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: P437086

Luminaire Tested: **ISC-SA1A-830-U-SLR**

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:	P437086
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-22)
Test Lab:	INNOVATION CENTER
Issue Date:	12/9/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISC-SA1A-830-U-SLR
Description:	IMPACT ELITE LED CYLINDER LUMINAIRE
	(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1944 lumens
Efficiency:	N/A
Efficacy:	96.7 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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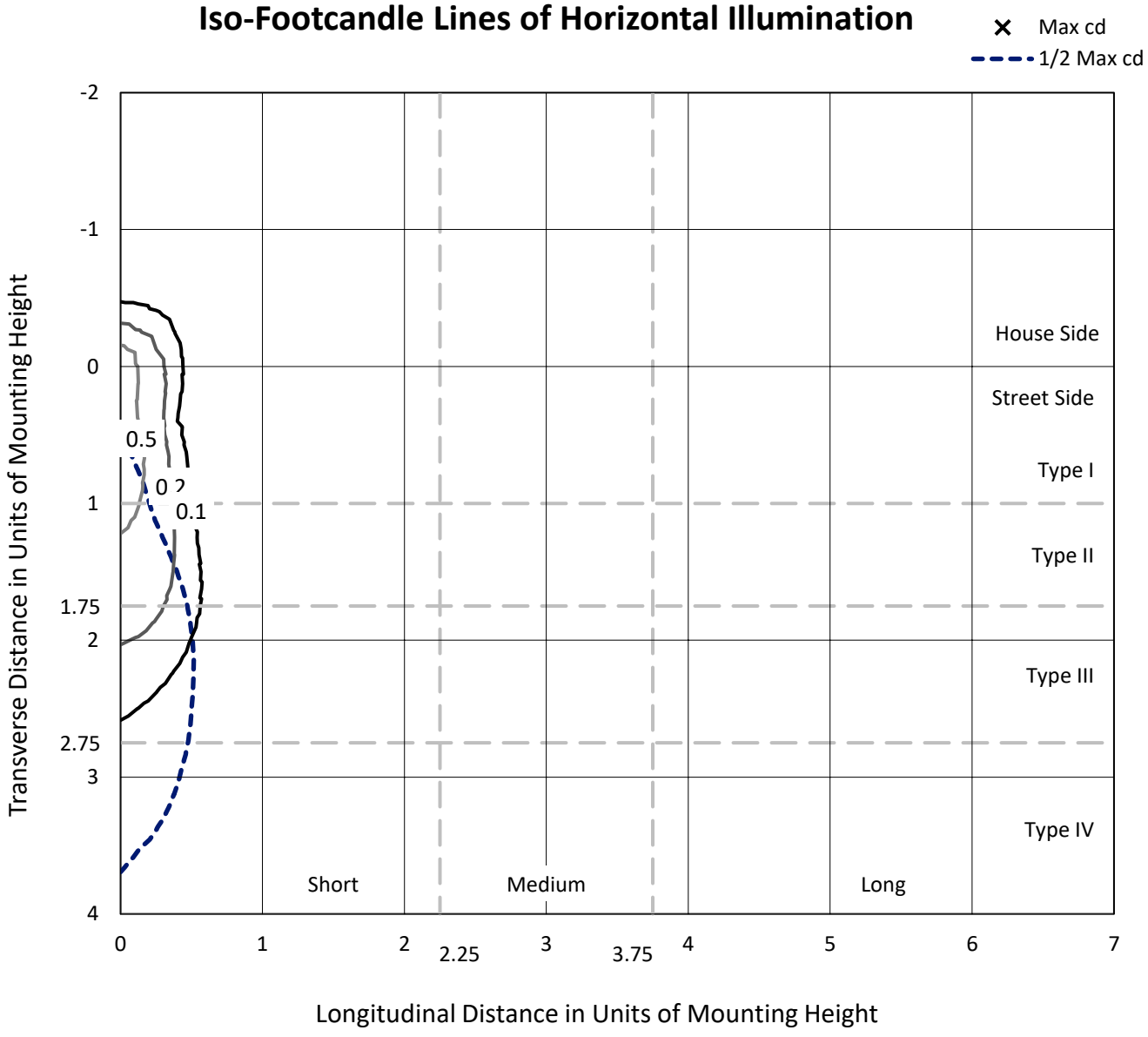
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1 fc
Type IV - Short - N/A

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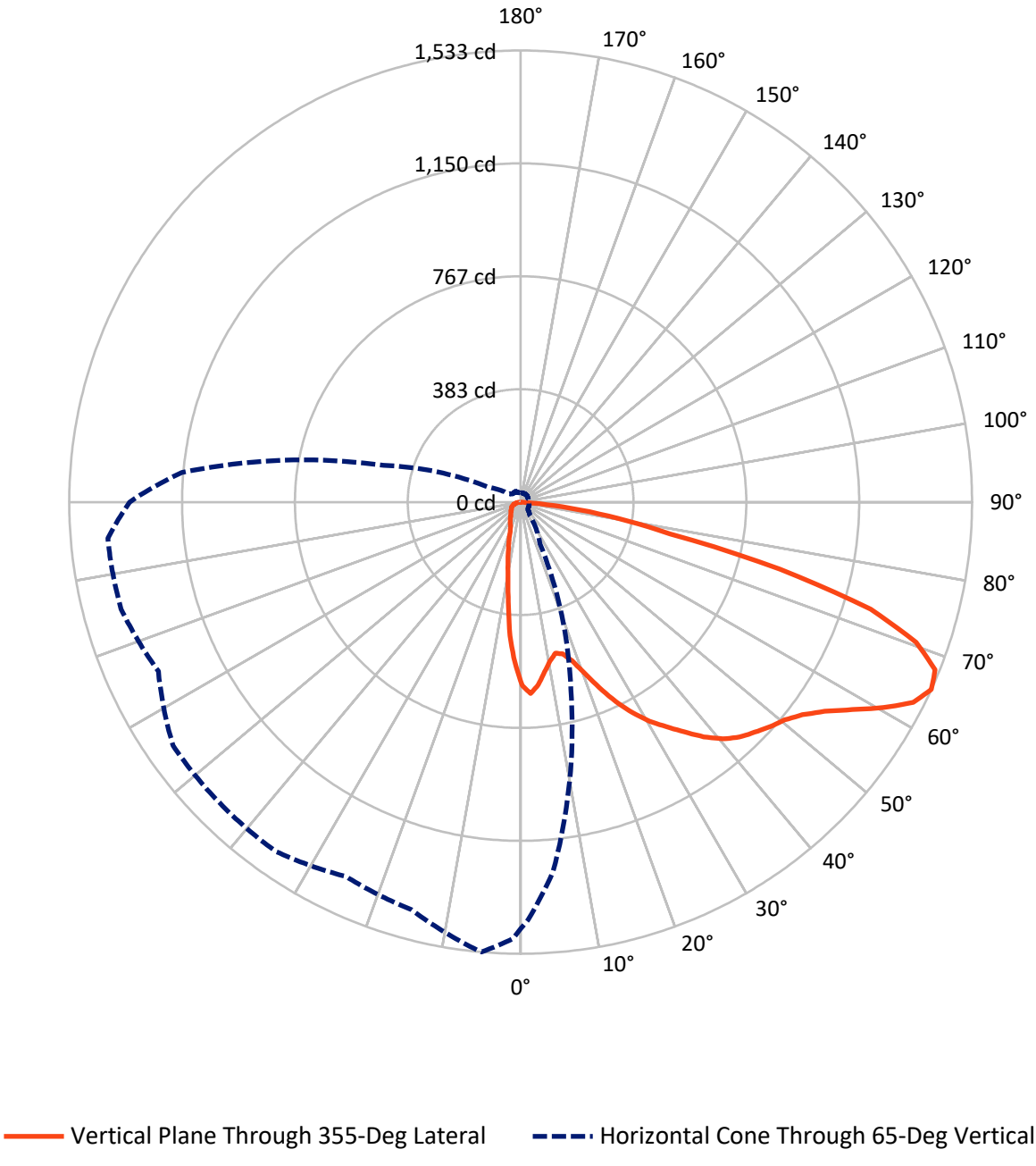
Luminous Intensity Polar Plot



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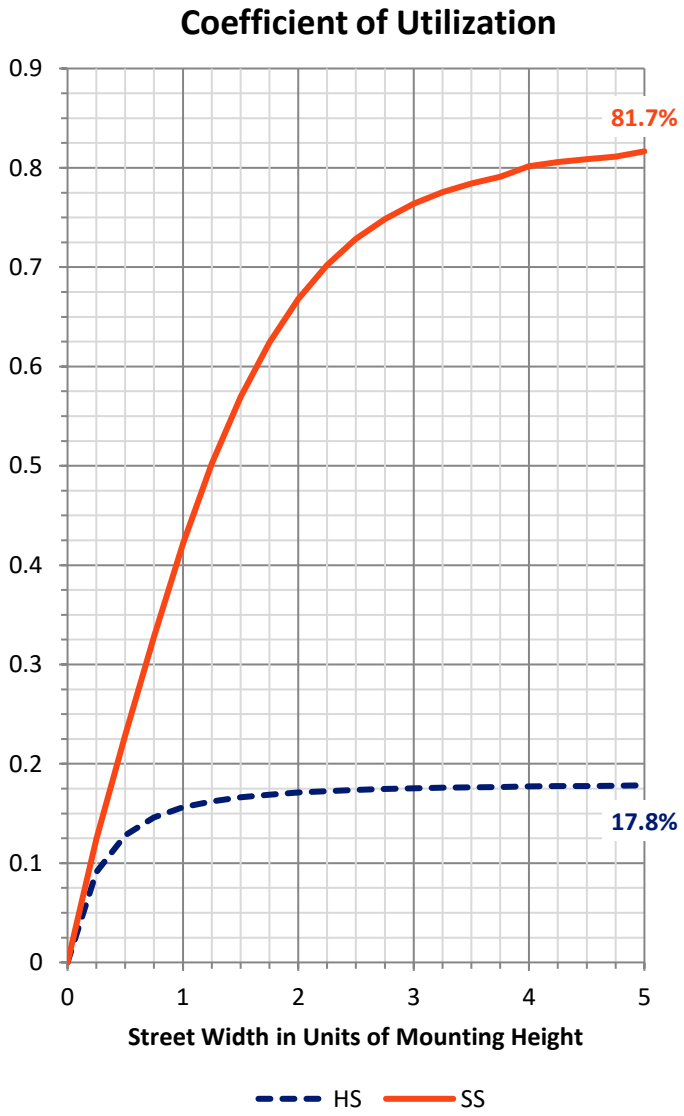
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	350.5	0.0	350.5
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	1593.5	0.0	1593.5
	% Fixture	82.0	0.0	82.0
Total	Lumens	1944.0	0.0	1944.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	2.4
10°-20°	97.0	5.0
20°-30°	138.2	7.1
30°-40°	197.5	10.2
40°-50°	275.9	14.2
50°-60°	383.7	19.7
60°-70°	467.4	24.0
70°-80°	287.9	14.8
80°-90°	49.5	2.5
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°	1944.0	100.0
0°-180°	1944.0	100.0



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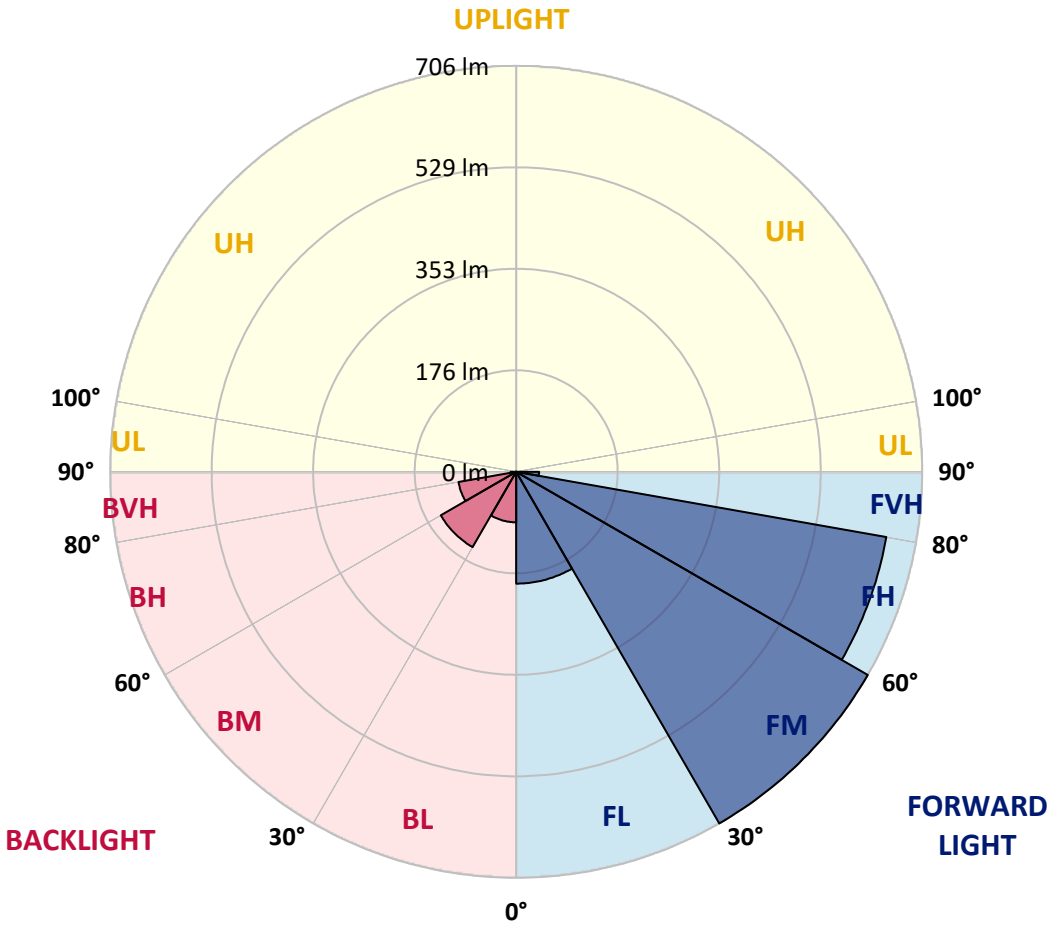
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	194.4	10.0			
FM	(30°-60°)	705.9	36.3			
FH	(60°-80°)	653.5	33.6			G0/660
FVH	(80°-90°)	39.7	2.0			G1/100
BL	(0°-30°)	87.8	4.5	B0/110		
BM	(30°-60°)	151.2	7.8	B0/220		
BH	(60°-80°)	101.8	5.2	B0/110		G0/110
BVH	(80°-90°)	9.7	0.5			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°	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
2.5°	637.8	637.8	629.9	610.2	592.1	573.2	566.9	549.6	538.5	528.3	532.3
5°	600.8	598.4	584.2	543.3	511.8	481.1	462.2	433.8	430.7	405.5	403.9
7.5°	551.1	549.6	528.3	481.9	445.6	397.6	369.3	344.9	323.6	308.6	303.9
10°	517.3	511.8	485.8	429.1	376.4	341.7	326.0	304.7	286.6	267.7	252.0
12.5°	495.2	488.9	463.0	400.8	349.6	326.0	303.9	278.7	254.3	232.3	216.5
15°	499.2	488.9	459.8	393.7	340.1	306.3	275.6	245.7	217.3	192.9	173.2
17.5°	527.5	514.9	482.6	398.4	325.2	280.3	238.6	203.9	169.3	144.1	128.3
20°	577.1	559.0	518.1	411.8	314.2	255.9	200.8	155.1	118.9	101.6	96.8
22.5°	637.8	622.0	566.1	422.8	302.3	228.3	159.0	111.8	93.7	85.0	82.7
25°	700.7	683.4	621.2	440.9	292.9	203.1	125.2	89.0	80.3	76.4	74.8
27.5°	765.3	748.0	675.5	470.0	281.9	176.4	100.8	77.9	71.6	68.5	68.5
30°	811.0	796.8	724.4	496.0	269.3	155.1	89.0	72.4	66.9	63.8	63.0
32.5°	862.2	842.5	770.0	513.4	259.8	138.6	81.1	67.7	63.0	59.1	59.1
35°	919.6	897.6	812.5	530.7	250.4	130.7	75.6	64.6	59.8	55.9	55.1
37.5°	982.6	954.3	855.9	545.6	240.1	126.8	72.4	61.4	56.7	53.5	52.0
40°	1051.9	1022.0	913.3	558.2	233.1	122.0	70.1	59.1	54.3	50.4	49.6
42.5°	1110.2	1083.4	953.5	566.1	229.9	115.7	69.3	56.7	52.8	48.0	46.5
45°	1140.1	1117.3	1002.3	568.5	228.3	111.8	65.4	56.7	51.2	46.5	44.1
47.5°	1166.1	1149.5	1037.7	580.3	224.4	107.9	60.6	59.8	50.4	44.1	41.7
50°	1210.2	1192.8	1092.8	602.3	219.7	103.1	55.9	57.5	50.4	42.5	40.2
52.5°	1262.9	1258.2	1165.3	637.0	212.6	96.8	51.2	54.3	50.4	41.7	38.6
55°	1340.1	1333.0	1261.3	681.8	203.9	88.2	46.5	49.6	49.6	39.4	36.2
57.5°	1405.4	1406.2	1349.5	713.3	196.1	74.0	43.3	42.5	47.2	37.0	33.9
60°	1435.3	1435.3	1377.9	725.2	185.8	62.2	40.9	37.8	48.8	34.6	31.5
62.5°	1454.2	1438.5	1338.5	714.1	174.0	55.9	37.0	34.6	39.4	32.3	29.1
65°	*1448.7*	*1418.8*	*1259.8*	*658.2*	*156.7*	*54.3*	*34.6*	*31.5*	*31.5*	*29.9*	*27.6*
67.5°	1399.1	1352.7	1144.0	563.7	138.6	53.5	31.5	29.1	28.3	26.8	25.2
70°	1264.5	1231.4	1006.2	459.8	126.8	53.5	29.1	26.0	25.2	23.6	22.8
72.5°	1033.8	985.0	803.1	344.9	117.3	53.5	26.8	22.8	22.0	21.3	20.5
75°	706.3	650.4	564.5	211.8	92.1	46.5	23.6	18.9	18.9	18.1	17.3
77.5°	389.7	377.1	318.1	111.8	57.5	28.3	18.1	15.0	15.7	15.0	14.2
80°	226.0	212.6	189.0	54.3	33.1	16.5	11.0	11.0	11.8	11.8	11.0
82.5°	109.4	95.3	97.6	22.0	11.8	7.1	4.7	5.5	6.3	7.9	7.9
85°	3.9	3.9	7.9	1.6	0.0	0.0	0.0	0.0	0.0	1.6	2.4
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°	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
2.5°	519.7	519.7	522.8	536.2	525.2	523.6	526.7	532.3	534.6	545.6	544.8
5°	400.8	398.4	407.8	420.4	427.5	431.5	437.8	451.9	446.4	455.1	453.5
7.5°	296.0	300.0	296.0	310.2	321.2	337.8	350.4	347.2	348.0	340.9	351.2
10°	241.7	240.1	230.7	235.4	241.7	252.0	260.6	262.2	270.1	257.5	266.1
12.5°	206.3	200.0	190.5	185.8	184.2	192.1	194.5	198.4	203.1	207.1	208.6
15°	165.3	160.6	154.3	147.2	145.7	145.7	151.2	156.7	163.0	164.6	170.1
17.5°	123.6	121.3	118.9	118.9	118.9	118.9	123.6	126.0	129.1	133.9	133.1
20°	93.7	93.7	94.5	98.4	100.8	102.4	105.5	106.3	105.5	106.3	106.3
22.5°	82.7	81.9	84.2	85.8	89.8	93.7	95.3	94.5	92.1	90.5	92.1
25°	74.8	75.6	76.4	78.7	81.9	85.8	86.6	85.8	83.5	83.5	83.5
27.5°	68.5	69.3	70.9	73.2	76.4	79.5	80.3	78.7	76.4	77.2	76.4
30°	63.8	65.4	66.1	68.5	70.9	74.0	74.0	72.4	70.9	70.9	70.9
32.5°	58.3	59.8	61.4	63.8	66.9	68.5	68.5	67.7	66.1	65.4	65.4
35°	55.1	55.1	56.7	59.8	61.4	63.0	63.8	63.0	61.4	59.8	59.1
37.5°	52.0	52.0	52.8	54.3	57.5	59.1	59.8	58.3	56.7	55.1	55.1
40°	48.8	48.8	49.6	50.4	53.5	55.9	55.9	53.5	52.0	52.8	52.0
42.5°	46.5	46.5	47.2	47.2	48.8	52.8	52.0	50.4	49.6	49.6	48.8
45°	44.1	43.3	44.1	44.1	44.9	48.8	48.8	46.5	46.5	47.2	46.5
47.5°	41.7	40.9	41.7	41.7	42.5	44.9	44.9	44.1	44.1	44.1	44.9
50°	39.4	39.4	39.4	39.4	40.2	40.9	42.5	41.7	41.7	41.7	42.5
52.5°	37.0	37.0	37.0	37.8	37.8	39.4	40.2	39.4	40.2	40.2	40.2
55°	35.4	34.6	34.6	36.2	36.2	37.8	38.6	37.8	38.6	38.6	38.6
57.5°	33.1	33.1	33.1	33.9	34.6	36.2	37.8	36.2	37.0	37.0	37.8
60°	30.7	30.7	30.7	32.3	33.1	34.6	35.4	34.6	35.4	35.4	35.4
62.5°	28.3	29.1	29.1	29.9	30.7	33.1	33.9	33.1	33.9	33.9	33.9
65°	*26.8*	*26.8*	*27.6*	*28.3*	*29.1*	*30.7*	*31.5*	*31.5*	*31.5*	*32.3*	*31.5*
67.5°	24.4	24.4	25.2	26.0	26.8	29.1	29.1	29.1	29.9	29.1	29.1
70°	22.0	22.0	22.8	23.6	24.4	26.8	26.8	26.8	27.6	26.0	26.0
72.5°	19.7	19.7	20.5	21.3	22.8	25.2	24.4	24.4	24.4	23.6	23.6
75°	17.3	17.3	18.1	18.9	19.7	22.8	22.0	21.3	21.3	20.5	20.5
77.5°	14.2	14.2	15.0	16.5	17.3	19.7	18.9	18.1	17.3	17.3	17.3
80°	11.0	11.8	12.6	13.4	14.2	15.7	15.0	14.2	13.4	13.4	13.4
82.5°	7.9	8.7	9.4	10.2	11.0	11.0	11.0	11.0	10.2	9.4	9.4
85°	3.1	4.7	6.3	6.3	7.1	6.3	7.1	6.3	5.5	5.5	4.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.6	2.4	2.4	2.4	2.4
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°	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
2.5°	551.1	563.7	570.8	583.4	596.8	614.9	629.9	651.1	670.0	674.0	678.7
5°	456.7	473.2	481.1	501.5	533.0	552.7	584.2	617.3	658.2	670.8	687.4
7.5°	343.3	355.9	376.4	394.5	431.5	464.5	507.1	555.1	603.1	630.7	657.4
10°	261.4	277.1	299.2	320.5	356.7	389.7	440.1	493.7	555.1	580.3	608.6
12.5°	217.3	229.9	252.0	281.1	314.9	346.4	384.2	442.5	507.1	539.3	574.0
15°	175.6	189.0	216.5	248.8	281.9	317.3	353.5	409.4	488.2	521.2	554.3
17.5°	140.1	152.0	175.6	210.2	246.4	285.8	329.9	400.8	492.1	533.0	571.6
20°	108.7	118.9	137.0	168.5	205.5	252.0	308.6	397.6	515.7	573.2	611.8
22.5°	93.7	97.6	107.9	129.9	167.7	222.0	289.0	400.0	553.5	627.5	671.6
25°	83.5	86.6	90.5	103.9	133.9	191.3	271.6	404.7	593.7	688.9	739.3
27.5°	77.2	78.7	81.1	87.4	109.4	166.1	254.3	411.0	648.0	751.1	800.0
30°	70.9	70.9	73.2	79.5	96.1	148.0	241.7	423.6	701.5	804.7	852.7
32.5°	64.6	64.6	68.5	74.0	87.4	133.1	229.1	427.5	741.7	851.9	890.5
35°	59.1	60.6	63.8	70.1	81.9	122.0	217.3	420.4	770.8	892.1	931.4
37.5°	55.9	56.7	60.6	66.1	74.8	111.8	205.5	411.0	810.2	945.6	976.3
40°	52.0	53.5	57.5	63.0	70.1	103.9	192.1	400.8	844.8	1005.5	1021.2
42.5°	49.6	51.2	54.3	59.8	66.9	94.5	179.5	392.9	881.8	1056.6	1067.7
45°	47.2	48.8	52.8	57.5	66.9	87.4	166.9	387.4	918.1	1096.0	1104.7
47.5°	44.9	46.5	50.4	56.7	66.1	83.5	158.3	381.9	940.9	1129.9	1132.2
50°	43.3	44.9	49.6	58.3	63.8	81.9	154.3	387.4	979.5	1156.6	1149.5
52.5°	40.9	43.3	48.8	60.6	60.6	80.3	151.2	407.1	1027.5	1196.0	1177.9
55°	40.2	41.7	47.2	58.3	55.1	76.4	151.2	422.0	1091.3	1273.9	1244.0
57.5°	37.8	39.4	45.7	54.3	50.4	70.1	149.6	446.4	1181.8	1359.8	1333.0
60°	35.4	37.8	44.1	48.8	45.7	62.2	142.5	473.2	1244.0	1406.2	1410.9
62.5°	33.9	36.2	44.1	42.5	41.7	54.3	131.5	489.7	1237.7	1391.3	1436.1
65°	*31.5*	*33.9*	*40.2*	*38.6*	*39.4*	*48.8*	*117.3*	*481.9*	*1155.0*	*1328.3*	*1407.0*
67.5°	29.1	31.5	34.6	34.6	36.2	47.2	102.4	436.2	1065.3	1251.9	1342.4
70°	26.8	28.3	29.9	31.5	33.1	46.5	90.5	374.0	962.1	1178.7	1250.3
72.5°	23.6	24.4	26.0	27.6	30.7	44.1	85.8	303.9	819.6	1020.4	1131.4
75°	20.5	21.3	22.8	24.4	26.8	41.7	78.7	230.7	675.5	806.2	914.1
77.5°	17.3	18.1	19.7	20.5	22.8	37.0	67.7	166.9	526.0	581.1	668.5
80°	13.4	14.2	15.7	15.7	18.9	27.6	52.8	116.5	369.3	411.8	457.5
82.5°	9.4	10.2	11.0	11.8	14.2	18.9	34.6	70.1	250.4	282.7	274.8
85°	5.5	6.3	6.3	7.9	8.7	12.6	19.7	36.2	163.8	129.1	127.6
87.5°	2.4	2.4	2.4	3.1	3.1	4.7	6.3	7.1	15.7	5.5	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

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CATALOG NUMBER: ISC-SA1A-830-U-SLR

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	622.0	622.0	622.0	622.0	622.0	622.0	622.0	*622.0*	622.0	622.0
2.5°	685.8	691.3	695.2	693.7	691.3	677.9	664.5	*650.4*	637.8	637.8
5°	714.1	737.0	746.4	738.5	721.2	693.7	659.0	*622.8*	605.5	600.8
7.5°	699.2	742.5	765.3	755.1	732.2	681.8	629.1	*581.9*	555.9	551.1
10°	669.3	725.9	751.9	748.8	723.6	665.3	601.5	*548.0*	520.4	517.3
12.5°	634.6	689.7	722.8	724.4	707.8	656.7	589.7	*526.0*	501.5	495.2
15°	613.3	661.4	684.2	678.7	683.4	649.6	594.5	*534.6*	504.7	499.2
17.5°	614.1	634.6	640.1	631.5	649.6	648.0	621.2	*566.1*	533.0	527.5
20°	634.6	617.3	600.0	598.4	622.0	653.5	663.7	*618.9*	581.1	577.1
22.5°	670.0	612.6	576.3	570.8	600.8	659.0	704.7	*683.4*	648.0	637.8
25°	709.4	617.3	561.4	554.3	581.1	663.0	748.8	*749.6*	710.2	700.7
27.5°	751.9	632.2	561.4	553.5	581.9	669.3	777.9	*809.4*	773.2	765.3
30°	789.7	653.5	566.9	558.2	591.3	675.5	797.6	*862.9*	822.0	811.0
32.5°	812.5	671.6	580.3	564.5	607.8	688.1	815.7	*908.6*	877.1	862.2
35°	830.7	692.9	602.3	581.9	632.2	708.6	830.7	*958.2*	928.3	919.6
37.5°	844.0	718.1	625.2	605.5	664.5	736.2	851.9	*1011.0*	1001.5	982.6
40°	866.1	733.8	666.1	659.0	720.4	779.5	877.1	*1056.6*	1062.9	1051.9
42.5°	885.8	764.5	724.4	732.2	792.1	827.5	911.0	*1090.5*	1124.3	1110.2
45°	901.5	807.0	797.6	823.6	874.7	888.9	929.9	*1114.1*	1149.5	1140.1
47.5°	923.6	862.9	895.2	929.1	971.6	952.7	949.5	*1139.3*	1175.5	1166.1
50°	955.1	928.3	992.9	1036.9	1064.5	1004.7	974.0	*1162.1*	1215.7	1210.2
52.5°	987.3	1003.9	1092.1	1133.0	1151.1	1069.2	1008.6	*1198.4*	1262.9	1262.9
55°	1047.2	1077.9	1197.6	1223.5	1248.0	1127.5	1055.1	*1252.7*	1336.1	1340.1
57.5°	1134.6	1157.4	1277.9	1307.8	1314.1	1192.8	1128.3	*1328.3*	1398.3	1405.4
60°	1225.1	1236.1	1357.4	1384.2	1362.9	1277.1	1214.1	*1416.4*	1439.3	1435.3
62.5°	1325.1	1312.5	1412.5	1431.4	1425.9	1351.1	1322.0	*1496.8*	1469.2	1454.2
65°	*1404.6*	*1357.4*	*1440.9*	*1444.8*	*1447.9*	*1402.3*	*1432.2*	*1533.0*	*1481.8*	*1448.7*
67.5°	1452.7	1364.5	1383.4	1365.3	1377.9	1388.9	1507.0	*1518.0*	1428.3	1399.1
70°	1441.6	1264.5	1179.5	1159.0	1159.8	1236.9	1459.0	*1424.3*	1306.2	1264.5
72.5°	1340.1	1062.9	939.3	911.8	917.3	924.4	1226.7	*1243.2*	1055.8	1033.8
75°	1128.3	818.8	676.3	670.0	662.2	692.9	981.0	*908.6*	700.7	706.3
77.5°	920.4	603.1	496.8	464.5	459.8	464.5	669.3	*518.9*	407.1	389.7
80°	663.7	401.6	370.8	363.8	341.7	274.8	350.4	*333.8*	229.9	226.0
82.5°	437.0	277.1	283.4	236.2	222.0	174.0	212.6	*170.1*	115.0	109.4
85°	226.8	144.1	118.9	52.0	58.3	48.8	46.5	*37.8*	3.9	3.9
87.5°	7.9	3.1	2.4	2.4	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

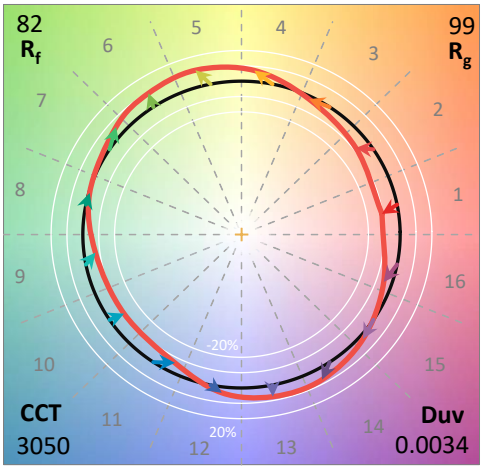
Test Information

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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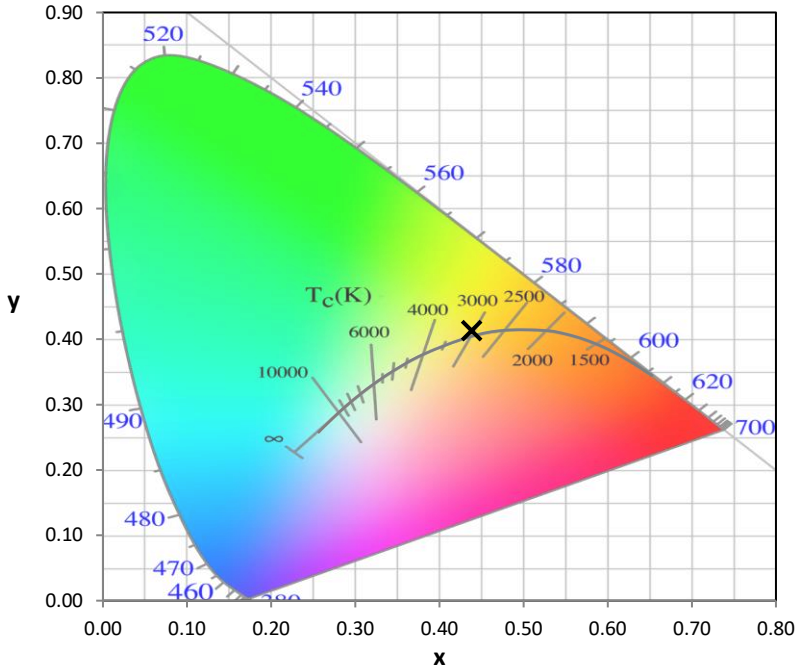
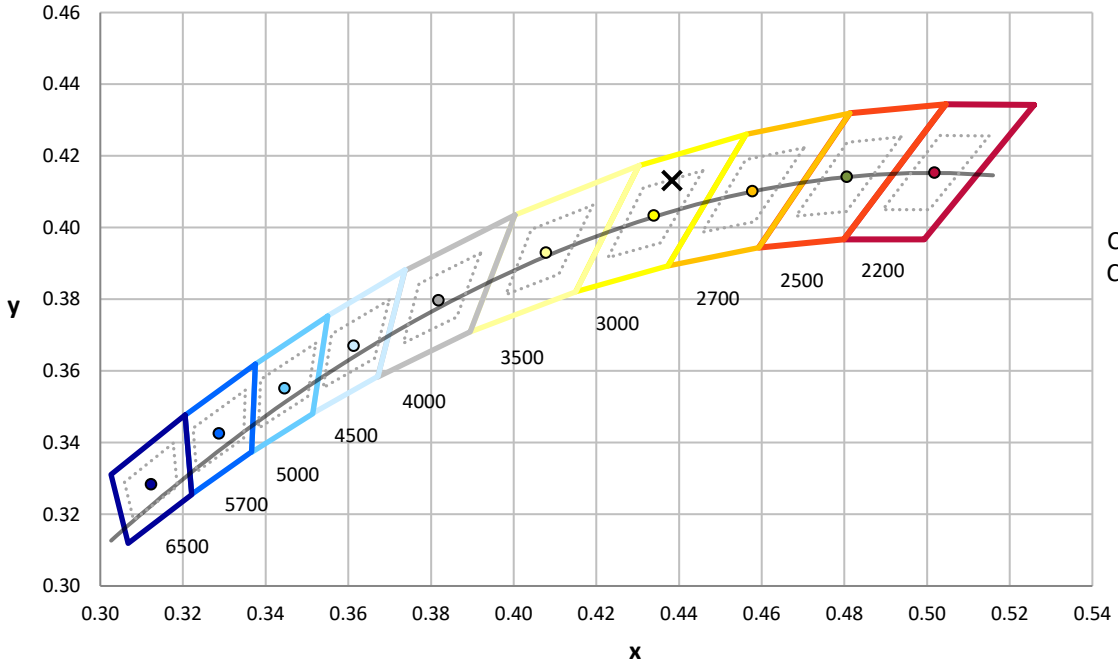
CIE 1931 Chromaticity Diagram



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

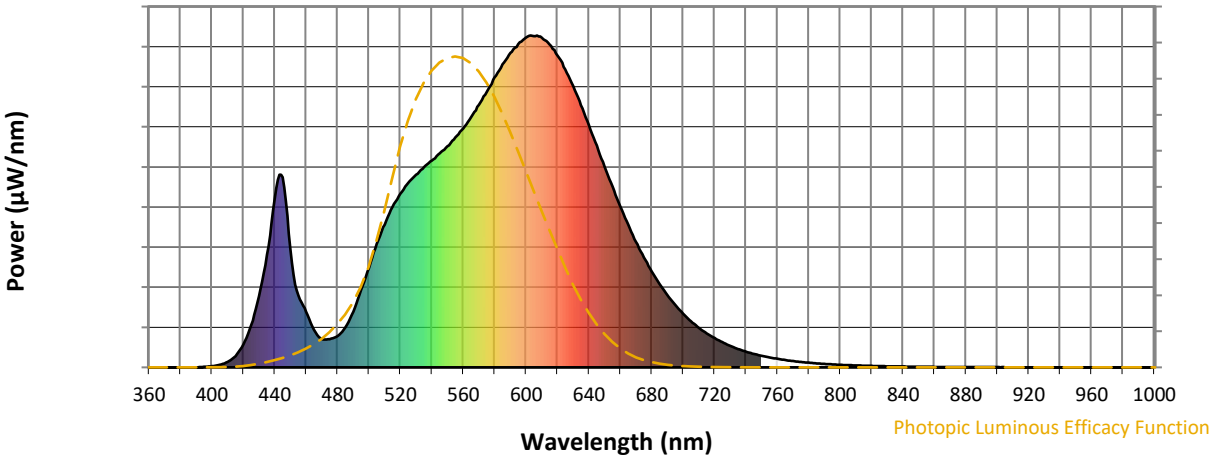


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

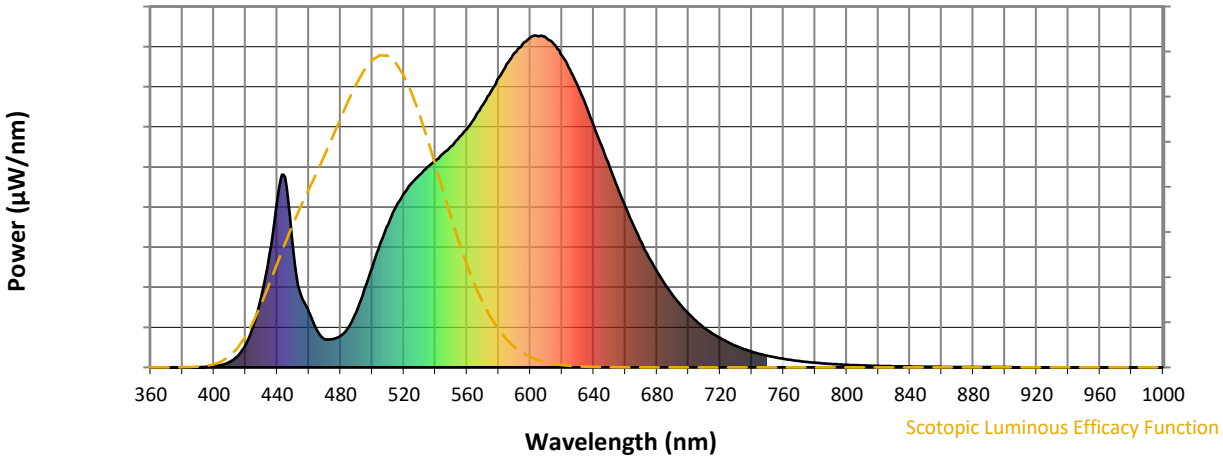


Photopic Lumens: NR

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

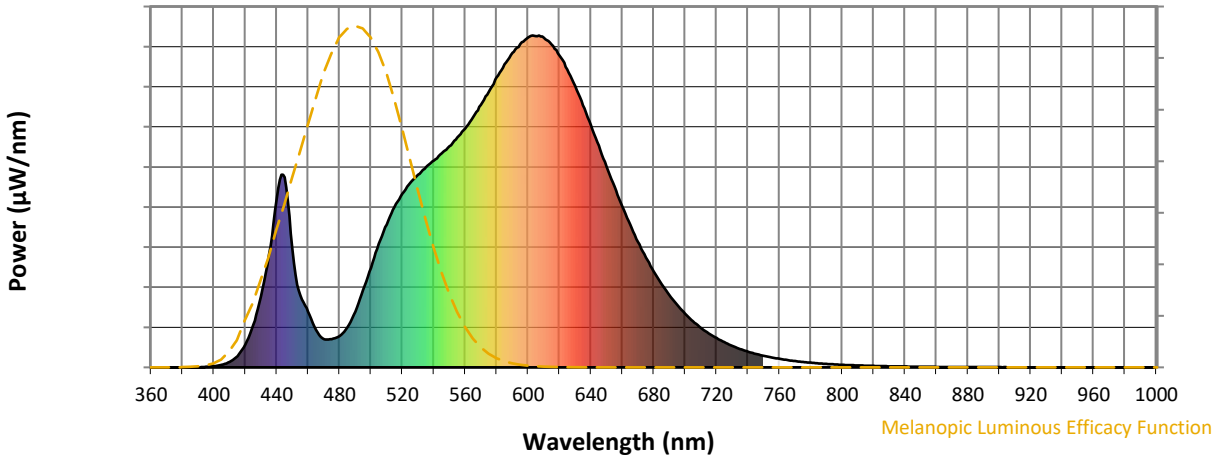


Scotopic Lumens: NR **S/P: 1.27**

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			

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			

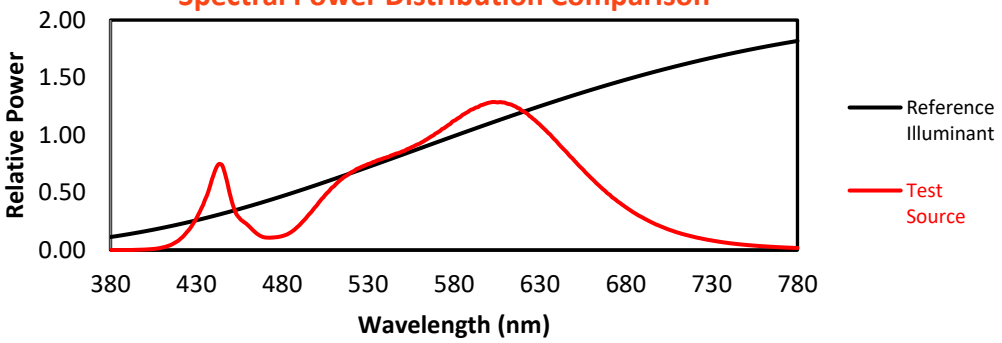
REPORT NUMBER: SP1-2408-195-9

TM-30-18

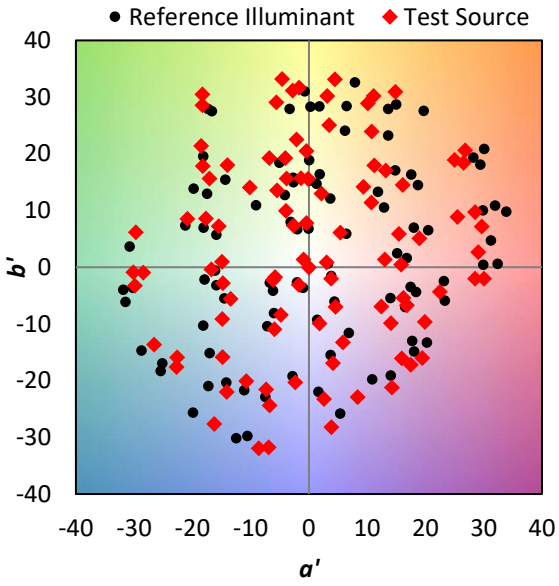
Summary

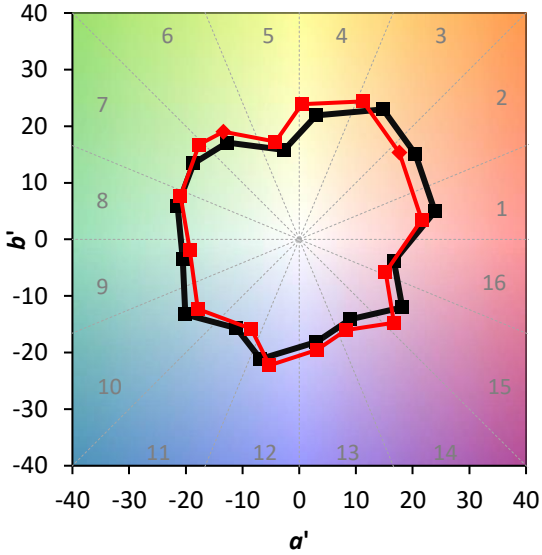
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

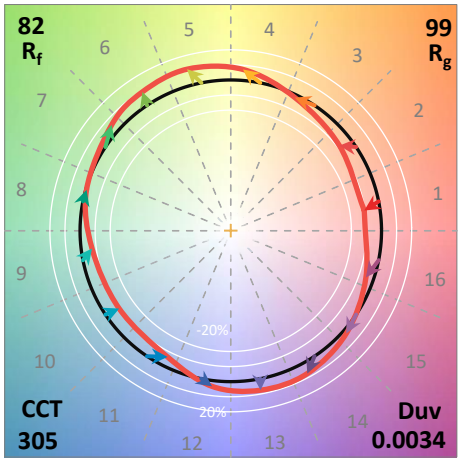
Spectral Power Distribution Comparison

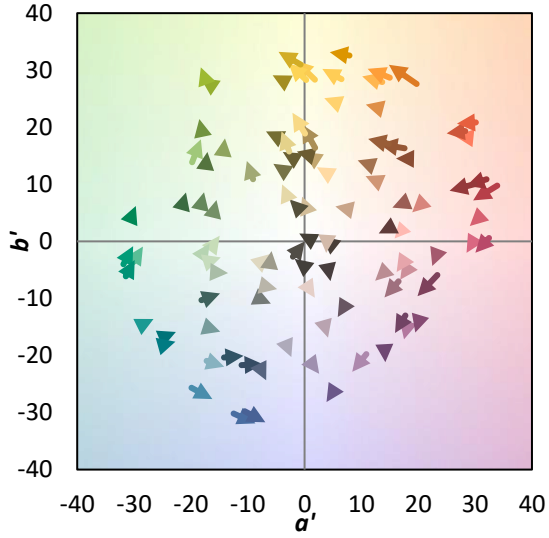


Color Vector Graphics







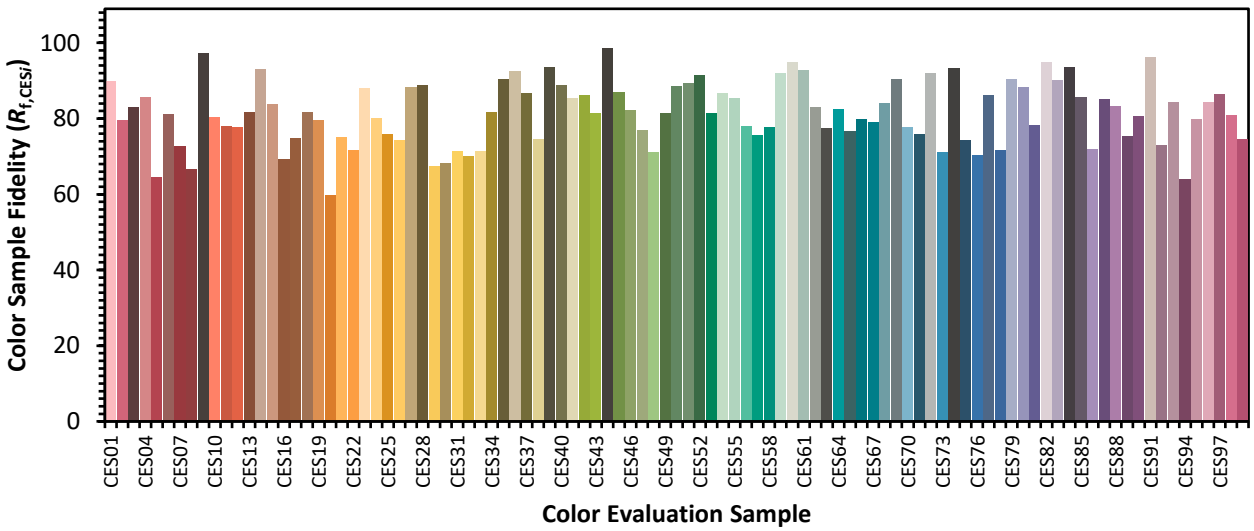


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

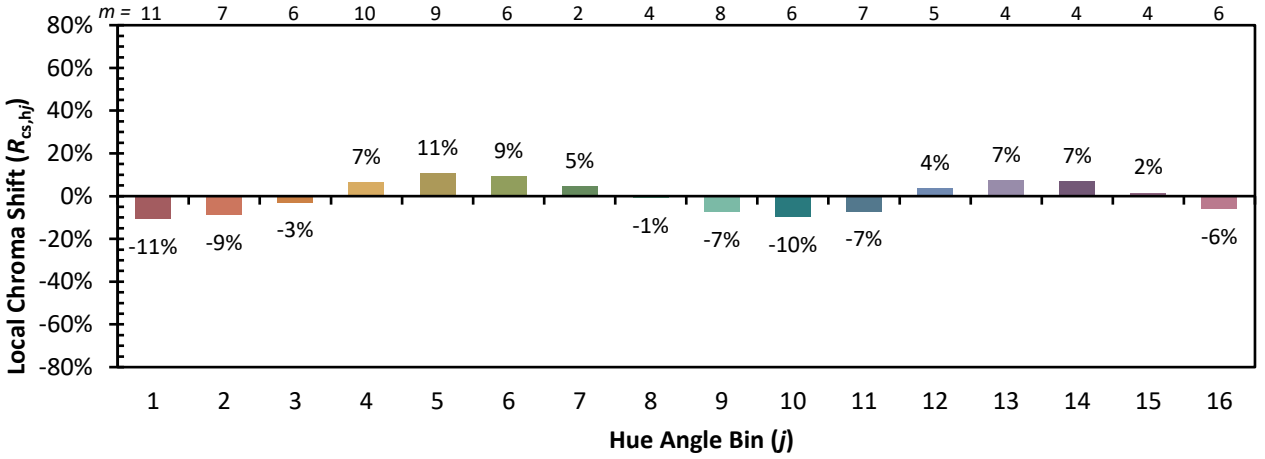
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	

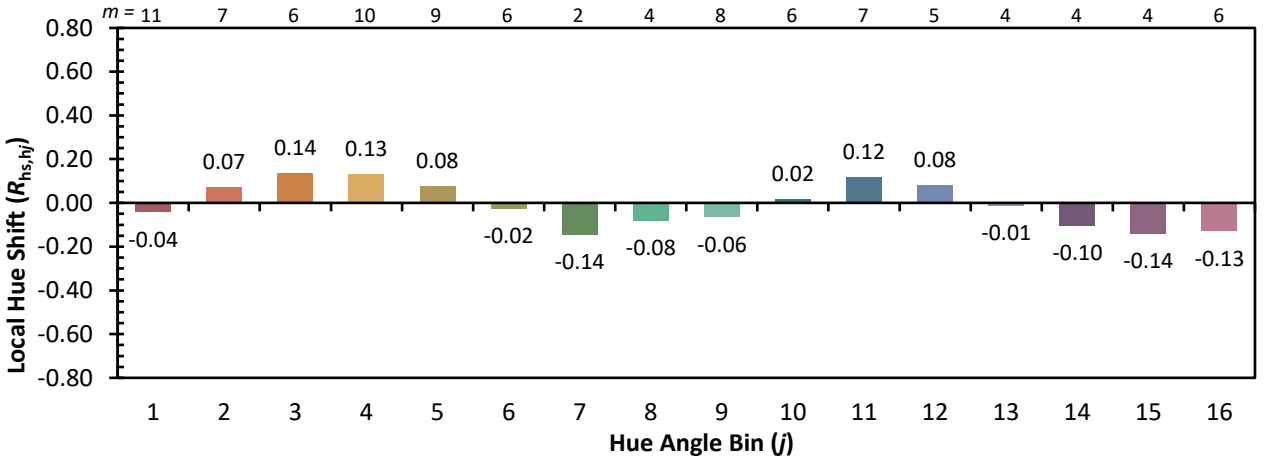


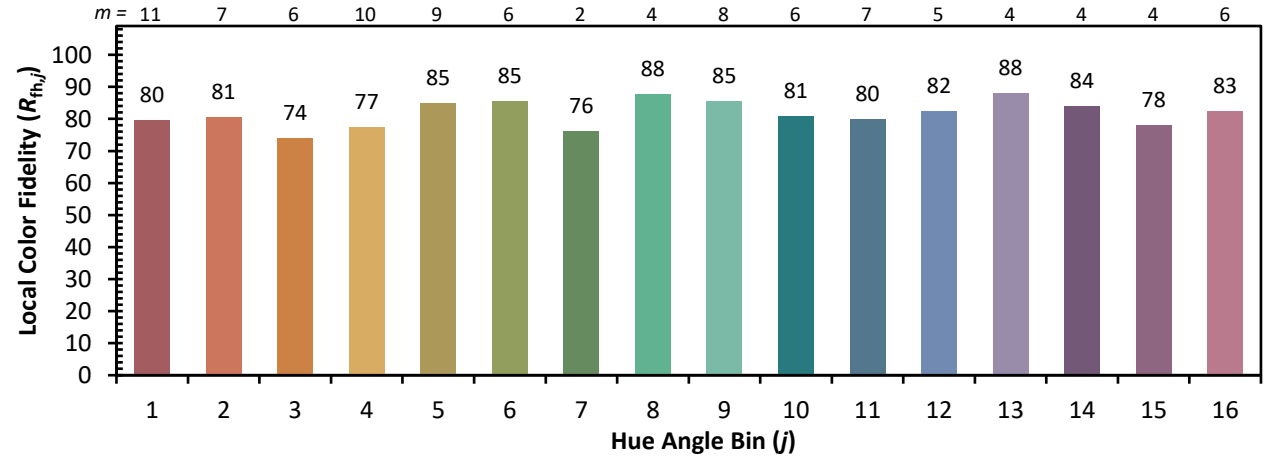
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin







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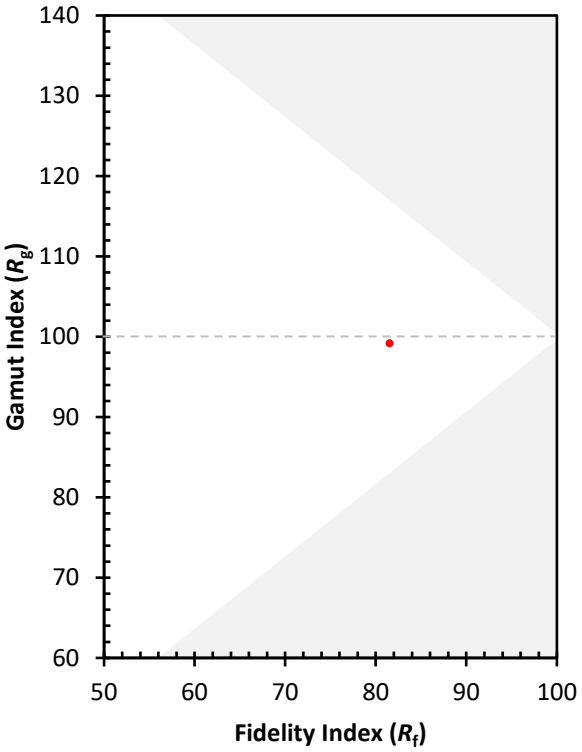
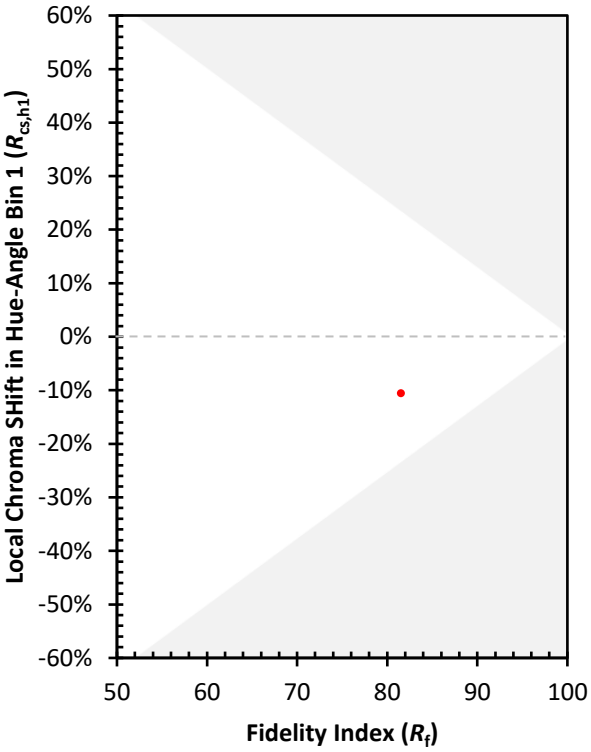
Measure Comparisons





(END OF REPORT)