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

Scaled data based on original data using

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

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P631056

Luminaire Tested: GWS-SA1E-830-U-SLL-W-HSS

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P631056
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA1E-830-U-SLL-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(16) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3644.7 lumens
Efficiency:	N/A
Efficacy:	62.4 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B1 - U0 - G1

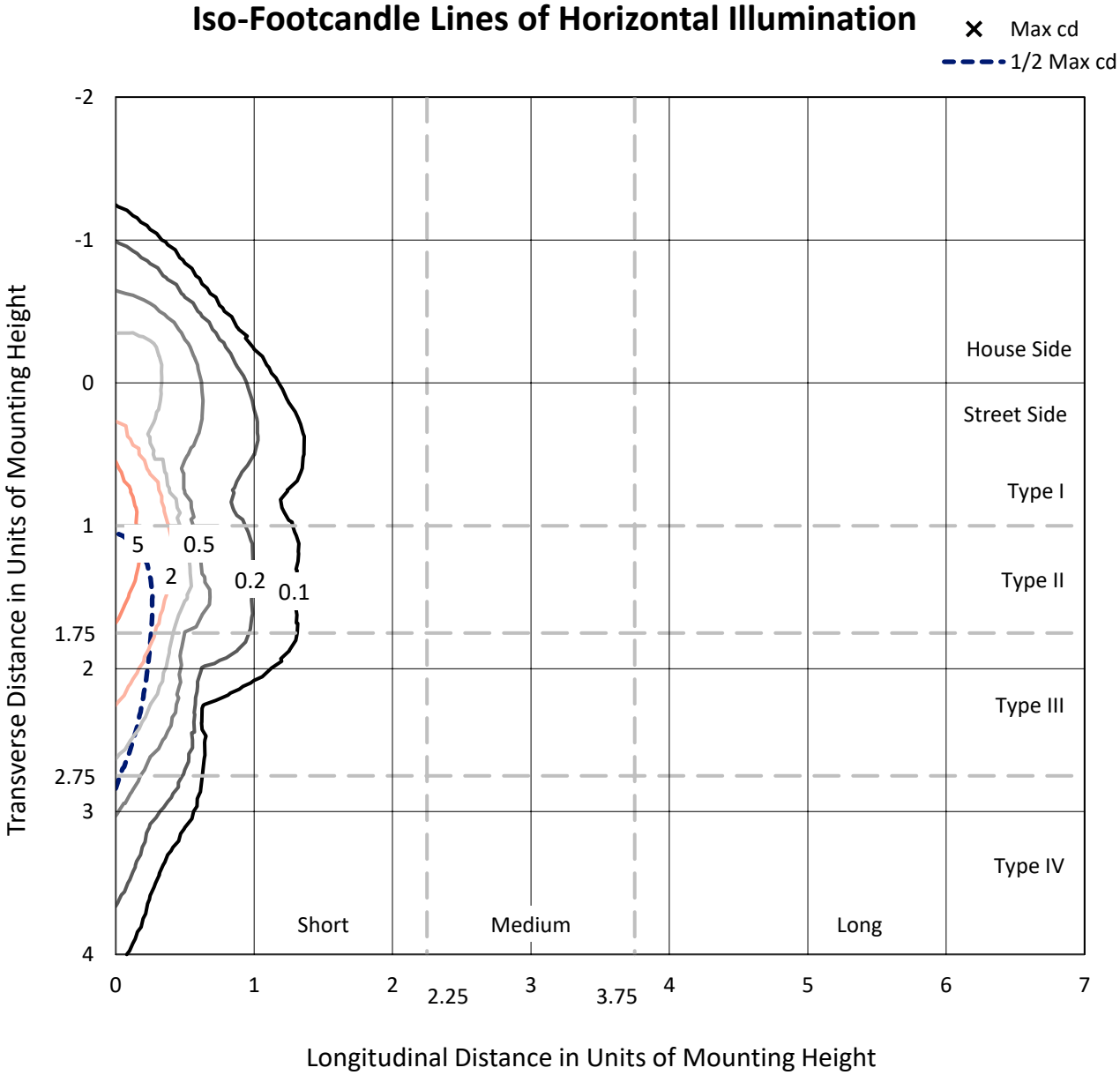
Input Watts (W):	58.4
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



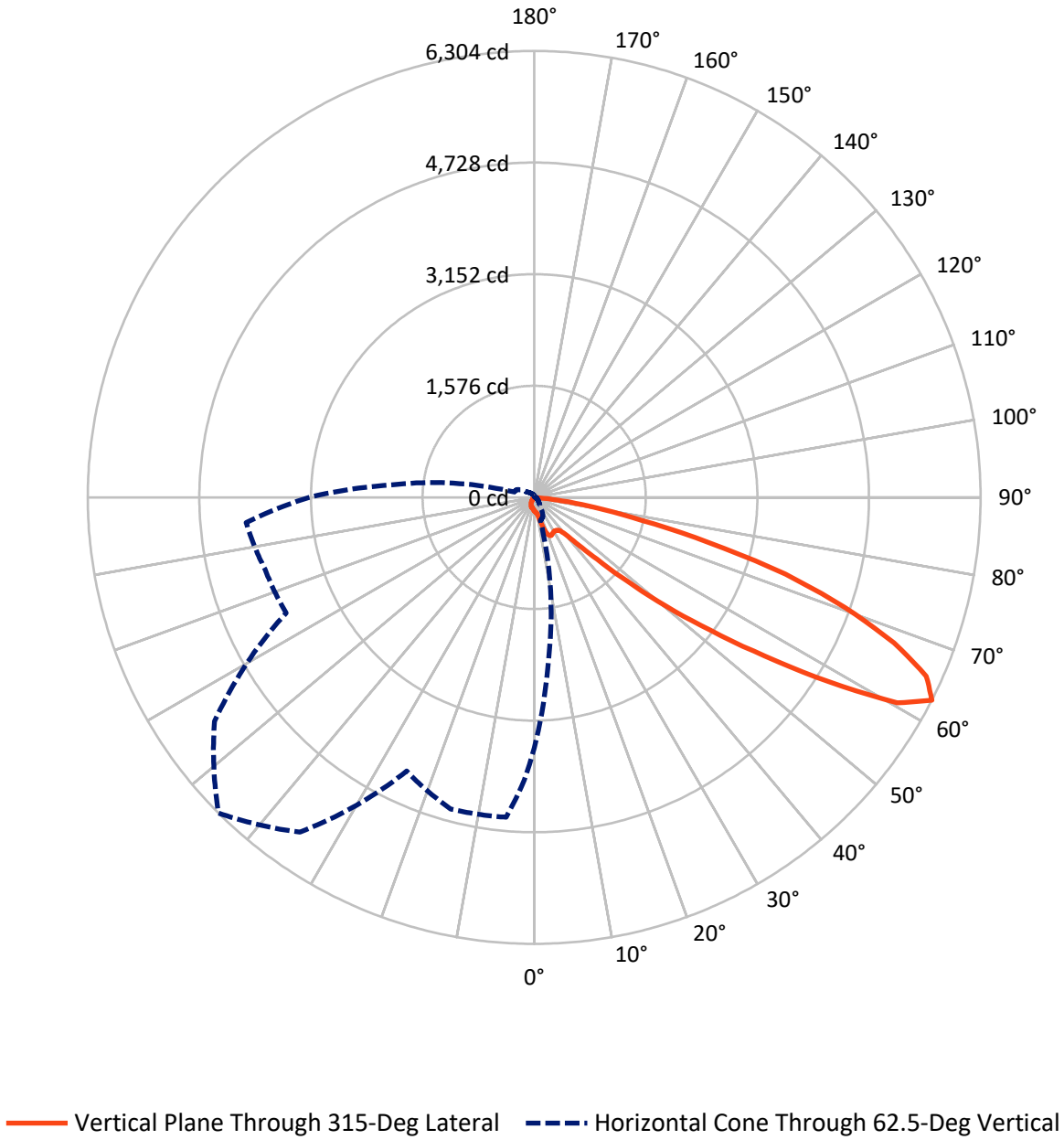
Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
Type III - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

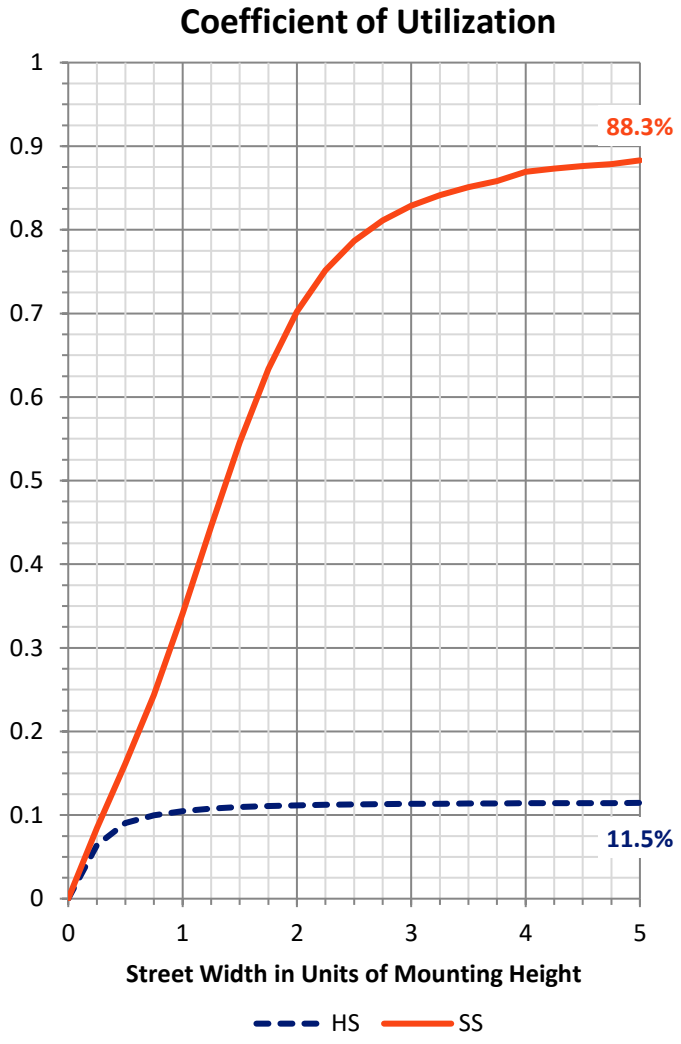
REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	423.5	0.0	423.5
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	3221.2	0.0	3221.2
	% Fixture	88.4	0.0	88.4
Total	Lumens	3644.7	0.0	3644.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.3	0.4
10°-20°	55.9	1.5
20°-30°	126.4	3.5
30°-40°	217.7	6.0
40°-50°	410.7	11.3
50°-60°	917.0	25.2
60°-70°	1226.5	33.7
70°-80°	615.1	16.9
80°-90°	59.0	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3644.7	100.0
0°-180°	3644.7	100.0



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

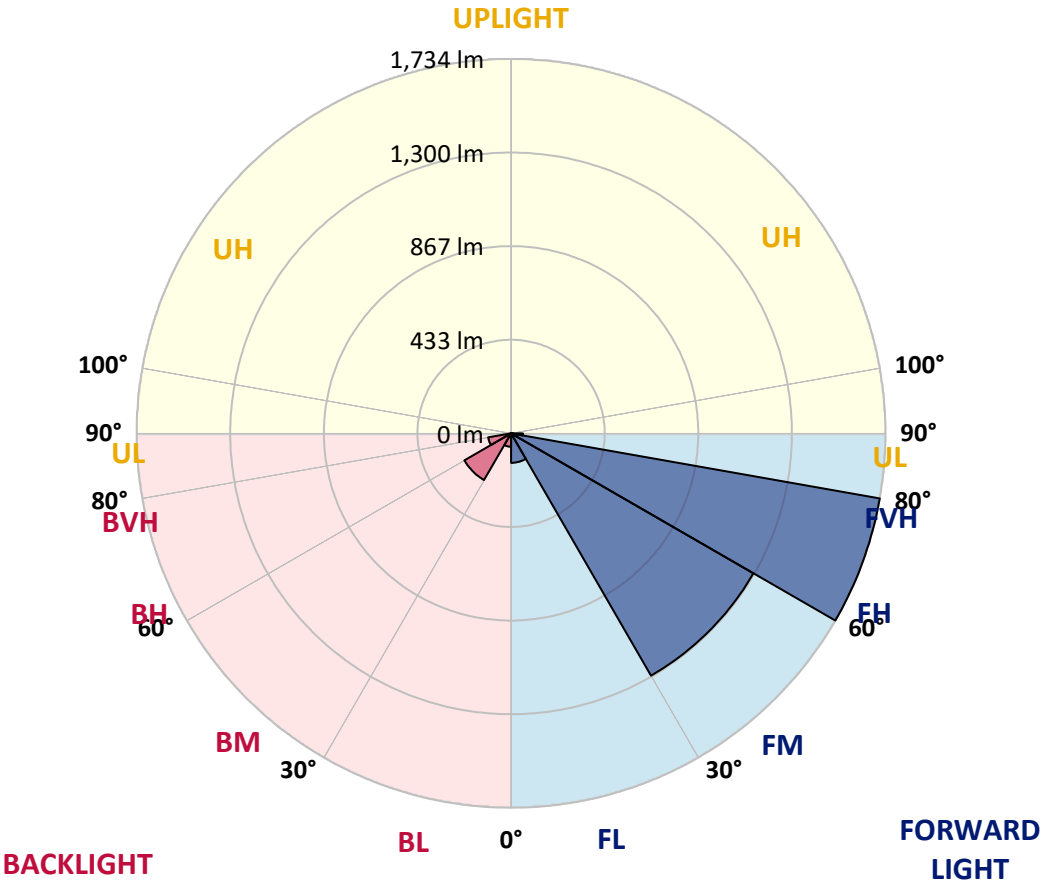
Scaled Data Report

REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	136.5	3.7			
FM	(30°-60°)	1295.8	35.6			
FH	(60°-80°)	1733.9	47.6			G1/1800
FVH	(80°-90°)	55.0	1.5			G1/100
BL	(0°-30°)	62.2	1.7	B0/110		
BM	(30°-60°)	249.7	6.9	B1/1000		
BH	(60°-80°)	107.7	3.0	B0/110		G0/110
BVH	(80°-90°)	3.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type III Short



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

Scaled Data Report

REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0
2.5°	186.9	186.4	185.6	183.0	180.8	179.5	176.9	176.9	176.5	175.6	173.9
5°	180.8	179.1	177.4	172.6	167.4	164.4	161.0	160.5	160.5	159.7	159.2
7.5°	171.3	169.6	167.4	159.7	154.9	151.9	148.9	148.5	147.2	147.2	147.2
10°	166.1	163.6	160.1	151.5	146.7	144.1	142.0	140.7	139.8	138.5	138.1
12.5°	177.4	172.6	165.3	149.7	143.3	139.8	137.2	136.4	133.8	132.1	130.8
15°	212.3	200.7	186.0	153.6	142.0	136.8	133.3	131.6	129.5	126.4	124.3
17.5°	269.7	252.9	228.3	166.1	140.7	134.2	129.9	126.9	123.9	120.4	117.8
20°	349.1	324.1	294.7	189.0	140.7	131.2	126.0	122.1	117.8	113.9	110.9
22.5°	450.1	425.1	375.0	227.9	142.4	127.3	121.3	116.1	110.9	107.5	104.0
25°	563.2	527.8	481.2	274.9	147.2	122.1	115.7	110.5	105.7	101.4	97.5
27.5°	689.2	650.8	588.6	341.8	157.5	117.0	109.6	104.9	100.6	96.2	91.1
30°	805.3	782.4	719.0	422.1	174.3	113.5	104.9	100.6	96.2	90.6	85.9
32.5°	944.7	904.1	851.9	513.5	196.8	110.0	101.0	94.9	91.5	86.3	81.1
35°	1084.9	1050.4	981.8	626.2	221.8	106.6	96.2	90.6	87.6	81.6	76.0
37.5°	1229.5	1221.7	1154.0	750.9	246.4	102.7	90.6	87.2	84.2	77.2	70.8
40°	1371.9	1357.7	1295.1	893.3	261.5	98.4	85.9	83.7	80.3	72.5	65.2
42.5°	1508.3	1497.5	1436.6	1029.7	259.4	94.5	81.1	78.5	76.0	68.2	59.1
45°	1675.7	1658.0	1581.2	1130.7	237.4	98.8	76.4	72.1	71.6	64.3	53.1
47.5°	1989.0	1930.8	1800.4	1208.3	215.3	110.0	71.2	66.0	69.0	60.4	47.0
50°	2427.9	2359.3	2170.7	1268.8	214.9	124.7	70.3	60.4	66.9	57.4	41.9
52.5°	2869.0	2748.1	2519.0	1301.1	230.9	135.5	78.1	54.8	64.3	54.4	38.0
55°	3291.4	3040.7	2664.8	1194.1	243.4	147.2	92.4	51.8	59.6	50.9	35.8
57.5°	3694.1	3275.9	2728.3	944.7	285.3	151.9	101.0	53.1	52.6	46.6	34.1
60°	3749.3	3264.7	2600.1	549.4	314.6	143.7	97.5	59.1	46.2	41.4	31.1
62.5°	*3540.4*	*3047.6*	*2307.9*	*342.7*	*292.2*	*140.7*	*86.7*	*67.3*	*41.9*	*36.7*	*27.2*
65°	3223.3	2707.1	1924.3	221.0	221.4	156.2	76.0	66.0	39.3	32.4	23.3
67.5°	2727.4	2265.6	1516.0	148.0	125.1	133.3	66.5	45.3	38.4	27.6	18.1
70°	1990.7	1612.7	987.0	98.8	74.7	106.6	55.7	32.4	36.3	22.9	12.9
72.5°	1455.2	1083.6	551.1	64.7	42.3	62.1	41.0	23.3	28.1	16.8	9.1
75°	1047.4	745.7	314.6	41.4	28.1	34.1	26.8	16.0	18.1	13.4	8.2
77.5°	504.1	363.4	142.8	22.9	19.0	17.3	14.2	9.9	11.2	12.1	7.3
80°	19.0	14.2	10.8	11.2	12.1	7.8	6.5	5.2	6.5	8.2	3.9
82.5°	0.0	0.0	0.0	1.3	1.7	2.2	2.6	2.2	2.6	3.0	0.4
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

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

Scaled Data Report

REPORT NUMBER: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0
2.5°	175.2	174.3	175.2	176.1	176.9	177.8	176.5	177.4	178.2	176.1	176.9
5°	161.4	161.0	163.6	164.9	166.6	167.4	166.6	166.6	166.1	163.6	163.6
7.5°	149.3	149.7	151.9	154.9	157.1	158.4	157.5	157.1	155.8	151.9	151.9
10°	140.3	140.3	143.7	146.3	149.3	150.6	149.7	148.5	147.2	143.3	142.8
12.5°	132.9	132.9	135.5	139.8	143.3	145.0	144.6	142.8	140.7	136.8	136.4
15°	126.0	125.6	129.5	133.3	138.1	140.3	139.4	138.1	134.2	130.8	129.9
17.5°	119.1	118.7	122.1	127.3	132.5	135.5	135.1	132.1	128.6	124.3	123.4
20°	112.2	111.3	115.7	120.8	126.0	129.0	128.2	125.6	121.3	117.0	116.1
22.5°	105.3	104.9	107.9	112.2	117.0	119.5	119.1	117.0	112.6	108.8	108.8
25°	97.5	97.5	99.7	102.7	106.2	107.5	107.9	107.0	104.4	102.3	102.3
27.5°	91.1	89.8	90.6	91.5	93.2	95.4	95.4	96.2	96.7	95.8	96.2
30°	85.9	83.7	82.4	80.7	79.8	80.7	81.6	84.6	87.6	89.3	90.2
32.5°	79.8	77.2	73.8	69.0	66.0	65.2	67.8	73.4	79.0	82.9	85.0
35°	73.8	70.3	63.9	57.0	53.1	51.8	54.8	61.3	69.5	76.4	79.4
37.5°	67.8	63.0	53.9	45.7	41.4	40.6	43.6	50.5	60.0	69.5	73.4
40°	60.8	55.2	44.4	35.8	32.4	31.5	34.1	41.0	50.9	61.7	67.8
42.5°	53.9	47.0	35.8	28.5	25.0	25.0	28.5	33.7	42.7	54.4	61.7
45°	47.0	39.7	29.3	22.9	20.7	21.1	23.3	28.5	35.8	47.9	54.8
47.5°	40.6	34.1	24.2	19.0	17.3	17.7	20.3	24.6	30.6	41.4	48.8
50°	35.0	28.9	21.1	16.0	14.7	15.5	18.1	22.0	27.2	36.7	42.7
52.5°	31.5	25.9	19.4	13.8	12.9	13.8	16.4	19.9	24.6	32.4	38.4
55°	29.8	25.5	19.4	12.5	11.2	12.1	14.7	18.1	22.0	29.3	34.5
57.5°	29.3	26.3	20.7	11.2	9.5	10.4	12.9	16.4	20.3	26.8	31.1
60°	27.6	25.0	20.3	9.1	7.3	8.6	10.8	14.2	18.6	25.0	28.9
62.5°	*24.2*	*22.0*	*17.7*	*7.3*	*5.6*	*6.5*	*9.1*	*12.5*	*16.8*	*22.9*	*27.2*
65°	19.9	17.7	13.8	4.7	3.5	4.3	6.9	10.8	14.7	20.7	24.6
67.5°	14.7	12.5	9.5	3.0	1.7	3.0	5.6	9.1	13.4	18.6	22.4
70°	9.1	7.3	5.2	1.7	1.3	2.6	5.2	8.6	12.1	17.3	21.1
72.5°	5.2	3.5	2.2	0.9	1.3	2.6	5.2	8.6	11.7	16.4	19.9
75°	3.9	2.2	0.9	0.4	0.9	2.2	4.7	7.8	11.2	15.5	19.0
77.5°	2.6	1.3	0.4	0.0	0.4	1.7	4.3	7.3	10.4	14.7	18.1
80°	0.4	0.0	0.0	0.0	0.0	1.3	3.9	6.5	9.5	12.9	16.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.4	3.0	5.6	8.2	10.8	12.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.3	6.5	8.2	9.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.3	5.2	6.0
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: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0	189.0
2.5°	176.5	179.1	179.1	180.8	183.0	186.9	189.0	192.0	194.2	196.4	197.2
5°	163.1	163.6	164.0	164.9	167.4	171.8	175.6	180.4	186.0	190.3	192.9
7.5°	151.9	151.9	151.9	153.2	155.8	158.8	162.7	169.2	175.6	180.8	185.1
10°	142.4	143.7	144.1	146.3	149.3	153.2	157.5	163.1	170.5	177.4	185.1
12.5°	136.4	137.7	139.8	142.0	145.0	149.3	154.1	161.4	176.5	190.7	207.1
15°	130.8	132.5	135.1	138.1	141.5	146.3	151.5	166.6	202.0	228.7	254.6
17.5°	124.7	127.3	130.8	133.8	138.1	143.3	149.7	179.1	248.6	293.0	337.0
20°	117.0	120.4	124.3	129.0	134.2	140.3	149.7	205.0	315.9	379.8	438.0
22.5°	109.6	113.1	117.8	123.9	129.9	135.9	151.9	244.3	402.6	483.3	557.1
25°	103.6	107.9	112.6	117.8	124.7	131.6	157.1	299.5	507.1	611.1	663.3
27.5°	98.0	103.1	107.9	112.2	118.2	126.0	168.7	373.3	630.5	736.2	777.2
30°	92.4	98.4	103.1	107.5	113.5	121.7	186.4	467.4	767.7	870.4	874.8
32.5°	87.6	93.2	98.8	103.1	108.8	118.2	211.0	577.4	908.4	1007.7	967.1
35°	82.4	88.9	94.1	98.8	104.9	115.2	239.5	696.1	1050.4	1133.7	1059.0
37.5°	77.2	84.6	91.1	94.5	100.6	112.2	260.2	819.9	1195.4	1256.7	1139.7
40°	72.5	80.7	88.0	91.5	94.5	108.3	263.2	946.8	1342.6	1377.9	1215.7
42.5°	67.3	76.4	82.9	87.6	90.2	105.7	245.1	1053.8	1466.0	1498.8	1314.9
45°	61.7	72.5	77.7	81.1	86.3	107.5	221.8	1136.7	1607.1	1663.6	1478.5
47.5°	56.1	68.2	72.5	75.1	82.0	117.8	213.2	1191.9	1839.7	1957.1	1754.3
50°	50.9	64.3	69.0	68.6	81.1	131.2	222.7	1233.8	2189.3	2327.4	2132.3
52.5°	45.3	60.0	65.6	63.9	87.6	141.5	241.7	1267.0	2458.1	2761.5	2640.2
55°	40.6	55.2	60.4	60.0	99.7	149.3	256.3	1091.8	2569.5	3165.0	3212.5
57.5°	37.1	50.1	54.4	61.7	107.5	149.3	296.5	775.1	2571.6	3461.9	3972.0
60°	34.1	45.3	48.3	67.8	104.4	141.5	293.5	474.7	2370.1	3441.6	4375.9
62.5°	*31.5*	*41.0*	*44.9*	*69.5*	*92.4*	*140.3*	*265.0*	*294.3*	*2021.4*	*3179.7*	*4082.9*
65°	29.3	37.5	43.2	63.9	83.7	150.2	178.7	211.5	1639.5	2881.0	3746.7
67.5°	27.2	34.5	45.7	52.2	76.0	134.2	129.0	150.2	1286.9	2553.5	3438.2
70°	25.5	32.8	48.3	42.7	66.5	104.9	91.5	113.9	985.2	2130.6	3003.6
72.5°	24.2	30.6	40.6	33.7	53.9	81.1	63.9	82.9	643.9	1663.2	2448.6
75°	22.9	28.1	29.8	27.2	40.1	53.1	48.3	55.7	383.6	1215.7	1857.8
77.5°	22.4	26.3	24.2	22.0	27.2	31.5	36.7	37.5	187.3	608.1	973.6
80°	19.9	23.7	20.7	18.1	18.6	20.7	27.2	25.0	42.7	154.5	259.8
82.5°	15.5	18.6	17.3	15.1	15.1	15.1	18.1	16.8	13.8	69.5	117.4
85°	10.8	12.9	12.9	12.1	11.7	11.7	11.2	10.8	3.9	4.3	6.5
87.5°	7.3	9.1	9.5	9.1	7.8	6.9	6.0	5.2	1.7	0.0	0.9
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: P631056
CATALOG NUMBER: GWS-SA1E-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	189.0	189.0	189.0	*189.0*	189.0	189.0	189.0	189.0	189.0	189.0
2.5°	200.2	201.5	201.5	*199.8*	198.5	195.1	191.6	188.2	187.3	186.9
5°	200.2	205.4	208.0	*207.6*	204.6	198.9	191.6	183.8	181.7	180.8
7.5°	197.2	207.1	214.9	*216.2*	210.6	200.7	187.3	175.6	172.6	171.3
10°	204.1	223.5	239.1	*241.2*	234.8	215.3	193.8	173.9	169.2	166.1
12.5°	241.2	273.2	292.2	*301.2*	288.7	264.1	228.3	192.9	182.1	177.4
15°	316.3	361.6	397.9	*397.9*	386.2	342.7	297.3	239.9	225.3	212.3
17.5°	412.6	469.5	501.5	*498.0*	480.3	449.7	395.3	312.9	283.1	269.7
20°	522.2	556.3	563.6	*561.4*	553.7	536.0	498.4	410.0	369.8	349.1
22.5°	617.1	608.1	597.3	*588.6*	586.5	591.7	586.5	518.3	486.8	450.1
25°	681.4	630.1	597.7	*582.2*	589.5	619.3	651.6	626.2	601.2	563.2
27.5°	716.4	627.5	580.9	*564.9*	577.4	619.7	690.1	733.2	707.3	689.2
30°	735.4	625.3	570.1	*554.5*	573.5	626.6	716.8	833.3	834.2	805.3
32.5°	762.6	639.1	572.2	*558.0*	583.5	647.3	750.5	935.2	960.2	944.7
35°	793.2	660.3	582.2	*569.2*	600.7	674.9	788.0	1037.9	1090.1	1084.9
37.5°	822.1	684.0	605.5	*593.0*	627.0	698.7	824.3	1138.9	1211.4	1229.5
40°	852.3	717.2	677.1	*689.2*	708.2	736.2	856.6	1226.5	1344.7	1371.9
42.5°	923.5	832.5	893.7	*916.6*	919.2	861.4	927.4	1338.7	1475.9	1508.3
45°	1082.3	1037.4	1213.1	*1245.5*	1228.6	1053.4	1097.9	1500.5	1659.3	1675.7
47.5°	1283.0	1303.7	1650.3	*1762.0*	1661.0	1280.0	1304.6	1841.0	1995.1	1989.0
50°	1516.9	1614.9	2146.5	*2410.2*	2168.5	1574.3	1542.8	2259.6	2446.5	2427.9
52.5°	1793.5	1976.5	2742.9	*3117.5*	2888.8	1905.3	1892.4	2814.1	2928.1	2869.0
55°	2141.8	2325.6	3429.1	*3952.6*	3627.2	2309.2	2353.7	3457.2	3479.2	3291.4
57.5°	2661.4	2780.9	4237.8	*4910.2*	4397.9	2858.2	3180.5	4312.9	4049.7	3694.1
60°	3604.7	3366.5	5019.4	*5889.8*	5217.9	3630.2	4271.1	4820.0	4239.6	3749.3
62.5°	*3933.2*	*3863.7*	*5508.7*	*6304.1*	*5769.4*	*4264.2*	*4554.6*	*4532.6*	*3993.6*	*3540.4*
65°	3435.6	3739.8	5421.1	*6085.3*	5698.6	4159.7	4087.2	4215.4	3716.5	3223.3
67.5°	3173.6	3449.0	5089.3	*5481.6*	5306.4	3805.4	3643.2	3608.2	3120.1	2727.4
70°	2909.5	3182.3	4608.1	*4656.9*	4575.3	3228.0	3014.8	2780.5	2332.1	1990.7
72.5°	2591.9	2742.1	3940.5	*3709.2*	3616.8	2535.4	2490.5	2093.9	1748.2	1455.2
75°	2260.5	2216.9	3072.2	*2545.7*	2614.8	1972.6	2103.4	1537.6	1280.8	1047.4
77.5°	1644.2	1611.8	2057.6	*1546.2*	1712.4	1292.1	1160.9	613.7	584.3	504.1
80°	917.5	1106.1	1111.2	*866.6*	1081.0	842.4	290.4	20.3	12.9	19.0
82.5°	426.4	475.6	602.4	*401.8*	616.7	417.3	60.0	0.0	0.0	0.0
85°	138.1	202.0	169.2	*59.1*	149.3	141.1	9.9	0.0	0.0	0.0
87.5°	8.2	16.8	4.3	*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

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.

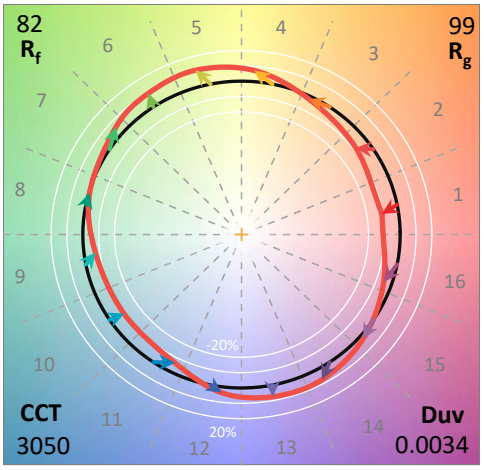
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

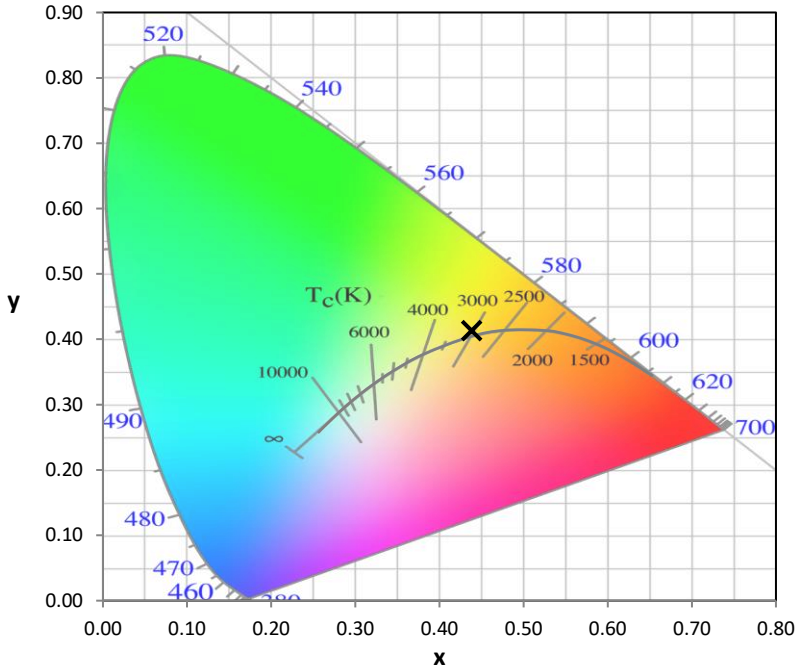
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

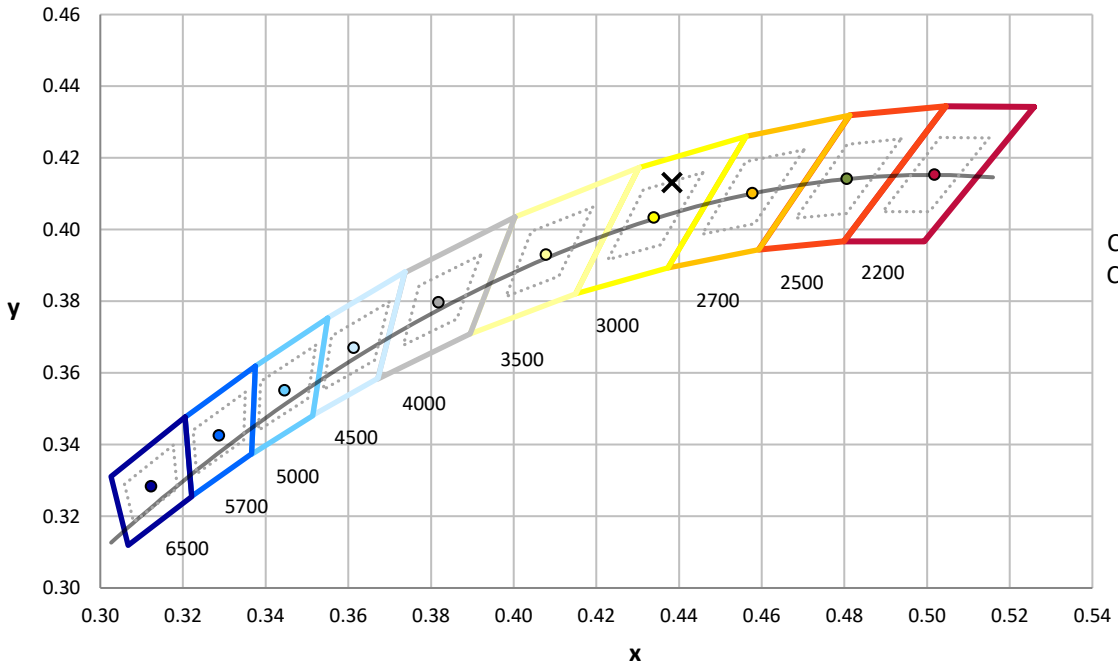
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

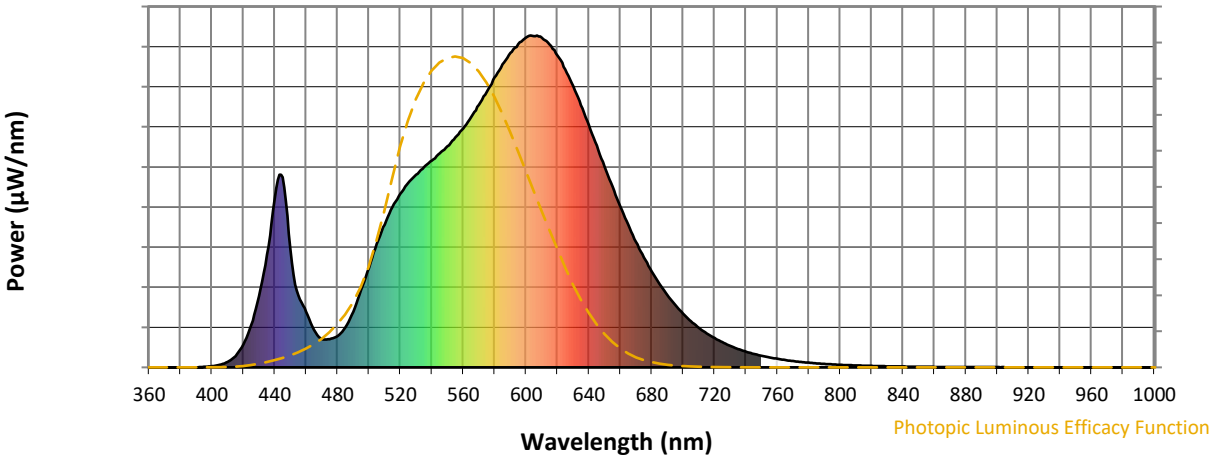


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

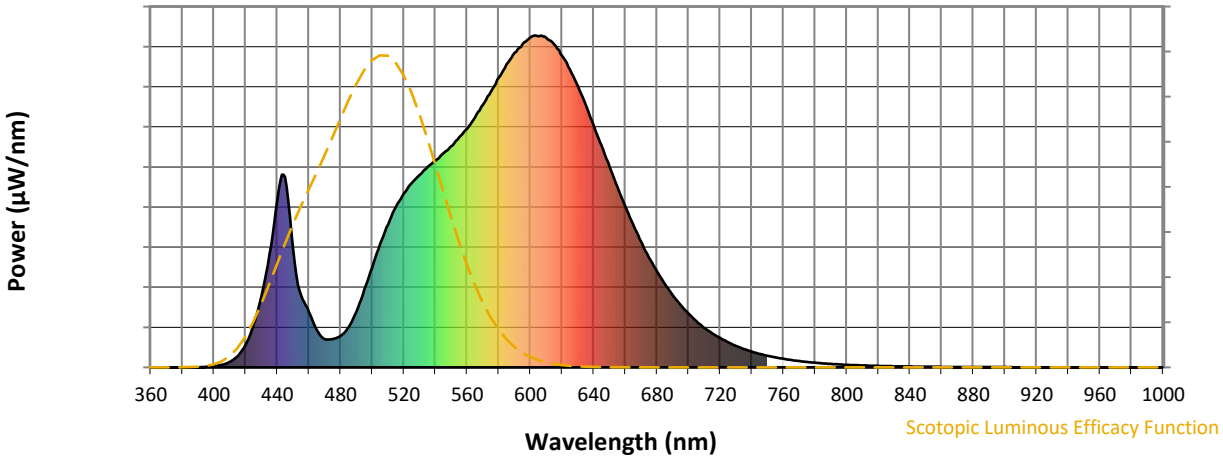


Photopic Lumens: NR

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

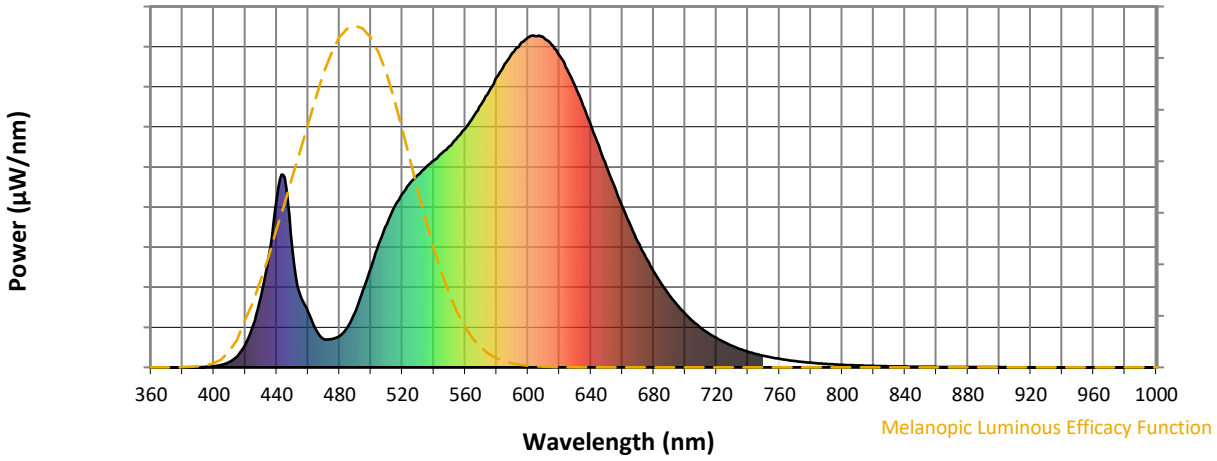


Scotopic Lumens: NR **S/P: 1.27**

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			

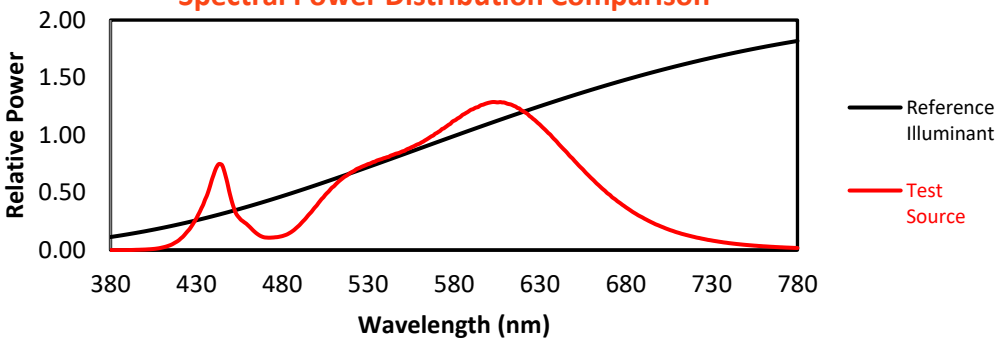
REPORT NUMBER: SP1-2408-195-9

TM-30-18

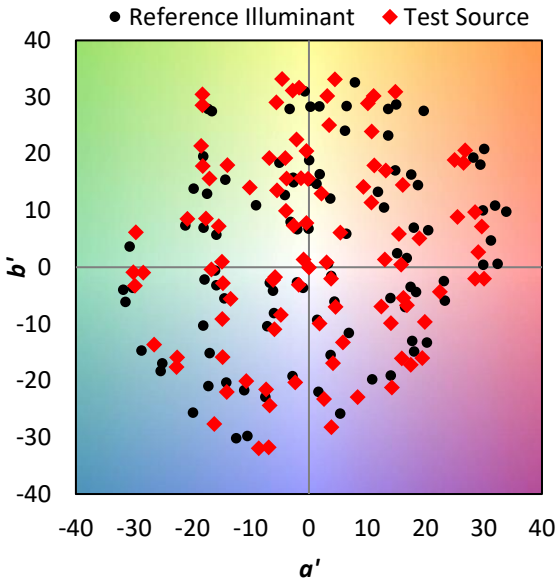
Summary

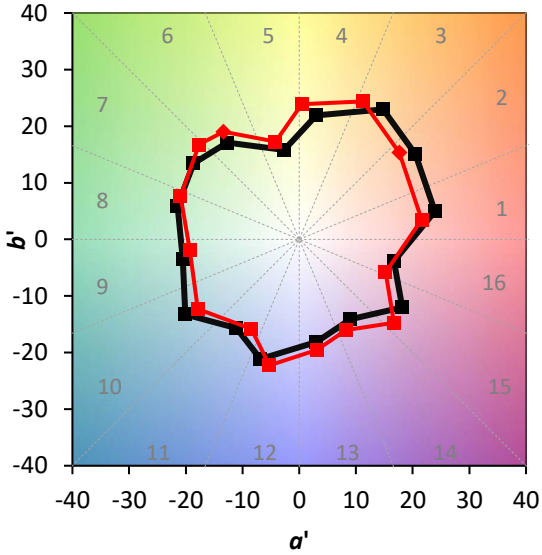
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

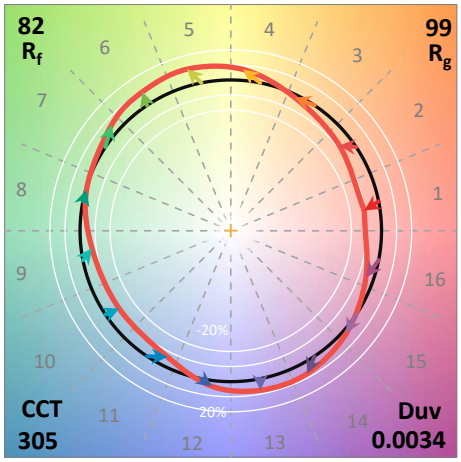
Spectral Power Distribution Comparison

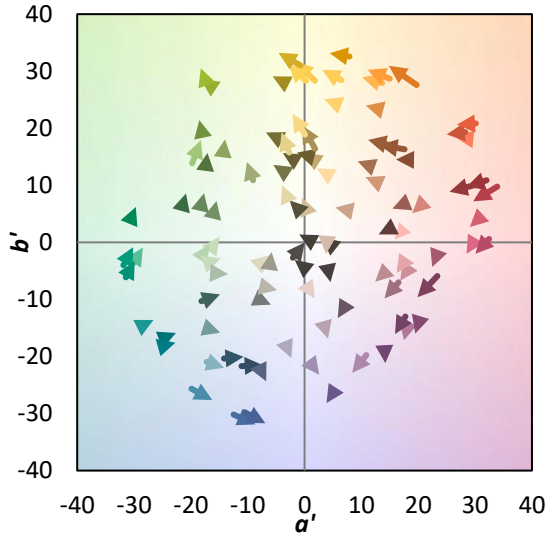


Color Vector Graphics







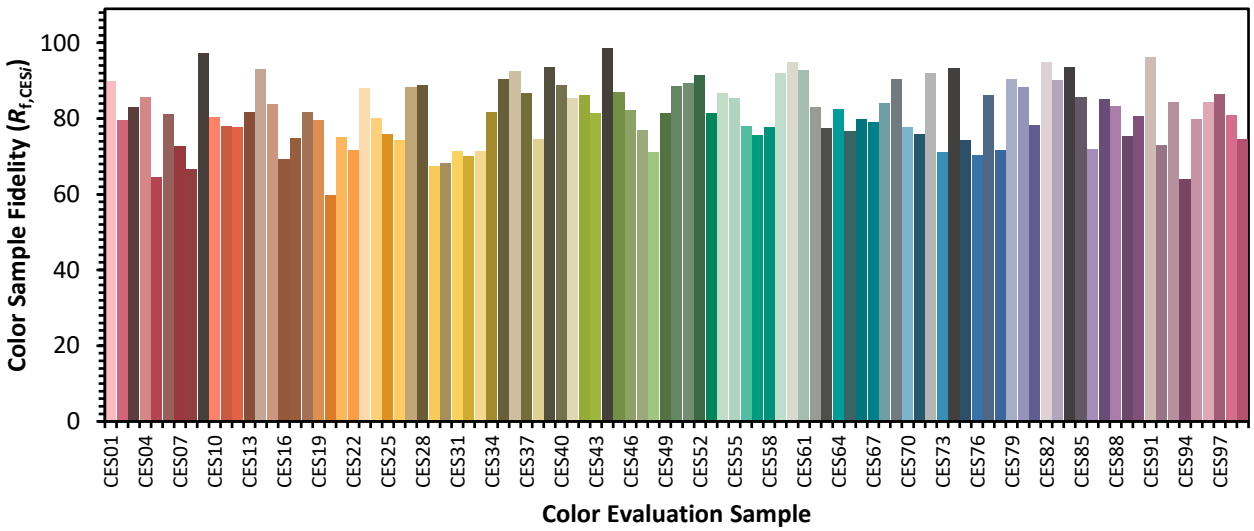


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

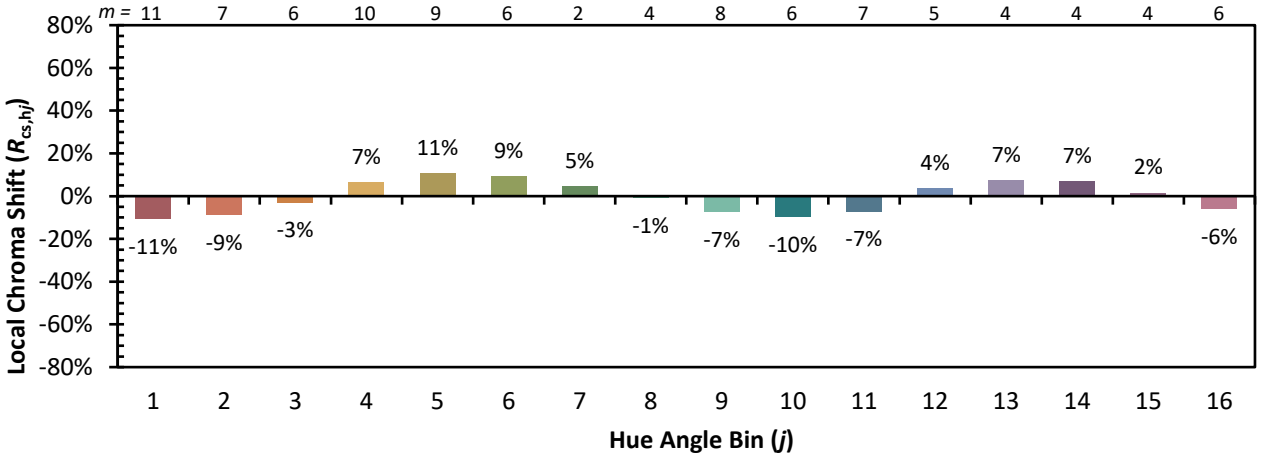
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

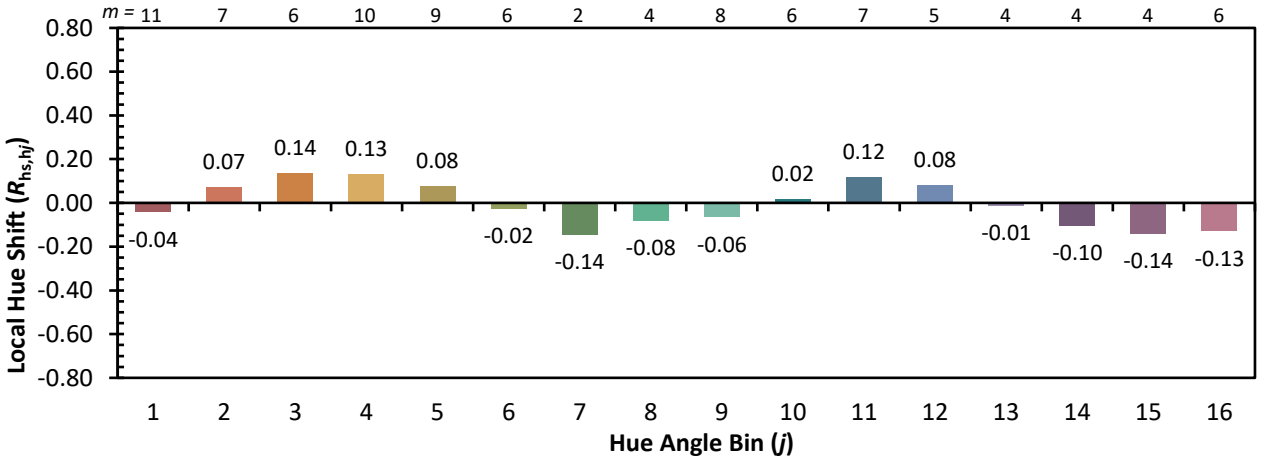


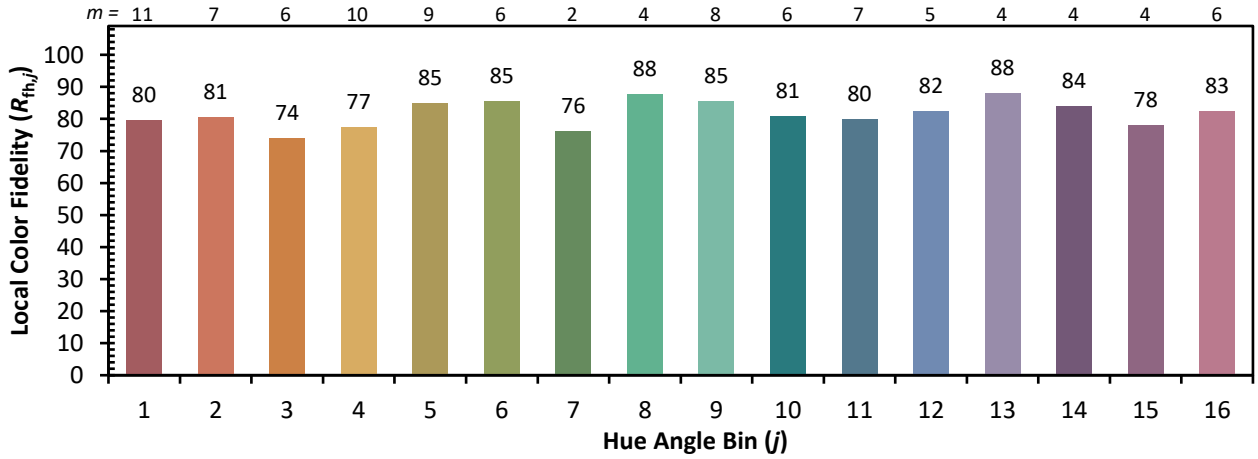
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



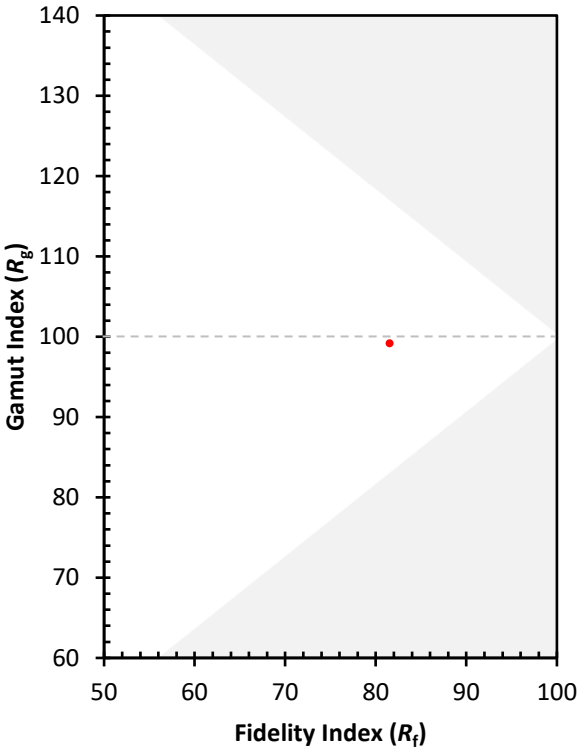


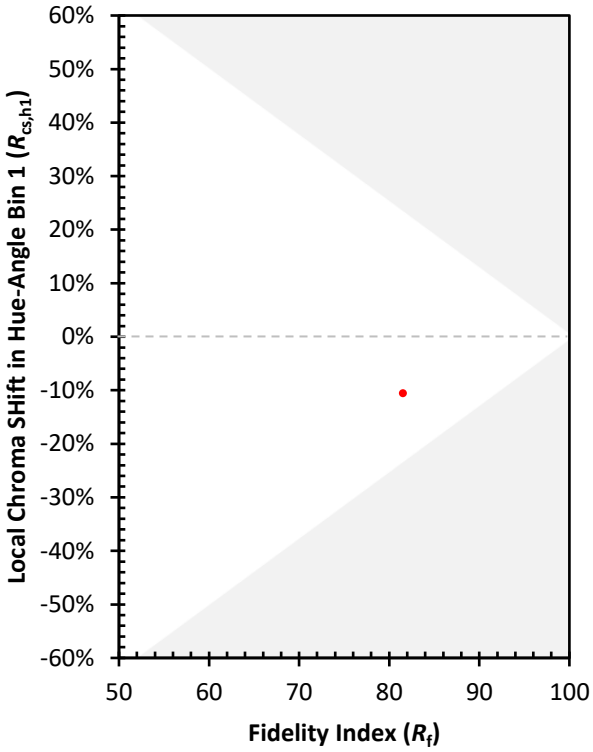


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)