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: P437255

Luminaire Tested: **ISS-SA1B-830-U-SLL**

Issue Date: 12/9/2020

Report Generated By 670245982

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437255
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-20)
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-SLL
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2429 lumens
Efficiency:	N/A
Efficacy:	95.6 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - 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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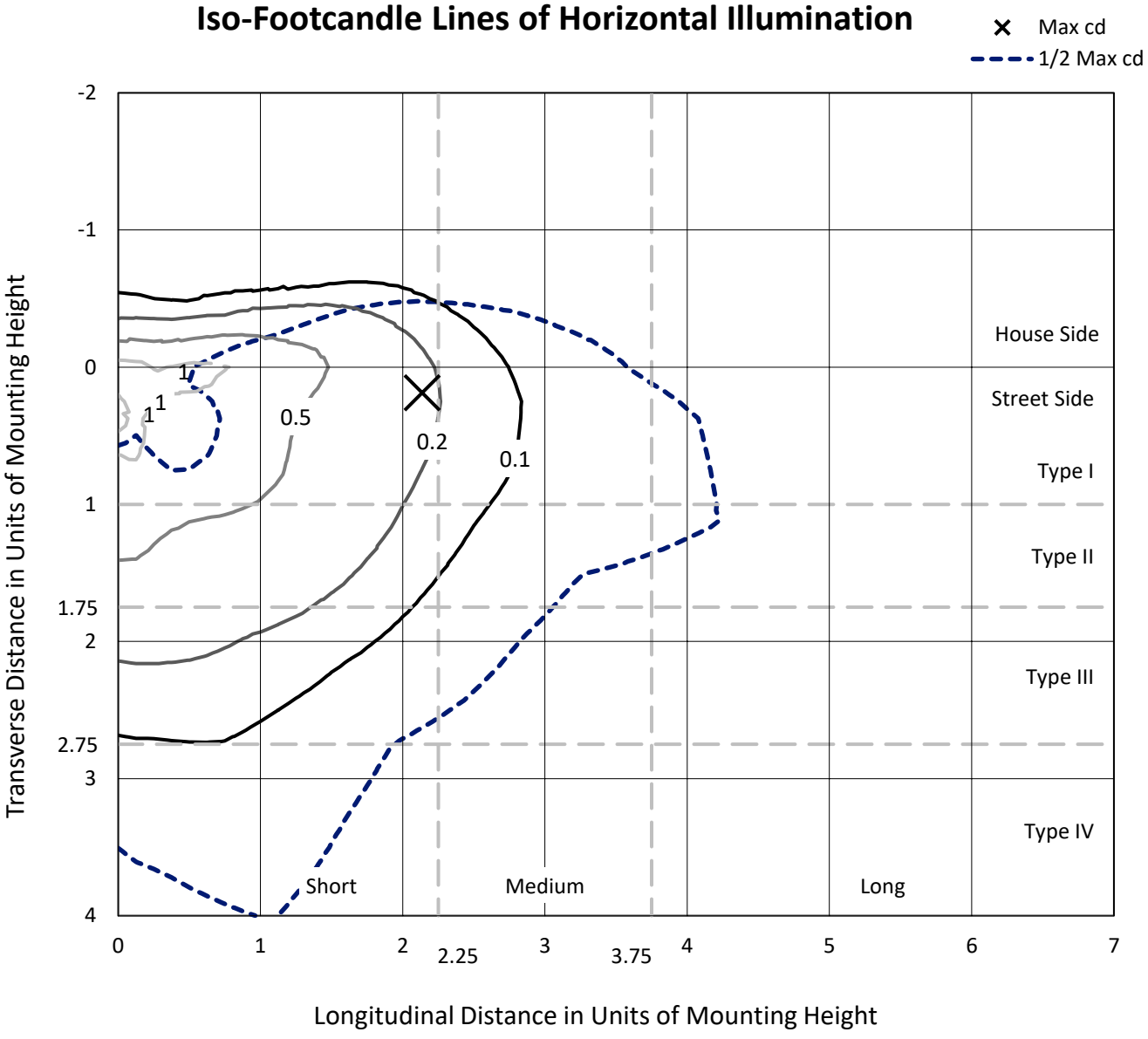
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
Type IV - Short - N/A

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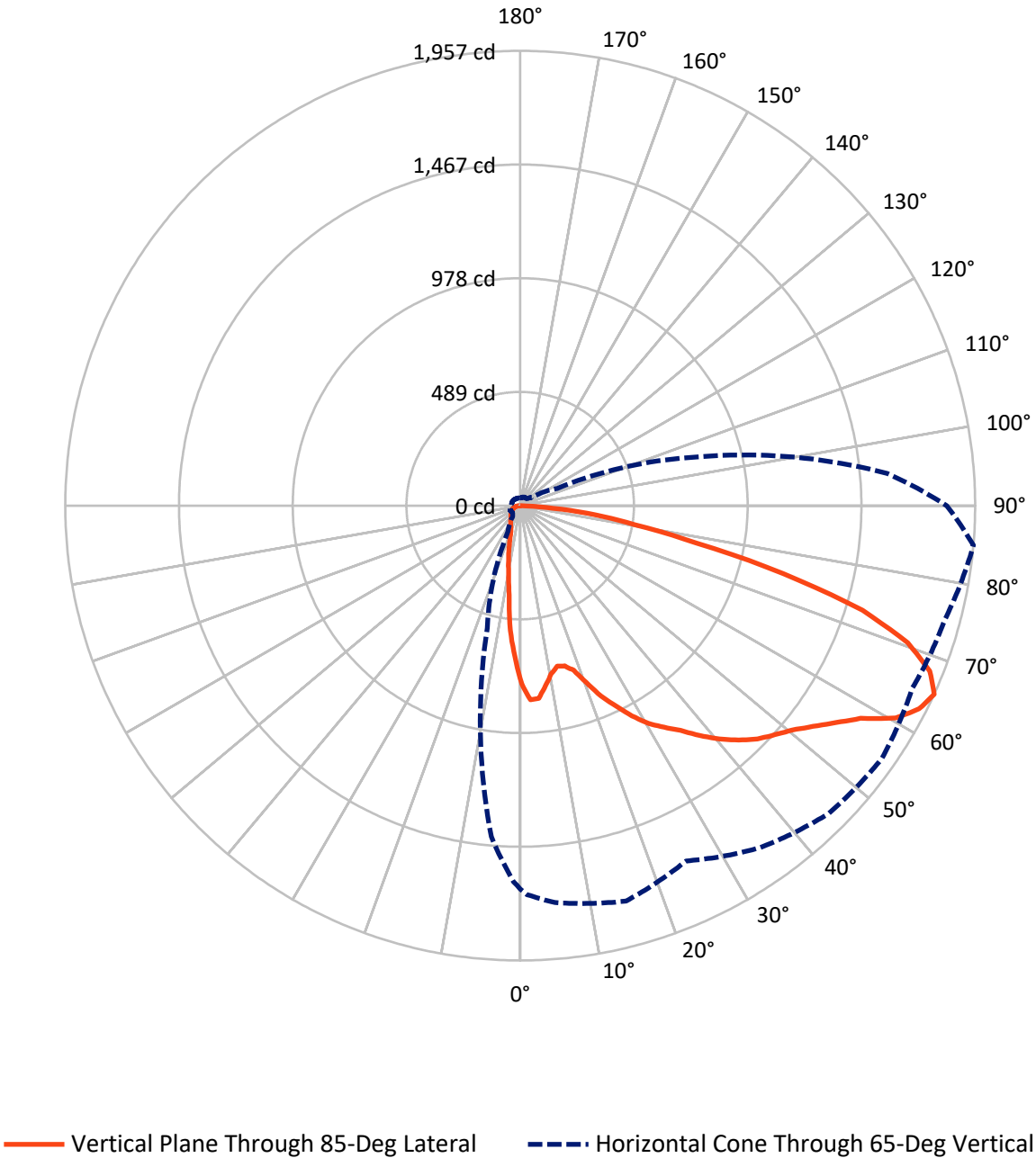
Luminous Intensity Polar Plot



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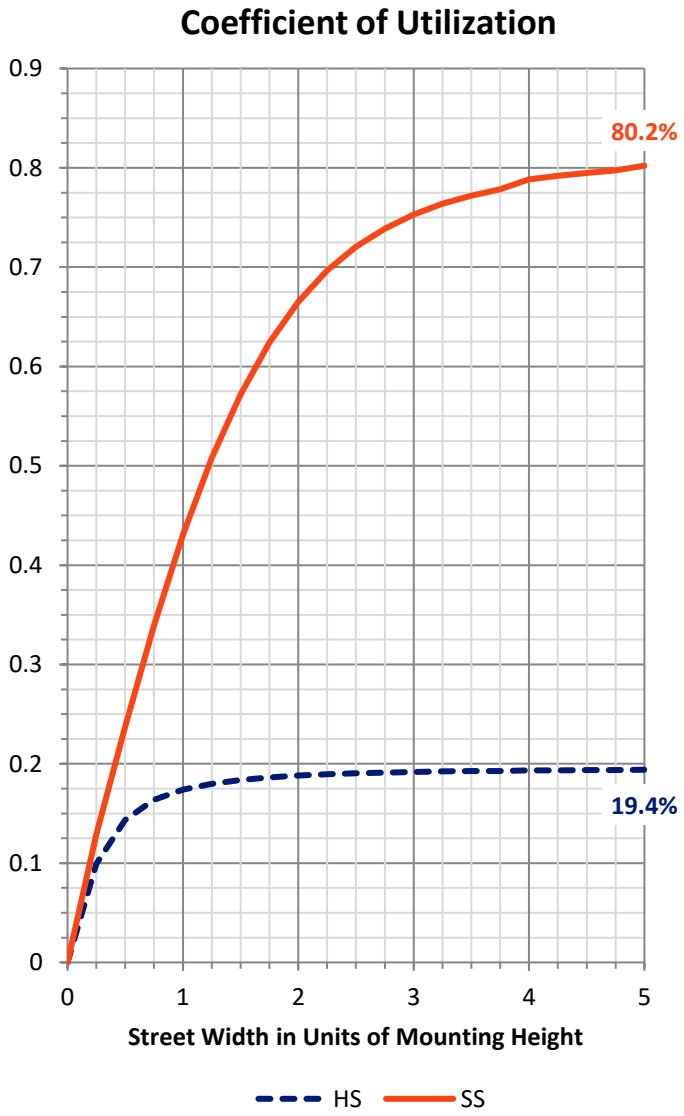
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	475.4	0.0	475.4
	% Fixture	19.6	0.0	19.6
Street Side	Lumens	1953.6	0.0	1953.6
	% Fixture	80.4	0.0	80.4
Total	Lumens	2429.0	0.0	2429.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	2.4
10°-20°	121.5	5.0
20°-30°	174.7	7.2
30°-40°	250.8	10.3
40°-50°	355.1	14.6
50°-60°	493.7	20.3
60°-70°	587.9	24.2
70°-80°	339.8	14.0
80°-90°	47.0	1.9
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°	2429.0	100.0
0°-180°	2429.0	100.0



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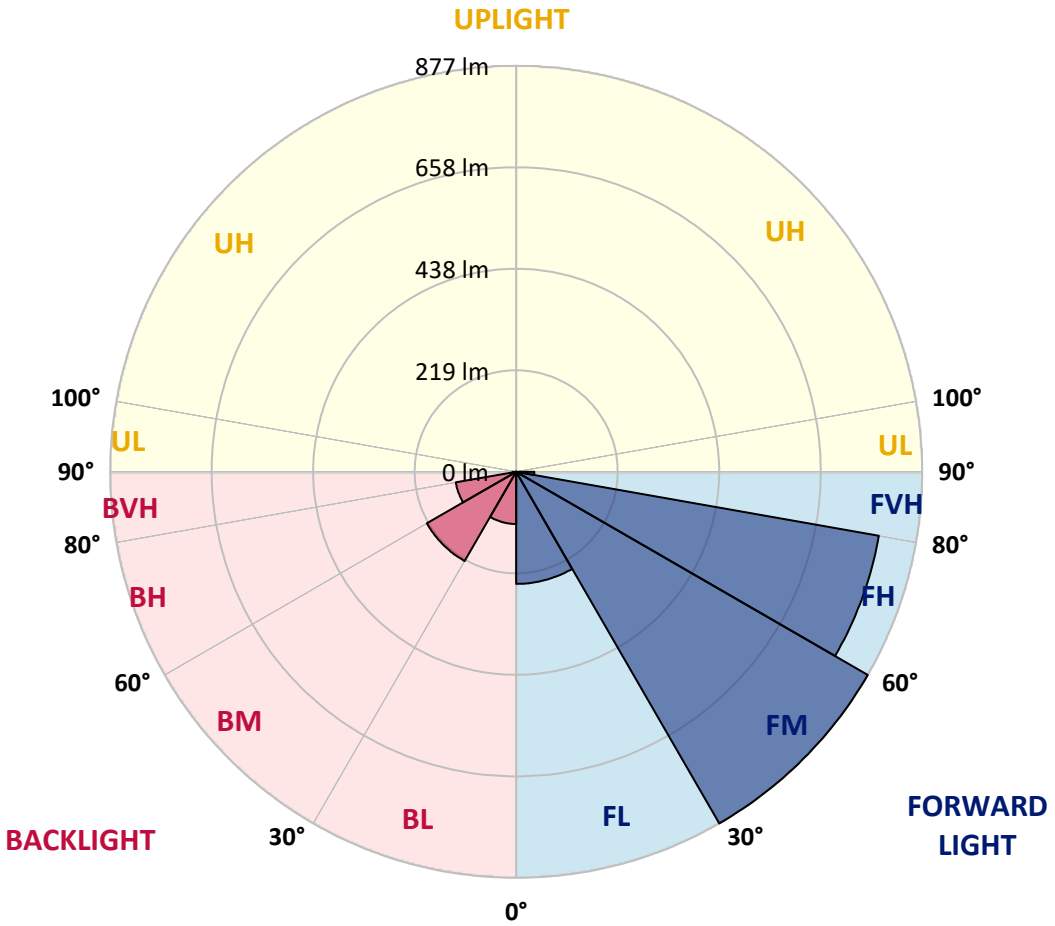
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	242.1	10.0			
FM	(30°-60°)	876.9	36.1			
FH	(60°-80°)	795.4	32.7			G1/1800
FVH	(80°-90°)	39.3	1.6			G1/100
BL	(0°-30°)	112.6	4.6	B1/500		
BM	(30°-60°)	222.7	9.2	B1/1000		
BH	(60°-80°)	132.4	5.4	B1/500		G1/500
BVH	(80°-90°)	7.7	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	*767.3*
2.5°	804.1	807.1	814.0	837.8	852.7	864.6	879.5	864.6	860.7	840.8	*836.8*
5°	775.3	782.2	802.1	846.8	883.5	922.2	942.1	925.2	902.3	867.6	*832.9*
7.5°	718.7	727.6	753.4	822.9	892.4	945.0	970.8	953.0	906.3	844.8	*782.2*
10°	661.1	675.0	705.8	793.2	866.6	925.2	964.9	946.0	889.4	809.0	*734.6*
12.5°	626.4	636.3	671.1	762.4	839.8	898.4	928.2	917.2	864.6	788.2	*708.8*
15°	618.4	628.4	663.1	751.5	820.0	863.6	870.6	873.6	853.7	795.1	*715.7*
17.5°	640.3	648.2	695.9	769.3	797.1	806.1	817.0	829.9	839.8	809.0	*744.5*
20°	692.9	708.8	750.5	806.1	791.2	770.3	776.3	792.2	829.9	849.7	*811.0*
22.5°	763.4	781.2	833.9	856.7	795.1	750.5	745.5	759.4	828.9	894.4	*890.4*
25°	841.8	866.6	923.2	924.2	812.0	736.6	726.6	739.5	826.9	934.1	*954.0*
27.5°	923.2	946.0	1007.6	976.8	844.8	737.6	725.7	738.6	831.9	976.8	*1024.4*
30°	983.7	1013.5	1067.1	1026.4	865.6	750.5	732.6	749.5	842.8	998.6	*1087.0*
32.5°	1045.3	1064.2	1120.7	1055.2	888.5	770.3	747.5	773.3	870.6	1019.5	*1136.6*
35°	1099.9	1124.7	1182.3	1072.1	922.2	804.1	774.3	808.0	910.3	1049.3	*1187.2*
37.5°	1169.4	1193.2	1245.8	1095.9	950.0	846.8	821.9	865.6	958.9	1076.1	*1254.8*
40°	1230.9	1268.6	1308.4	1125.7	981.8	909.3	893.4	953.0	1024.4	1112.8	*1320.3*
42.5°	1291.5	1323.2	1366.9	1159.5	1022.5	985.7	992.7	1055.2	1103.9	1168.4	*1378.8*
45°	1335.2	1371.9	1410.6	1186.3	1075.1	1068.1	1114.8	1167.4	1185.3	1227.0	*1431.5*
47.5°	1377.8	1406.6	1441.4	1213.1	1138.6	1160.4	1241.8	1282.5	1264.7	1279.6	*1473.1*
50°	1434.4	1465.2	1475.1	1255.7	1219.0	1277.6	1365.9	1392.7	1341.1	1321.3	*1516.8*
52.5°	1515.8	1530.7	1525.8	1306.4	1295.5	1399.7	1472.2	1512.9	1420.5	1361.0	*1577.4*
55°	1625.0	1650.8	1619.1	1388.8	1373.9	1516.8	1601.2	1621.1	1508.9	1410.6	*1646.9*
57.5°	1729.3	1752.1	1742.2	1489.0	1476.1	1618.1	1699.5	1718.3	1595.2	1502.9	*1726.3*
60°	1768.0	1774.9	1810.7	1595.2	1578.4	1704.4	1796.8	1799.7	1698.5	1614.1	*1855.3*
62.5°	1726.3	1754.1	1788.8	1694.5	1639.9	1778.9	1861.3	1880.1	1796.8	1749.1	*1925.8*
65°	*1648.8*	*1673.7*	*1714.4*	*1761.0*	*1686.6*	*1796.8*	*1874.2*	*1898.0*	*1860.3*	*1891.1*	*1956.6*
67.5°	1559.5	1590.3	1618.1	1771.9	1680.6	1694.5	1759.0	1773.9	1826.5	1953.6	*1900.0*
70°	1444.4	1479.1	1502.9	1729.3	1538.7	1400.7	1446.3	1487.0	1567.4	1842.4	*1768.0*
72.5°	1196.2	1251.8	1311.3	1535.7	1244.8	1088.0	1123.7	1150.5	1208.1	1573.4	*1539.7*
75°	841.8	882.5	956.0	1236.9	956.0	770.3	825.9	825.9	898.4	1292.5	*1169.4*
77.5°	503.3	504.3	575.8	814.0	581.7	519.2	550.9	565.8	587.7	915.3	*776.3*
80°	284.9	288.9	312.7	526.1	344.5	354.4	392.1	431.8	399.1	567.8	*499.3*
82.5°	133.0	117.1	124.1	248.2	195.6	231.3	237.3	255.1	257.1	363.3	*327.6*
85°	10.9	8.9	11.9	44.7	34.7	31.8	22.8	43.7	68.5	158.8	*141.0*
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°	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3
2.5°	823.9	814.0	792.2	775.3	759.4	729.6	717.7	700.8	691.9	676.0	680.0
5°	807.1	784.2	734.6	700.8	657.2	621.4	599.6	579.7	571.8	554.9	549.0
7.5°	745.5	725.7	663.1	607.5	553.9	511.2	470.5	440.8	426.9	412.0	411.0
10°	692.9	660.1	588.7	523.1	461.6	421.9	392.1	367.3	345.5	326.6	315.7
12.5°	663.1	622.4	543.0	463.6	420.9	393.1	360.3	329.6	304.8	282.9	270.0
15°	663.1	615.5	521.2	443.7	401.0	359.4	321.6	289.9	257.1	231.3	223.4
17.5°	693.9	635.3	526.1	430.8	370.3	323.6	276.0	234.3	202.5	179.7	171.7
20°	754.4	684.0	538.0	415.9	340.5	276.0	218.4	173.7	144.9	134.0	132.0
22.5°	824.9	742.5	555.9	402.0	309.7	225.3	163.8	132.0	119.1	115.2	115.2
25°	902.3	808.0	578.7	387.1	278.0	178.7	125.1	110.2	105.2	103.2	103.2
27.5°	974.8	879.5	619.4	381.2	248.2	144.9	109.2	98.3	95.3	93.3	94.3
30°	1045.3	943.0	661.1	369.3	215.4	126.1	98.3	90.3	86.4	85.4	86.4
32.5°	1105.8	997.6	689.9	351.4	192.6	113.2	91.3	83.4	79.4	78.4	79.4
35°	1175.3	1051.3	718.7	338.5	180.7	105.2	86.4	78.4	74.5	72.5	72.5
37.5°	1256.7	1115.8	740.5	319.6	172.7	97.3	82.4	74.5	69.5	67.5	67.5
40°	1365.9	1194.2	758.4	304.8	163.8	93.3	77.4	70.5	65.5	63.5	62.5
42.5°	1441.4	1262.7	773.3	294.8	154.9	91.3	74.5	68.5	62.5	59.6	58.6
45°	1493.0	1323.2	783.2	289.9	146.9	86.4	72.5	66.5	59.6	55.6	55.6
47.5°	1542.6	1372.9	784.2	282.9	141.0	80.4	75.4	63.5	56.6	52.6	52.6
50°	1598.2	1435.4	803.1	276.0	134.0	73.5	74.5	62.5	54.6	50.6	49.6
52.5°	1653.8	1520.8	839.8	266.0	124.1	67.5	70.5	63.5	52.6	48.6	47.6
55°	1753.1	1627.0	885.5	251.1	111.2	61.5	65.5	62.5	49.6	45.7	44.7
57.5°	1817.6	1726.3	921.2	235.3	92.3	57.6	57.6	60.6	46.7	42.7	41.7
60°	1854.3	1745.1	928.2	216.4	75.4	51.6	49.6	61.5	43.7	38.7	38.7
62.5°	1853.3	1680.6	893.4	198.5	65.5	47.6	44.7	53.6	40.7	36.7	35.7
65°	*1834.5*	*1585.3*	*815.0*	*175.7*	*61.5*	*43.7*	*39.7*	*40.7*	*37.7*	*33.8*	*32.8*
67.5°	1753.1	1420.5	689.9	152.9	59.6	39.7	36.7	34.7	32.8	29.8	28.8
70°	1555.5	1234.9	538.0	142.0	58.6	34.7	31.8	29.8	27.8	25.8	25.8
72.5°	1264.7	962.9	411.0	136.0	59.6	31.8	26.8	25.8	23.8	22.8	21.8
75°	875.5	711.8	297.8	120.1	57.6	26.8	22.8	20.8	19.9	17.9	17.9
77.5°	562.9	465.6	197.5	96.3	46.7	21.8	16.9	15.9	14.9	13.9	13.9
80°	370.3	316.7	115.2	68.5	28.8	14.9	11.9	11.9	10.9	8.9	8.9
82.5°	235.3	239.2	59.6	31.8	16.9	8.9	6.9	6.0	6.0	4.0	4.0
85°	51.6	90.3	26.8	12.9	6.0	1.0	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°	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3
2.5°	666.1	658.1	655.2	655.2	642.3	643.3	643.3	651.2	650.2	657.2	654.2
5°	542.0	534.1	534.1	536.0	538.0	529.1	532.1	524.1	539.0	528.1	520.2
7.5°	400.1	399.1	406.0	421.9	418.9	415.9	410.0	395.1	387.1	395.1	391.1
10°	306.7	309.7	307.7	314.7	315.7	314.7	304.8	301.8	297.8	301.8	306.7
12.5°	257.1	245.2	232.3	231.3	239.2	239.2	238.2	239.2	242.2	242.2	246.2
15°	214.4	206.5	189.6	181.7	187.6	183.6	184.6	188.6	191.6	195.6	193.6
17.5°	170.7	163.8	155.9	150.9	153.9	150.9	149.9	148.9	148.9	147.9	151.9
20°	130.0	129.0	132.0	130.0	131.0	129.0	126.1	122.1	119.1	121.1	123.1
22.5°	113.2	114.2	116.1	118.1	118.1	116.1	111.2	107.2	106.2	106.2	107.2
25°	104.2	104.2	107.2	108.2	109.2	106.2	100.3	97.3	97.3	97.3	97.3
27.5°	94.3	96.3	98.3	100.3	101.3	98.3	93.3	90.3	90.3	89.3	88.3
30°	87.4	88.3	90.3	91.3	92.3	89.3	86.4	83.4	83.4	83.4	82.4
32.5°	79.4	82.4	83.4	84.4	85.4	83.4	80.4	78.4	77.4	76.4	74.5
35°	73.5	74.5	77.4	77.4	78.4	77.4	75.4	73.5	70.5	69.5	69.5
37.5°	67.5	67.5	69.5	71.5	73.5	72.5	69.5	66.5	65.5	65.5	65.5
40°	63.5	62.5	63.5	66.5	68.5	68.5	64.5	62.5	62.5	61.5	61.5
42.5°	58.6	58.6	58.6	61.5	65.5	63.5	59.6	59.6	59.6	58.6	58.6
45°	55.6	54.6	55.6	55.6	60.6	57.6	56.6	55.6	56.6	55.6	56.6
47.5°	51.6	51.6	51.6	52.6	55.6	53.6	52.6	52.6	53.6	53.6	53.6
50°	48.6	48.6	48.6	49.6	50.6	50.6	50.6	50.6	50.6	51.6	51.6
52.5°	46.7	45.7	46.7	46.7	47.6	48.6	47.6	48.6	48.6	48.6	49.6
55°	44.7	43.7	44.7	44.7	46.7	45.7	45.7	46.7	46.7	47.6	48.6
57.5°	41.7	40.7	42.7	42.7	44.7	44.7	43.7	44.7	44.7	45.7	45.7
60°	38.7	38.7	39.7	39.7	41.7	42.7	42.7	42.7	42.7	42.7	42.7
62.5°	35.7	35.7	36.7	37.7	39.7	39.7	40.7	40.7	40.7	40.7	39.7
65°	*32.8*	*33.8*	*34.7*	*34.7*	*36.7*	*37.7*	*37.7*	*37.7*	*37.7*	*37.7*	*37.7*
67.5°	28.8	30.8	31.8	32.8	34.7	34.7	35.7	35.7	34.7	34.7	34.7
70°	25.8	26.8	27.8	28.8	31.8	31.8	32.8	32.8	31.8	31.8	32.8
72.5°	21.8	22.8	23.8	25.8	28.8	28.8	29.8	29.8	28.8	28.8	28.8
75°	18.9	18.9	19.9	21.8	25.8	25.8	25.8	26.8	25.8	25.8	24.8
77.5°	13.9	14.9	15.9	18.9	21.8	22.8	22.8	22.8	21.8	21.8	20.8
80°	8.9	9.9	11.9	13.9	16.9	17.9	18.9	18.9	17.9	17.9	16.9
82.5°	4.0	6.0	6.9	8.9	10.9	13.9	13.9	14.9	13.9	12.9	12.9
85°	0.0	0.0	1.0	3.0	5.0	7.9	8.9	9.9	8.9	7.9	7.9
87.5°	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	1.0	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

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

Scaled Data Report

REPORT NUMBER: P437255
CATALOG NUMBER: ISS-SA1B-830-U-SLL

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3	767.3
2.5°	665.1	676.0	692.9	702.8	725.7	746.5	768.3	797.1	803.1	804.1
5°	528.1	541.0	572.8	585.7	627.4	661.1	710.8	759.4	772.3	775.3
7.5°	403.0	413.0	447.7	472.5	518.2	565.8	629.4	686.9	715.7	718.7
10°	314.7	341.5	368.3	405.0	444.7	491.4	557.9	631.3	663.1	661.1
12.5°	265.0	292.8	325.6	362.3	403.0	444.7	505.3	586.7	618.4	626.4
15°	212.4	246.2	281.9	319.6	367.3	408.0	478.5	568.8	607.5	618.4
17.5°	164.8	191.6	226.3	275.0	321.6	379.2	468.5	585.7	629.4	640.3
20°	130.0	149.9	174.7	221.4	280.9	352.4	463.6	617.4	677.0	692.9
22.5°	111.2	119.1	137.0	177.7	240.2	323.6	460.6	662.1	736.6	763.4
25°	99.3	104.2	114.2	140.0	199.5	298.8	465.6	717.7	820.0	841.8
27.5°	90.3	94.3	99.3	118.1	172.7	277.0	474.5	780.2	891.4	923.2
30°	82.4	85.4	92.3	105.2	150.9	255.1	477.5	841.8	955.0	983.7
32.5°	76.4	80.4	86.4	97.3	138.0	240.2	469.5	888.5	1013.5	1045.3
35°	70.5	75.4	81.4	90.3	127.1	227.3	451.7	927.2	1069.1	1099.9
37.5°	67.5	70.5	76.4	83.4	119.1	214.4	435.8	965.9	1126.7	1169.4
40°	63.5	66.5	72.5	78.4	109.2	200.5	424.9	1015.5	1192.2	1230.9
42.5°	60.6	64.5	69.5	76.4	101.3	185.6	413.9	1055.2	1250.8	1291.5
45°	58.6	62.5	67.5	76.4	94.3	173.7	402.0	1090.0	1295.5	1335.2
47.5°	55.6	60.6	67.5	73.5	91.3	165.8	402.0	1131.7	1336.2	1377.8
50°	54.6	59.6	70.5	71.5	89.3	162.8	418.9	1179.3	1394.7	1434.4
52.5°	53.6	58.6	70.5	67.5	87.4	164.8	444.7	1265.7	1470.2	1515.8
55°	50.6	57.6	67.5	62.5	82.4	166.8	473.5	1378.8	1582.3	1625.0
57.5°	48.6	56.6	63.5	57.6	75.4	163.8	512.2	1480.1	1699.5	1729.3
60°	45.7	55.6	55.6	53.6	67.5	154.9	555.9	1544.6	1744.1	1768.0
62.5°	43.7	54.6	49.6	49.6	61.5	141.0	570.8	1528.7	1700.5	1726.3
65°	*40.7*	*47.6*	*44.7*	*45.7*	*56.6*	*125.1*	*545.0*	*1429.5*	*1618.1*	*1648.8*
67.5°	37.7	40.7	39.7	41.7	54.6	109.2	475.5	1311.3	1511.9	1559.5
70°	33.8	35.7	35.7	37.7	51.6	98.3	397.1	1159.5	1373.9	1444.4
72.5°	30.8	31.8	31.8	34.7	48.6	92.3	313.7	983.7	1152.5	1196.2
75°	25.8	27.8	27.8	29.8	43.7	78.4	214.4	720.7	806.1	841.8
77.5°	22.8	22.8	23.8	24.8	34.7	52.6	126.1	443.7	484.4	503.3
80°	17.9	18.9	17.9	17.9	21.8	34.7	68.5	260.1	294.8	284.9
82.5°	12.9	12.9	10.9	10.9	12.9	18.9	29.8	135.0	138.0	133.0
85°	6.9	5.0	4.0	4.0	4.0	4.0	4.0	28.8	13.9	10.9
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	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

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

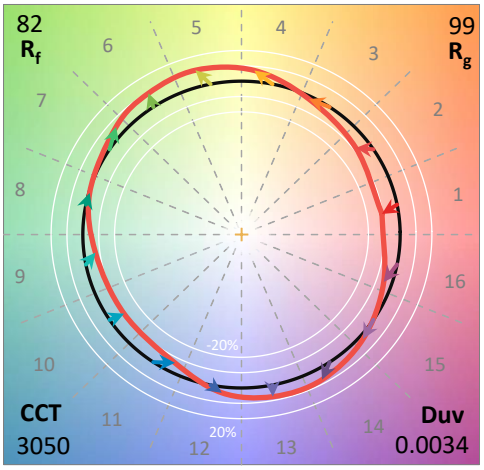
Test Information

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

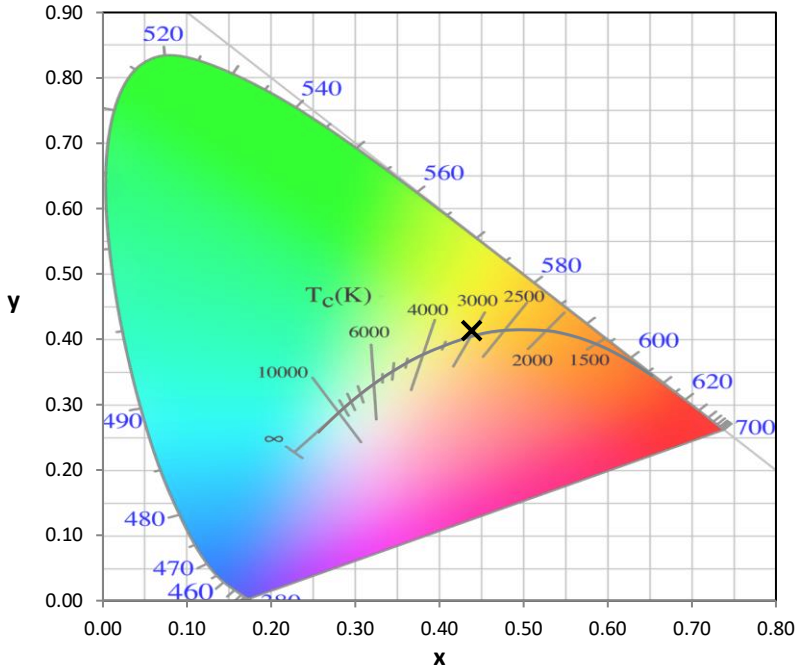
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

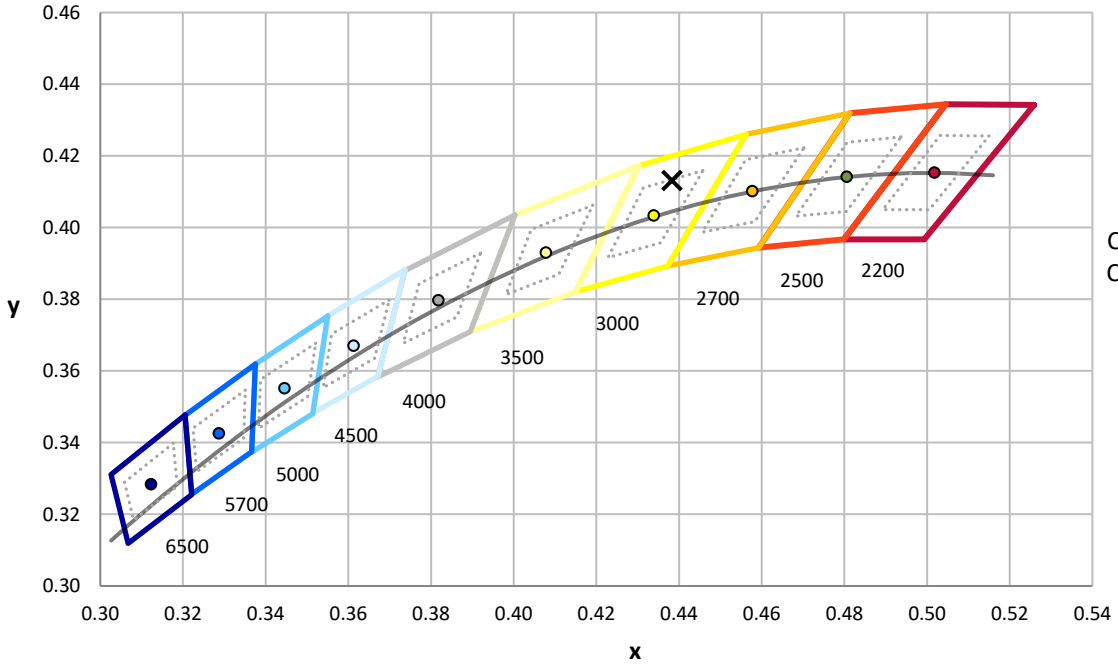
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

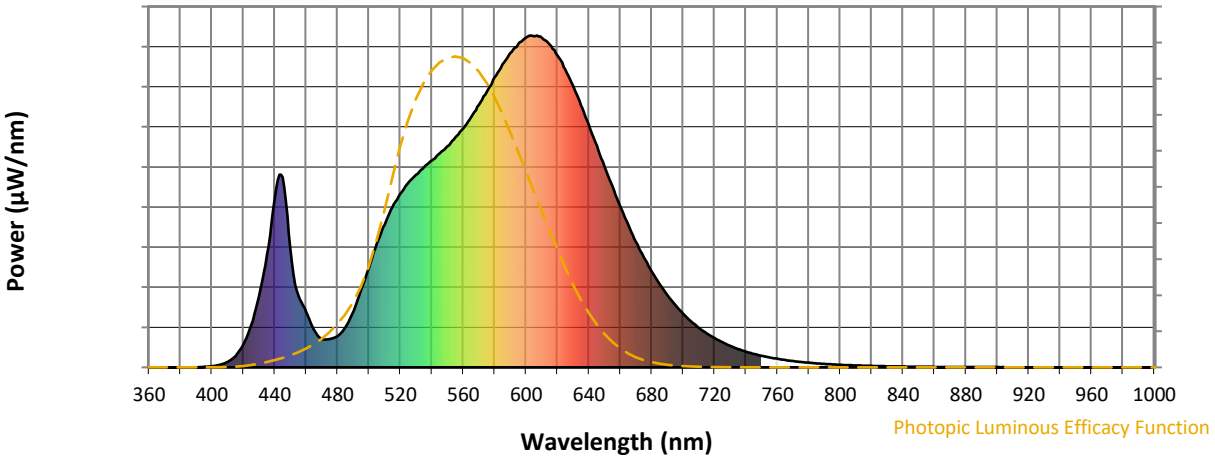


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

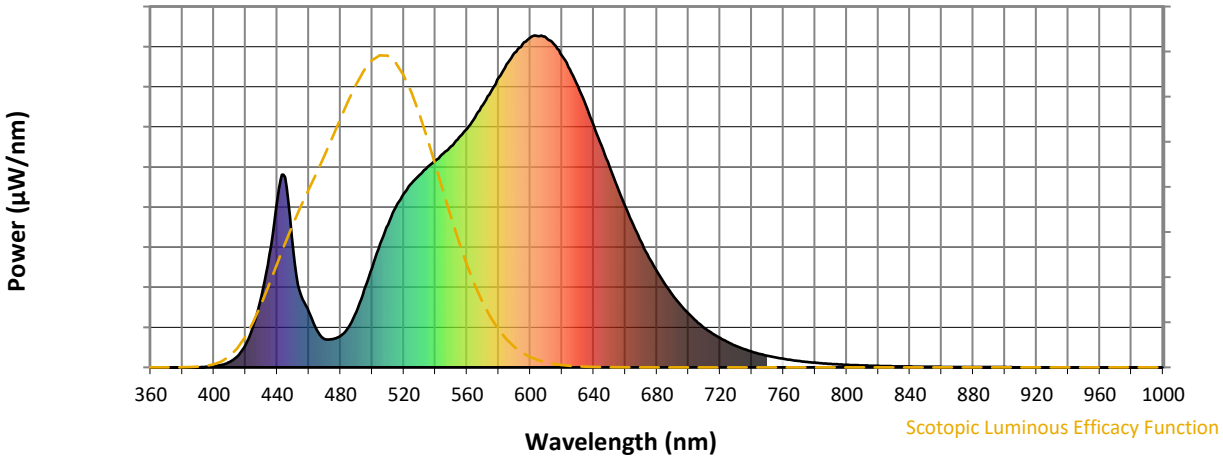


Photopic Lumens: NR

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

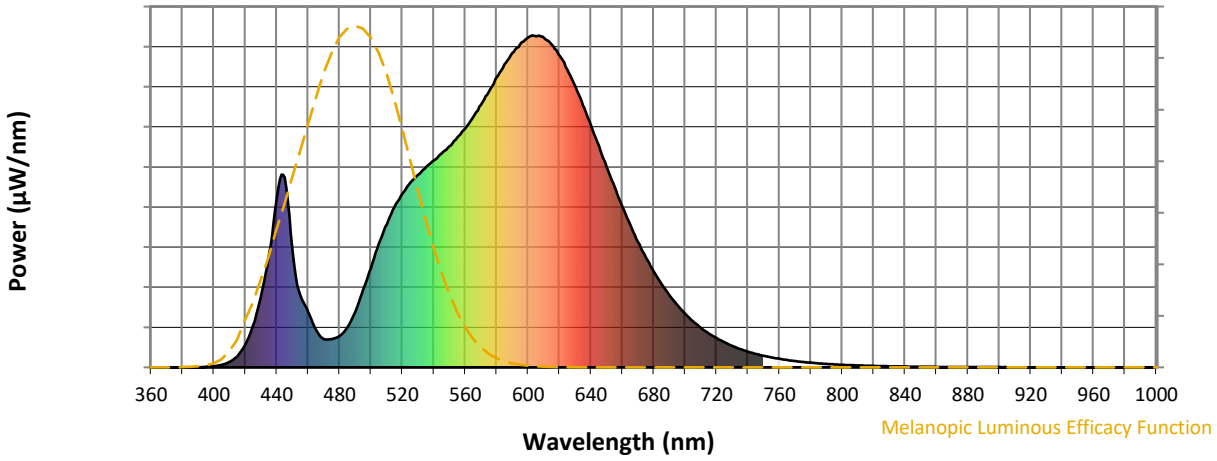


Scotopic Lumens: NR **S/P: 1.27**

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			

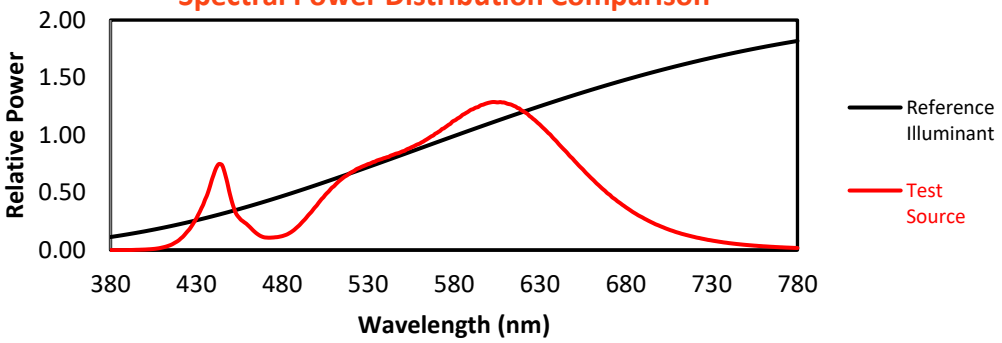
REPORT NUMBER: SP1-2408-195-9

TM-30-18

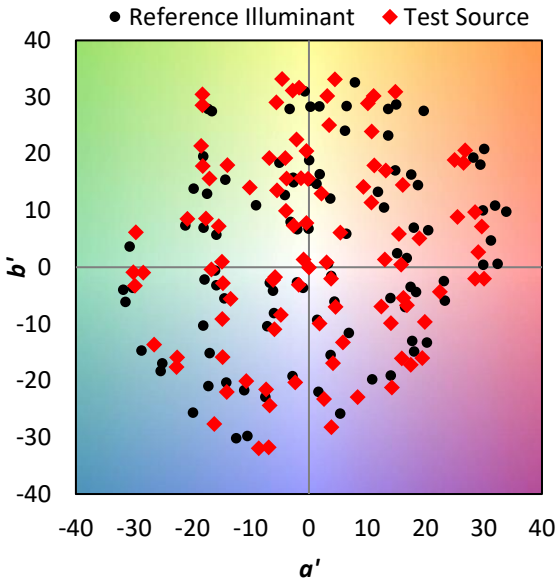
Summary

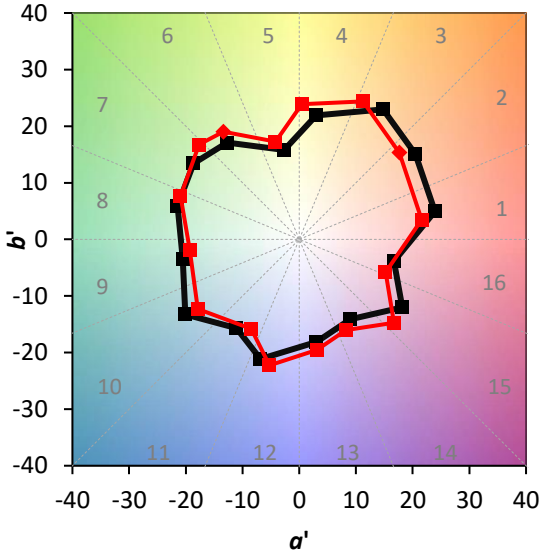
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

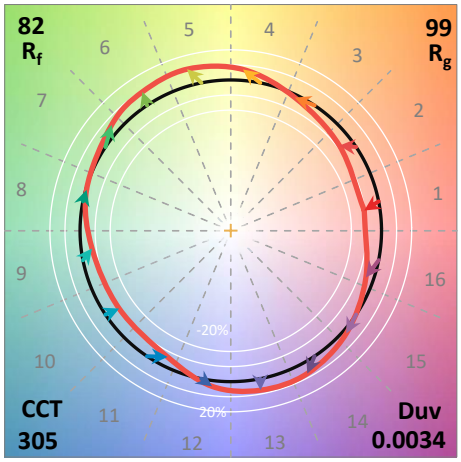
Spectral Power Distribution Comparison

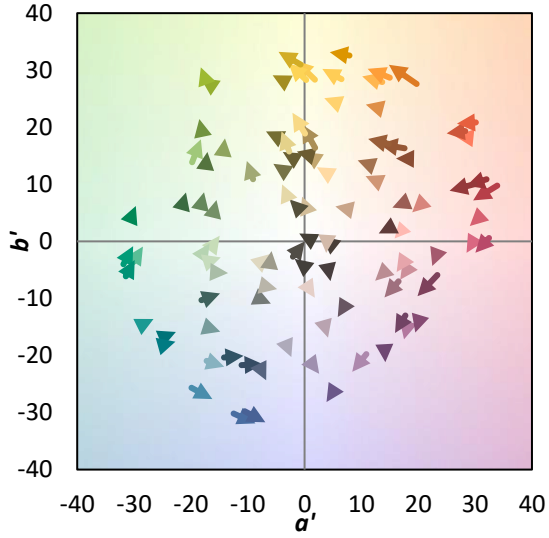


Color Vector Graphics







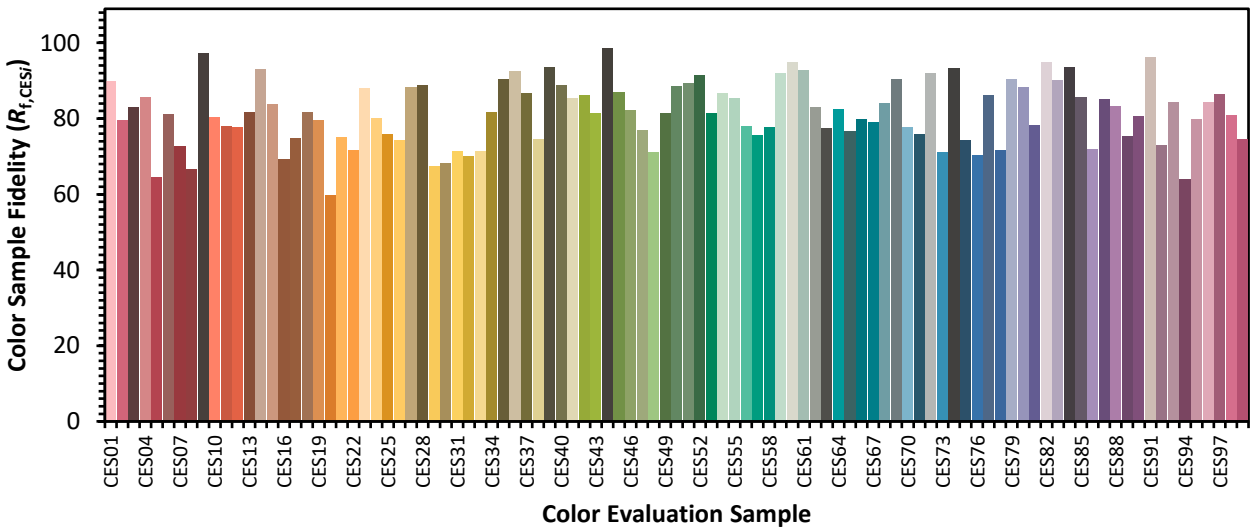


REPORT NUMBER: SP1-2408-195-9

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	



REPORT NUMBER: SP1-2408-195-9

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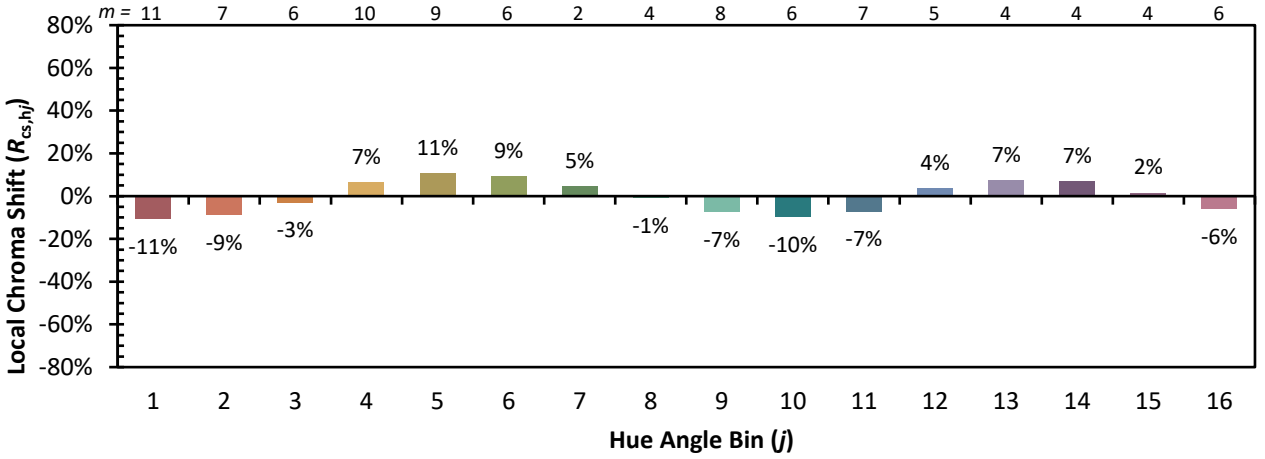
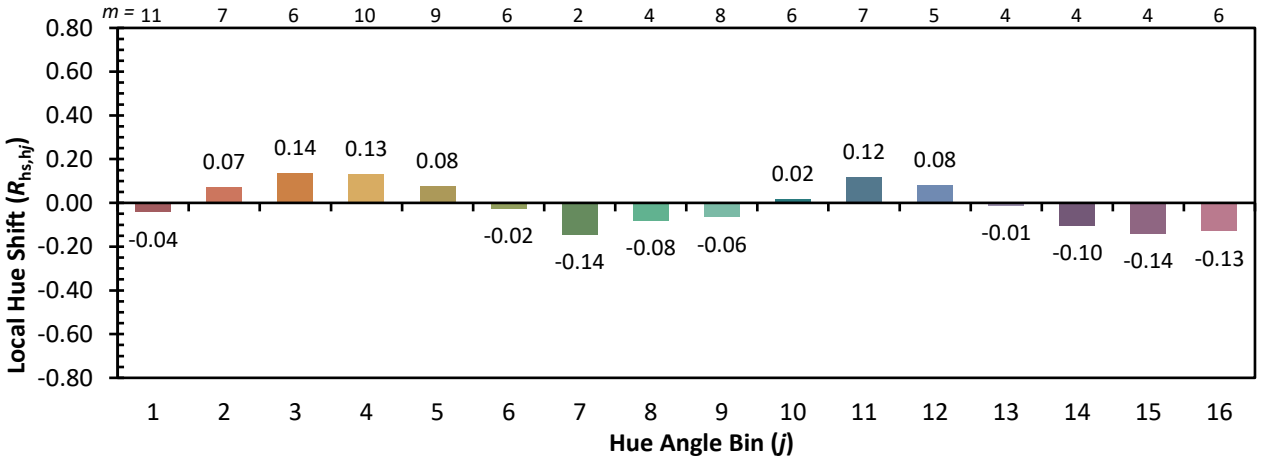
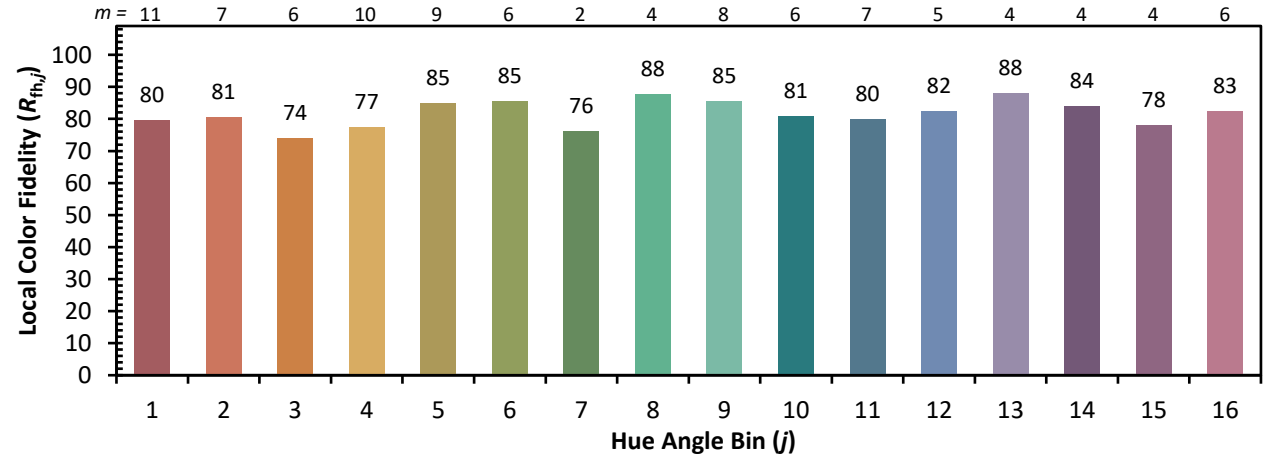
Color Rendition by Hue-Angle Bin







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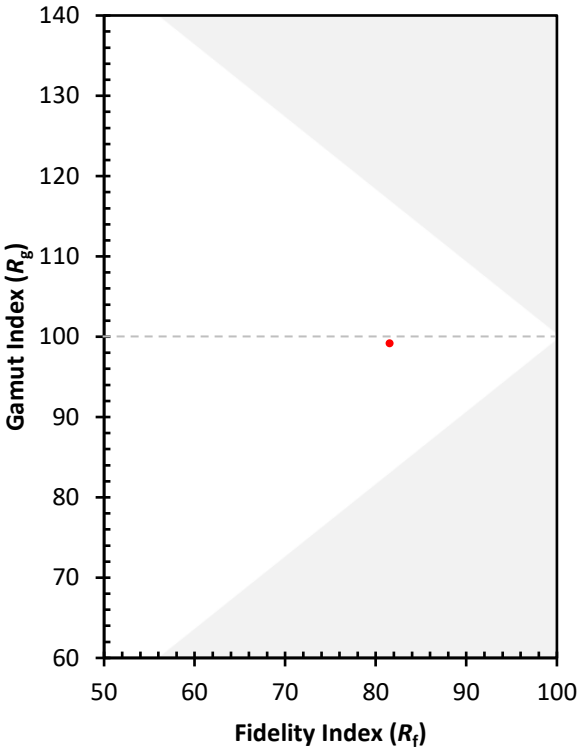
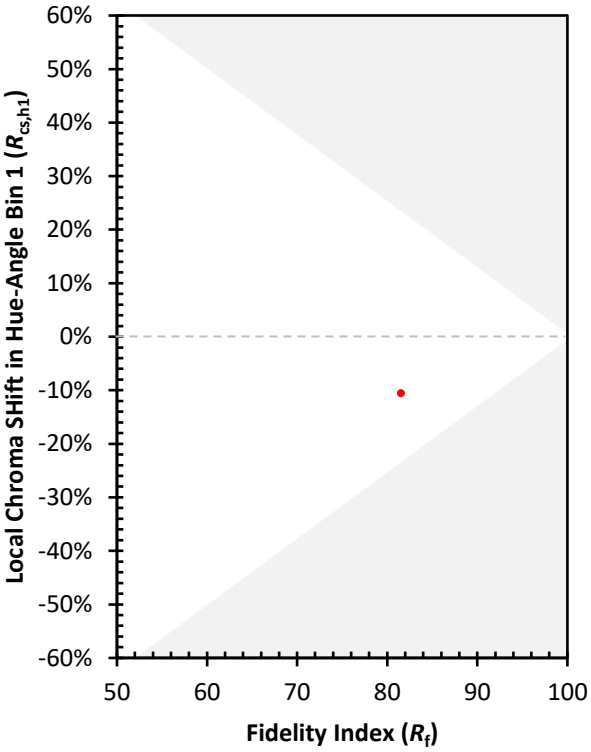
Measure Comparisons





(END OF REPORT)