

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: P1068089

Luminaire Tested: **NAV-SA2A-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068089
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA2A-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 615mA 2xLight Square PACKAGE
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (28) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5456.3 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 55.3
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

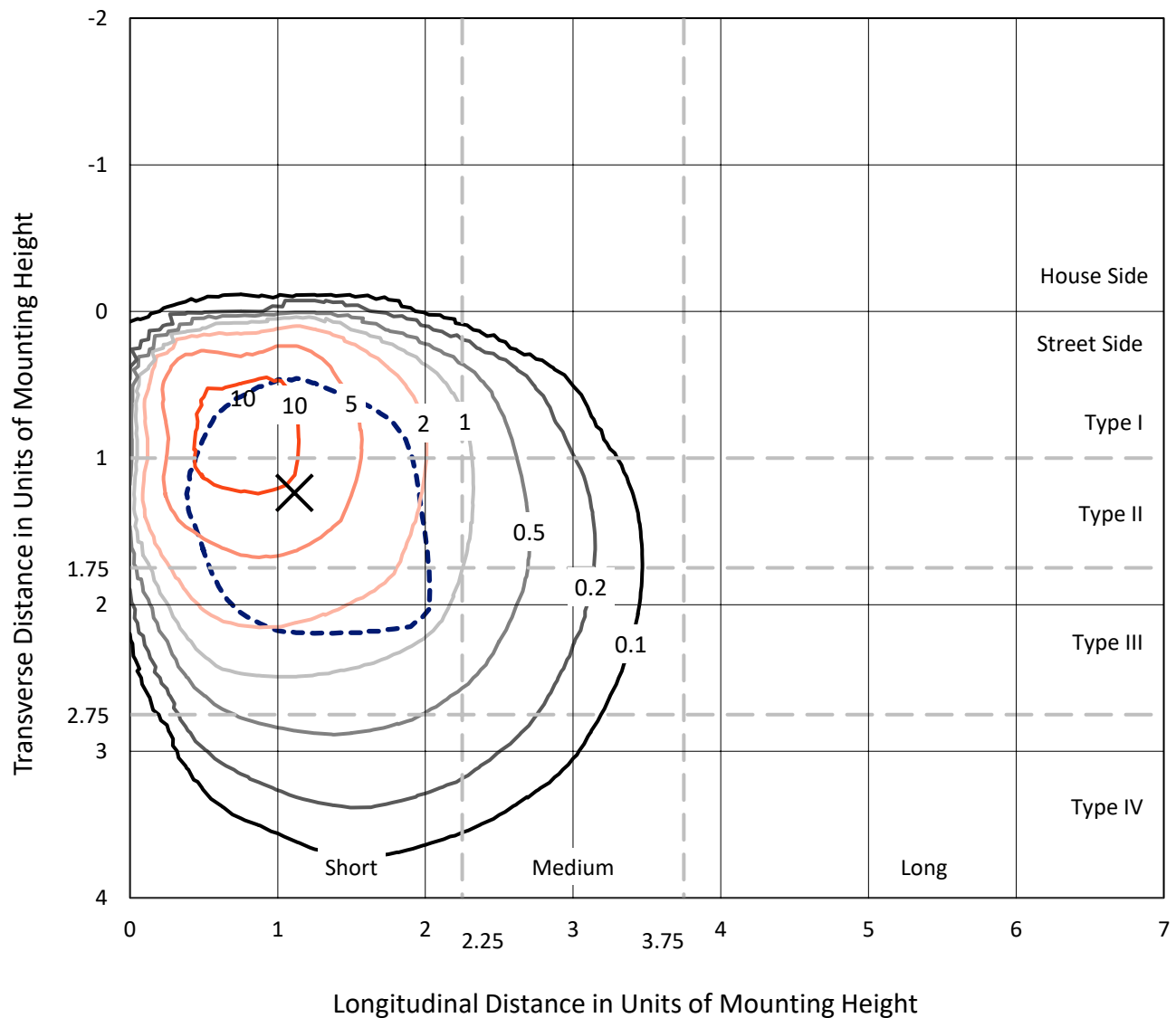


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

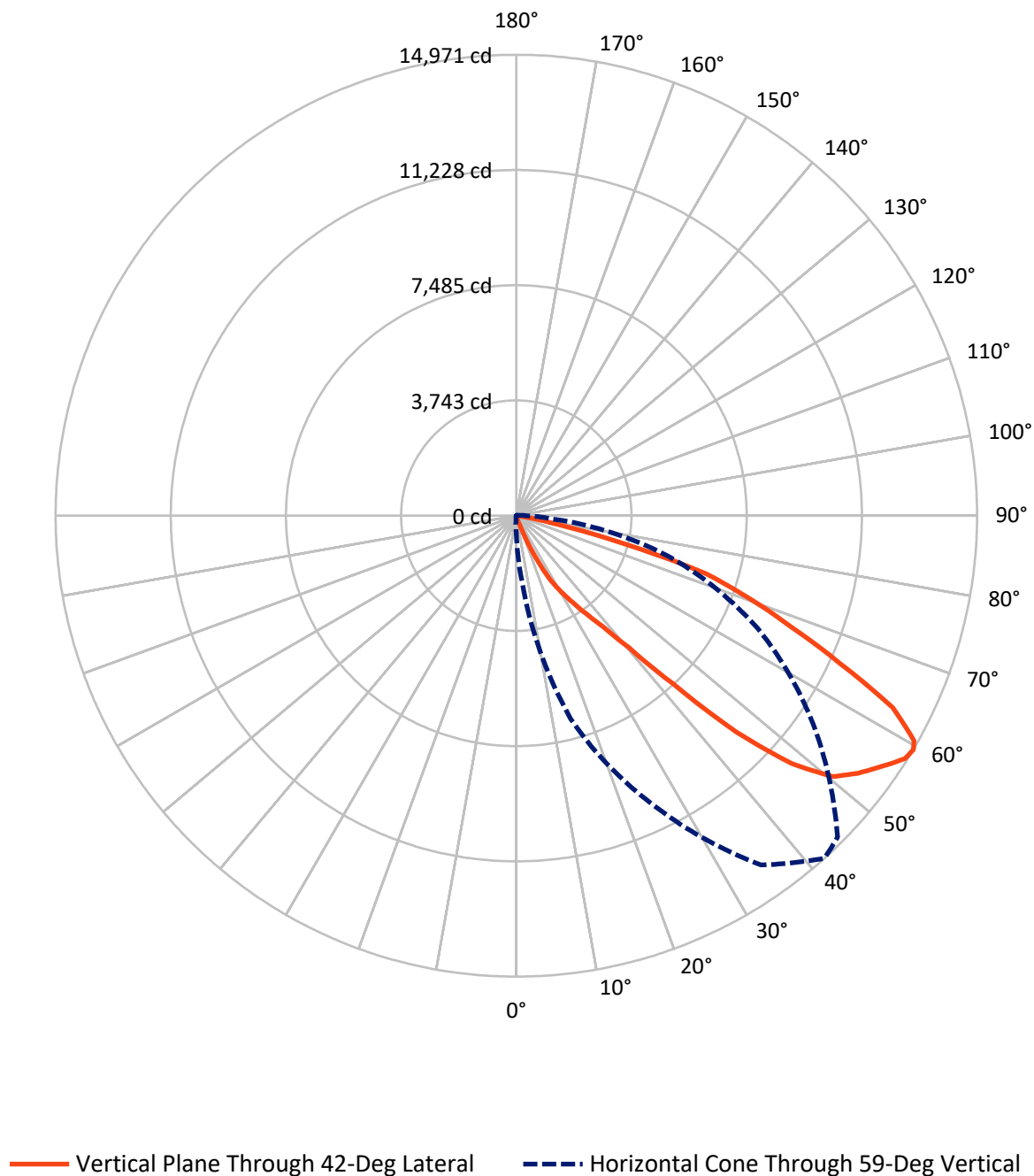


Based on 15 foot mounting height. Maximum calculated value = 16.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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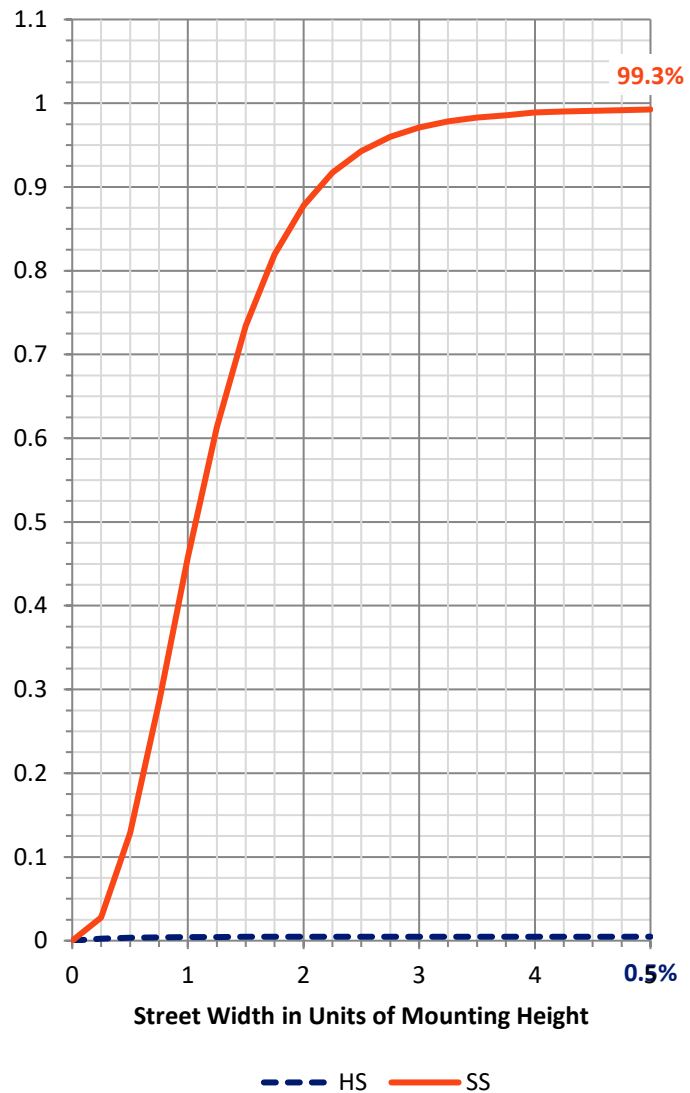
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26.3	0.0	26.3
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	5430.0	0.0	5430.0
	% Fixture	99.5	0.0	99.5
Total	Lumens	5456.3	0.0	5456.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.0
10°-20°	8.0	0.1
20°-30°	101.8	1.9
30°-40°	343.1	6.3
40°-50°	1036.4	19.0
50°-60°	1829.5	33.5
60°-70°	1610.9	29.5
70°-80°	512.8	9.4
80°-90°	12.3	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°	5456.3	100.0
0°-180°	5456.3	100.0



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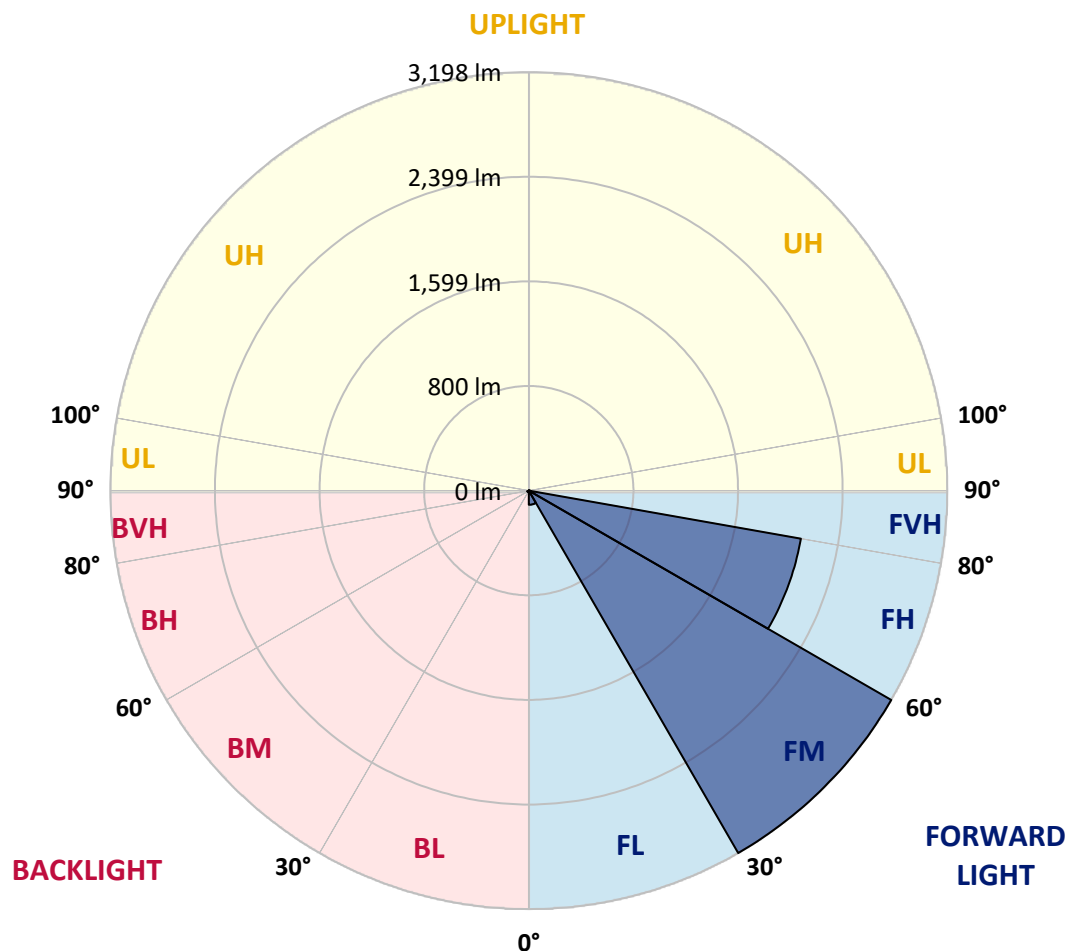
CATALOG NUMBER: NAV-SA2A-835-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	108.4	2.0			
FM	(30°-60°)	3198.3	58.6			
FH	(60°-80°)	2111.6	38.7			G2/5000
FVH	(80°-90°)	11.7	0.2			G1/100
BL	(0°-30°)	2.9	0.1	B0/110		
BM	(30°-60°)	10.7	0.2	B0/220		
BH	(60°-80°)	12.0	0.2	B0/110		G0/110
BVH	(80°-90°)	0.6	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.5°	24.0	24.0	22.2	20.5	18.8	17.1	17.1	17.1	15.4	15.4	13.7
5°	27.4	27.4	25.7	24.0	24.0	22.2	22.2	20.5	18.8	18.8	17.1
7.5°	29.1	29.1	29.1	29.1	27.4	27.4	27.4	25.7	24.0	22.2	20.5
10°	30.8	32.5	34.2	34.2	34.2	34.2	34.2	32.5	29.1	27.4	24.0
12.5°	34.2	35.9	39.3	42.8	42.8	44.5	42.8	41.1	37.6	32.5	27.4
15°	37.6	41.1	46.2	53.0	59.9	61.6	61.6	56.5	49.6	39.3	32.5
17.5°	42.8	47.9	61.6	83.8	107.8	126.6	126.6	112.9	78.7	51.3	37.6
20°	46.2	56.5	99.2	201.9	307.9	386.6	371.2	328.5	176.2	80.4	41.1
22.5°	51.3	71.9	210.4	530.3	821.2	964.9	930.6	706.5	395.2	143.7	49.6
25°	58.2	104.4	417.4	993.9	1526.0	1681.7	1659.4	1319.0	720.2	241.2	63.3
27.5°	71.9	154.0	668.9	1507.2	2251.3	2384.8	2376.2	1931.4	1151.3	388.3	82.1
30°	90.7	224.1	992.2	2047.8	2732.1	2867.2	2824.4	2379.6	1553.4	593.6	106.1
32.5°	112.9	313.1	1284.8	2446.4	3175.1	3353.0	3301.7	2769.7	1876.7	768.1	157.4
35°	147.1	400.3	1573.9	2798.8	3686.6	3912.5	3826.9	3171.7	2155.5	964.9	189.9
37.5°	164.2	451.6	1839.0	3182.0	4261.5	4569.4	4504.4	3679.8	2439.5	1216.3	232.7
40°	165.9	513.2	2114.5	3681.5	5074.1	5623.2	5506.9	4552.3	2968.1	1539.7	299.4
42.5°	171.1	605.6	2472.0	4533.5	6670.2	7458.8	7327.1	6157.0	4167.4	2188.0	424.3
45°	195.0	780.1	3200.8	6126.2	8861.6	10018.1	9865.8	8392.9	5842.2	3407.8	723.6
47.5°	278.9	1173.6	4478.7	7845.5	11102.7	12024.8	11987.2	10155.0	7359.6	4658.3	1226.6
50°	448.2	1801.4	5932.8	9291.0	12529.5	13321.5	13227.4	10890.6	8225.2	5512.0	1572.2
52.5°	598.8	2401.9	6846.4	9823.1	12955.4	13899.8	13785.1	11159.2	8452.8	5763.5	1668.0
55°	636.4	2619.1	7118.4	9987.3	13237.7	14389.0	14223.1	11338.8	8481.8	5583.9	1508.9
57.5°	617.6	2413.9	6942.2	10148.1	13631.2	14892.0	14671.3	11689.5	8579.4	5279.3	1255.7
59°	585.1	2160.7	6832.7	10276.4	13848.4	14970.7	14763.7	11766.5	8644.4	5140.8	1101.7
60°	547.4	1989.6	6747.2	10360.2	13834.8	14847.5	14633.7	11730.5	8670.0	5021.0	1028.2
62.5°	422.6	1587.6	6624.0	10300.4	12970.8	13723.6	13602.1	10851.2	8293.7	4637.8	810.9
65°	328.5	1214.6	6172.3	9186.7	11037.7	11544.1	11506.4	9188.4	6979.8	3998.0	585.1
67.5°	260.0	886.2	5219.5	7440.0	8880.4	9600.7	9573.3	7458.8	5298.2	3055.4	420.8
70°	212.1	631.3	3578.9	5609.5	7103.0	8009.7	7970.3	6003.0	3926.1	1938.3	306.2
72.5°	179.6	403.7	2170.9	4228.9	5927.7	6446.1	6331.4	4843.1	2855.2	1055.5	242.9
75°	152.3	248.1	1076.1	2636.2	3531.0	3527.5	3412.9	2564.4	1532.8	516.6	193.3
77.5°	123.2	174.5	422.6	723.6	1113.7	1378.9	1356.6	908.4	458.5	150.5	119.8
80°	80.4	82.1	112.9	198.4	306.2	338.7	384.9	277.1	133.4	71.9	49.6
82.5°	35.9	39.3	51.3	65.0	65.0	59.9	53.0	39.3	29.1	24.0	12.0
85°	8.6	12.0	8.6	10.3	8.6	6.8	6.8	3.4	0.0	0.0	0.0
87.5°	1.7	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°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.5°	13.7	13.7	13.7	12.0	12.0	12.0	10.3	10.3	10.3	8.6	8.6
5°	17.1	15.4	13.7	13.7	12.0	12.0	10.3	8.6	8.6	8.6	6.8
7.5°	18.8	17.1	15.4	13.7	12.0	10.3	10.3	8.6	6.8	6.8	6.8
10°	22.2	20.5	17.1	13.7	12.0	10.3	8.6	8.6	6.8	5.1	5.1
12.5°	25.7	22.2	18.8	15.4	12.0	10.3	8.6	8.6	6.8	5.1	3.4
15°	29.1	25.7	20.5	15.4	12.0	10.3	8.6	8.6	5.1	3.4	1.7
17.5°	32.5	27.4	20.5	17.1	12.0	10.3	8.6	6.8	3.4	1.7	0.0
20°	34.2	29.1	22.2	17.1	12.0	10.3	8.6	5.1	1.7	0.0	0.0
22.5°	37.6	32.5	24.0	17.1	12.0	8.6	5.1	1.7	0.0	0.0	0.0
25°	44.5	34.2	24.0	17.1	12.0	8.6	3.4	0.0	0.0	0.0	0.0
27.5°	49.6	37.6	24.0	17.1	12.0	6.8	1.7	0.0	0.0	0.0	0.0
30°	58.2	41.1	25.7	17.1	12.0	5.1	1.7	0.0	0.0	0.0	0.0
32.5°	71.9	44.5	25.7	17.1	10.3	5.1	0.0	0.0	0.0	0.0	0.0
35°	87.2	51.3	25.7	17.1	10.3	5.1	0.0	0.0	0.0	0.0	0.0
37.5°	89.0	54.7	25.7	17.1	10.3	3.4	0.0	0.0	0.0	0.0	0.0
40°	92.4	51.3	27.4	17.1	10.3	3.4	0.0	0.0	0.0	0.0	0.0
42.5°	106.1	47.9	29.1	17.1	10.3	3.4	0.0	0.0	0.0	0.0	0.0
45°	157.4	49.6	29.1	18.8	10.3	5.1	0.0	0.0	0.0	0.0	0.0
47.5°	273.7	51.3	27.4	18.8	10.3	5.1	0.0	0.0	0.0	0.0	0.0
50°	350.7	59.9	27.4	20.5	12.0	3.4	0.0	0.0	0.0	0.0	0.0
52.5°	372.9	70.1	27.4	22.2	15.4	1.7	0.0	0.0	0.0	0.0	0.0
55°	362.7	82.1	29.1	24.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	335.3	89.0	30.8	25.7	20.5	0.0	0.0	0.0	0.0	0.0	0.0
59°	306.2	94.1	35.9	27.4	20.5	0.0	0.0	0.0	0.0	0.0	0.0
60°	282.3	99.2	37.6	29.1	20.5	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	227.5	106.1	41.1	34.2	17.1	0.0	0.0	0.0	0.0	0.0	0.0
65°	198.4	111.2	42.8	37.6	15.4	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	181.3	114.6	46.2	39.3	13.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	167.7	112.9	49.6	37.6	12.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	152.3	107.8	59.9	34.2	10.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	136.9	97.5	65.0	30.8	6.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	99.2	82.1	59.9	27.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	42.8	44.5	42.8	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.6	10.3	8.6	5.1	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.5°	8.6	8.6	8.6	8.6	10.3	10.3	13.7	17.1	20.5	22.2	22.2
5°	6.8	6.8	6.8	6.8	6.8	8.6	10.3	13.7	18.8	20.5	20.5
7.5°	5.1	5.1	5.1	5.1	5.1	5.1	8.6	12.0	17.1	18.8	20.5
10°	5.1	3.4	3.4	1.7	1.7	3.4	5.1	10.3	15.4	17.1	18.8
12.5°	3.4	1.7	1.7	0.0	0.0	1.7	3.4	8.6	13.7	15.4	17.1
15°	1.7	0.0	0.0	0.0	0.0	0.0	1.7	6.8	12.0	13.7	17.1
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.3	13.7	15.4
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	8.6	12.0	13.7
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.8	10.3	12.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	6.8	8.6
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	5.1	6.8
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	5.1	6.8
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	5.1
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	5.1
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	3.4
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
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):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
2.5°	24.0	24.0	22.2	20.5	20.5	20.5	22.2	24.0	24.0	24.0
5°	22.2	22.2	20.5	20.5	20.5	20.5	22.2	25.7	27.4	27.4
7.5°	22.2	22.2	20.5	20.5	20.5	20.5	22.2	25.7	27.4	29.1
10°	20.5	20.5	20.5	20.5	18.8	20.5	22.2	25.7	30.8	30.8
12.5°	20.5	20.5	20.5	20.5	18.8	20.5	24.0	27.4	32.5	34.2
15°	20.5	20.5	20.5	18.8	18.8	20.5	24.0	29.1	34.2	37.6
17.5°	18.8	20.5	20.5	18.8	18.8	20.5	24.0	29.1	37.6	42.8
20°	17.1	18.8	20.5	18.8	18.8	18.8	24.0	29.1	39.3	46.2
22.5°	15.4	17.1	18.8	18.8	17.1	18.8	24.0	30.8	42.8	51.3
25°	13.7	15.4	15.4	17.1	17.1	18.8	24.0	30.8	44.5	58.2
27.5°	10.3	12.0	13.7	15.4	15.4	18.8	24.0	32.5	47.9	71.9
30°	8.6	10.3	12.0	13.7	15.4	18.8	24.0	32.5	51.3	90.7
32.5°	8.6	10.3	12.0	13.7	15.4	17.1	24.0	34.2	56.5	112.9
35°	6.8	8.6	10.3	13.7	13.7	17.1	24.0	34.2	61.6	147.1
37.5°	6.8	8.6	10.3	13.7	13.7	17.1	24.0	34.2	75.3	164.2
40°	5.1	6.8	8.6	13.7	13.7	17.1	25.7	35.9	77.0	165.9
42.5°	5.1	6.8	8.6	12.0	13.7	17.1	25.7	35.9	71.9	171.1
45°	5.1	6.8	8.6	13.7	15.4	18.8	25.7	37.6	70.1	195.0
47.5°	5.1	6.8	8.6	13.7	17.1	18.8	25.7	37.6	71.9	278.9
50°	5.1	6.8	8.6	13.7	18.8	18.8	25.7	37.6	78.7	448.2
52.5°	3.4	5.1	6.8	12.0	15.4	20.5	27.4	35.9	83.8	598.8
55°	3.4	3.4	5.1	10.3	13.7	22.2	29.1	35.9	97.5	636.4
57.5°	3.4	3.4	5.1	8.6	12.0	24.0	30.8	35.9	112.9	617.6
59°	3.4	3.4	3.4	8.6	10.3	24.0	30.8	37.6	114.6	585.1
60°	3.4	3.4	3.4	6.8	10.3	24.0	32.5	39.3	116.3	547.4
62.5°	1.7	1.7	1.7	6.8	8.6	24.0	35.9	47.9	119.8	422.6
65°	3.4	3.4	1.7	5.1	8.6	20.5	41.1	51.3	121.5	328.5
67.5°	3.4	3.4	3.4	6.8	8.6	20.5	42.8	53.0	121.5	260.0
70°	3.4	3.4	3.4	6.8	10.3	20.5	42.8	54.7	119.8	212.1
72.5°	3.4	3.4	3.4	6.8	10.3	18.8	39.3	56.5	114.6	179.6
75°	3.4	3.4	3.4	5.1	8.6	17.1	37.6	61.6	104.4	152.3
77.5°	3.4	3.4	3.4	3.4	6.8	13.7	34.2	68.4	92.4	123.2
80°	5.1	3.4	3.4	3.4	5.1	12.0	32.5	66.7	77.0	80.4
82.5°	5.1	3.4	3.4	1.7	3.4	8.6	25.7	51.3	39.3	35.9
85°	3.4	3.4	3.4	1.7	1.7	5.1	12.0	15.4	12.0	8.6
87.5°	3.4	3.4	3.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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: SP1-2407-184-10

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-835-U-5WQ

Data in this report applies to families of products including GSS-SB1A-835-U-5WQ

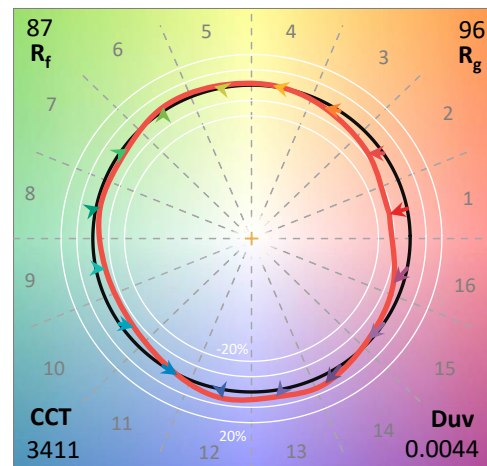
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-10
 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-835-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3500K CCT 26 LEDS

Spectral Parameters

CCT (K): 3411
 CIE u' : 0.2360
 CIE v' : 0.5189
 Duv: 0.0044
 CIE x: 0.4154
 CIE y: 0.4059
 CIE z: 0.1787
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 579
 Purity: 46.51914
 R_f: 86.6
 R_g: 95.9

CRI (Ra): 83.5
 R1: 81.1
 R2: 88.9
 R3: 97.2
 R4: 83.8
 R5: 81.7
 R6: 86.9
 R7: 86.1
 R8: 62.2
 R9: 6.3
 R10: 75.4
 R11: 84.1
 R12: 69.7
 R13: 82.8
 R14: 98.5
 R15: 72.6



Test Conditions

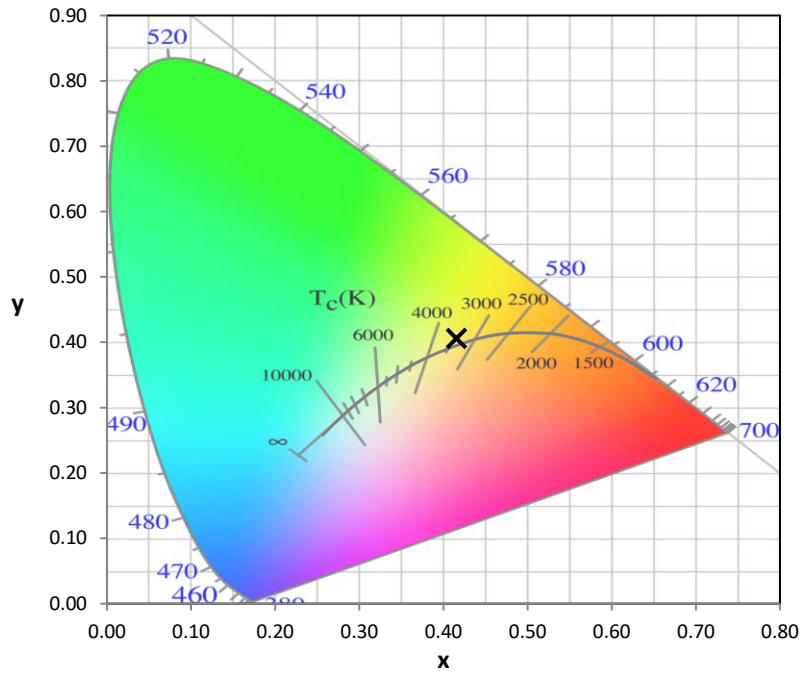
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

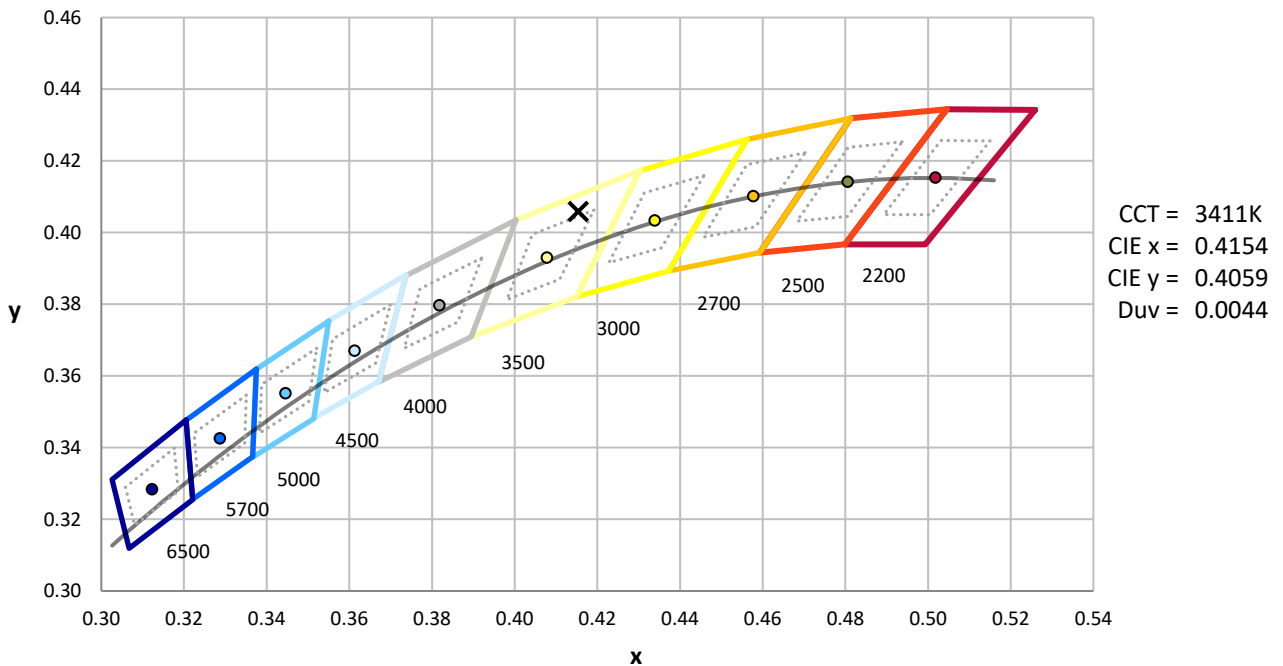
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



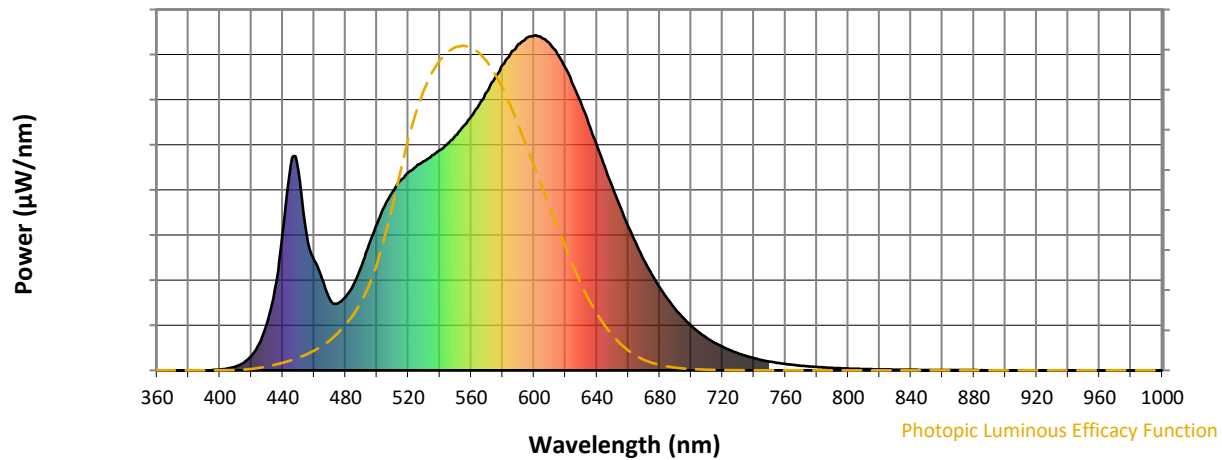
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

Photopic Flux vs. Wavelength

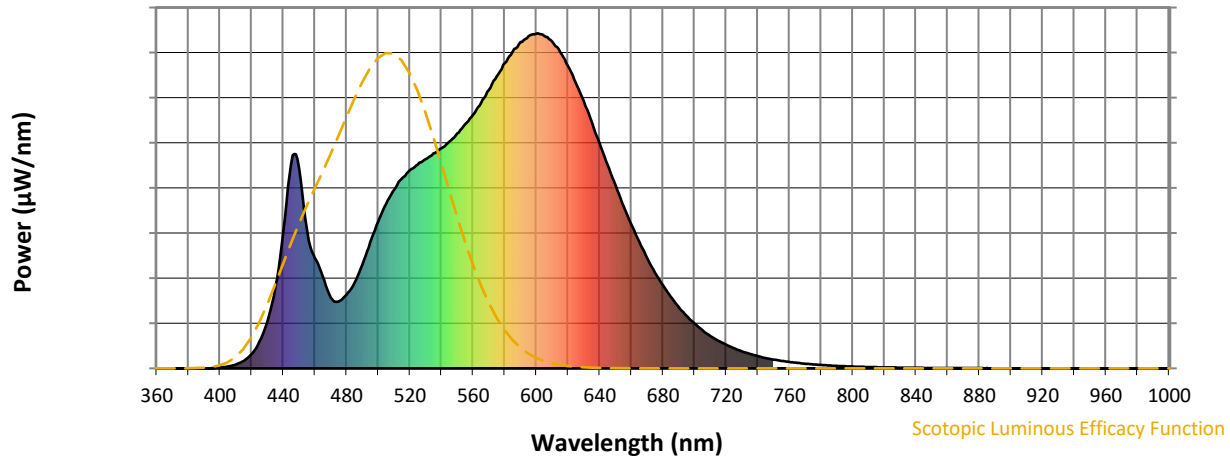


Photopic Lumens: NR

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	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-10

Scotopic Flux vs. Wavelength



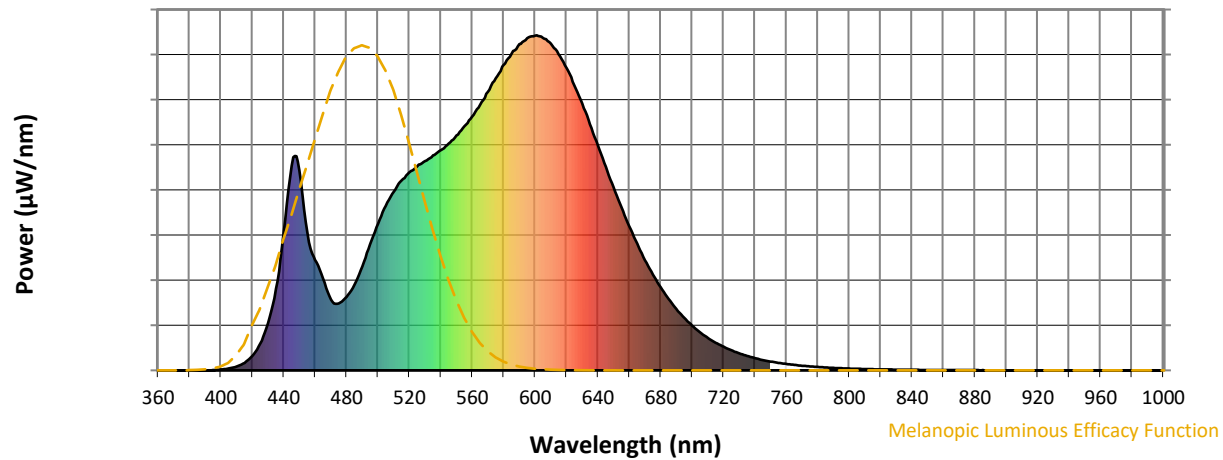
Scotopic Lumens: NR

S/P: 1.48

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	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.88

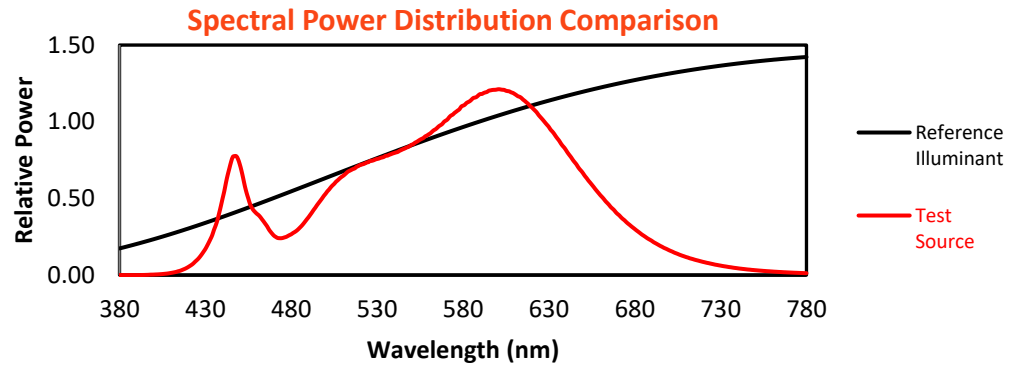
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-10

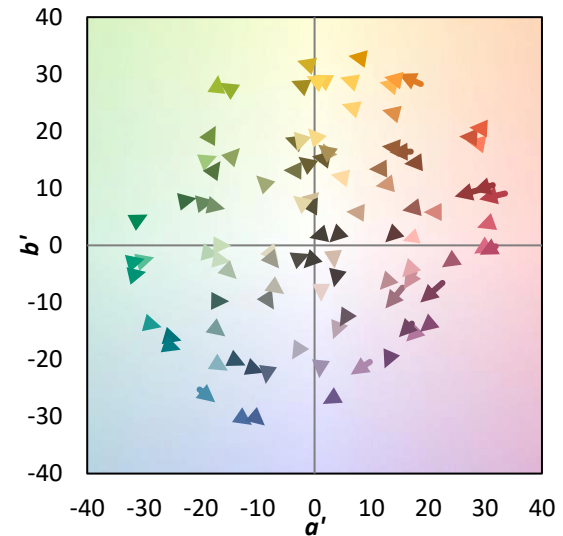
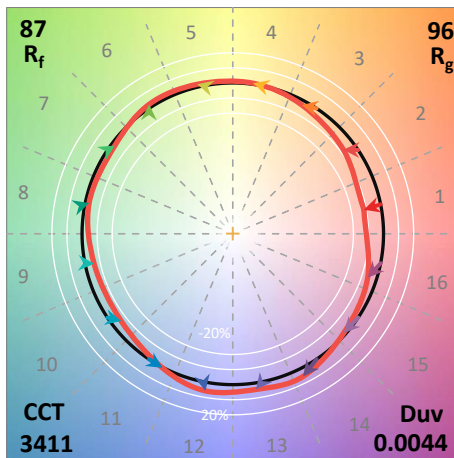
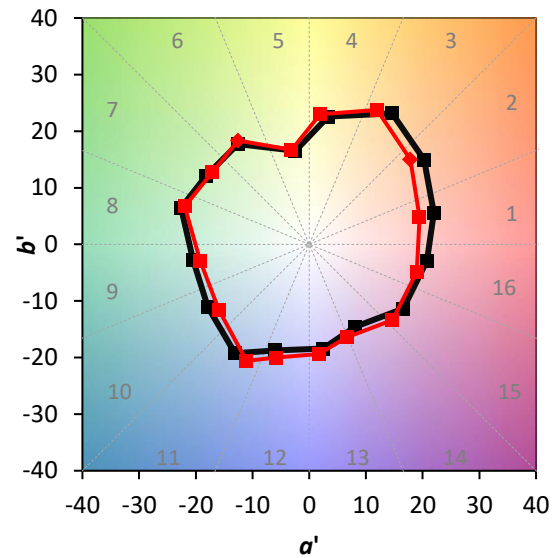
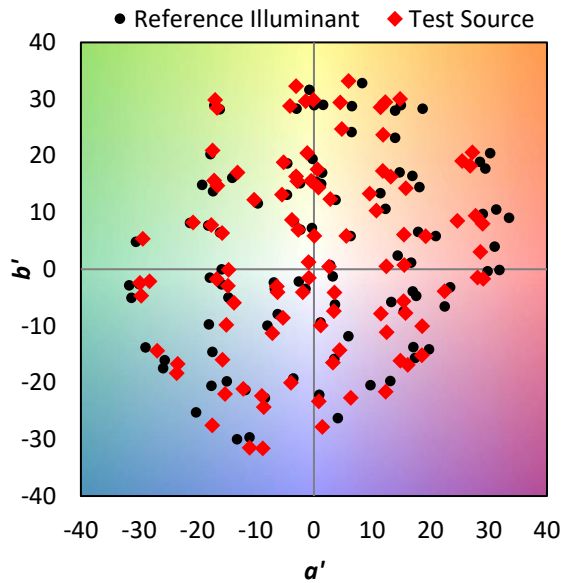
TM-30-18

Summary

$R_f = 86.6$
 $R_g = 95.9$
 $CIE R_a = 83.5$
 $R_9 = 6.3$

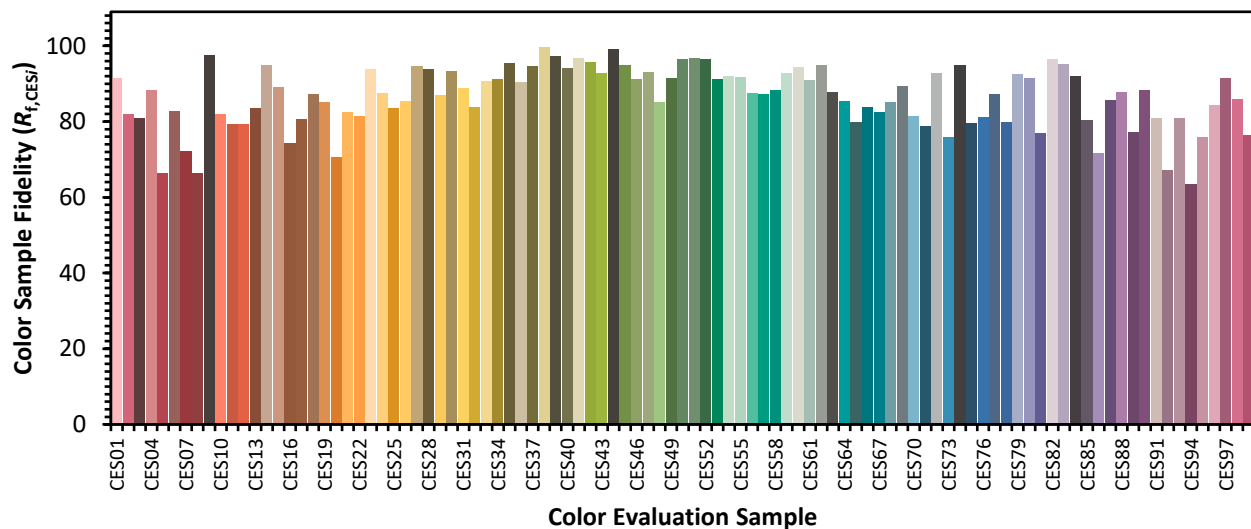


Color Vector Graphics

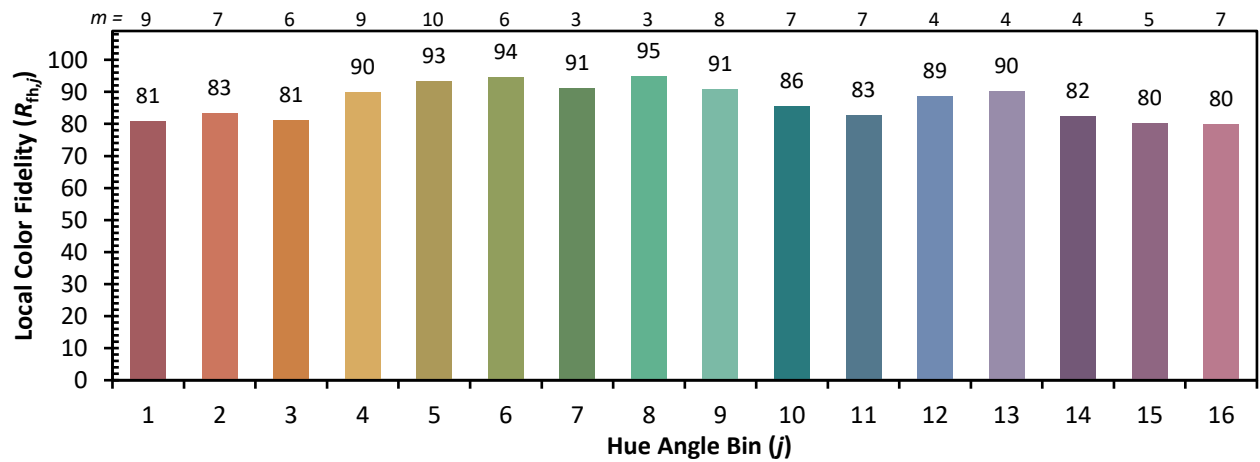
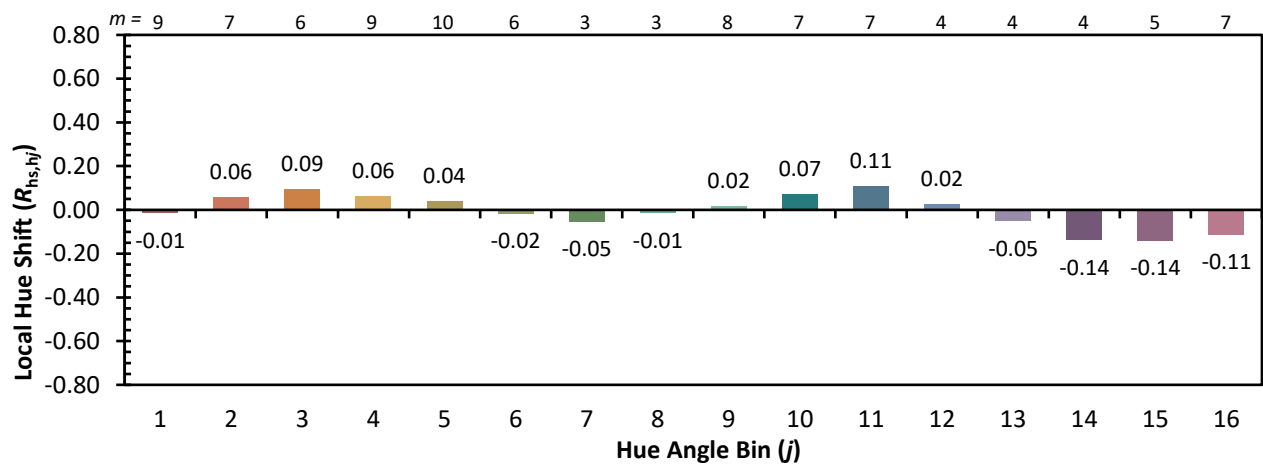
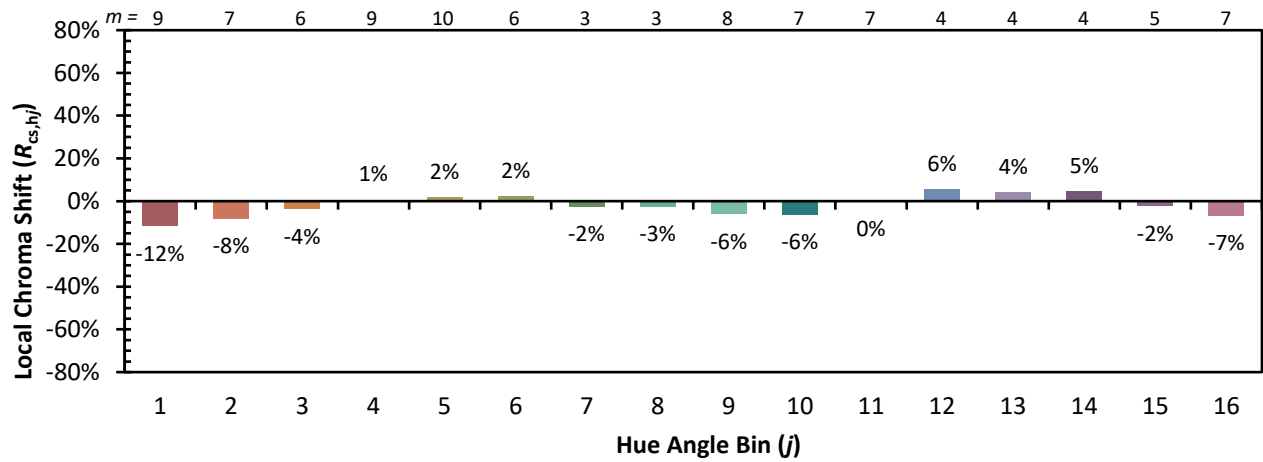


Individual Sample Fidelity Index ($R_{f,i}$)

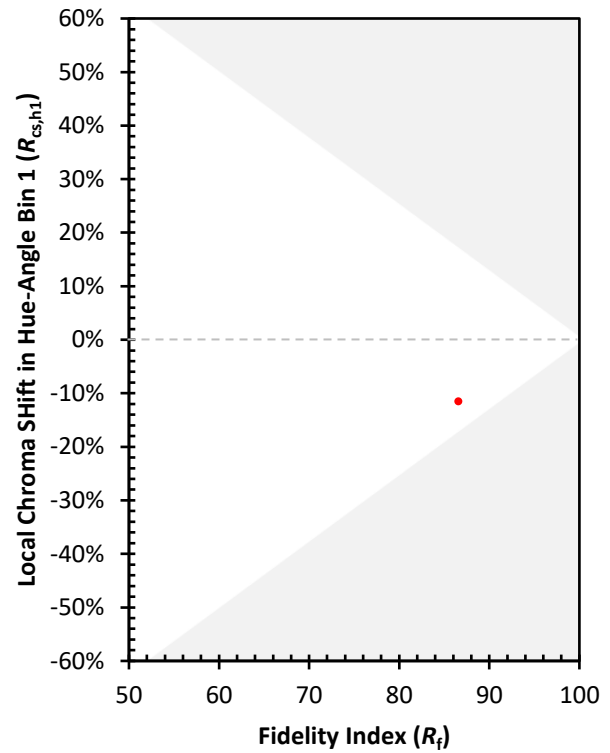
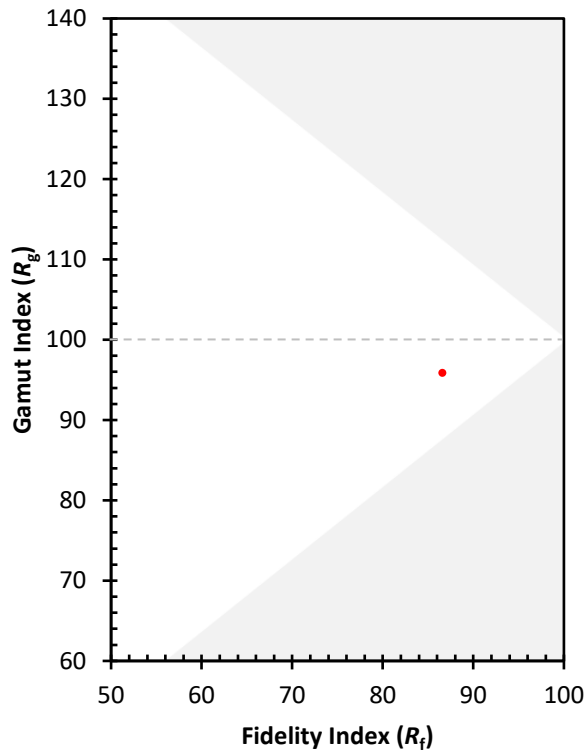
CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82 = 96
CES08 = 40	CES33 = 91	CES58 = 88	CES83 = 95
CES09 = 29	CES34 = 91	CES59 = 93	CES84 = 92
CES10 = 75	CES35 = 95	CES60 = 94	CES85 = 80
CES11 = 58	CES36 = 90	CES61 = 91	CES86 = 72
CES12 = 64	CES37 = 95	CES62 = 95	CES87 = 86
CES13 = 43	CES38 = 100	CES63 = 88	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 85	CES89 = 77
CES15 = 71	CES40 = 94	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 84	CES91 = 81
CES17 = 49	CES42 = 96	CES67 = 82	CES92 = 67
CES18 = 56	CES43 = 93	CES68 = 85	CES93 = 81
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 63
CES20 = 66	CES45 = 95	CES70 = 81	CES95 = 76
CES21 = 86	CES46 = 91	CES71 = 79	CES96 = 84
CES22 = 78	CES47 = 93	CES72 = 93	CES97 = 92
CES23 = 91	CES48 = 85	CES73 = 76	CES98 = 86
CES24 = 90	CES49 = 92	CES74 = 95	CES99 = 77
CES25 = 72	CES50 = 96	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)