

Signify Classified - Internal
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: LUMARK

Report Number: P1068070

Luminaire Tested: **NAV-SA3B-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068070
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3B-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 800mA 3xLight Square PACKAGE
80CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (42) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9205.8 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 106.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



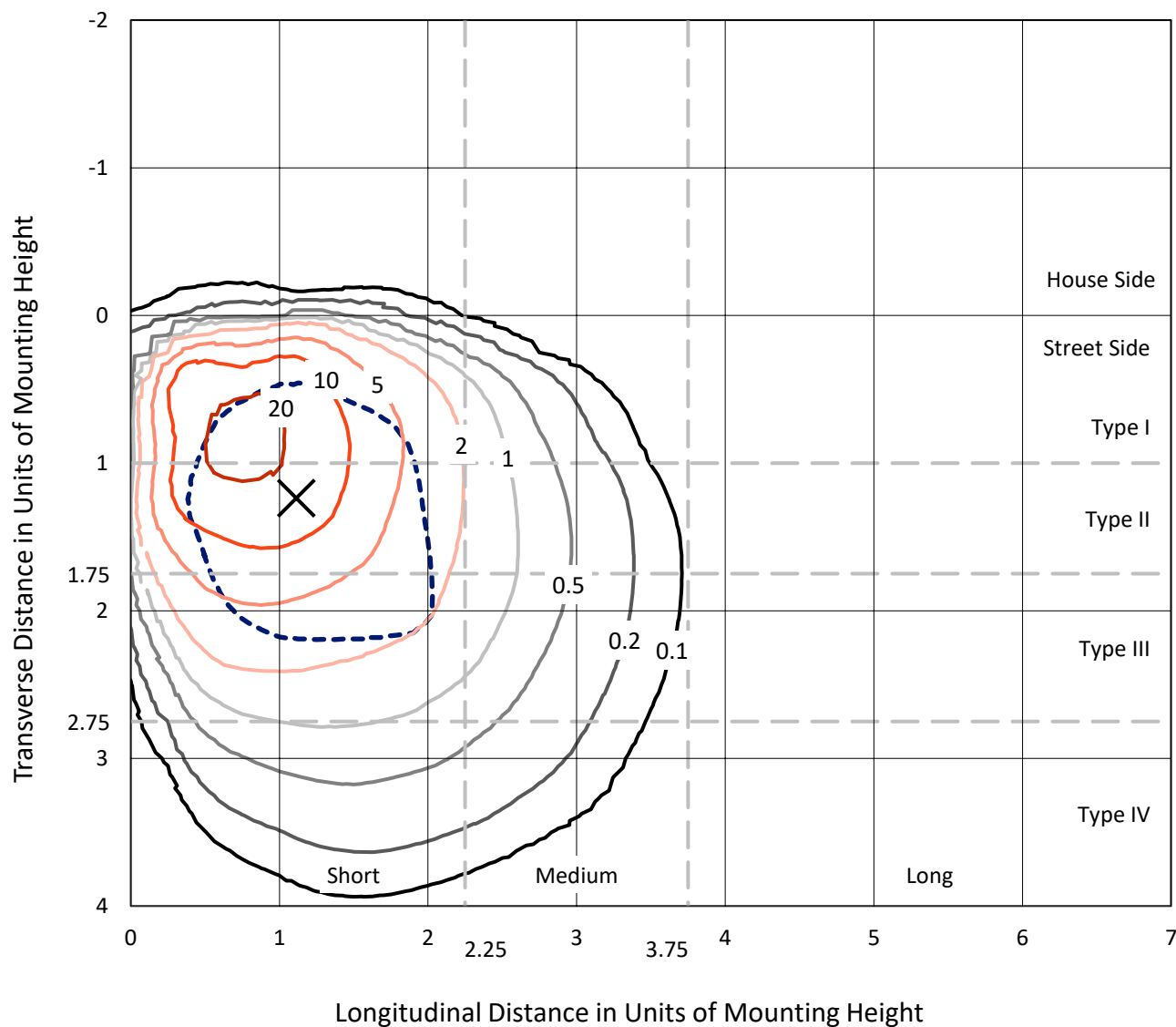
REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

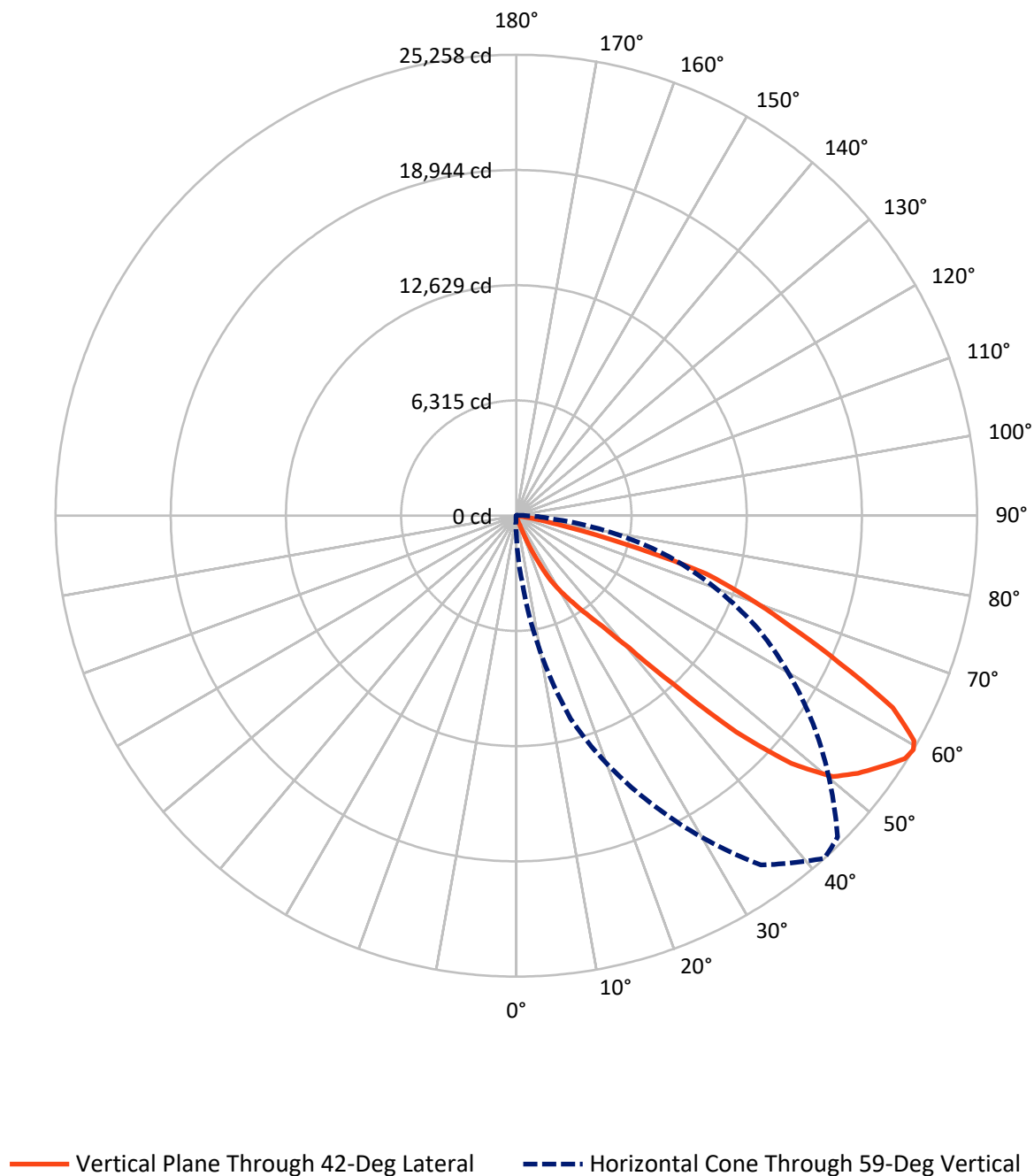


Based on 15 foot mounting height. Maximum calculated value = 27.3 fc
 Type III - Short - N/A

REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

Luminous Intensity Polar Plot



REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

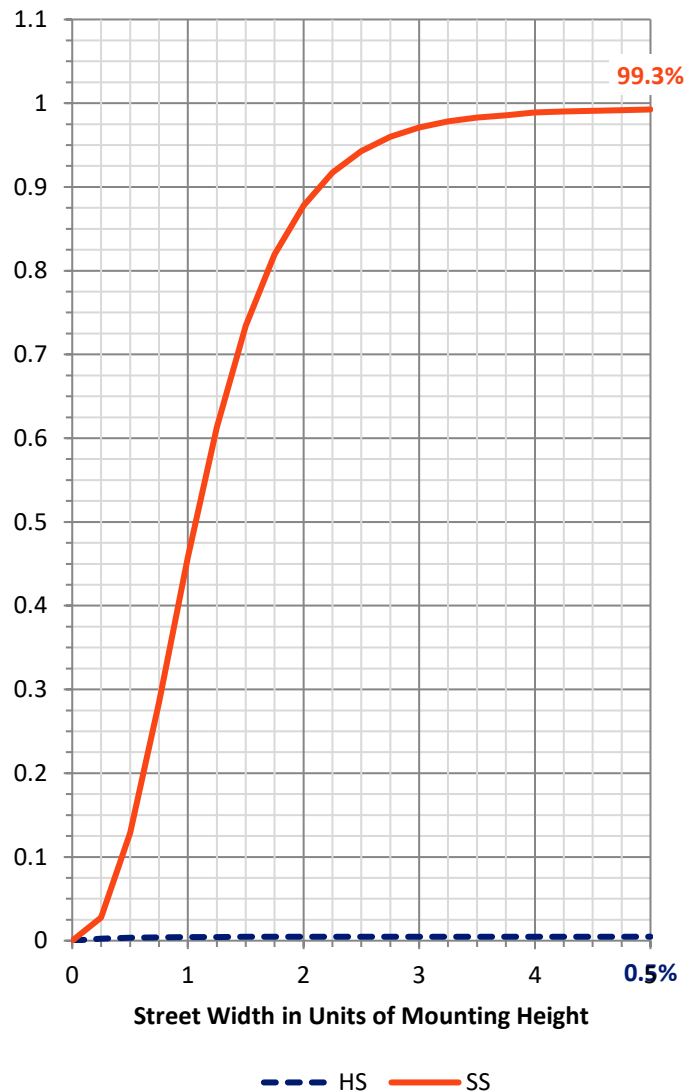
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	44.4	0.0	44.4
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	9161.5	0.0	9161.5
	% Fixture	99.5	0.0	99.5
Total	Lumens	9205.8	0.0	9205.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.0
10°-20°	13.4	0.1
20°-30°	171.7	1.9
30°-40°	578.9	6.3
40°-50°	1748.6	19.0
50°-60°	3086.7	33.5
60°-70°	2717.9	29.5
70°-80°	865.1	9.4
80°-90°	20.7	0.2
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°	9205.8	100.0
0°-180°	9205.8	100.0



REPORT NUMBER: P1068070

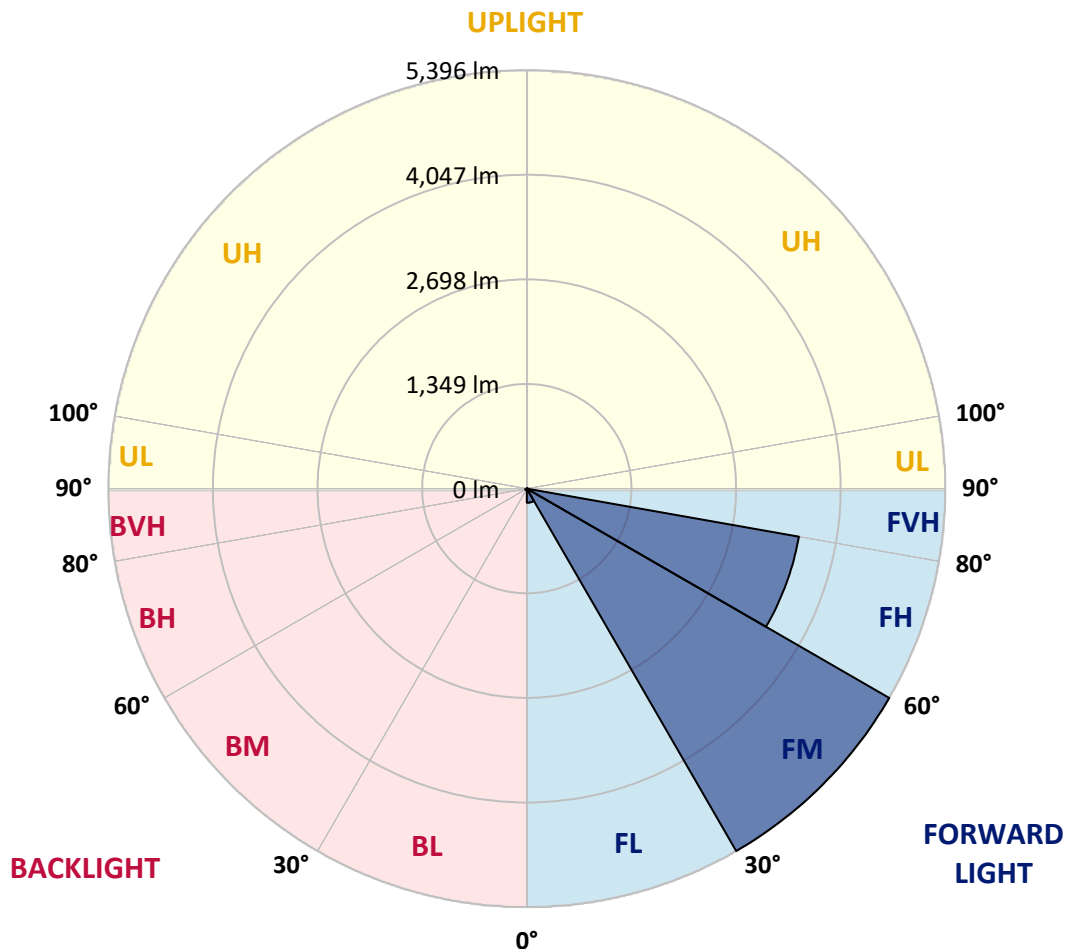
CATALOG NUMBER: NAV-SA3B-830-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	182.9	2.0			
FM	(30°-60°)	5396.1	58.6			
FH	(60°-80°)	3562.7	38.7			G2/5000
FVH	(80°-90°)	19.7	0.2			G1/100
BL	(0°-30°)	4.9	0.1	B0/110		
BM	(30°-60°)	18.1	0.2	B0/220		
BH	(60°-80°)	20.3	0.2	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type III Short



REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
2.5°	40.4	40.4	37.5	34.6	31.7	28.9	28.9	28.9	26.0	26.0	23.1
5°	46.2	46.2	43.3	40.4	40.4	37.5	37.5	34.6	31.7	31.7	28.9
7.5°	49.1	49.1	49.1	49.1	46.2	46.2	46.2	43.3	40.4	37.5	34.6
10°	52.0	54.8	57.7	57.7	57.7	57.7	57.7	54.8	49.1	46.2	40.4
12.5°	57.7	60.6	66.4	72.2	72.2	75.0	72.2	69.3	63.5	54.8	46.2
15°	63.5	69.3	77.9	89.5	101.0	103.9	103.9	95.2	83.7	66.4	54.8
17.5°	72.2	80.8	103.9	141.4	181.8	213.6	213.6	190.5	132.8	86.6	63.5
20°	77.9	95.2	167.4	340.6	519.5	652.3	626.3	554.2	297.3	135.7	69.3
22.5°	86.6	121.2	355.0	894.8	1385.4	1627.9	1570.2	1192.1	666.7	242.5	83.7
25°	98.1	176.1	704.3	1677.0	2574.6	2837.3	2799.7	2225.4	1215.1	407.0	106.8
27.5°	121.2	259.8	1128.6	2542.9	3798.4	4023.5	4009.1	3258.7	1942.5	655.2	138.5
30°	153.0	378.1	1674.1	3454.9	4609.5	4837.5	4765.3	4014.9	2620.8	1001.6	179.0
32.5°	190.5	528.2	2167.6	4127.5	5357.0	5657.2	5570.6	4673.0	3166.3	1296.0	265.5
35°	248.2	675.4	2655.4	4722.0	6220.0	6601.0	6456.7	5351.3	3636.8	1627.9	320.4
37.5°	277.1	762.0	3102.8	5368.6	7189.9	7709.4	7599.7	6208.5	4115.9	2052.2	392.5
40°	280.0	865.9	3567.5	6211.4	8560.9	9487.4	9291.1	7680.5	5007.8	2597.7	505.1
42.5°	288.6	1021.8	4170.7	7648.8	11253.8	12584.4	12362.2	10387.9	7031.1	3691.6	715.8
45°	329.0	1316.2	5400.3	10336.0	14951.2	16902.4	16645.5	14160.3	9856.8	5749.6	1220.9
47.5°	470.5	1980.0	7556.4	13236.7	18732.3	20288.0	20224.5	17133.3	12417.0	7859.5	2069.5
50°	756.2	3039.3	10009.8	15675.7	21139.5	22475.9	22317.1	18374.4	13877.5	9299.8	2652.5
52.5°	1010.2	4052.4	11551.1	16573.3	21858.2	23451.4	23258.1	18827.5	14261.4	9724.0	2814.2
55°	1073.7	4419.0	12010.0	16850.4	22334.4	24276.9	23997.0	19130.6	14310.4	9421.0	2545.7
57.5°	1042.0	4072.6	11712.7	17121.7	22998.3	25125.5	24753.2	19722.3	14475.0	8907.2	2118.6
59°	987.1	3645.4	11528.0	17338.2	23364.9	25258.3	24909.0	19852.2	14584.6	8673.4	1858.8
60°	923.6	3356.8	11383.7	17479.6	23341.8	25050.5	24689.7	19791.6	14627.9	8471.4	1734.7
62.5°	712.9	2678.5	11175.9	17378.6	21884.2	23154.1	22949.2	18308.0	13992.9	7824.8	1368.1
65°	554.2	2049.3	10413.9	15499.6	18622.6	19477.0	19413.5	15502.5	11776.2	6745.4	987.1
67.5°	438.7	1495.1	8806.2	12552.7	14982.9	16198.1	16151.9	12584.4	8939.0	5155.0	710.0
70°	357.9	1065.1	6038.2	9464.3	11984.0	13513.8	13447.4	10128.1	6624.1	3270.2	516.7
72.5°	303.1	681.2	3662.8	7135.0	10001.1	10875.7	10682.3	8171.2	4817.3	1780.9	409.9
75°	256.9	418.5	1815.5	4447.8	5957.4	5951.6	5758.2	4326.6	2586.2	871.7	326.2
77.5°	207.8	294.4	712.9	1220.9	1879.0	2326.4	2288.9	1532.6	773.5	254.0	202.0
80°	135.7	138.5	190.5	334.8	516.7	571.5	649.4	467.6	225.1	121.2	83.7
82.5°	60.6	66.4	86.6	109.7	109.7	101.0	89.5	66.4	49.1	40.4	20.2
85°	14.4	20.2	14.4	17.3	14.4	11.5	11.5	5.8	0.0	0.0	0.0
87.5°	2.9	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



REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
2.5°	23.1	23.1	23.1	20.2	20.2	20.2	17.3	17.3	17.3	14.4	14.4
5°	28.9	26.0	23.1	23.1	20.2	20.2	17.3	14.4	14.4	14.4	11.5
7.5°	31.7	28.9	26.0	23.1	20.2	17.3	17.3	14.4	11.5	11.5	11.5
10°	37.5	34.6	28.9	23.1	20.2	17.3	14.4	14.4	11.5	8.7	8.7
12.5°	43.3	37.5	31.7	26.0	20.2	17.3	14.4	14.4	11.5	8.7	5.8
15°	49.1	43.3	34.6	26.0	20.2	17.3	14.4	14.4	8.7	5.8	2.9
17.5°	54.8	46.2	34.6	28.9	20.2	17.3	14.4	11.5	5.8	2.9	0.0
20°	57.7	49.1	37.5	28.9	20.2	17.3	14.4	8.7	2.9	0.0	0.0
22.5°	63.5	54.8	40.4	28.9	20.2	14.4	8.7	2.9	0.0	0.0	0.0
25°	75.0	57.7	40.4	28.9	20.2	14.4	5.8	0.0	0.0	0.0	0.0
27.5°	83.7	63.5	40.4	28.9	20.2	11.5	2.9	0.0	0.0	0.0	0.0
30°	98.1	69.3	43.3	28.9	20.2	8.7	2.9	0.0	0.0	0.0	0.0
32.5°	121.2	75.0	43.3	28.9	17.3	8.7	0.0	0.0	0.0	0.0	0.0
35°	147.2	86.6	43.3	28.9	17.3	8.7	0.0	0.0	0.0	0.0	0.0
37.5°	150.1	92.4	43.3	28.9	17.3	5.8	0.0	0.0	0.0	0.0	0.0
40°	155.9	86.6	46.2	28.9	17.3	5.8	0.0	0.0	0.0	0.0	0.0
42.5°	179.0	80.8	49.1	28.9	17.3	5.8	0.0	0.0	0.0	0.0	0.0
45°	265.5	83.7	49.1	31.7	17.3	8.7	0.0	0.0	0.0	0.0	0.0
47.5°	461.8	86.6	46.2	31.7	17.3	8.7	0.0	0.0	0.0	0.0	0.0
50°	591.7	101.0	46.2	34.6	20.2	5.8	0.0	0.0	0.0	0.0	0.0
52.5°	629.2	118.3	46.2	37.5	26.0	2.9	0.0	0.0	0.0	0.0	0.0
55°	611.9	138.5	49.1	40.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	565.7	150.1	52.0	43.3	34.6	0.0	0.0	0.0	0.0	0.0	0.0
59°	516.7	158.7	60.6	46.2	34.6	0.0	0.0	0.0	0.0	0.0	0.0
60°	476.2	167.4	63.5	49.1	34.6	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	383.9	179.0	69.3	57.7	28.9	0.0	0.0	0.0	0.0	0.0	0.0
65°	334.8	187.6	72.2	63.5	26.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	306.0	193.4	77.9	66.4	23.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	282.9	190.5	83.7	63.5	20.2	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	256.9	181.8	101.0	57.7	17.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	230.9	164.5	109.7	52.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	167.4	138.5	101.0	46.2	5.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	72.2	75.0	72.2	34.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.4	17.3	14.4	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
2.5°	14.4	14.4	14.4	14.4	17.3	17.3	23.1	28.9	34.6	37.5	37.5
5°	11.5	11.5	11.5	11.5	11.5	14.4	17.3	23.1	31.7	34.6	34.6
7.5°	8.7	8.7	8.7	8.7	8.7	8.7	14.4	20.2	28.9	31.7	34.6
10°	8.7	5.8	5.8	2.9	2.9	5.8	8.7	17.3	26.0	28.9	31.7
12.5°	5.8	2.9	2.9	0.0	0.0	2.9	5.8	14.4	23.1	26.0	28.9
15°	2.9	0.0	0.0	0.0	0.0	0.0	2.9	11.5	20.2	23.1	28.9
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	17.3	23.1	26.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	14.4	20.2	23.1
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	11.5	17.3	20.2
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	11.5	14.4
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	8.7	11.5
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	8.7	11.5
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8	8.7
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8	8.7
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8	5.8
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1068070

CATALOG NUMBER: NAV-SA3B-830-U-LBC

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
2.5°	40.4	40.4	37.5	34.6	34.6	34.6	37.5	40.4	40.4	40.4
5°	37.5	37.5	34.6	34.6	34.6	34.6	37.5	43.3	46.2	46.2
7.5°	37.5	37.5	34.6	34.6	34.6	34.6	37.5	43.3	46.2	49.1
10°	34.6	34.6	34.6	34.6	31.7	34.6	37.5	43.3	52.0	52.0
12.5°	34.6	34.6	34.6	34.6	31.7	34.6	40.4	46.2	54.8	57.7
15°	34.6	34.6	34.6	31.7	31.7	34.6	40.4	49.1	57.7	63.5
17.5°	31.7	34.6	34.6	31.7	31.7	34.6	40.4	49.1	63.5	72.2
20°	28.9	31.7	34.6	31.7	31.7	31.7	40.4	49.1	66.4	77.9
22.5°	26.0	28.9	31.7	31.7	28.9	31.7	40.4	52.0	72.2	86.6
25°	23.1	26.0	26.0	28.9	28.9	31.7	40.4	52.0	75.0	98.1
27.5°	17.3	20.2	23.1	26.0	26.0	31.7	40.4	54.8	80.8	121.2
30°	14.4	17.3	20.2	23.1	26.0	31.7	40.4	54.8	86.6	153.0
32.5°	14.4	17.3	20.2	23.1	26.0	28.9	40.4	57.7	95.2	190.5
35°	11.5	14.4	17.3	23.1	23.1	28.9	40.4	57.7	103.9	248.2
37.5°	11.5	14.4	17.3	23.1	23.1	28.9	40.4	57.7	127.0	277.1
40°	8.7	11.5	14.4	23.1	23.1	28.9	43.3	60.6	129.9	280.0
42.5°	8.7	11.5	14.4	20.2	23.1	28.9	43.3	60.6	121.2	288.6
45°	8.7	11.5	14.4	23.1	26.0	31.7	43.3	63.5	118.3	329.0
47.5°	8.7	11.5	14.4	23.1	28.9	31.7	43.3	63.5	121.2	470.5
50°	8.7	11.5	14.4	23.1	31.7	31.7	43.3	63.5	132.8	756.2
52.5°	5.8	8.7	11.5	20.2	26.0	34.6	46.2	60.6	141.4	1010.2
55°	5.8	5.8	8.7	17.3	23.1	37.5	49.1	60.6	164.5	1073.7
57.5°	5.8	5.8	8.7	14.4	20.2	40.4	52.0	60.6	190.5	1042.0
59°	5.8	5.8	5.8	14.4	17.3	40.4	52.0	63.5	193.4	987.1
60°	5.8	5.8	5.8	11.5	17.3	40.4	54.8	66.4	196.3	923.6
62.5°	2.9	2.9	2.9	11.5	14.4	40.4	60.6	80.8	202.0	712.9
65°	5.8	5.8	2.9	8.7	14.4	34.6	69.3	86.6	204.9	554.2
67.5°	5.8	5.8	5.8	11.5	14.4	34.6	72.2	89.5	204.9	438.7
70°	5.8	5.8	5.8	11.5	17.3	34.6	72.2	92.4	202.0	357.9
72.5°	5.8	5.8	5.8	11.5	17.3	31.7	66.4	95.2	193.4	303.1
75°	5.8	5.8	5.8	8.7	14.4	28.9	63.5	103.9	176.1	256.9
77.5°	5.8	5.8	5.8	5.8	11.5	23.1	57.7	115.5	155.9	207.8
80°	8.7	5.8	5.8	5.8	8.7	20.2	54.8	112.6	129.9	135.7
82.5°	8.7	5.8	5.8	2.9	5.8	14.4	43.3	86.6	66.4	60.6
85°	5.8	5.8	5.8	2.9	2.9	8.7	20.2	26.0	20.2	14.4
87.5°	5.8	5.8	5.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

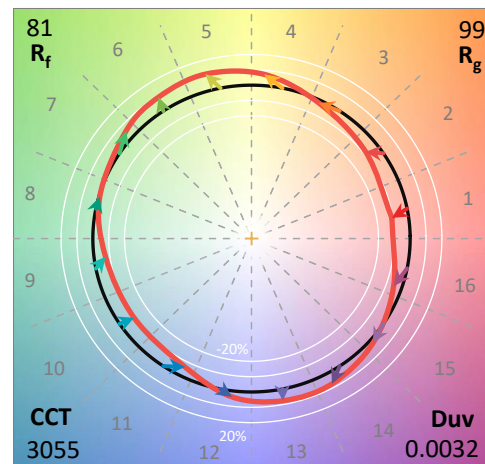
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGraw-Edison
 Catalog Number: **GSS-SB1A-830-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI
 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3055
 CIE u' : 0.2475
 CIE v' : 0.5247
 Duv: 0.0032
 CIE x: 0.4377
 CIE y: 0.4124
 CIE z: 0.1499
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 581
 Purity: 55.16339
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 80.9
 R1: 79.5
 R2: 85.6
 R3: 92.1
 R4: 82.4
 R5: 78.9
 R6: 81.7
 R7: 85.1
 R8: 61.9
 R9: 6.8
 R10: 67.1
 R11: 82.5
 R12: 63.4
 R13: 80.2
 R14: 95.1
 R15: 71.7



Test Conditions

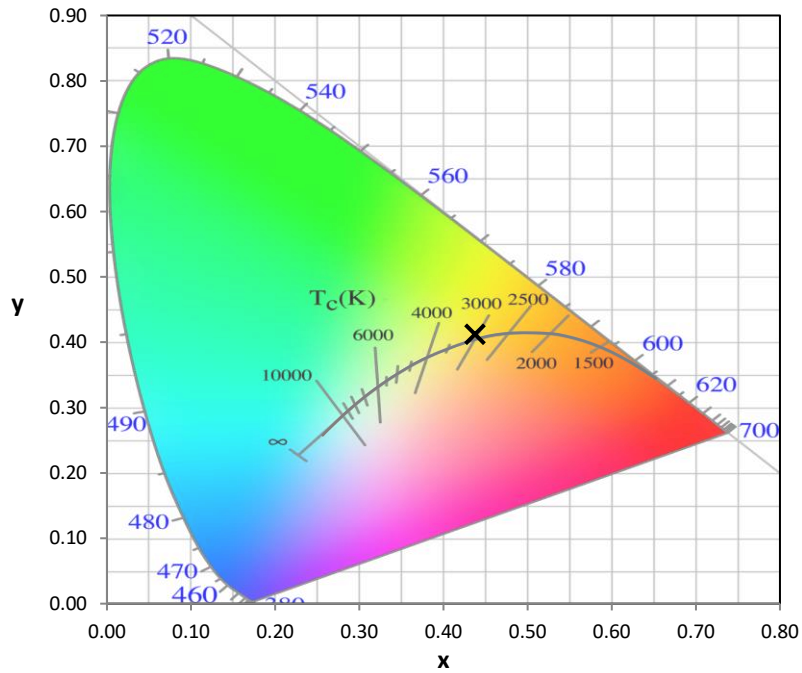
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

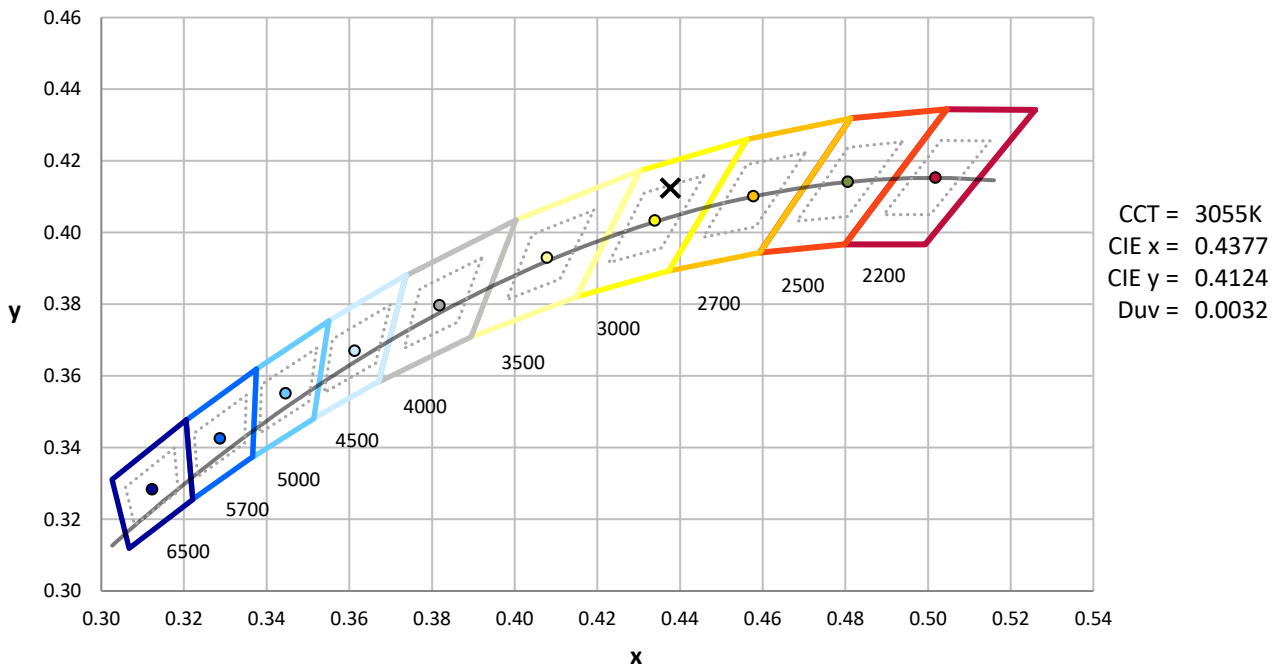
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-184-9

CIE 1931 Chromaticity Diagram

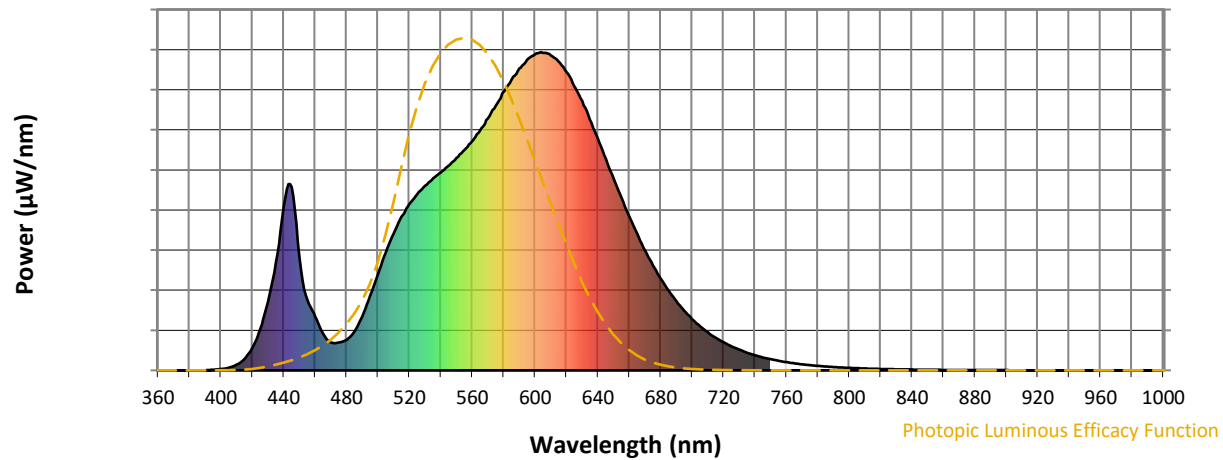


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

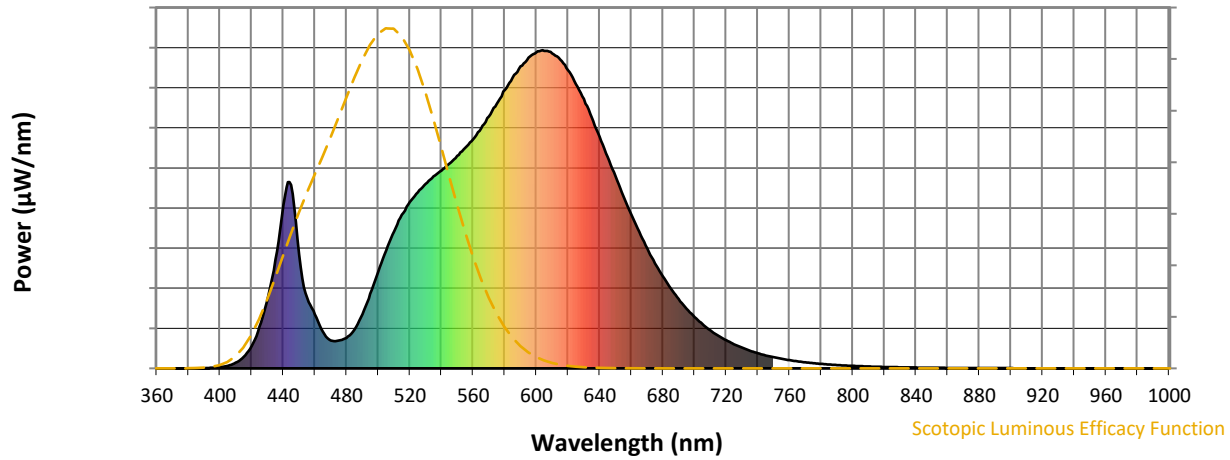


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

Scotopic Flux vs. Wavelength



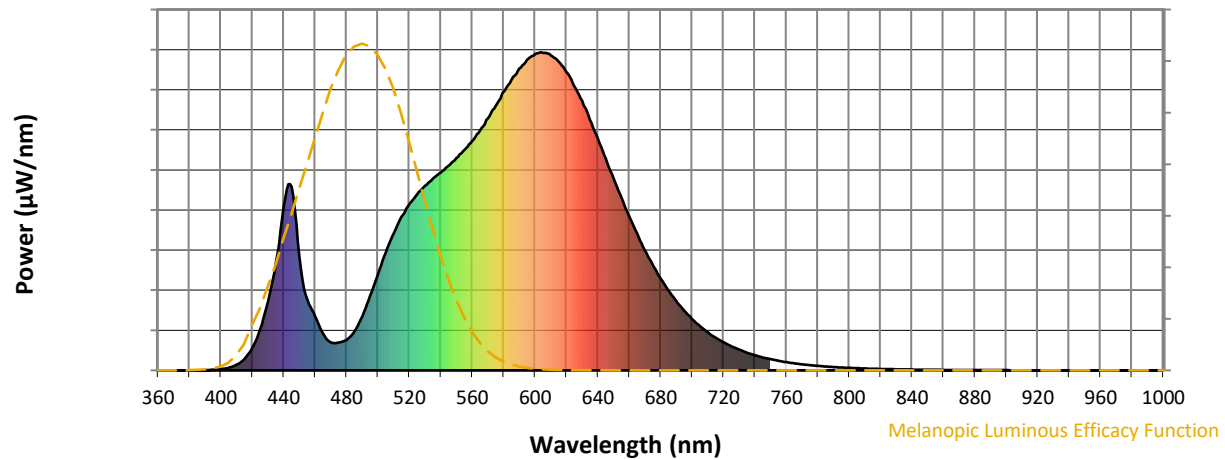
Scotopic Lumens: NR

S/P: 1.28

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	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.33

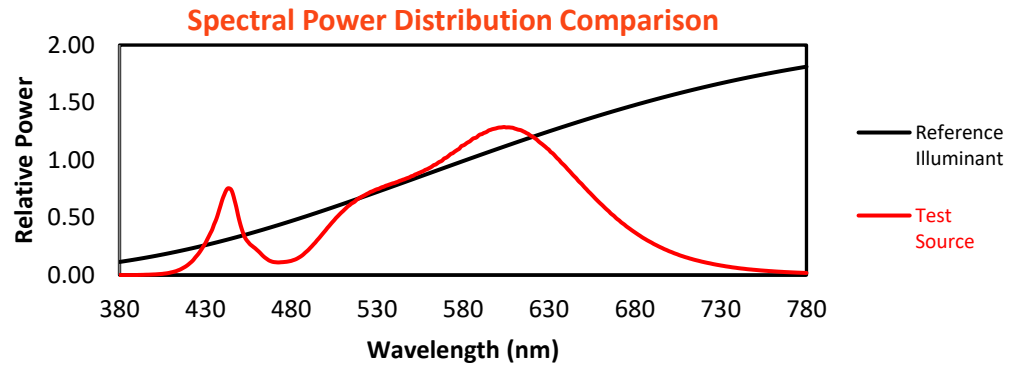
λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

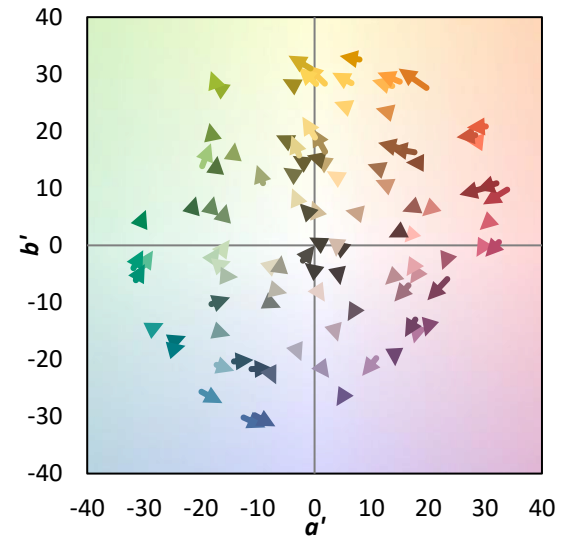
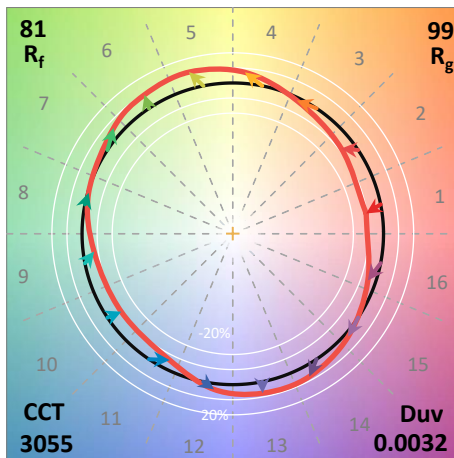
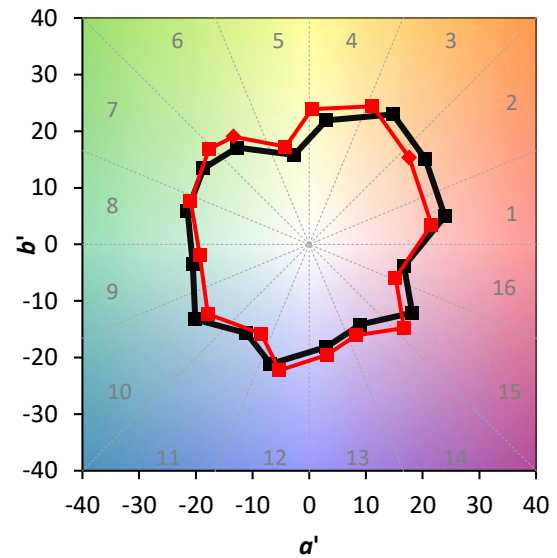
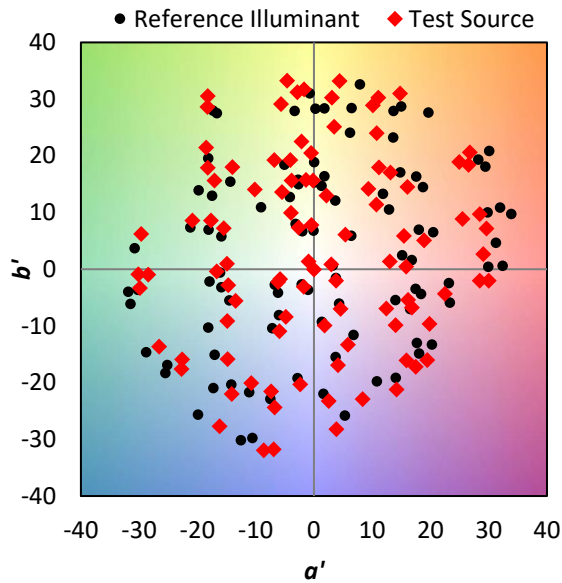
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 80.9$
 $R_9 = 6.8$

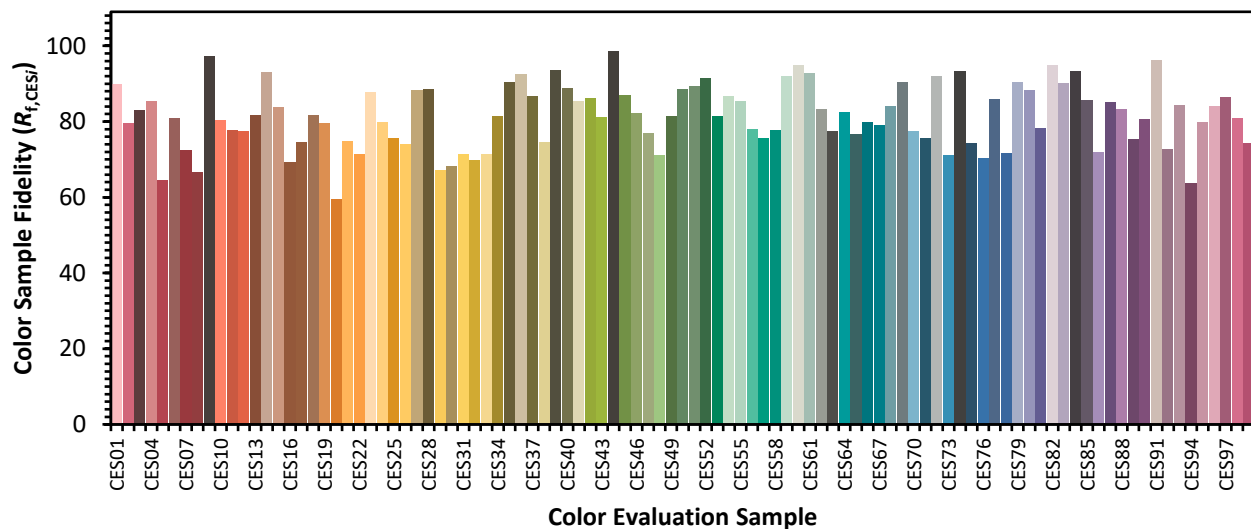


Color Vector Graphics

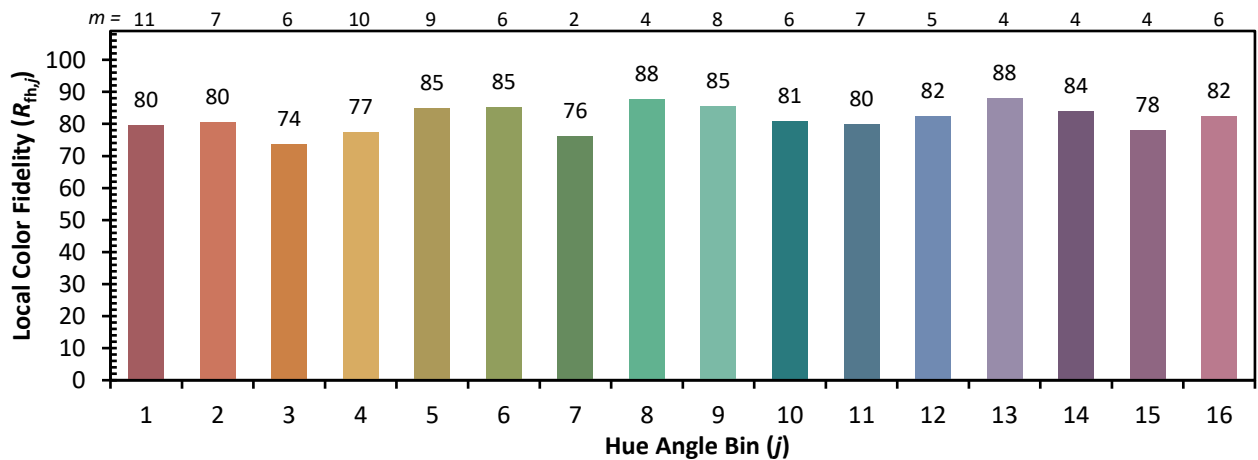
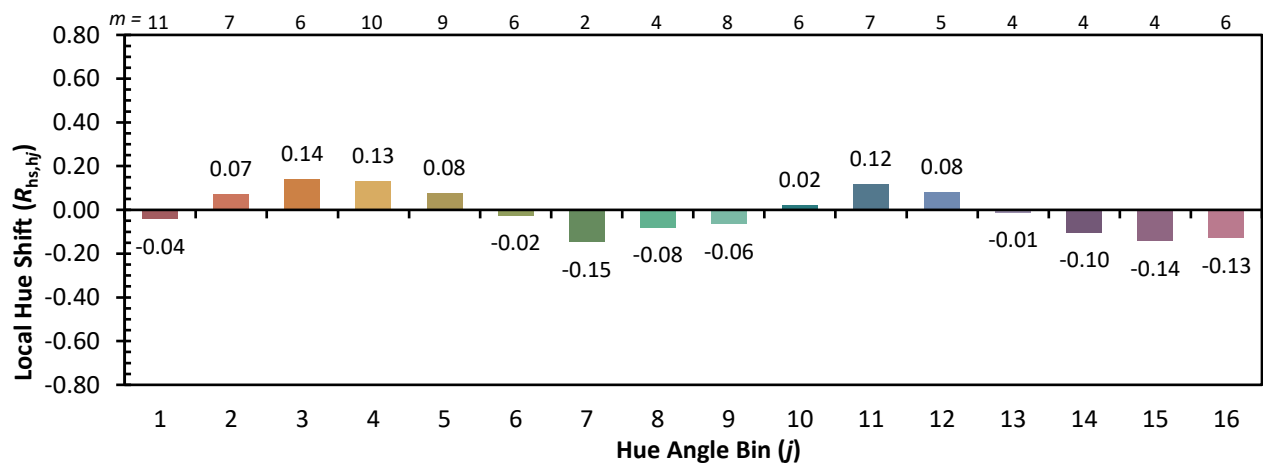
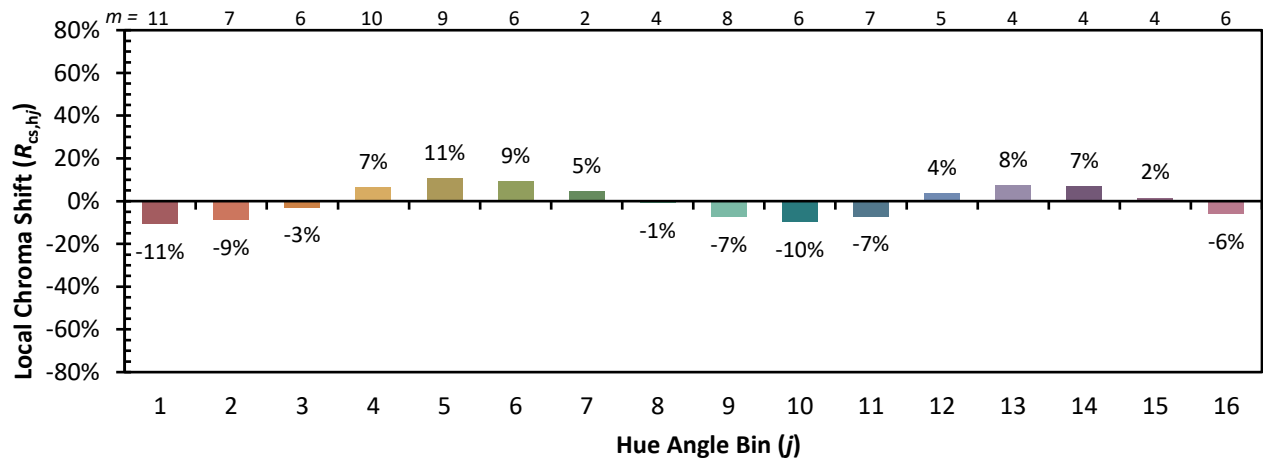


Individual Sample Fidelity Index ($R_{f,i}$)

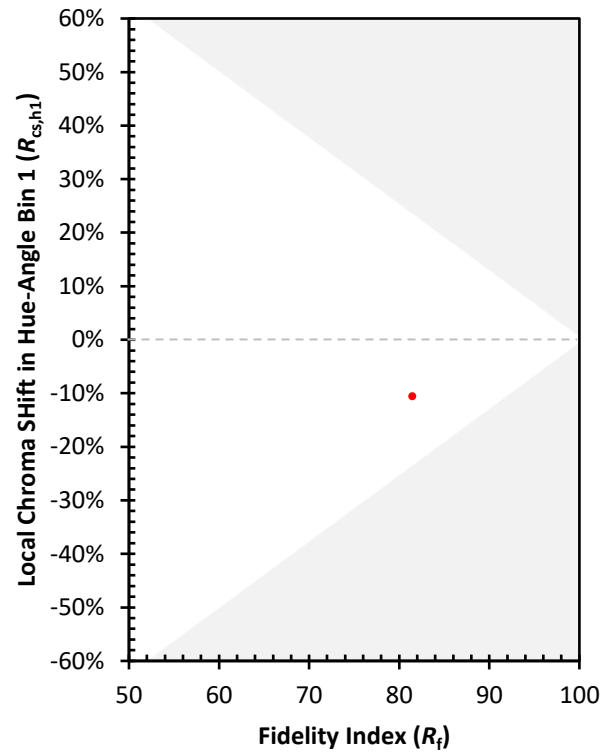
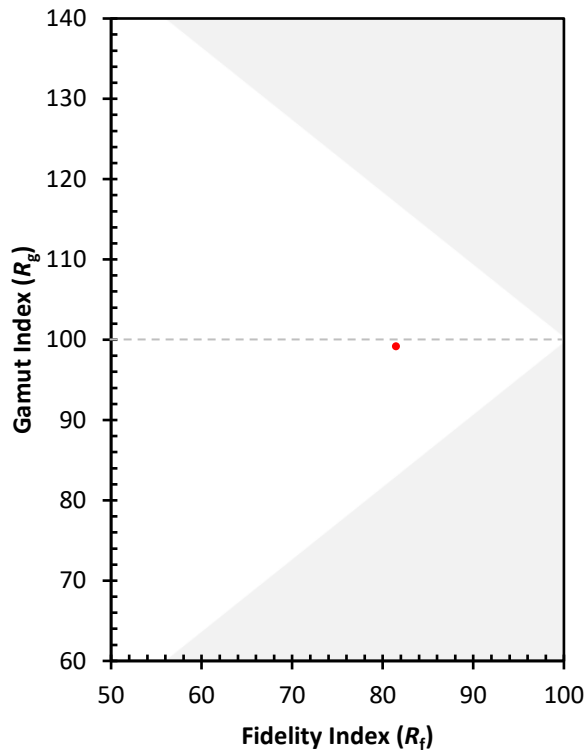
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 93
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 = 90	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 77	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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)