

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: P1068069

Luminaire Tested: **NAV-SA3A-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068069
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3A-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 615mA 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: 7365.3 lumens
Efficiency: N/A
Efficacy: 89.8 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): 82
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



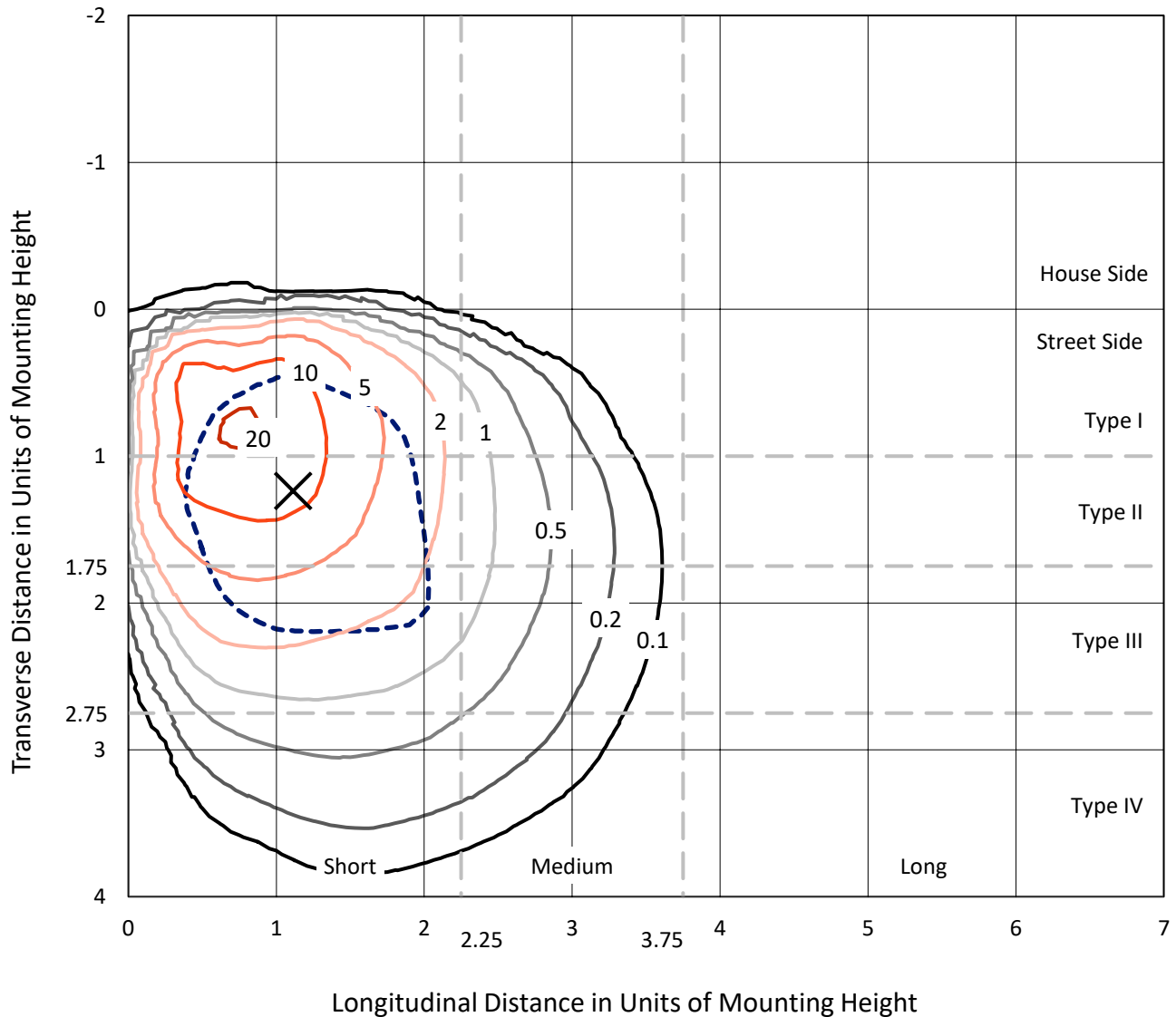
REPORT NUMBER: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

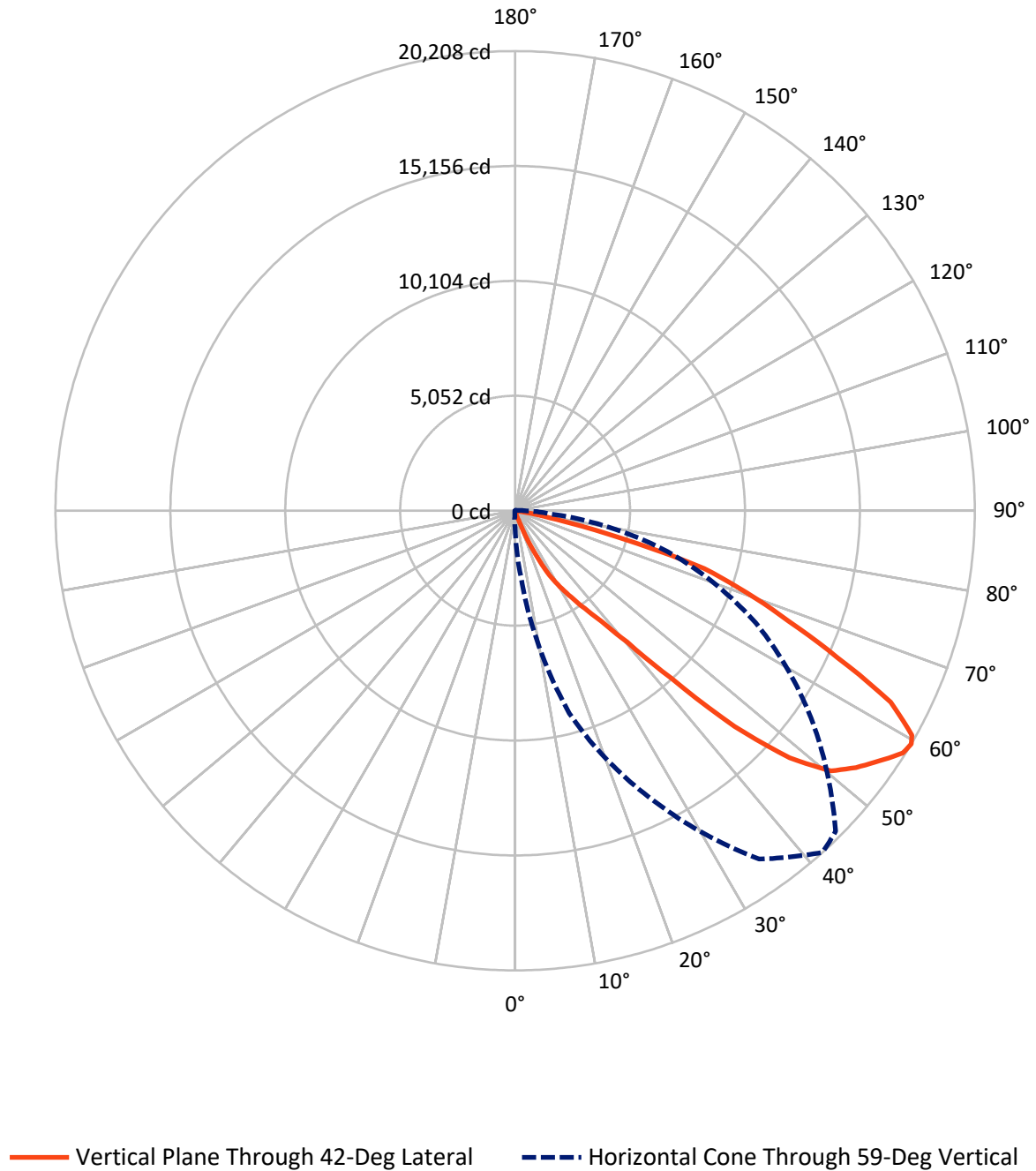


Based on 15 foot mounting height. Maximum calculated value = 21.9 fc
 Type III - Short - N/A

REPORT NUMBER: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

Luminous Intensity Polar Plot



REPORT NUMBER: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

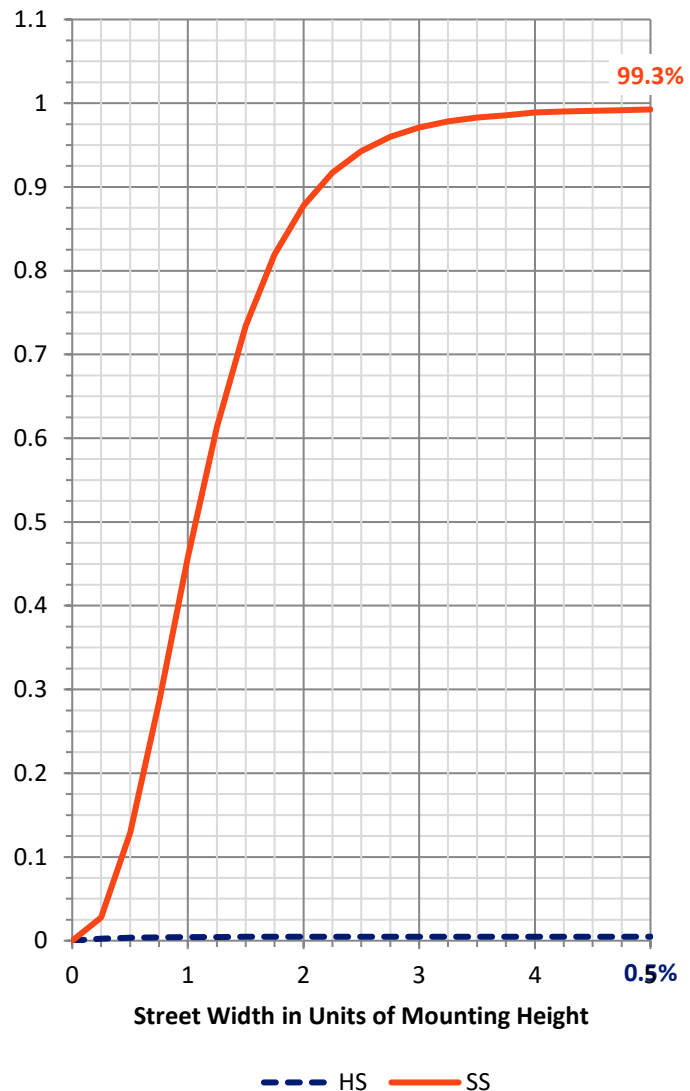
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	35.5	0.0	35.5
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	7329.8	0.0	7329.8
	% Fixture	99.5	0.0	99.5
Total	Lumens	7365.3	0.0	7365.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.0
10°-20°	10.7	0.1
20°-30°	137.4	1.9
30°-40°	463.2	6.3
40°-50°	1399.0	19.0
50°-60°	2469.6	33.5
60°-70°	2174.5	29.5
70°-80°	692.1	9.4
80°-90°	16.6	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°	7365.3	100.0
0°-180°	7365.3	100.0



REPORT NUMBER: P1068069

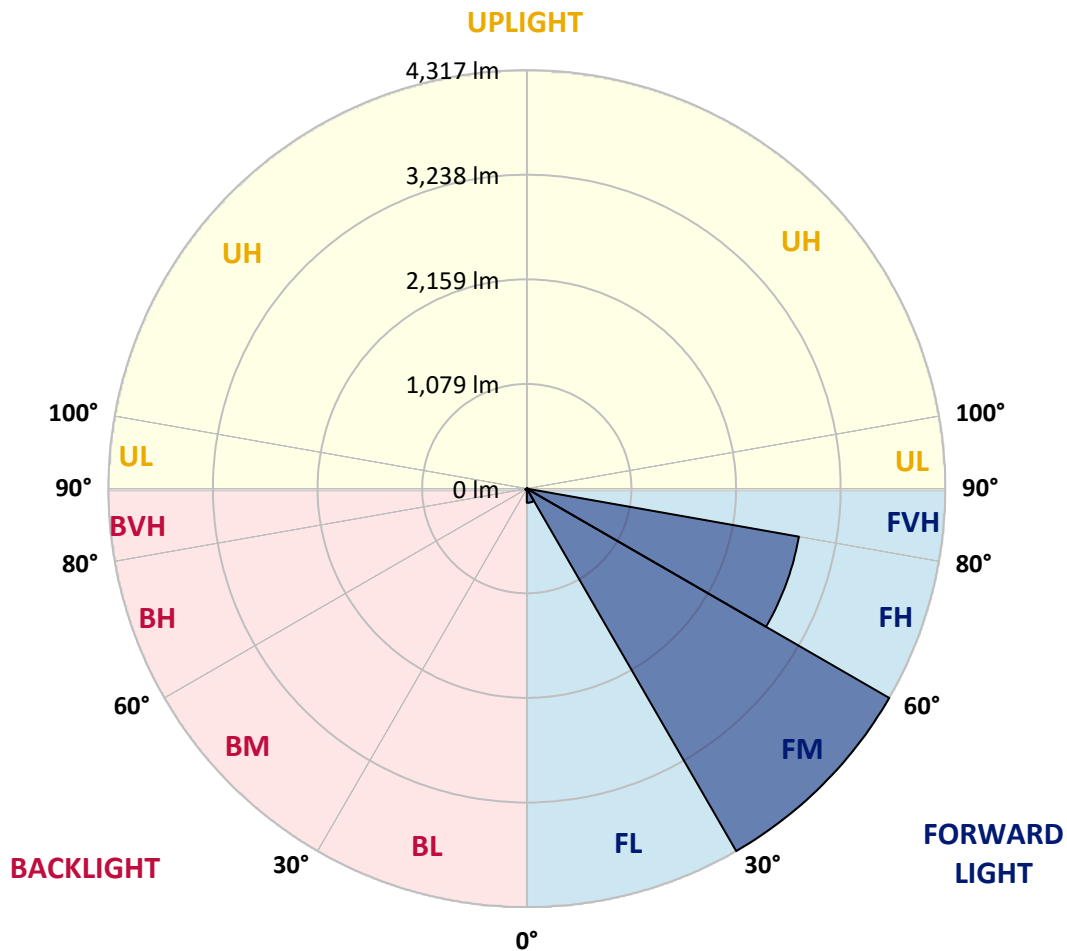
CATALOG NUMBER: NAV-SA3A-830-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	146.3	2.0			
FM	(30°-60°)	4317.3	58.6			
FH	(60°-80°)	2850.4	38.7			G2/5000
FVH	(80°-90°)	15.8	0.2			G1/100
BL	(0°-30°)	4.0	0.1	B0/110		
BM	(30°-60°)	14.5	0.2	B0/220		
BH	(60°-80°)	16.2	0.2	B0/110		G0/110
BVH	(80°-90°)	0.8	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: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.5°	32.3	32.3	30.0	27.7	25.4	23.1	23.1	23.1	20.8	20.8	18.5
5°	36.9	36.9	34.6	32.3	32.3	30.0	30.0	27.7	25.4	25.4	23.1
7.5°	39.3	39.3	39.3	39.3	36.9	36.9	36.9	34.6	32.3	30.0	27.7
10°	41.6	43.9	46.2	46.2	46.2	46.2	46.2	43.9	39.3	36.9	32.3
12.5°	46.2	48.5	53.1	57.7	57.7	60.0	57.7	55.4	50.8	43.9	36.9
15°	50.8	55.4	62.4	71.6	80.8	83.1	83.1	76.2	67.0	53.1	43.9
17.5°	57.7	64.7	83.1	113.2	145.5	170.9	170.9	152.4	106.2	69.3	50.8
20°	62.4	76.2	133.9	272.5	415.7	521.9	501.1	443.4	237.9	108.5	55.4
22.5°	69.3	97.0	284.0	715.9	1108.5	1302.4	1256.2	953.7	533.4	194.0	67.0
25°	78.5	140.9	563.5	1341.7	2059.9	2270.0	2240.0	1780.4	972.2	325.6	85.4
27.5°	97.0	207.8	902.9	2034.5	3039.0	3219.1	3207.6	2607.2	1554.1	524.2	110.8
30°	122.4	302.5	1339.4	2764.2	3687.9	3870.3	3812.6	3212.2	2096.8	801.3	143.2
32.5°	152.4	422.6	1734.3	3302.3	4286.0	4526.2	4456.9	3738.7	2533.3	1036.9	212.5
35°	198.6	540.4	2124.5	3778.0	4976.5	5281.3	5165.8	4281.4	2909.7	1302.4	256.3
37.5°	221.7	609.6	2482.5	4295.2	5752.4	6168.1	6080.3	4967.2	3293.0	1641.9	314.1
40°	224.0	692.8	2854.3	4969.6	6849.3	7590.6	7433.5	6145.0	4006.6	2078.3	404.1
42.5°	230.9	817.5	3336.9	6119.6	9003.8	10068.4	9890.6	8311.1	5625.4	2953.6	572.7
45°	263.3	1053.0	4320.6	8269.5	11962.0	13523.1	13317.6	11329.3	7886.2	4600.1	976.8
47.5°	376.4	1584.2	6045.7	10590.3	14987.2	16231.9	16181.1	13707.8	9934.5	6288.1	1655.7
50°	605.0	2431.7	8008.6	12541.7	16913.1	17982.3	17855.3	14700.8	11103.0	7440.5	2122.2
52.5°	808.2	3242.2	9241.7	13259.8	17488.1	18762.8	18608.1	15063.4	11410.1	7779.9	2251.5
55°	859.0	3535.5	9608.9	13481.5	17869.1	19423.3	19199.3	15305.8	11449.4	7537.5	2036.8
57.5°	833.6	3258.4	9371.0	13698.6	18400.3	20102.2	19804.3	15779.2	11581.0	7126.4	1695.0
59°	789.8	2916.6	9223.2	13871.8	18693.5	20208.4	19929.0	15883.2	11668.7	6939.4	1487.2
60°	739.0	2685.7	9107.8	13984.9	18675.1	20042.2	19753.5	15834.7	11703.4	6777.7	1387.9
62.5°	570.4	2143.0	8941.5	13904.1	17508.9	18525.0	18361.0	14647.7	11195.3	6260.4	1094.6
65°	443.4	1639.6	8331.9	12400.8	14899.4	15583.0	15532.2	12403.1	9421.8	5396.8	789.8
67.5°	351.0	1196.2	7045.6	10043.0	11987.4	12959.6	12922.7	10068.4	7151.8	4124.4	568.1
70°	286.3	852.1	4831.0	7572.1	9588.1	10812.0	10758.9	8103.2	5299.8	2616.4	413.4
72.5°	242.5	545.0	2930.5	5708.5	8001.6	8701.3	8546.6	6537.5	3854.2	1424.8	327.9
75°	205.5	334.8	1452.5	3558.6	4766.3	4761.7	4607.0	3461.6	2069.1	697.4	260.9
77.5°	166.3	235.5	570.4	976.8	1503.3	1861.3	1831.3	1226.2	618.9	203.2	161.6
80°	108.5	110.8	152.4	267.9	413.4	457.2	519.6	374.1	180.1	97.0	67.0
82.5°	48.5	53.1	69.3	87.8	87.8	80.8	71.6	53.1	39.3	32.3	16.2
85°	11.5	16.2	11.5	13.9	11.5	9.2	9.2	4.6	0.0	0.0	0.0
87.5°	2.3	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: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.5°	18.5	18.5	18.5	16.2	16.2	16.2	13.9	13.9	13.9	11.5	11.5
5°	23.1	20.8	18.5	18.5	16.2	16.2	13.9	11.5	11.5	11.5	9.2
7.5°	25.4	23.1	20.8	18.5	16.2	13.9	13.9	11.5	9.2	9.2	9.2
10°	30.0	27.7	23.1	18.5	16.2	13.9	11.5	11.5	9.2	6.9	6.9
12.5°	34.6	30.0	25.4	20.8	16.2	13.9	11.5	11.5	9.2	6.9	4.6
15°	39.3	34.6	27.7	20.8	16.2	13.9	11.5	11.5	6.9	4.6	2.3
17.5°	43.9	36.9	27.7	23.1	16.2	13.9	11.5	9.2	4.6	2.3	0.0
20°	46.2	39.3	30.0	23.1	16.2	13.9	11.5	6.9	2.3	0.0	0.0
22.5°	50.8	43.9	32.3	23.1	16.2	11.5	6.9	2.3	0.0	0.0	0.0
25°	60.0	46.2	32.3	23.1	16.2	11.5	4.6	0.0	0.0	0.0	0.0
27.5°	67.0	50.8	32.3	23.1	16.2	9.2	2.3	0.0	0.0	0.0	0.0
30°	78.5	55.4	34.6	23.1	16.2	6.9	2.3	0.0	0.0	0.0	0.0
32.5°	97.0	60.0	34.6	23.1	13.9	6.9	0.0	0.0	0.0	0.0	0.0
35°	117.8	69.3	34.6	23.1	13.9	6.9	0.0	0.0	0.0	0.0	0.0
37.5°	120.1	73.9	34.6	23.1	13.9	4.6	0.0	0.0	0.0	0.0	0.0
40°	124.7	69.3	36.9	23.1	13.9	4.6	0.0	0.0	0.0	0.0	0.0
42.5°	143.2	64.7	39.3	23.1	13.9	4.6	0.0	0.0	0.0	0.0	0.0
45°	212.5	67.0	39.3	25.4	13.9	6.9	0.0	0.0	0.0	0.0	0.0
47.5°	369.5	69.3	36.9	25.4	13.9	6.9	0.0	0.0	0.0	0.0	0.0
50°	473.4	80.8	36.9	27.7	16.2	4.6	0.0	0.0	0.0	0.0	0.0
52.5°	503.4	94.7	36.9	30.0	20.8	2.3	0.0	0.0	0.0	0.0	0.0
55°	489.6	110.8	39.3	32.3	25.4	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	452.6	120.1	41.6	34.6	27.7	0.0	0.0	0.0	0.0	0.0	0.0
59°	413.4	127.0	48.5	36.9	27.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	381.0	133.9	50.8	39.3	27.7	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	307.1	143.2	55.4	46.2	23.1	0.0	0.0	0.0	0.0	0.0	0.0
65°	267.9	150.1	57.7	50.8	20.8	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	244.8	154.7	62.4	53.1	18.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	226.3	152.4	67.0	50.8	16.2	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	205.5	145.5	80.8	46.2	13.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	184.7	131.6	87.8	41.6	9.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	133.9	110.8	80.8	36.9	4.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	57.7	60.0	57.7	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.5	13.9	11.5	6.9	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: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.5°	11.5	11.5	11.5	11.5	13.9	13.9	18.5	23.1	27.7	30.0	30.0
5°	9.2	9.2	9.2	9.2	9.2	11.5	13.9	18.5	25.4	27.7	27.7
7.5°	6.9	6.9	6.9	6.9	6.9	6.9	11.5	16.2	23.1	25.4	27.7
10°	6.9	4.6	4.6	2.3	2.3	4.6	6.9	13.9	20.8	23.1	25.4
12.5°	4.6	2.3	2.3	0.0	0.0	2.3	4.6	11.5	18.5	20.8	23.1
15°	2.3	0.0	0.0	0.0	0.0	0.0	2.3	9.2	16.2	18.5	23.1
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	13.9	18.5	20.8
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	11.5	16.2	18.5
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	9.2	13.9	16.2
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	9.2	11.5
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	6.9	9.2
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	6.9	9.2
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6	6.9
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6	6.9
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6	4.6
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
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: P1068069

CATALOG NUMBER: NAV-SA3A-830-U-LBC

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.5°	32.3	32.3	30.0	27.7	27.7	27.7	30.0	32.3	32.3	32.3
5°	30.0	30.0	27.7	27.7	27.7	27.7	30.0	34.6	36.9	36.9
7.5°	30.0	30.0	27.7	27.7	27.7	27.7	30.0	34.6	36.9	39.3
10°	27.7	27.7	27.7	27.7	25.4	27.7	30.0	34.6	41.6	41.6
12.5°	27.7	27.7	27.7	27.7	25.4	27.7	32.3	36.9	43.9	46.2
15°	27.7	27.7	27.7	25.4	25.4	27.7	32.3	39.3	46.2	50.8
17.5°	25.4	27.7	27.7	25.4	25.4	27.7	32.3	39.3	50.8	57.7
20°	23.1	25.4	27.7	25.4	25.4	25.4	32.3	39.3	53.1	62.4
22.5°	20.8	23.1	25.4	25.4	23.1	25.4	32.3	41.6	57.7	69.3
25°	18.5	20.8	20.8	23.1	23.1	25.4	32.3	41.6	60.0	78.5
27.5°	13.9	16.2	18.5	20.8	20.8	25.4	32.3	43.9	64.7	97.0
30°	11.5	13.9	16.2	18.5	20.8	25.4	32.3	43.9	69.3	122.4
32.5°	11.5	13.9	16.2	18.5	20.8	23.1	32.3	46.2	76.2	152.4
35°	9.2	11.5	13.9	18.5	18.5	23.1	32.3	46.2	83.1	198.6
37.5°	9.2	11.5	13.9	18.5	18.5	23.1	32.3	46.2	101.6	221.7
40°	6.9	9.2	11.5	18.5	18.5	23.1	34.6	48.5	103.9	224.0
42.5°	6.9	9.2	11.5	16.2	18.5	23.1	34.6	48.5	97.0	230.9
45°	6.9	9.2	11.5	18.5	20.8	25.4	34.6	50.8	94.7	263.3
47.5°	6.9	9.2	11.5	18.5	23.1	25.4	34.6	50.8	97.0	376.4
50°	6.9	9.2	11.5	18.5	25.4	25.4	34.6	50.8	106.2	605.0
52.5°	4.6	6.9	9.2	16.2	20.8	27.7	36.9	48.5	113.2	808.2
55°	4.6	4.6	6.9	13.9	18.5	30.0	39.3	48.5	131.6	859.0
57.5°	4.6	4.6	6.9	11.5	16.2	32.3	41.6	48.5	152.4	833.6
59°	4.6	4.6	4.6	11.5	13.9	32.3	41.6	50.8	154.7	789.8
60°	4.6	4.6	4.6	9.2	13.9	32.3	43.9	53.1	157.0	739.0
62.5°	2.3	2.3	2.3	9.2	11.5	32.3	48.5	64.7	161.6	570.4
65°	4.6	4.6	2.3	6.9	11.5	27.7	55.4	69.3	164.0	443.4
67.5°	4.6	4.6	4.6	9.2	11.5	27.7	57.7	71.6	164.0	351.0
70°	4.6	4.6	4.6	9.2	13.9	27.7	57.7	73.9	161.6	286.3
72.5°	4.6	4.6	4.6	9.2	13.9	25.4	53.1	76.2	154.7	242.5
75°	4.6	4.6	4.6	6.9	11.5	23.1	50.8	83.1	140.9	205.5
77.5°	4.6	4.6	4.6	4.6	9.2	18.5	46.2	92.4	124.7	166.3
80°	6.9	4.6	4.6	4.6	6.9	16.2	43.9	90.1	103.9	108.5
82.5°	6.9	4.6	4.6	2.3	4.6	11.5	34.6	69.3	53.1	48.5
85°	4.6	4.6	4.6	2.3	2.3	6.9	16.2	20.8	16.2	11.5
87.5°	4.6	4.6	4.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: SP1-2407-184-9

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

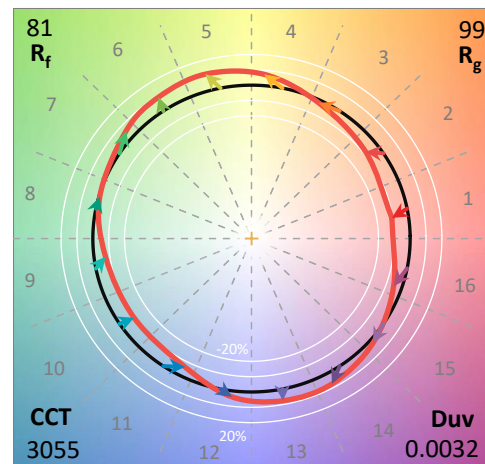
Test Information

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

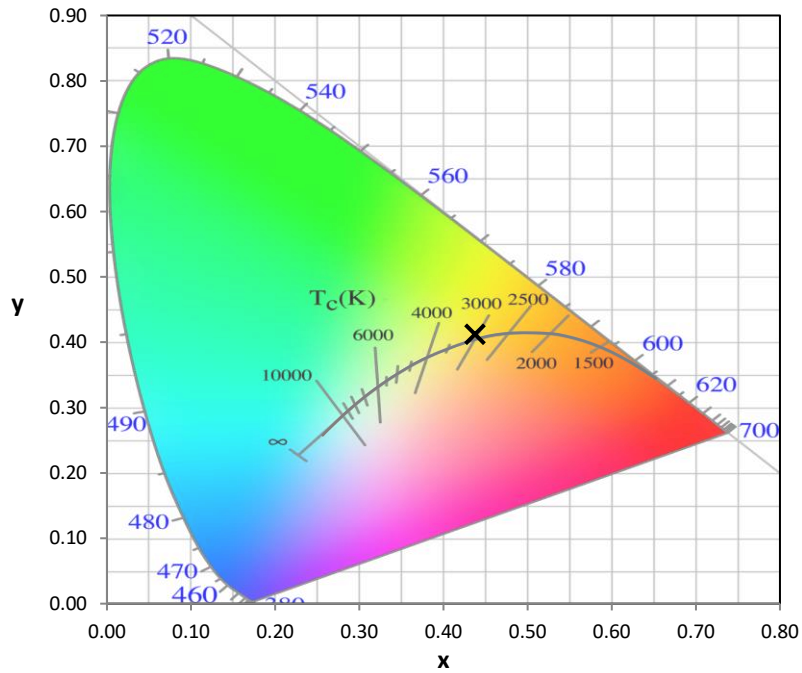
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

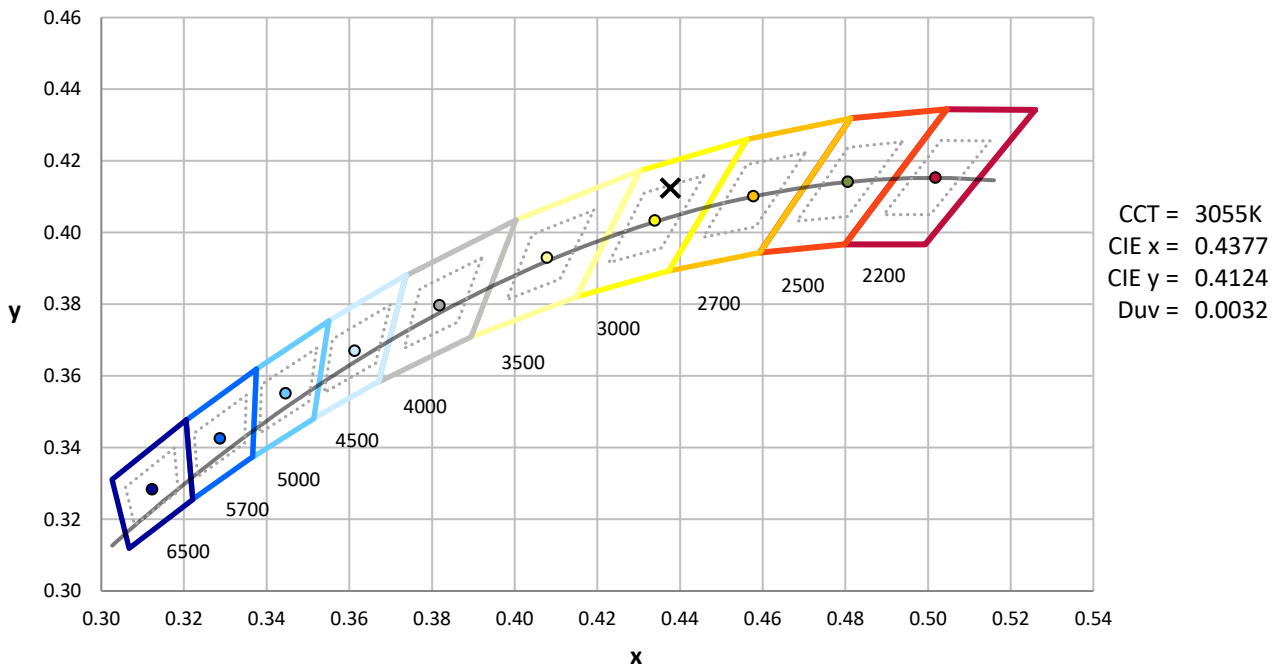
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

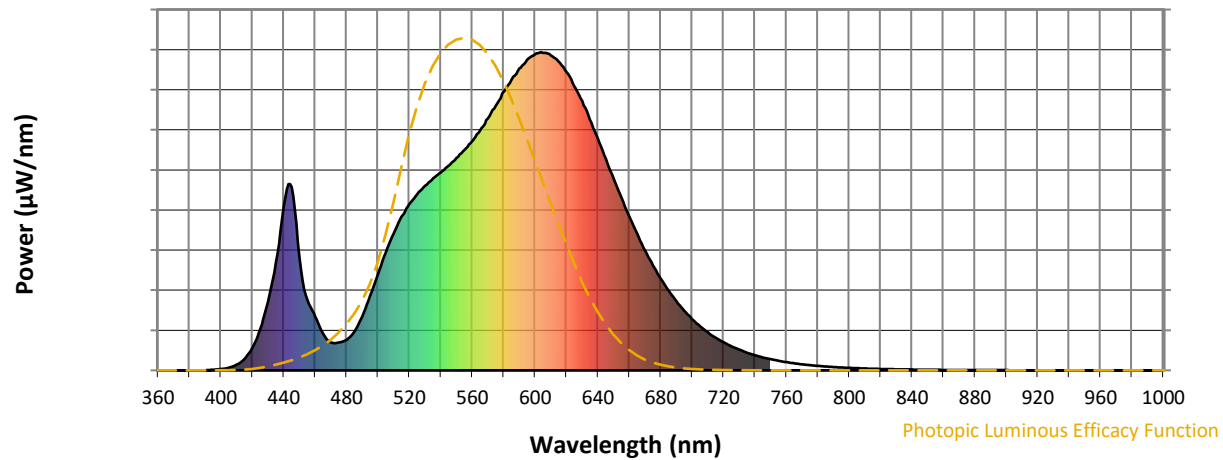


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

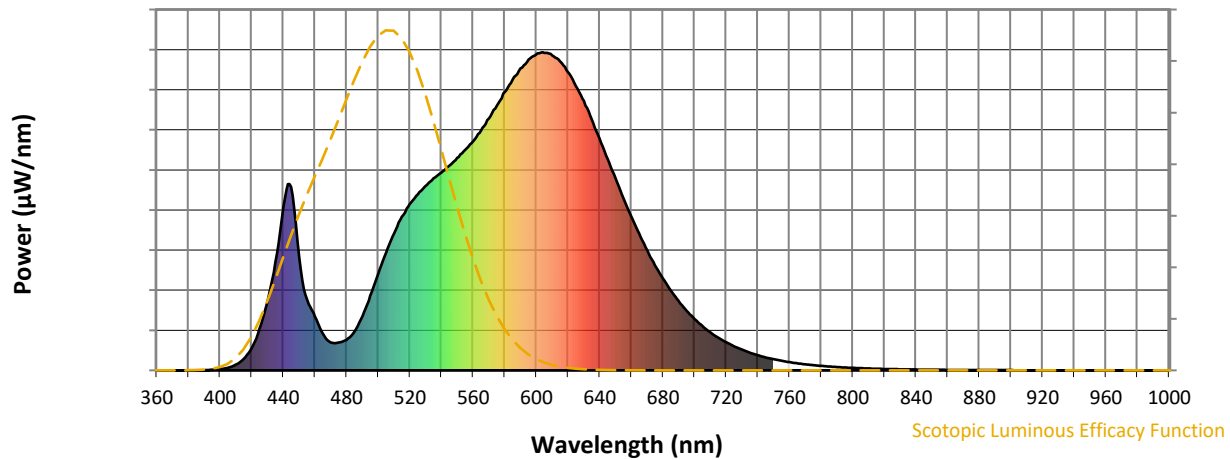


Photopic Lumens: NR

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



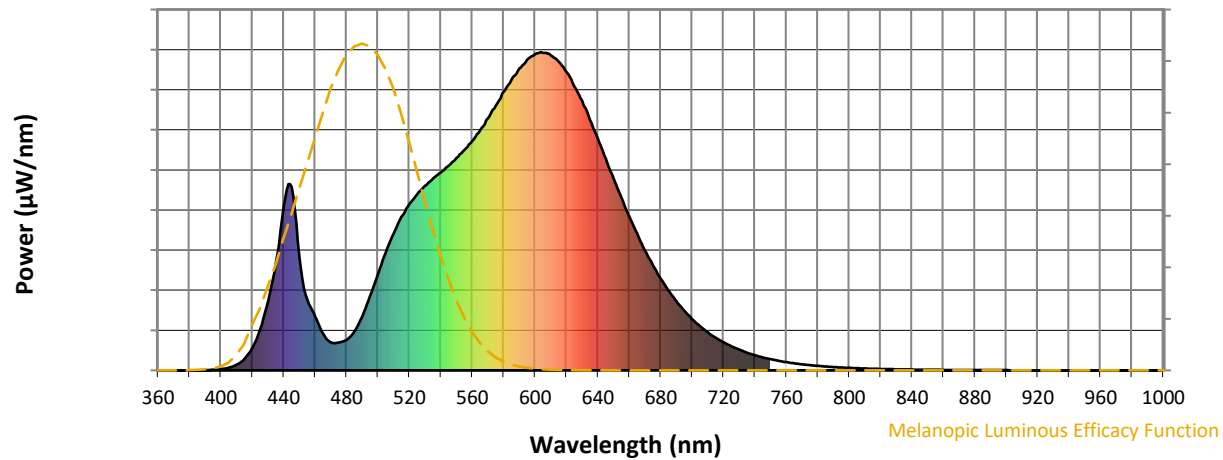
Scotopic Lumens: NR

S/P: 1.28

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.33

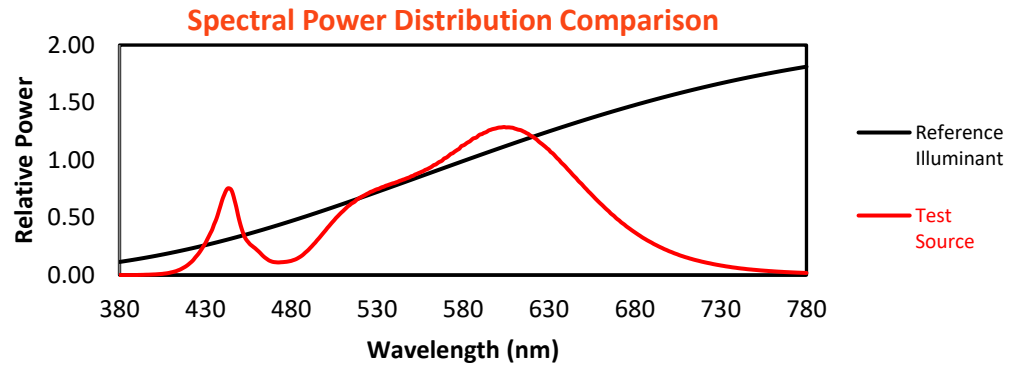
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	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

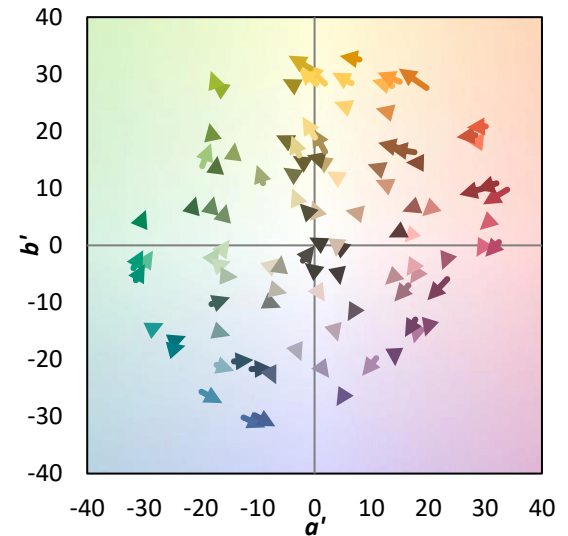
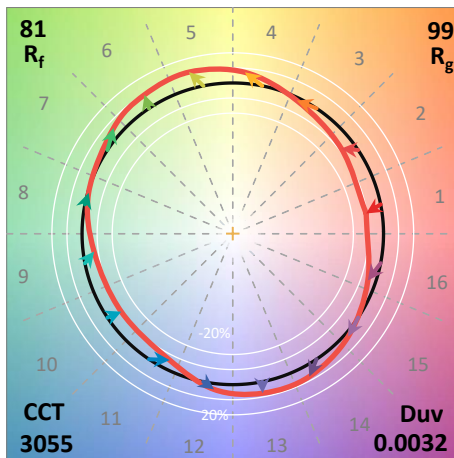
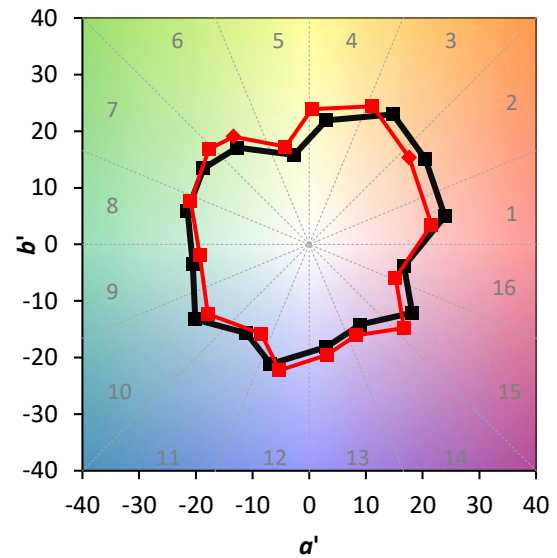
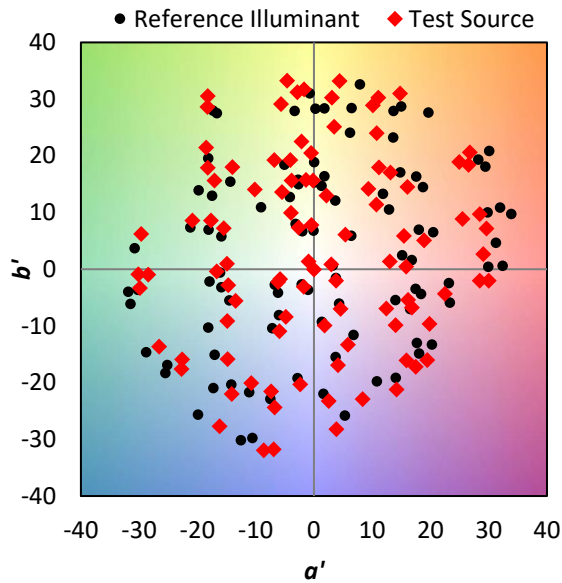
TM-30-18

Summary

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

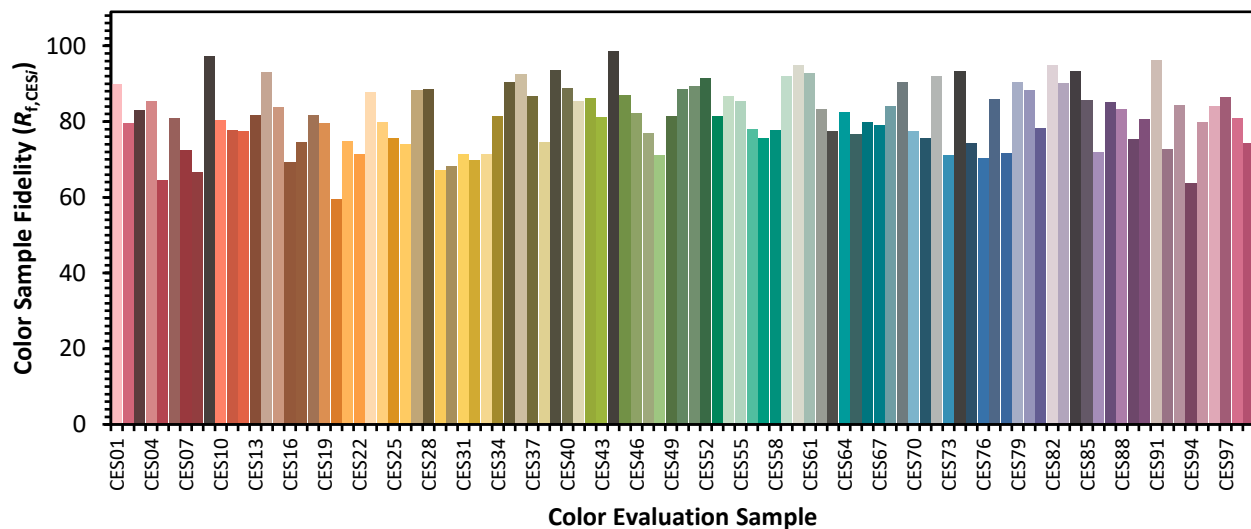


Color Vector Graphics

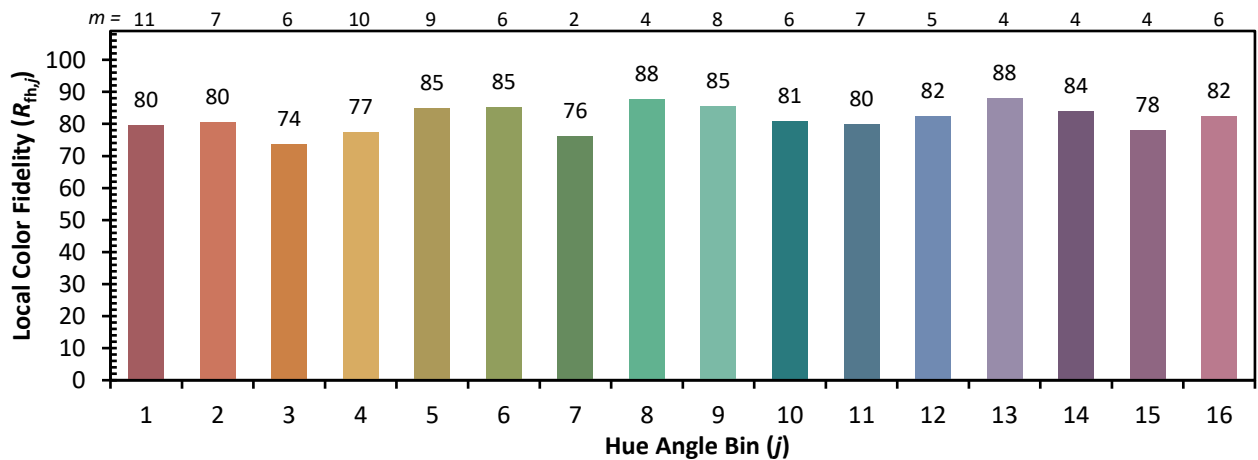
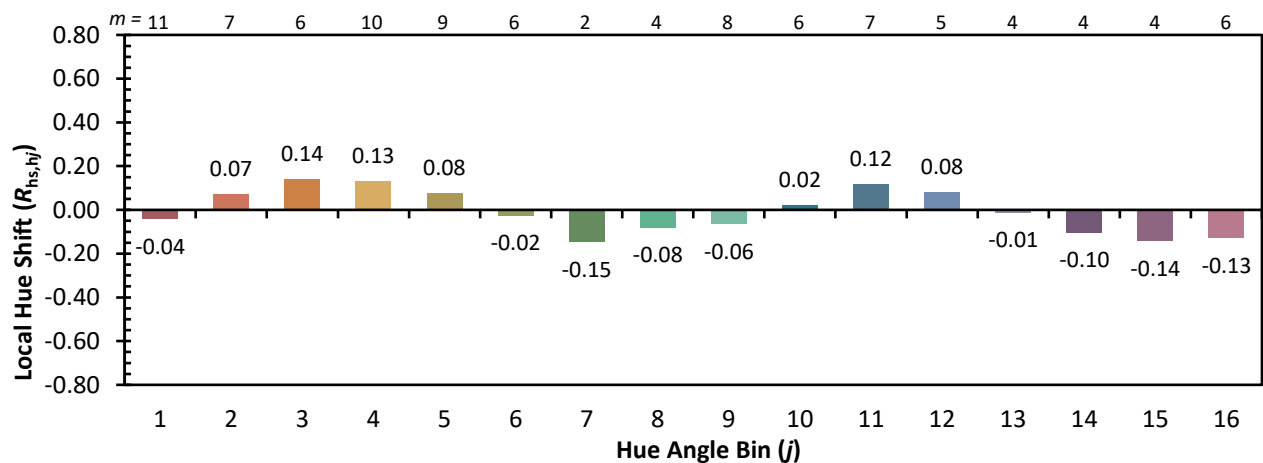
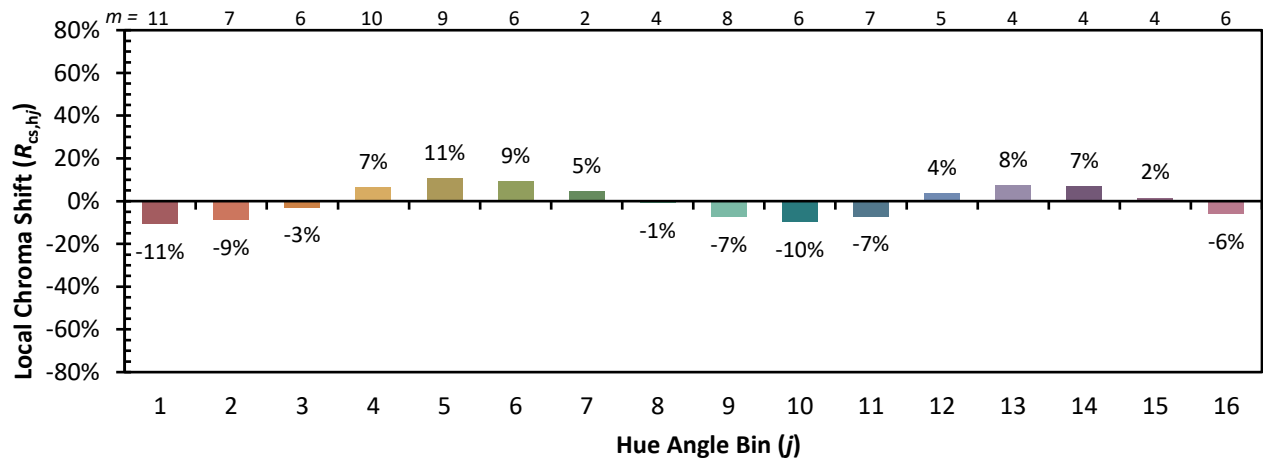


Individual Sample Fidelity Index ($R_{f,i}$)

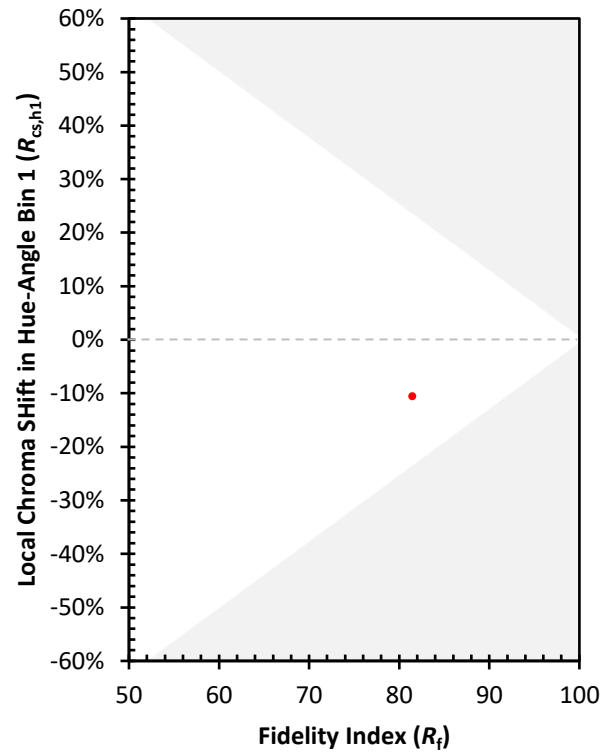
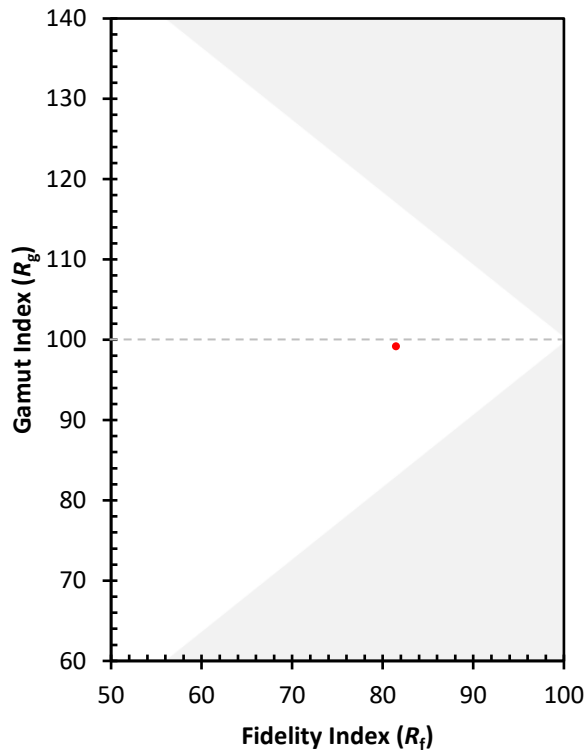
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)