

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: P1068102

Luminaire Tested: **NAV-SA5B-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068102
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA5B-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 800mA 5xLight Square PACKAGE
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (70) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16819.4 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G3

Input Watts (W): 178.8
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



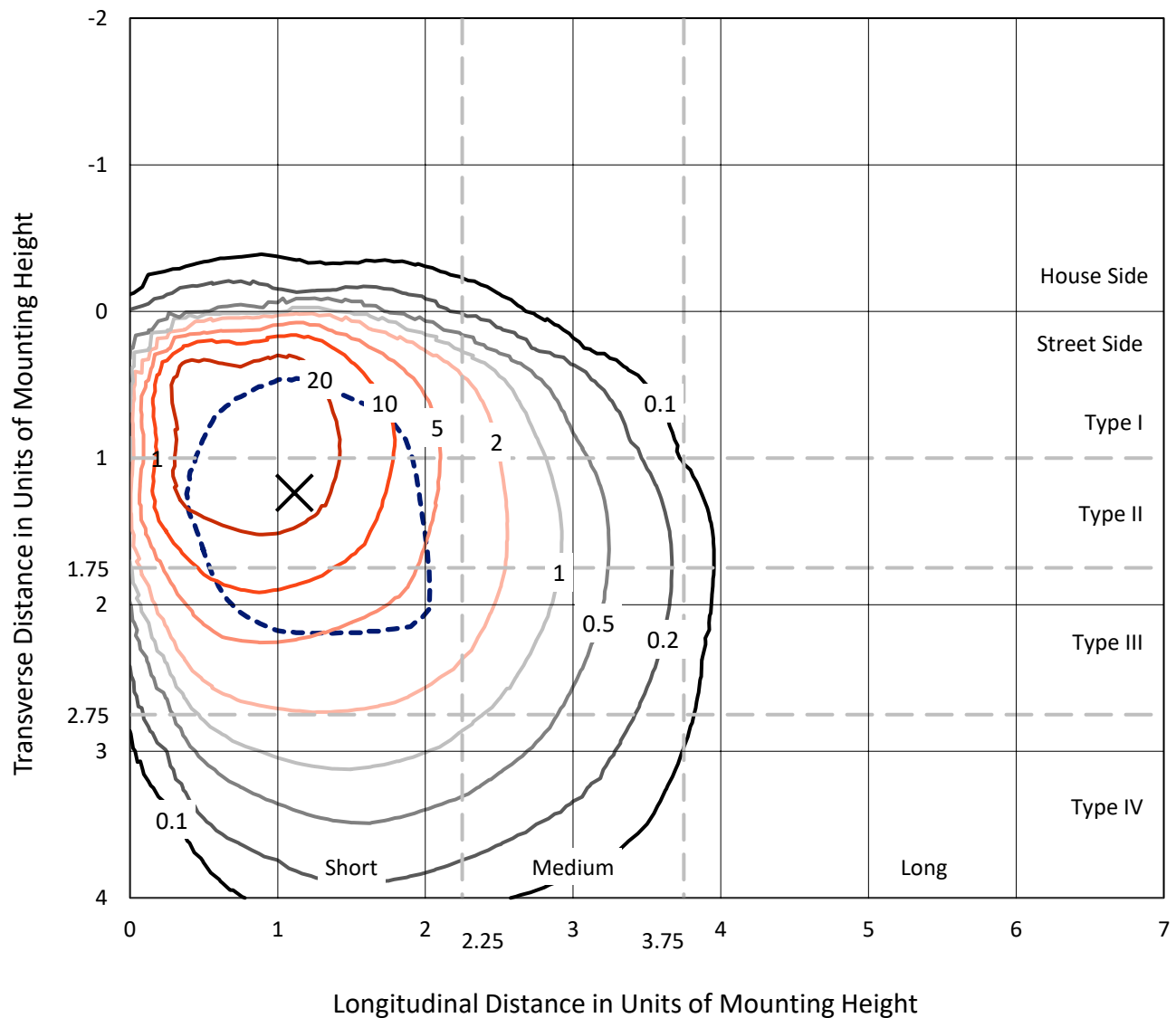
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

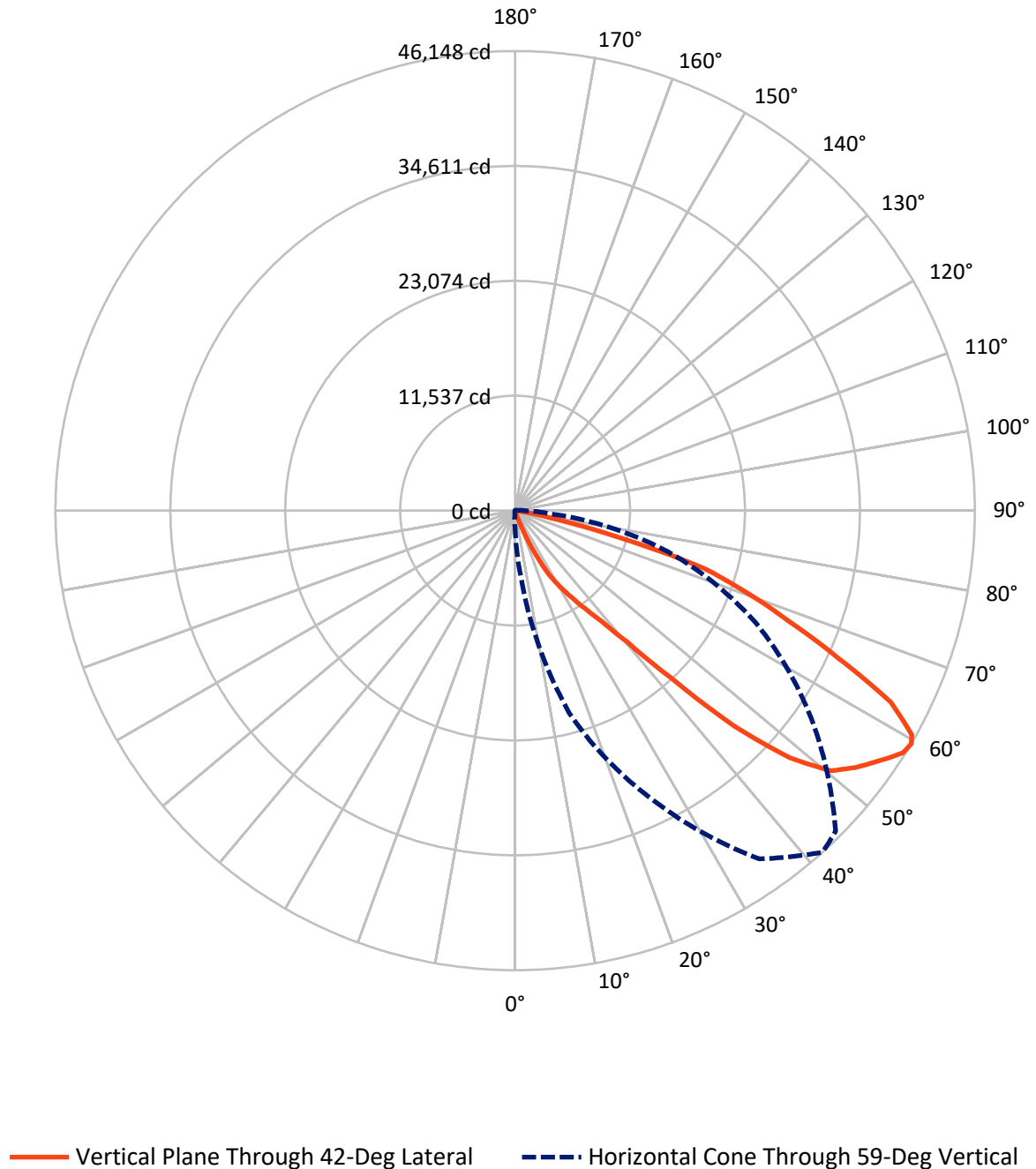


Based on 15 foot mounting height. Maximum calculated value = 50 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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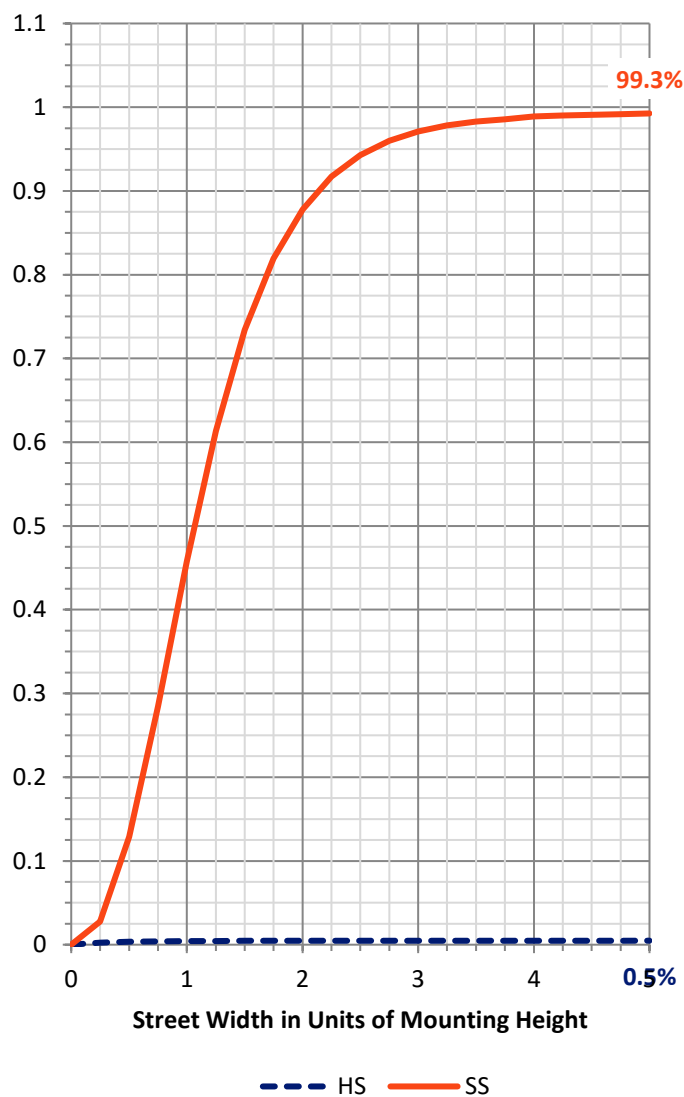
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	81.0	0.0	81.0
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	16738.4	0.0	16738.4
	% Fixture	99.5	0.0	99.5
Total	Lumens	16819.4	0.0	16819.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.9	0.0
10°-20°	24.5	0.1
20°-30°	313.7	1.9
30°-40°	1057.7	6.3
40°-50°	3194.8	19.0
50°-60°	5639.6	33.5
60°-70°	4965.7	29.5
70°-80°	1580.6	9.4
80°-90°	37.8	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°	16819.4	100.0
0°-180°	16819.4	100.0



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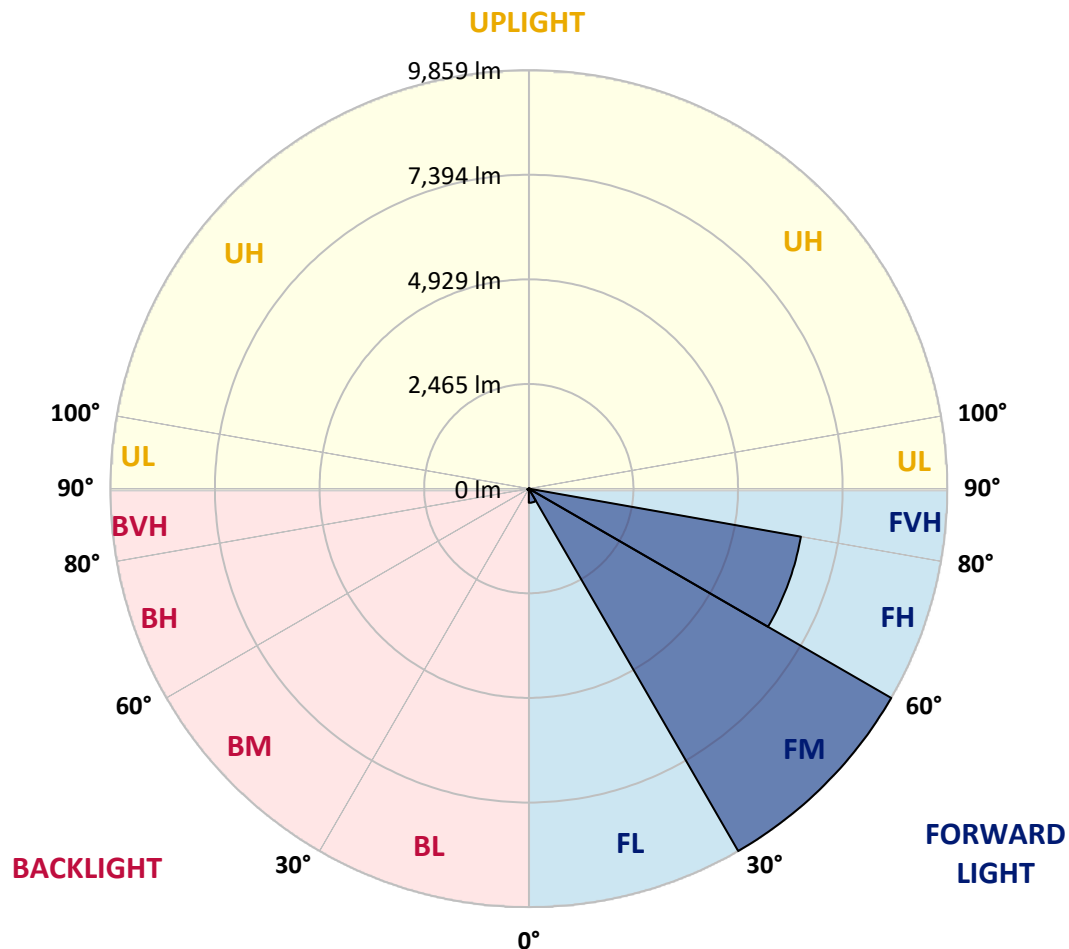
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	334.1	2.0			
FM	(30°-60°)	9859.0	58.6			
FH	(60°-80°)	6509.3	38.7			G3/7500
FVH	(80°-90°)	36.0	0.2			G1/100
BL	(0°-30°)	9.0	0.1	B0/110		
BM	(30°-60°)	33.1	0.2	B0/220		
BH	(60°-80°)	37.1	0.2	B0/110		G0/110
BVH	(80°-90°)	1.8	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	73.8	73.8	68.6	63.3	58.0	52.7	52.7	52.7	47.5	47.5	42.2
5°	84.4	84.4	79.1	73.8	73.8	68.6	68.6	63.3	58.0	58.0	52.7
7.5°	89.6	89.6	89.6	89.6	84.4	84.4	84.4	79.1	73.8	68.6	63.3
10°	94.9	100.2	105.5	105.5	105.5	105.5	105.5	100.2	89.6	84.4	73.8
12.5°	105.5	110.7	121.3	131.8	131.8	131.8	131.8	126.6	116.0	100.2	84.4
15°	116.0	126.6	142.4	163.5	184.6	189.8	189.8	174.0	152.9	121.3	100.2
17.5°	131.8	147.7	189.8	258.4	332.2	390.2	390.2	348.0	242.6	158.2	116.0
20°	142.4	174.0	305.9	622.3	949.2	1191.8	1144.3	1012.5	543.2	247.9	126.6
22.5°	158.2	221.5	648.6	1634.8	2531.3	2974.2	2868.8	2177.9	1218.2	443.0	152.9
25°	179.3	321.7	1286.7	3063.9	4703.9	5183.8	5115.3	4065.8	2220.1	743.6	195.1
27.5°	221.5	474.6	2061.9	4645.9	6939.9	7351.2	7324.8	5953.7	3549.0	1197.1	253.1
30°	279.5	690.8	3058.6	6312.3	8421.7	8838.3	8706.5	7335.4	4788.3	1829.9	327.0
32.5°	348.0	965.0	3960.4	7541.0	9787.5	10336.0	10177.8	8537.7	5785.0	2367.8	485.2
35°	453.5	1234.0	4851.6	8627.4	11364.3	12060.4	11796.7	9777.0	6644.6	2974.2	585.4
37.5°	506.3	1392.2	5669.0	9808.6	13136.2	14085.4	13885.0	11343.2	7519.9	3749.4	717.2
40°	511.5	1582.0	6518.0	11348.5	15641.1	17333.8	16975.2	14032.7	9149.4	4746.1	922.9
42.5°	527.3	1866.8	7620.1	13974.7	20561.2	22992.3	22586.2	18979.2	12846.1	6744.7	1307.8
45°	601.2	2404.7	9866.6	18884.2	27316.5	30881.3	30412.0	25871.6	18008.8	10504.7	2230.7
47.5°	859.6	3617.6	13805.9	24184.1	34224.7	37067.1	36951.1	31303.2	22686.4	14359.6	3781.1
50°	1381.6	5552.9	18288.3	28640.1	38622.8	41064.4	40774.3	33570.8	25354.8	16991.1	4846.3
52.5°	1845.7	7403.9	21104.4	30280.2	39935.9	42846.8	42493.5	34398.7	26056.1	17766.3	5141.6
55°	1961.7	8073.7	21942.8	30786.4	40806.0	44355.0	43843.5	34952.5	26145.8	17212.6	4651.2
57.5°	1903.7	7440.8	21399.7	31282.1	42018.9	45905.4	45225.1	36033.5	26446.4	16273.9	3870.7
59°	1803.5	6660.4	21062.2	31677.6	42688.6	46148.0	45509.9	36270.8	26646.8	15846.7	3396.1
60°	1687.5	6133.0	20798.5	31936.0	42646.4	45768.3	45109.1	36160.1	26725.9	15477.6	3169.3
62.5°	1302.5	4893.8	20418.8	31751.5	39983.3	42303.6	41929.2	33449.5	25565.7	14296.3	2499.6
65°	1012.5	3744.2	19026.6	28318.4	34024.3	35585.3	35469.3	28323.7	21515.7	12324.1	1803.5
67.5°	801.6	2731.6	16089.3	22934.3	27374.5	29594.6	29510.2	22992.3	16331.9	9418.4	1297.3
70°	653.9	1945.9	11032.1	17291.7	21895.4	24690.3	24569.0	18504.5	12102.6	5974.8	943.9
72.5°	553.7	1244.5	6692.0	13036.0	18272.5	19870.4	19517.1	14929.1	8801.4	3253.7	748.8
75°	469.3	764.7	3317.0	8126.4	10884.4	10873.9	10520.5	7904.9	4725.0	1592.6	595.9
77.5°	379.7	537.9	1302.5	2230.7	3433.0	4250.4	4181.8	2800.2	1413.3	464.1	369.1
80°	247.9	253.1	348.0	611.7	943.9	1044.1	1186.5	854.3	411.3	221.5	152.9
82.5°	110.7	121.3	158.2	200.4	200.4	184.6	163.5	121.3	89.6	73.8	36.9
85°	26.4	36.9	26.4	31.6	26.4	21.1	21.1	10.5	0.0	0.0	0.0
87.5°	5.3	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	42.2	42.2	42.2	36.9	36.9	36.9	31.6	31.6	31.6	26.4	26.4
5°	52.7	47.5	42.2	42.2	36.9	36.9	31.6	26.4	26.4	26.4	21.1
7.5°	58.0	52.7	47.5	42.2	36.9	31.6	31.6	26.4	21.1	21.1	21.1
10°	68.6	63.3	52.7	42.2	36.9	31.6	26.4	26.4	21.1	15.8	15.8
12.5°	79.1	68.6	58.0	47.5	36.9	31.6	26.4	26.4	21.1	15.8	10.5
15°	89.6	79.1	63.3	47.5	36.9	31.6	26.4	26.4	15.8	10.5	5.3
17.5°	100.2	84.4	63.3	52.7	36.9	31.6	26.4	21.1	10.5	5.3	0.0
20°	105.5	89.6	68.6	52.7	36.9	31.6	26.4	15.8	5.3	0.0	0.0
22.5°	116.0	100.2	73.8	52.7	36.9	26.4	15.8	5.3	0.0	0.0	0.0
25°	137.1	105.5	73.8	52.7	36.9	26.4	10.5	0.0	0.0	0.0	0.0
27.5°	152.9	116.0	73.8	52.7	36.9	21.1	5.3	0.0	0.0	0.0	0.0
30°	179.3	126.6	79.1	52.7	36.9	15.8	5.3	0.0	0.0	0.0	0.0
32.5°	221.5	137.1	79.1	52.7	31.6	15.8	0.0	0.0	0.0	0.0	0.0
35°	268.9	158.2	79.1	52.7	31.6	15.8	0.0	0.0	0.0	0.0	0.0
37.5°	274.2	168.8	79.1	52.7	31.6	10.5	0.0	0.0	0.0	0.0	0.0
40°	284.8	158.2	84.4	52.7	31.6	10.5	0.0	0.0	0.0	0.0	0.0
42.5°	327.0	147.7	89.6	52.7	31.6	10.5	0.0	0.0	0.0	0.0	0.0
45°	485.2	152.9	89.6	58.0	31.6	15.8	0.0	0.0	0.0	0.0	0.0
47.5°	843.8	158.2	84.4	58.0	31.6	15.8	0.0	0.0	0.0	0.0	0.0
50°	1081.1	184.6	84.4	63.3	36.9	10.5	0.0	0.0	0.0	0.0	0.0
52.5°	1149.6	216.2	84.4	68.6	47.5	5.3	0.0	0.0	0.0	0.0	0.0
55°	1118.0	253.1	89.6	73.8	58.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	1033.6	274.2	94.9	79.1	63.3	0.0	0.0	0.0	0.0	0.0	0.0
59°	943.9	290.0	110.7	84.4	63.3	0.0	0.0	0.0	0.0	0.0	0.0
60°	870.1	305.9	116.0	89.6	63.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	701.4	327.0	126.6	105.5	52.7	0.0	0.0	0.0	0.0	0.0	0.0
65°	611.7	342.8	131.8	116.0	47.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	559.0	353.3	142.4	121.3	42.2	0.0	0.0	0.0	0.0	0.0	0.0
70°	516.8	348.0	152.9	116.0	36.9	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	469.3	332.2	184.6	105.5	31.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	421.9	300.6	200.4	94.9	21.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	305.9	253.1	184.6	84.4	10.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	131.8	137.1	131.8	63.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	26.4	31.6	26.4	15.8	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°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	26.4	26.4	26.4	26.4	31.6	31.6	42.2	52.7	63.3	68.6	68.6
5°	21.1	21.1	21.1	21.1	21.1	26.4	31.6	42.2	58.0	63.3	63.3
7.5°	15.8	15.8	15.8	15.8	15.8	15.8	26.4	36.9	52.7	58.0	63.3
10°	15.8	10.5	10.5	5.3	5.3	10.5	15.8	31.6	47.5	52.7	58.0
12.5°	10.5	5.3	5.3	0.0	0.0	5.3	10.5	26.4	42.2	47.5	52.7
15°	5.3	0.0	0.0	0.0	0.0	0.0	5.3	21.1	36.9	42.2	52.7
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	31.6	42.2	47.5
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	26.4	36.9	42.2
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	21.1	31.6	36.9
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	21.1	26.4
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	15.8	21.1
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	15.8	21.1
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5	15.8
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5	15.8
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5	10.5
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.3
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°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	73.8	73.8	68.6	63.3	63.3	63.3	68.6	73.8	73.8	73.8
5°	68.6	68.6	63.3	63.3	63.3	63.3	68.6	79.1	84.4	84.4
7.5°	68.6	68.6	63.3	63.3	63.3	63.3	68.6	79.1	84.4	89.6
10°	63.3	63.3	63.3	63.3	58.0	63.3	68.6	79.1	94.9	94.9
12.5°	63.3	63.3	63.3	63.3	58.0	63.3	73.8	84.4	100.2	105.5
15°	63.3	63.3	63.3	58.0	58.0	63.3	73.8	89.6	105.5	116.0
17.5°	58.0	63.3	63.3	58.0	58.0	63.3	73.8	89.6	116.0	131.8
20°	52.7	58.0	63.3	58.0	58.0	58.0	73.8	89.6	121.3	142.4
22.5°	47.5	52.7	58.0	58.0	52.7	58.0	73.8	94.9	131.8	158.2
25°	42.2	47.5	47.5	52.7	52.7	58.0	73.8	94.9	137.1	179.3
27.5°	31.6	36.9	42.2	47.5	47.5	58.0	73.8	100.2	147.7	221.5
30°	26.4	31.6	36.9	42.2	47.5	58.0	73.8	100.2	158.2	279.5
32.5°	26.4	31.6	36.9	42.2	47.5	52.7	73.8	105.5	174.0	348.0
35°	21.1	26.4	31.6	42.2	42.2	52.7	73.8	105.5	189.8	453.5
37.5°	21.1	26.4	31.6	42.2	42.2	52.7	73.8	105.5	232.0	506.3
40°	15.8	21.1	26.4	42.2	42.2	52.7	79.1	110.7	237.3	511.5
42.5°	15.8	21.1	26.4	36.9	42.2	52.7	79.1	110.7	221.5	527.3
45°	15.8	21.1	26.4	42.2	47.5	58.0	79.1	116.0	216.2	601.2
47.5°	15.8	21.1	26.4	42.2	52.7	58.0	79.1	116.0	221.5	859.6
50°	15.8	21.1	26.4	42.2	58.0	58.0	79.1	116.0	242.6	1381.6
52.5°	10.5	15.8	21.1	36.9	47.5	63.3	84.4	110.7	258.4	1845.7
55°	10.5	10.5	15.8	31.6	42.2	68.6	89.6	110.7	300.6	1961.7
57.5°	10.5	10.5	15.8	26.4	36.9	73.8	94.9	110.7	348.0	1903.7
59°	10.5	10.5	10.5	21.1	31.6	73.8	100.2	121.3	358.6	1687.5
60°	10.5	10.5	10.5	21.1	31.6	73.8	100.2	121.3	358.6	1687.5
62.5°	5.3	5.3	5.3	21.1	26.4	73.8	110.7	147.7	369.1	1302.5
65°	10.5	10.5	5.3	15.8	26.4	63.3	126.6	158.2	374.4	1012.5
67.5°	10.5	10.5	10.5	21.1	26.4	63.3	131.8	163.5	374.4	801.6
70°	10.5	10.5	10.5	21.1	31.6	63.3	131.8	168.8	369.1	653.9
72.5°	10.5	10.5	10.5	21.1	31.6	58.0	121.3	174.0	353.3	553.7
75°	10.5	10.5	10.5	15.8	26.4	52.7	116.0	189.8	321.7	469.3
77.5°	10.5	10.5	10.5	10.5	21.1	42.2	105.5	210.9	284.8	379.7
80°	15.8	10.5	10.5	10.5	15.8	36.9	100.2	205.7	237.3	247.9
82.5°	15.8	10.5	10.5	5.3	10.5	26.4	79.1	158.2	121.3	110.7
85°	10.5	10.5	10.5	5.3	5.3	15.8	36.9	47.5	36.9	26.4
87.5°	10.5	10.5	10.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3
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

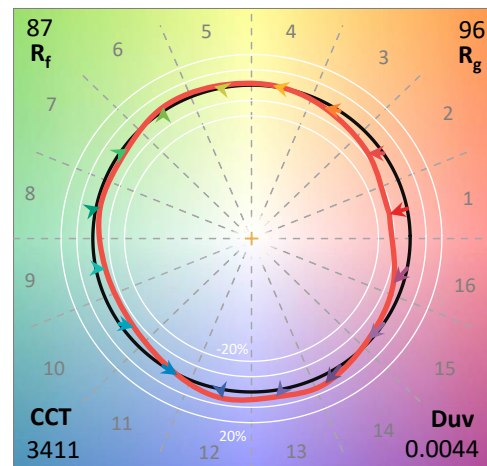
Test Information

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

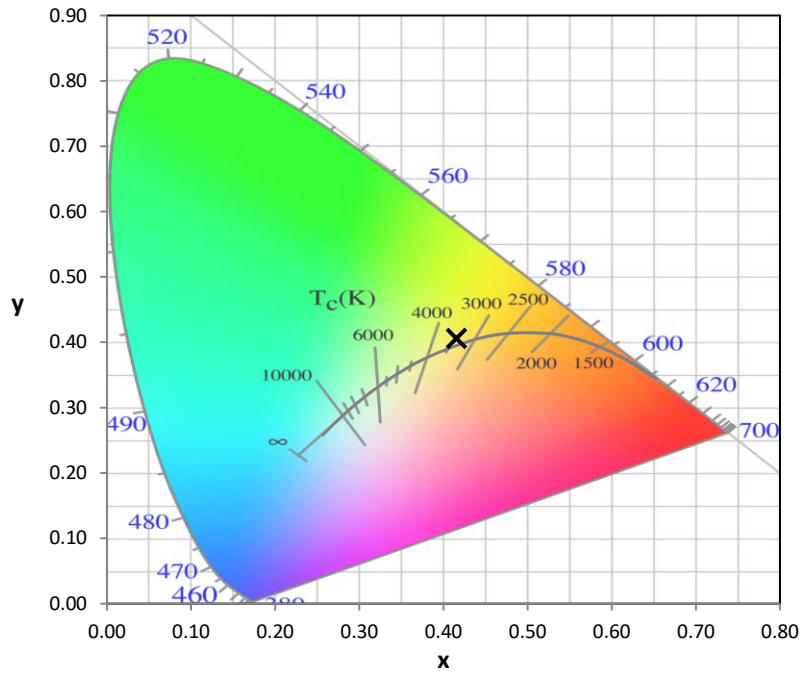
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

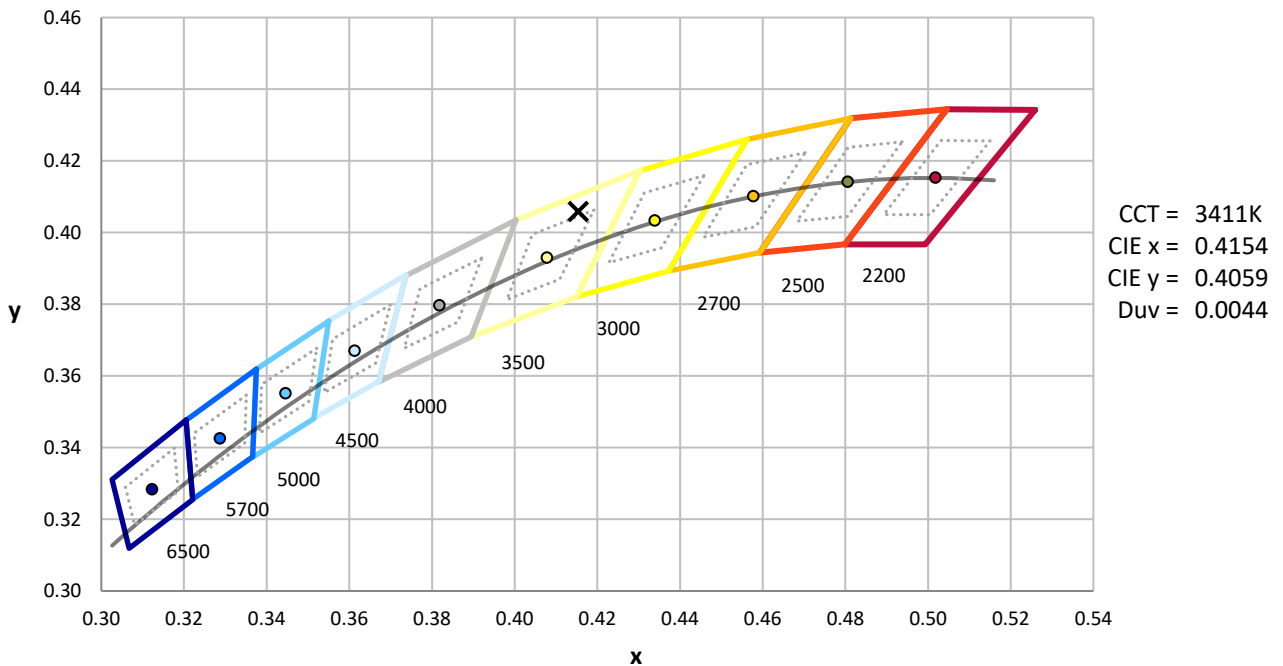
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-10

CIE 1931 Chromaticity Diagram



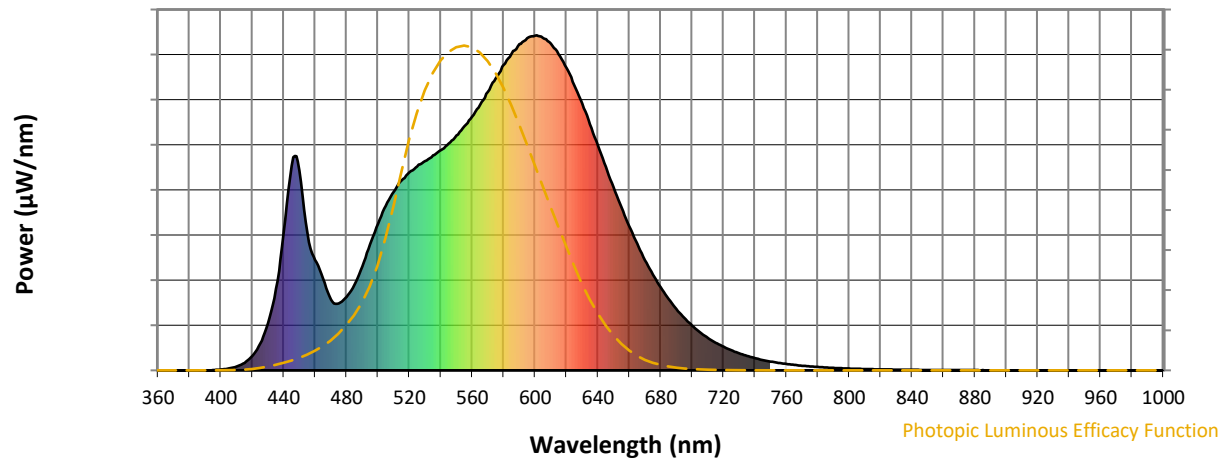
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

Photopic Flux vs. Wavelength

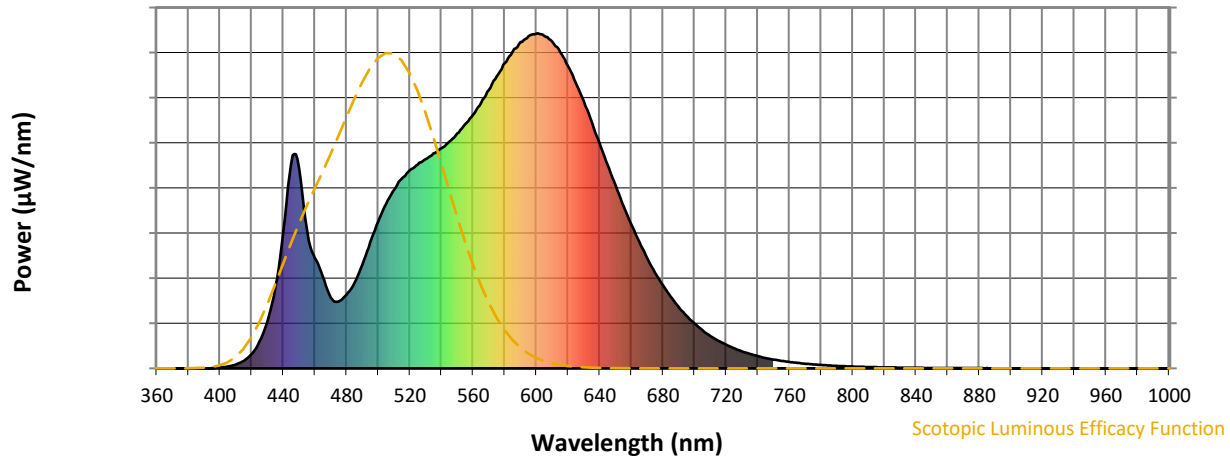


Photopic Lumens: NR

λ (nm)	Power 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

Scotopic Flux vs. Wavelength



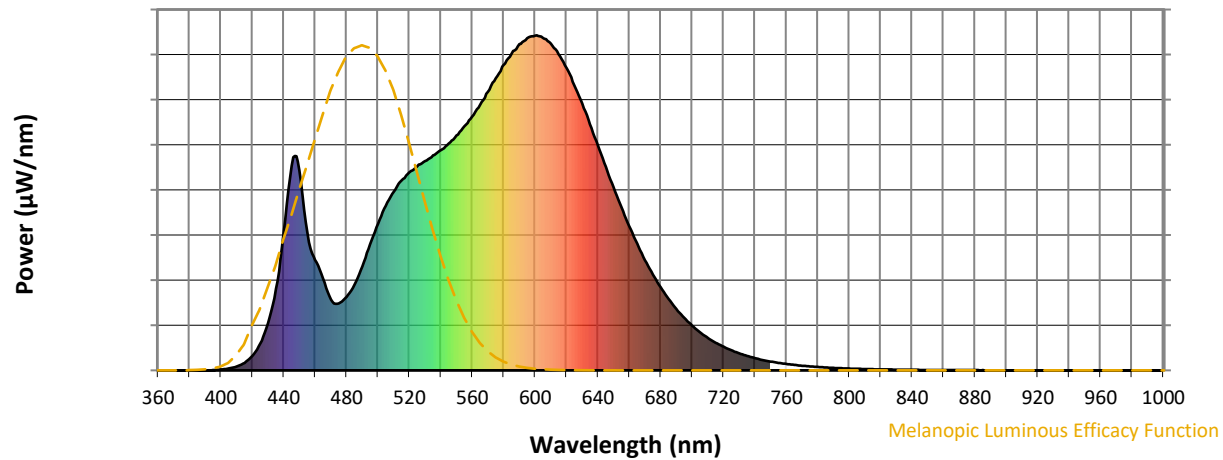
Scotopic Lumens: NR

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

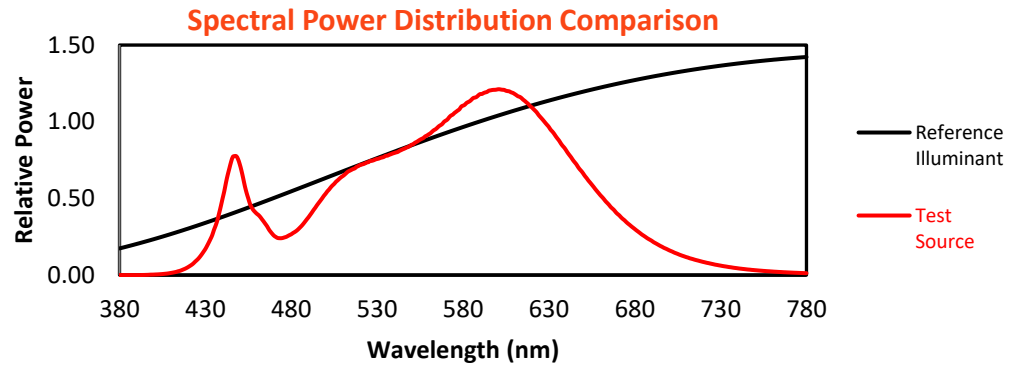
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	311	NR	620	903	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

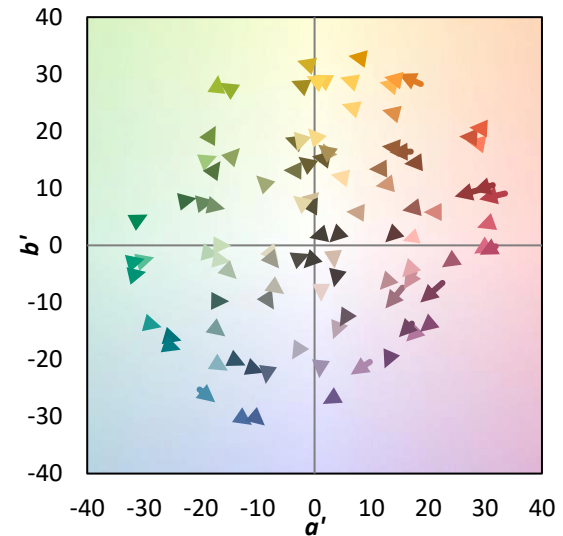
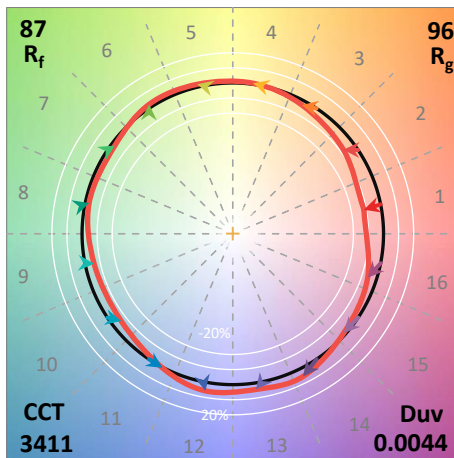
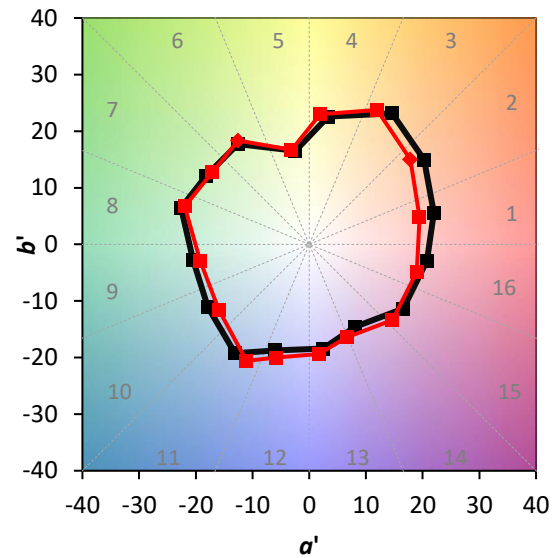
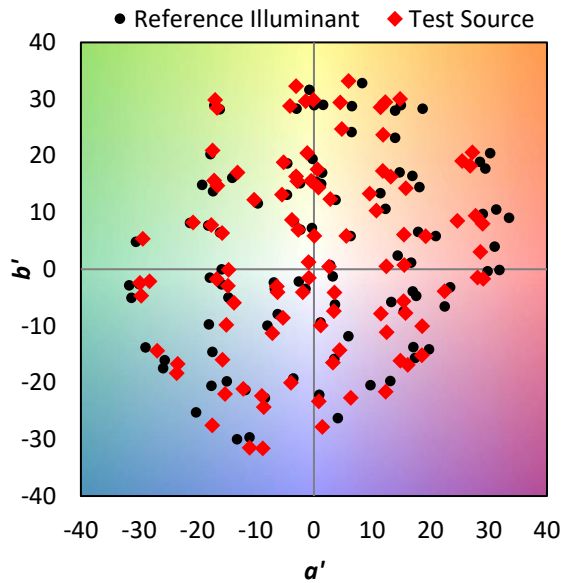
TM-30-18

Summary

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

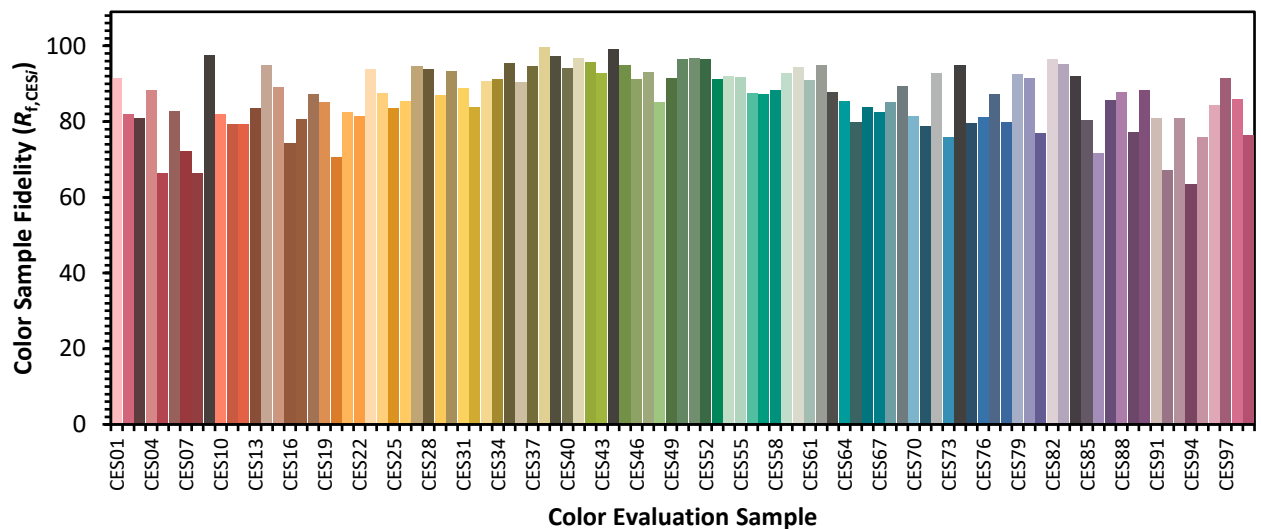


Color Vector Graphics

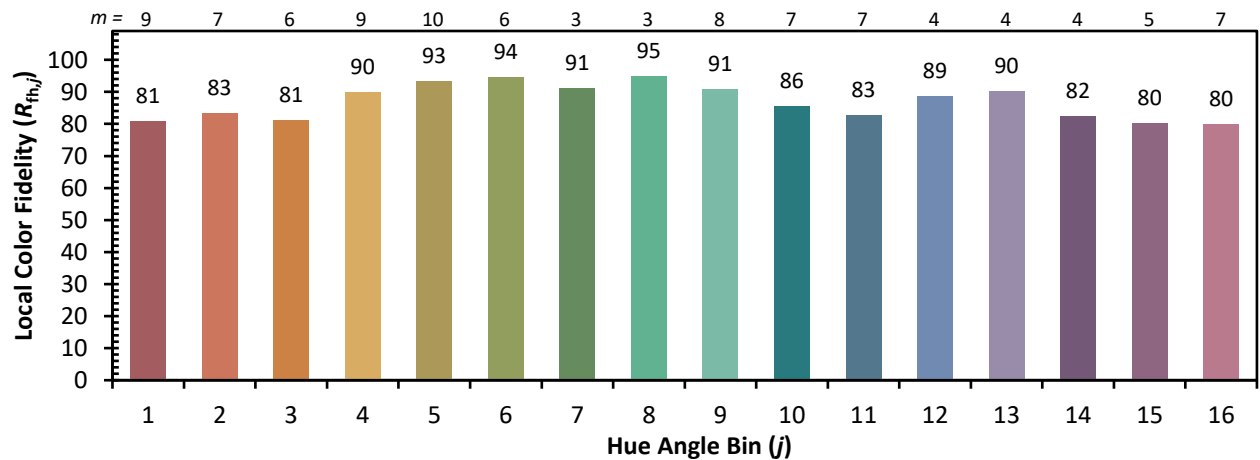
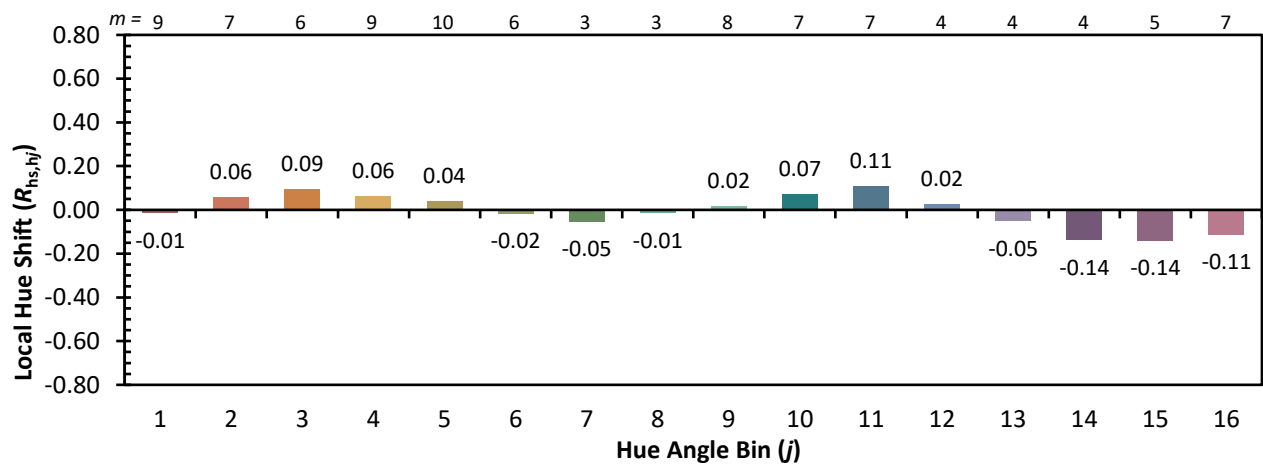
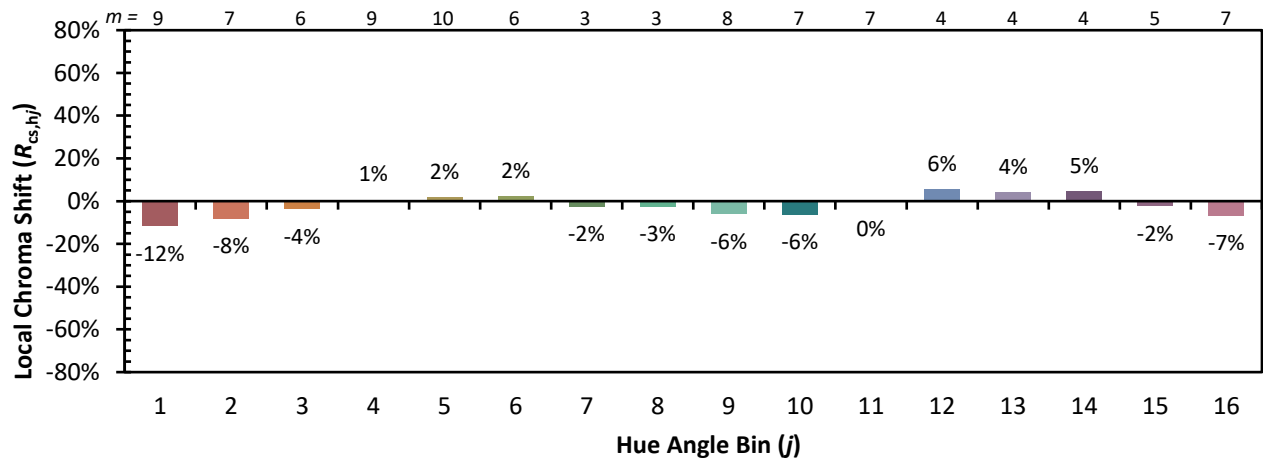


Individual Sample Fidelity Index ($R_{f,i}$)

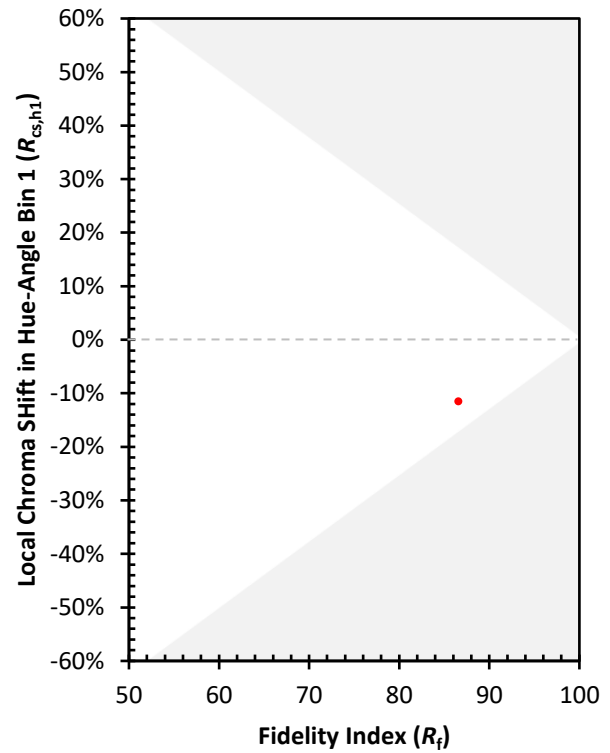
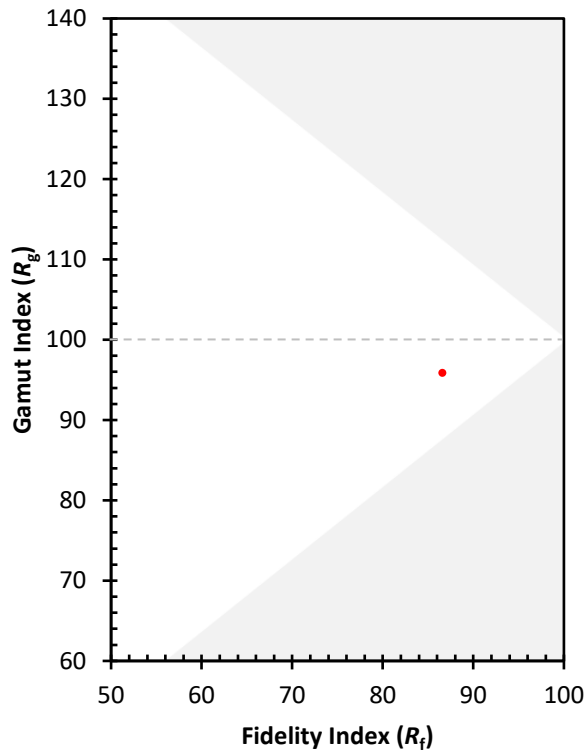
CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82 = 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)