

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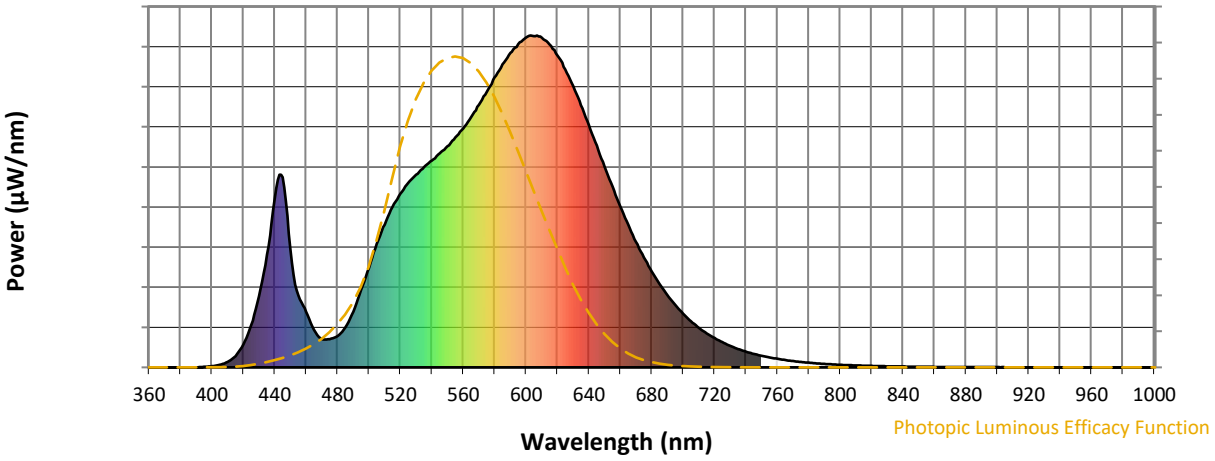
Photopic Flux vs. Wavelength



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			

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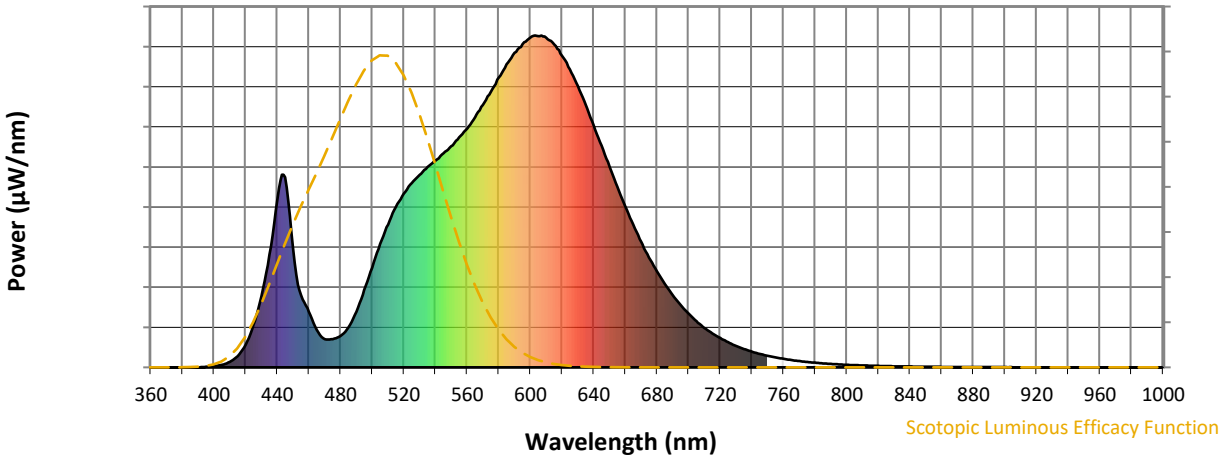
Scotopic Flux vs. Wavelength



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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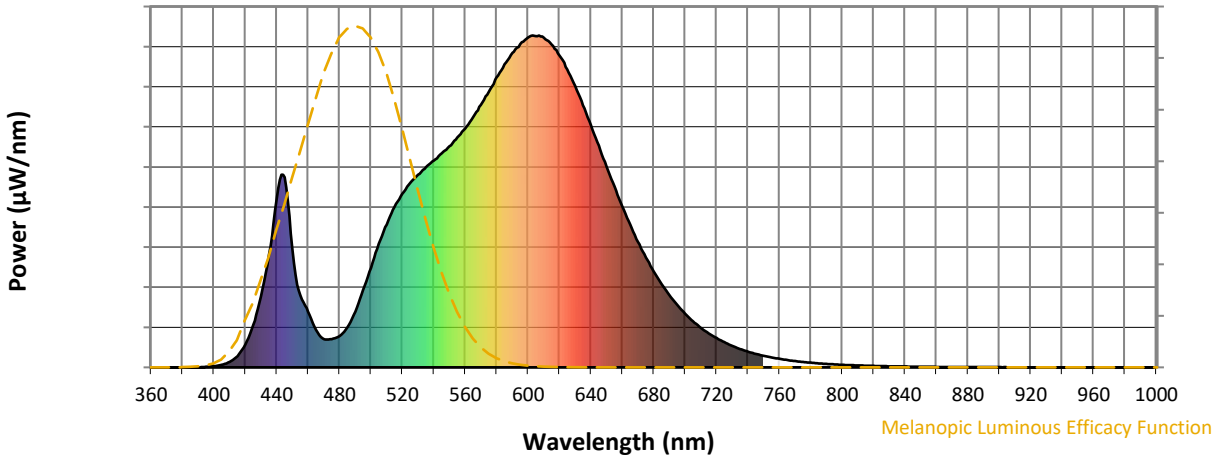
Melanopic Flux vs. Wavelength



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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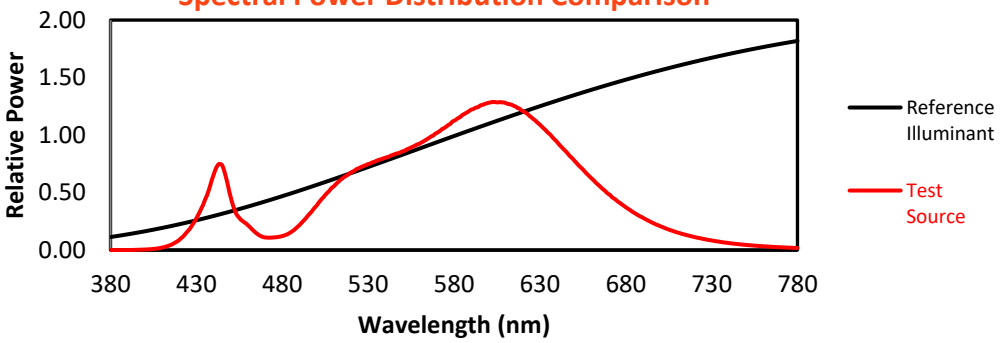
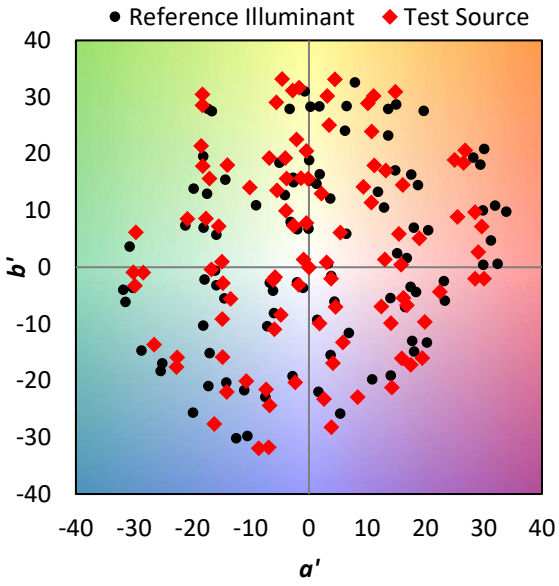
Summary

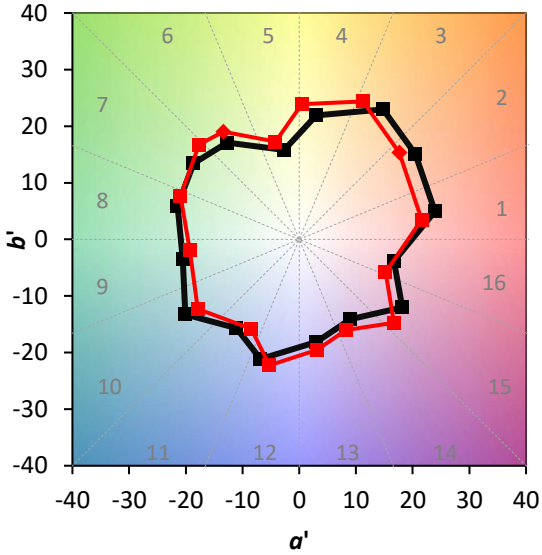
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

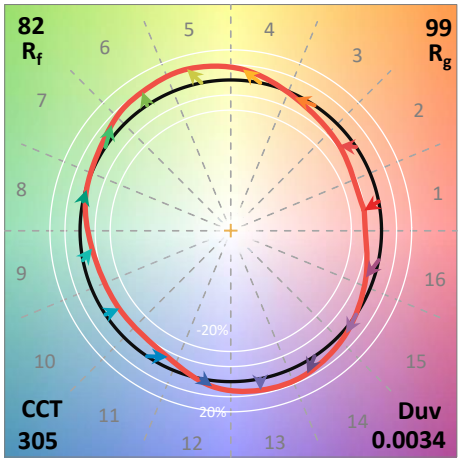
Spectral Power Distribution Comparison

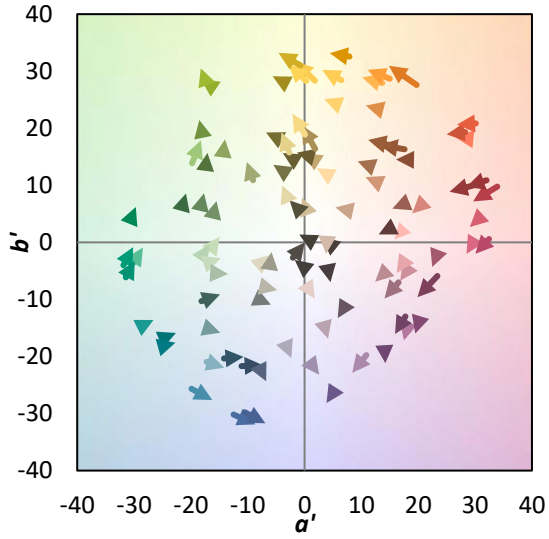


Color Vector Graphics









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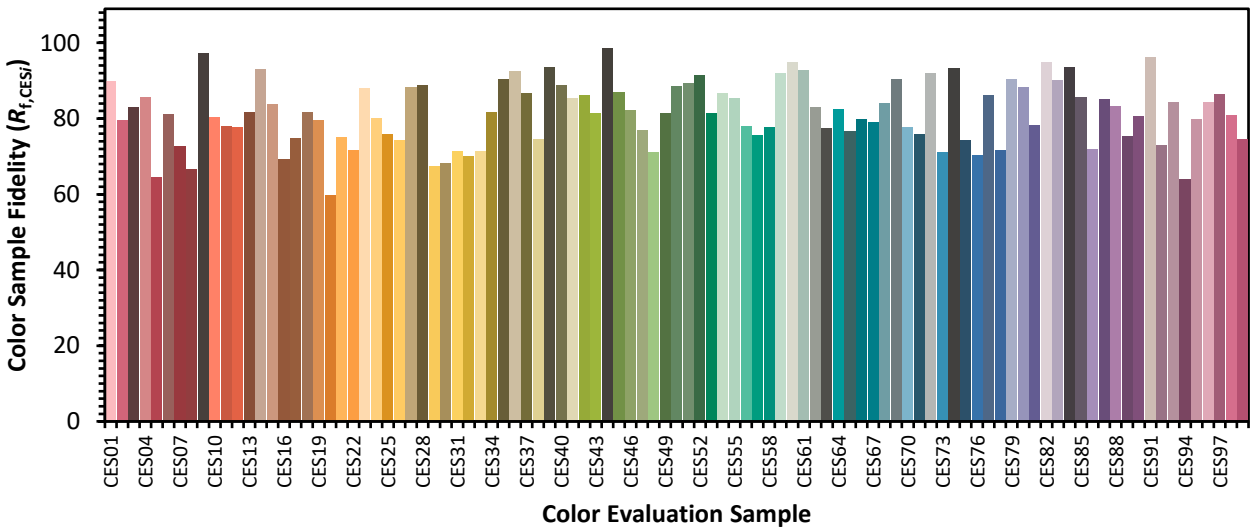
Individual Sample Fidelity Index ($R_{f,i}$)

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
CES25 = 72	CES50 = 89	CES75 = 74	



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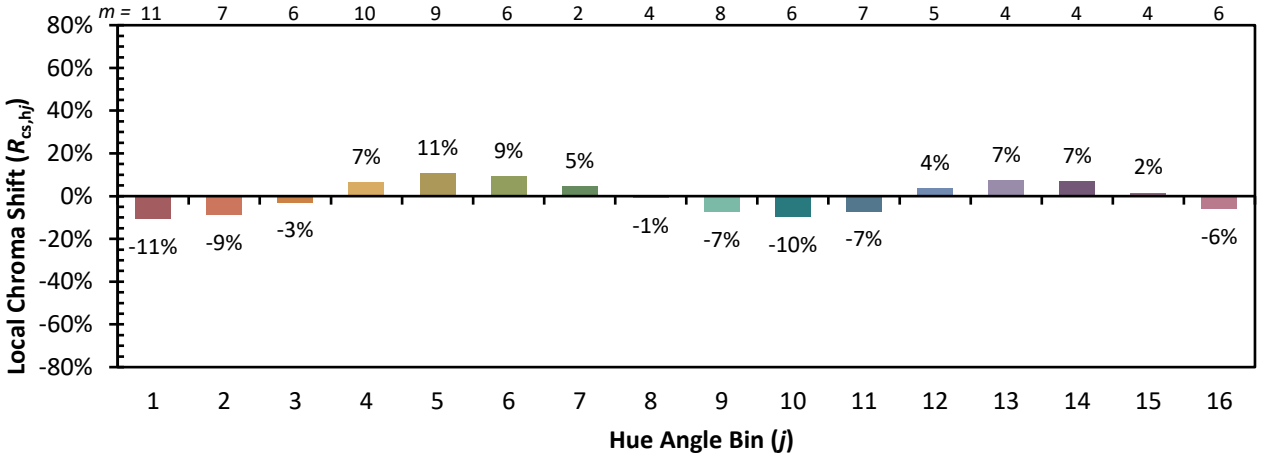
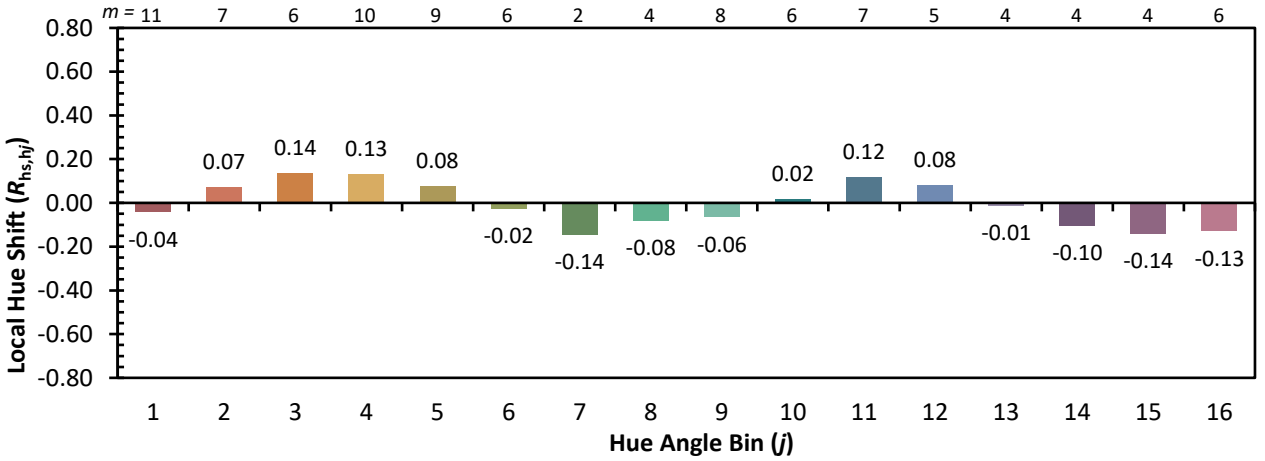
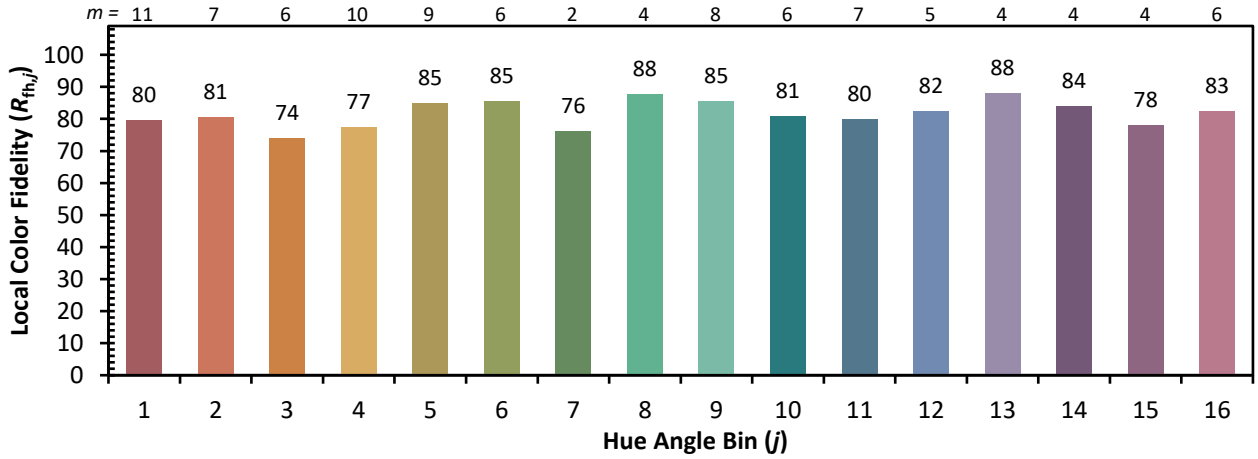
Color Rendition by Hue-Angle Bin







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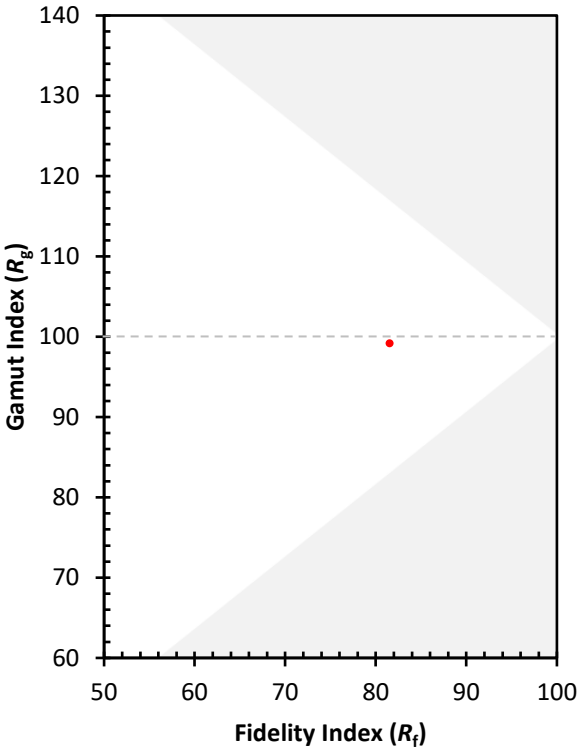
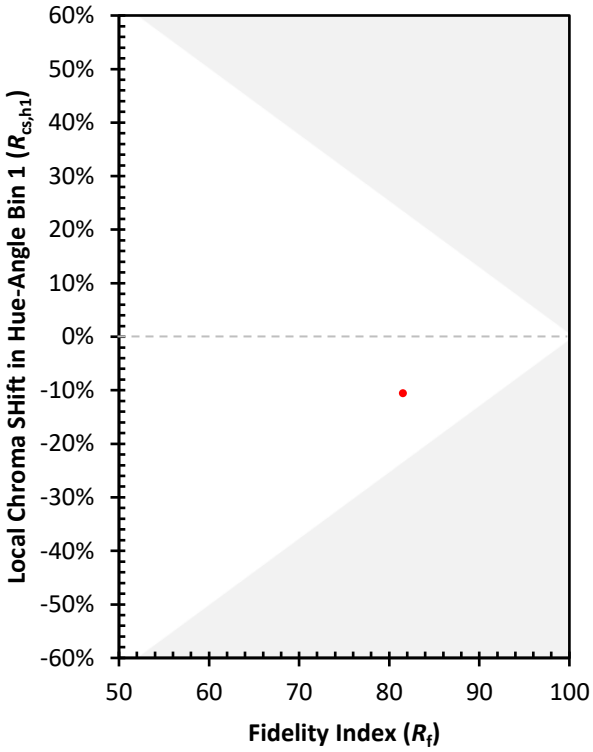
Measure Comparisons





(END OF REPORT)