

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: P1068098

Luminaire Tested: **NAV-SA4B-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068098
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA4B-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 800mA 4xLight Square PACKAGE
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (56) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13339.8 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G3

Input Watts (W): 144.1
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



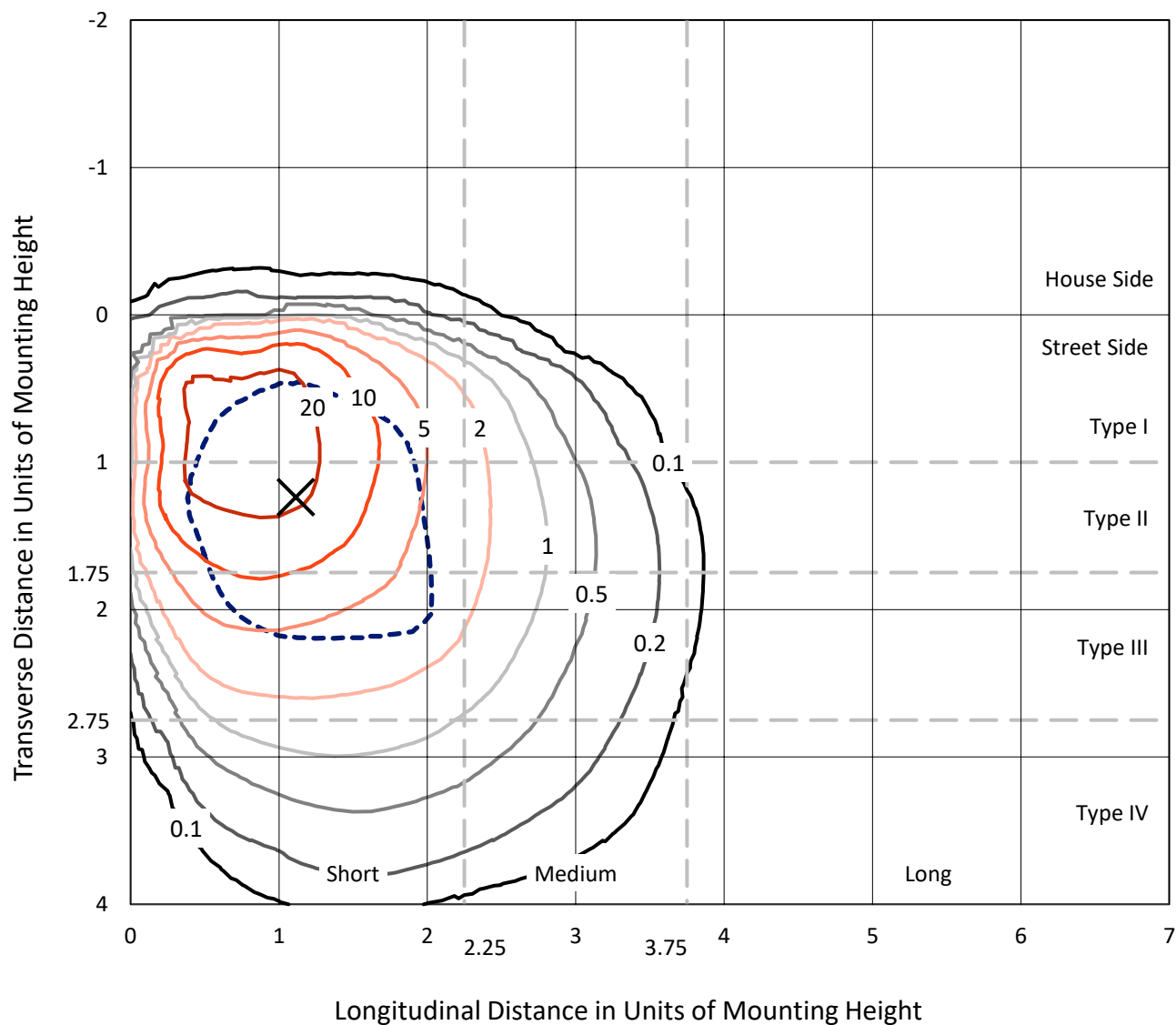
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

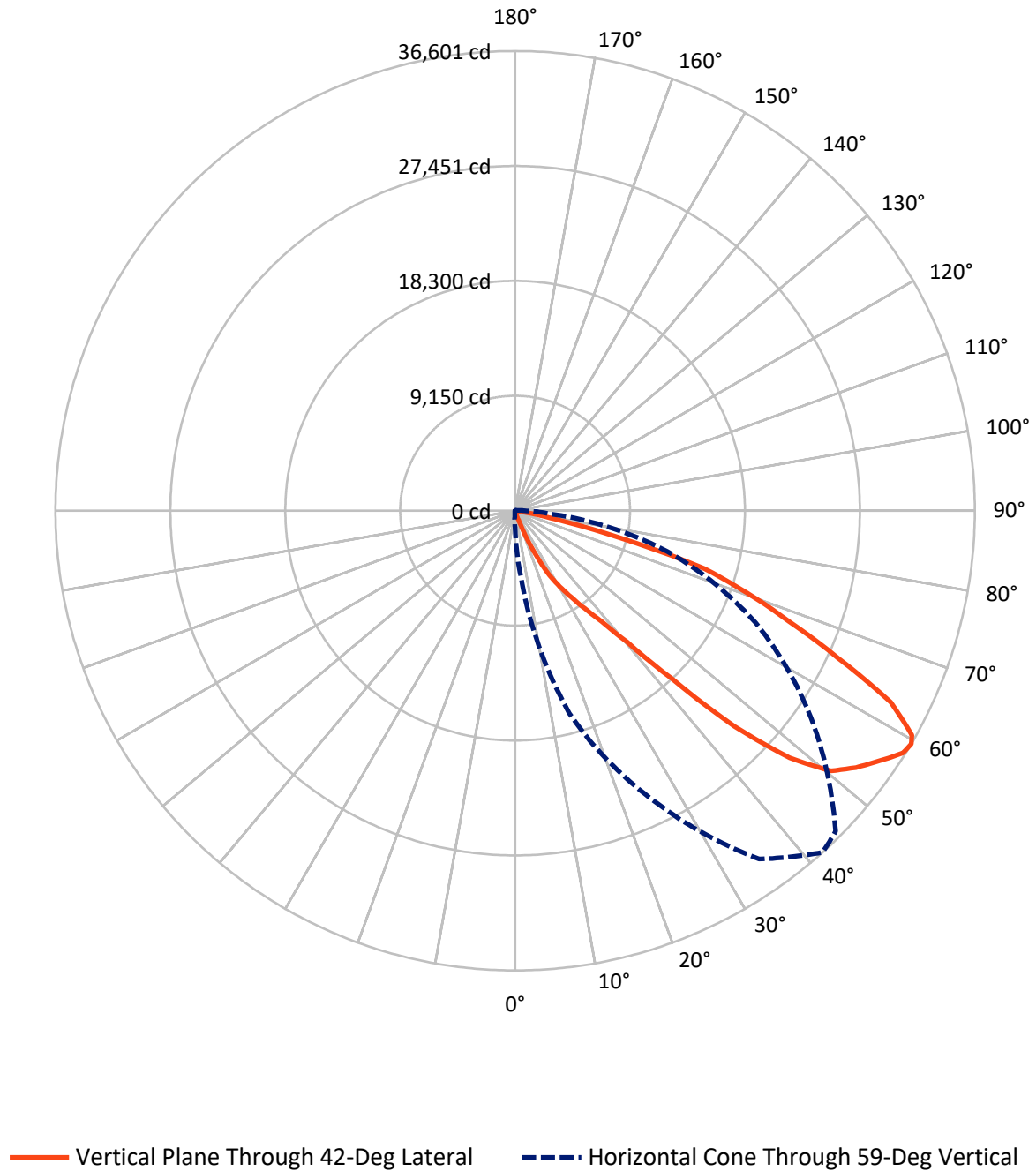


Based on 15 foot mounting height. Maximum calculated value = 39.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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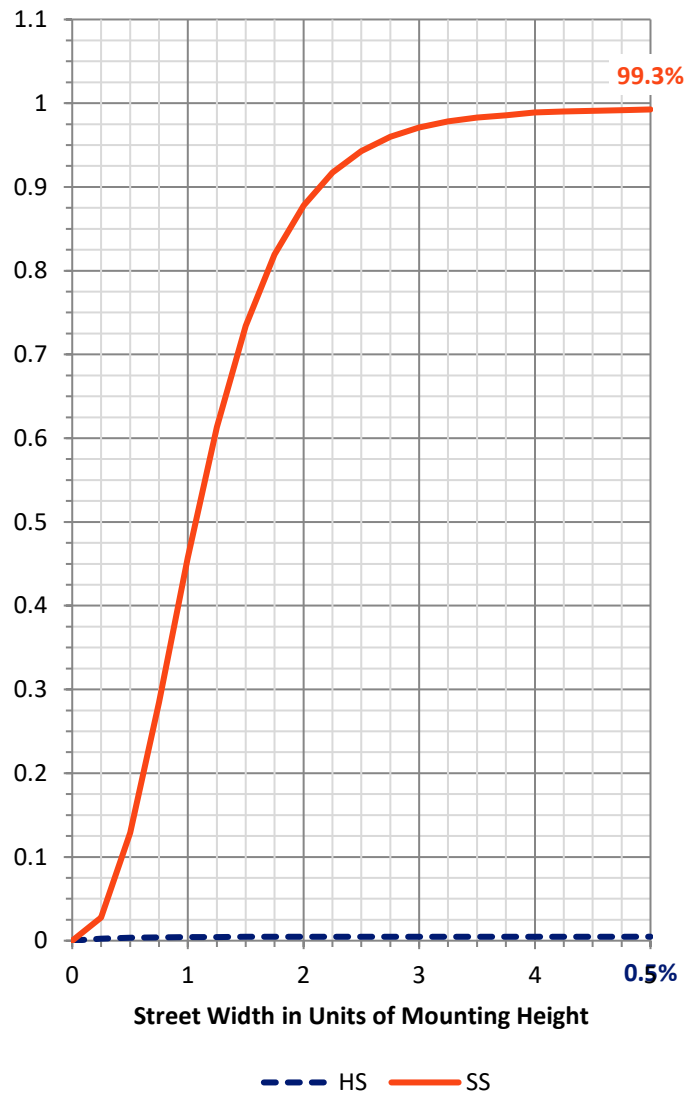
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	64.3	0.0	64.3
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	13275.5	0.0	13275.5
	% Fixture	99.5	0.0	99.5
Total	Lumens	13339.8	0.0	13339.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.0
10°-20°	19.5	0.1
20°-30°	248.8	1.9
30°-40°	838.9	6.3
40°-50°	2533.8	19.0
50°-60°	4472.8	33.5
60°-70°	3938.4	29.5
70°-80°	1253.6	9.4
80°-90°	30.0	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°	13339.8	100.0
0°-180°	13339.8	100.0



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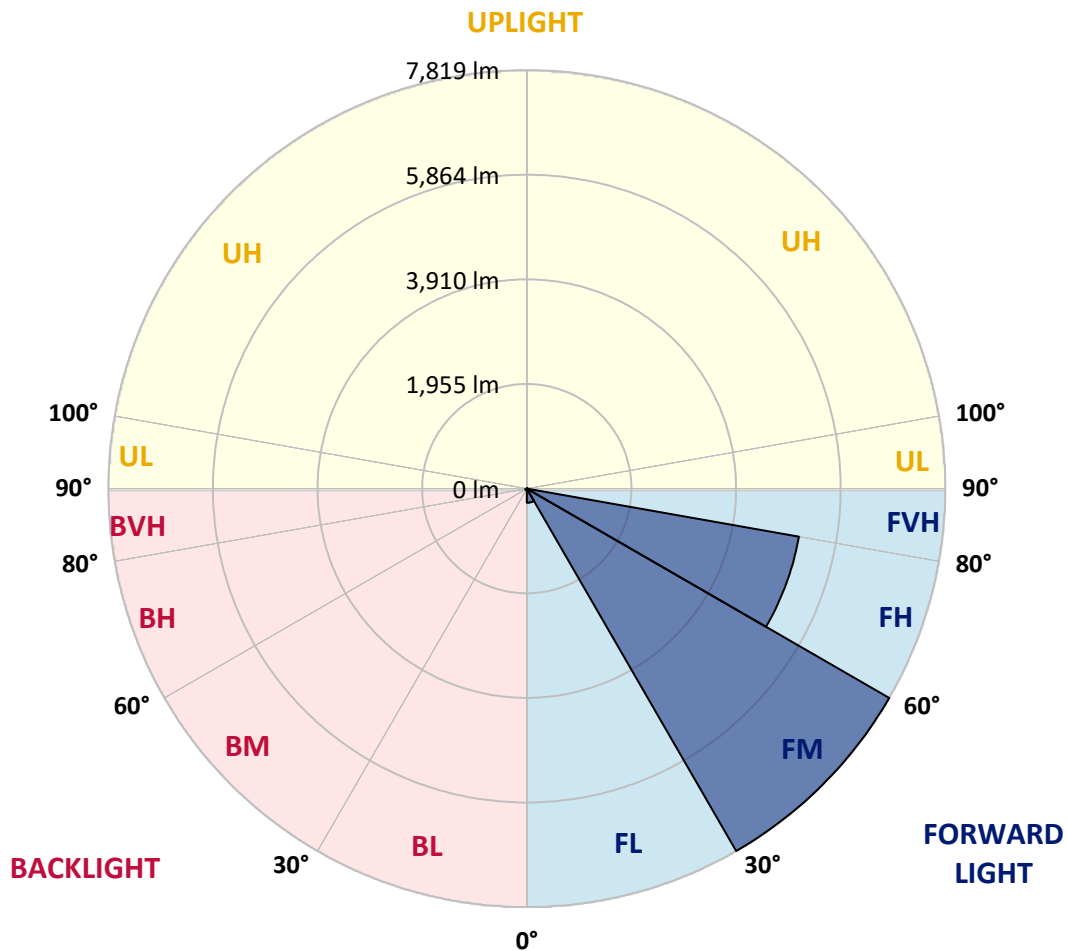
CATALOG NUMBER: NAV-SA4B-835-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	265.0	2.0			
FM	(30°-60°)	7819.3	58.6			
FH	(60°-80°)	5162.6	38.7			G3/7500
FVH	(80°-90°)	28.5	0.2			G1/100
BL	(0°-30°)	7.2	0.1	B0/110		
BM	(30°-60°)	26.3	0.2	B0/220		
BH	(60°-80°)	29.4	0.2	B0/110		G0/110
BVH	(80°-90°)	1.4	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°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
2.5°	58.6	58.6	54.4	50.2	46.0	41.8	41.8	41.8	37.6	37.6	33.5
5°	66.9	66.9	62.7	58.6	58.6	54.4	54.4	50.2	46.0	46.0	41.8
7.5°	71.1	71.1	71.1	71.1	66.9	66.9	66.9	62.7	58.6	54.4	50.2
10°	75.3	79.5	83.6	83.6	83.6	83.6	83.6	79.5	71.1	66.9	58.6
12.5°	83.6	87.8	96.2	104.6	104.6	108.7	104.6	100.4	92.0	79.5	66.9
15°	92.0	100.4	112.9	129.7	146.4	150.6	150.6	138.0	121.3	96.2	79.5
17.5°	104.6	117.1	150.6	204.9	263.5	309.5	309.5	276.0	192.4	125.5	92.0
20°	112.9	138.0	242.6	493.5	752.8	945.2	907.6	803.0	430.8	196.6	100.4
22.5°	125.5	175.7	514.4	1296.6	2007.6	2358.9	2275.3	1727.4	966.1	351.3	121.3
25°	142.2	255.1	1020.5	2430.0	3730.8	4111.4	4057.0	3224.7	1760.8	589.7	154.8
27.5°	175.7	376.4	1635.3	3684.8	5504.1	5830.4	5809.4	4722.0	2814.8	949.4	200.8
30°	221.7	547.9	2425.8	5006.4	6679.4	7009.8	6905.2	5817.8	3797.7	1451.3	259.3
32.5°	276.0	765.4	3141.0	5980.9	7762.7	8197.6	8072.2	6771.4	4588.2	1877.9	384.8
35°	359.7	978.7	3847.9	6842.5	9013.2	9565.3	9356.2	7754.3	5269.9	2358.9	464.3
37.5°	401.5	1104.2	4496.1	7779.4	10418.5	11171.4	11012.4	8996.5	5964.2	2973.7	568.8
40°	405.7	1254.7	5169.5	9000.7	12405.2	13747.8	13463.4	11129.5	7256.6	3764.2	731.9
42.5°	418.2	1480.6	6043.7	11083.5	16307.4	18235.5	17913.5	15052.7	10188.5	5349.4	1037.3
45°	476.8	1907.2	7825.4	14977.4	21665.2	24492.5	24120.3	20519.2	14283.1	8331.5	1769.2
47.5°	681.7	2869.2	10949.7	19180.8	27144.2	29398.5	29306.5	24827.1	17993.0	11388.9	2998.8
50°	1095.8	4404.1	14504.8	22715.0	30632.4	32568.9	32338.8	26625.6	20109.3	13475.9	3843.7
52.5°	1463.9	5872.2	16738.2	24015.7	31673.8	33982.5	33702.3	27282.2	20665.6	14090.7	4077.9
55°	1555.9	6403.4	17403.2	24417.2	32363.9	35178.7	34773.0	27721.4	20736.7	13651.6	3688.9
57.5°	1509.9	5901.5	16972.4	24810.4	33325.9	36408.4	35868.8	28578.8	20975.1	12907.1	3069.9
59°	1430.4	5282.5	16704.8	25124.1	33857.1	36600.8	36094.7	28767.0	21134.0	12568.3	2693.5
60°	1338.4	4864.2	16495.6	25329.0	33823.6	36299.6	35776.8	28679.2	21196.7	12275.5	2513.7
62.5°	1033.1	3881.3	16194.5	25182.6	31711.4	33551.7	33254.8	26529.4	20276.6	11338.7	1982.5
65°	803.0	2969.6	15090.3	22459.8	26985.3	28223.3	28131.3	22464.0	17064.5	9774.4	1430.4
67.5°	635.7	2166.5	12760.7	18189.5	21711.2	23472.0	23405.1	18235.5	12953.1	7469.9	1028.9
70°	518.6	1543.3	8749.7	13714.3	17365.6	19582.3	19486.1	14676.3	9598.8	4738.7	748.7
72.5°	439.2	987.1	5307.5	10339.1	14492.2	15759.5	15479.3	11840.6	6980.5	2580.6	593.9
75°	372.2	606.5	2630.8	6445.2	8632.6	8624.2	8344.0	6269.5	3747.5	1263.1	472.6
77.5°	301.1	426.6	1033.1	1769.2	2722.8	3371.1	3316.7	2220.9	1120.9	368.1	292.8
80°	196.6	200.8	276.0	485.2	748.7	828.1	941.1	677.6	326.2	175.7	121.3
82.5°	87.8	96.2	125.5	158.9	158.9	146.4	129.7	96.2	71.1	58.6	29.3
85°	20.9	29.3	20.9	25.1	20.9	16.7	16.7	8.4	0.0	0.0	0.0
87.5°	4.2	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°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
2.5°	33.5	33.5	33.5	29.3	29.3	29.3	25.1	25.1	25.1	20.9	20.9
5°	41.8	37.6	33.5	33.5	29.3	29.3	25.1	20.9	20.9	20.9	16.7
7.5°	46.0	41.8	37.6	33.5	29.3	25.1	25.1	20.9	16.7	16.7	16.7
10°	54.4	50.2	41.8	33.5	29.3	25.1	20.9	20.9	16.7	12.5	12.5
12.5°	62.7	54.4	46.0	37.6	29.3	25.1	20.9	20.9	16.7	12.5	8.4
15°	71.1	62.7	50.2	37.6	29.3	25.1	20.9	20.9	12.5	8.4	4.2
17.5°	79.5	66.9	50.2	41.8	29.3	25.1	20.9	16.7	8.4	4.2	0.0
20°	83.6	71.1	54.4	41.8	29.3	25.1	20.9	12.5	4.2	0.0	0.0
22.5°	92.0	79.5	58.6	41.8	29.3	20.9	12.5	4.2	0.0	0.0	0.0
25°	108.7	83.6	58.6	41.8	29.3	20.9	8.4	0.0	0.0	0.0	0.0
27.5°	121.3	92.0	58.6	41.8	29.3	16.7	4.2	0.0	0.0	0.0	0.0
30°	142.2	100.4	62.7	41.8	29.3	12.5	4.2	0.0	0.0	0.0	0.0
32.5°	175.7	108.7	62.7	41.8	25.1	12.5	0.0	0.0	0.0	0.0	0.0
35°	213.3	125.5	62.7	41.8	25.1	12.5	0.0	0.0	0.0	0.0	0.0
37.5°	217.5	133.8	62.7	41.8	25.1	8.4	0.0	0.0	0.0	0.0	0.0
40°	225.9	125.5	66.9	41.8	25.1	8.4	0.0	0.0	0.0	0.0	0.0
42.5°	259.3	117.1	71.1	41.8	25.1	8.4	0.0	0.0	0.0	0.0	0.0
45°	384.8	121.3	71.1	46.0	25.1	12.5	0.0	0.0	0.0	0.0	0.0
47.5°	669.2	125.5	66.9	46.0	25.1	12.5	0.0	0.0	0.0	0.0	0.0
50°	857.4	146.4	66.9	50.2	29.3	8.4	0.0	0.0	0.0	0.0	0.0
52.5°	911.8	171.5	66.9	54.4	37.6	4.2	0.0	0.0	0.0	0.0	0.0
55°	886.7	200.8	71.1	58.6	46.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	819.8	217.5	75.3	62.7	50.2	0.0	0.0	0.0	0.0	0.0	0.0
59°	748.7	230.0	87.8	66.9	50.2	0.0	0.0	0.0	0.0	0.0	0.0
60°	690.1	242.6	92.0	71.1	50.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	556.3	259.3	100.4	83.6	41.8	0.0	0.0	0.0	0.0	0.0	0.0
65°	485.2	271.9	104.6	92.0	37.6	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	443.3	280.2	112.9	96.2	33.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	409.9	276.0	121.3	92.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	372.2	263.5	146.4	83.6	25.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	334.6	238.4	158.9	75.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	242.6	200.8	146.4	66.9	8.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	104.6	108.7	104.6	50.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.9	25.1	20.9	12.5	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°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
2.5°	20.9	20.9	20.9	20.9	25.1	25.1	33.5	41.8	50.2	54.4	54.4
5°	16.7	16.7	16.7	16.7	16.7	20.9	25.1	33.5	46.0	50.2	50.2
7.5°	12.5	12.5	12.5	12.5	12.5	12.5	20.9	29.3	41.8	46.0	50.2
10°	12.5	8.4	8.4	4.2	4.2	8.4	12.5	25.1	37.6	41.8	46.0
12.5°	8.4	4.2	4.2	0.0	0.0	4.2	8.4	20.9	33.5	37.6	41.8
15°	4.2	0.0	0.0	0.0	0.0	0.0	4.2	16.7	29.3	33.5	41.8
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	25.1	33.5	37.6
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	20.9	29.3	33.5
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	16.7	25.1	29.3
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	16.7	20.9
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	12.5	16.7
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	12.5	16.7
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4	12.5
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4	12.5
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4	8.4
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2
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°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
2.5°	58.6	58.6	54.4	50.2	50.2	50.2	54.4	58.6	58.6	58.6
5°	54.4	54.4	50.2	50.2	50.2	50.2	54.4	62.7	66.9	66.9
7.5°	54.4	54.4	50.2	50.2	50.2	50.2	54.4	62.7	66.9	71.1
10°	50.2	50.2	50.2	50.2	46.0	50.2	54.4	62.7	75.3	75.3
12.5°	50.2	50.2	50.2	50.2	46.0	50.2	58.6	66.9	79.5	83.6
15°	50.2	50.2	50.2	46.0	46.0	50.2	58.6	71.1	83.6	92.0
17.5°	46.0	50.2	50.2	46.0	46.0	50.2	58.6	71.1	92.0	104.6
20°	41.8	46.0	50.2	46.0	46.0	46.0	58.6	71.1	96.2	112.9
22.5°	37.6	41.8	46.0	46.0	41.8	46.0	58.6	75.3	104.6	125.5
25°	33.5	37.6	37.6	41.8	41.8	46.0	58.6	75.3	108.7	142.2
27.5°	25.1	29.3	33.5	37.6	37.6	46.0	58.6	79.5	117.1	175.7
30°	20.9	25.1	29.3	33.5	37.6	46.0	58.6	79.5	125.5	221.7
32.5°	20.9	25.1	29.3	33.5	37.6	41.8	58.6	83.6	138.0	276.0
35°	16.7	20.9	25.1	33.5	33.5	41.8	58.6	83.6	150.6	359.7
37.5°	16.7	20.9	25.1	33.5	33.5	41.8	58.6	83.6	184.0	401.5
40°	12.5	16.7	20.9	33.5	33.5	41.8	62.7	87.8	188.2	405.7
42.5°	12.5	16.7	20.9	29.3	33.5	41.8	62.7	87.8	175.7	418.2
45°	12.5	16.7	20.9	33.5	37.6	46.0	62.7	92.0	171.5	476.8
47.5°	12.5	16.7	20.9	33.5	41.8	46.0	62.7	92.0	175.7	681.7
50°	12.5	16.7	20.9	33.5	46.0	46.0	62.7	92.0	192.4	1095.8
52.5°	8.4	12.5	16.7	29.3	37.6	50.2	66.9	87.8	204.9	1463.9
55°	8.4	8.4	12.5	25.1	33.5	54.4	71.1	87.8	238.4	1555.9
57.5°	8.4	8.4	12.5	20.9	29.3	58.6	75.3	87.8	276.0	1509.9
59°	8.4	8.4	8.4	20.9	25.1	58.6	75.3	92.0	280.2	1430.4
60°	8.4	8.4	8.4	16.7	25.1	58.6	79.5	96.2	284.4	1338.4
62.5°	4.2	4.2	4.2	16.7	20.9	58.6	87.8	117.1	292.8	1033.1
65°	8.4	8.4	4.2	12.5	20.9	50.2	100.4	125.5	297.0	803.0
67.5°	8.4	8.4	8.4	16.7	20.9	50.2	104.6	129.7	297.0	635.7
70°	8.4	8.4	8.4	16.7	25.1	50.2	104.6	133.8	292.8	518.6
72.5°	8.4	8.4	8.4	16.7	25.1	46.0	96.2	138.0	280.2	439.2
75°	8.4	8.4	8.4	12.5	20.9	41.8	92.0	150.6	255.1	372.2
77.5°	8.4	8.4	8.4	8.4	16.7	33.5	83.6	167.3	225.9	301.1
80°	12.5	8.4	8.4	8.4	12.5	29.3	79.5	163.1	188.2	196.6
82.5°	12.5	8.4	8.4	4.2	8.4	20.9	62.7	125.5	96.2	87.8
85°	8.4	8.4	8.4	4.2	4.2	12.5	29.3	37.6	29.3	20.9
87.5°	8.4	8.4	8.4	4.2	4.2	4.2	4.2	4.2	4.2	4.2
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

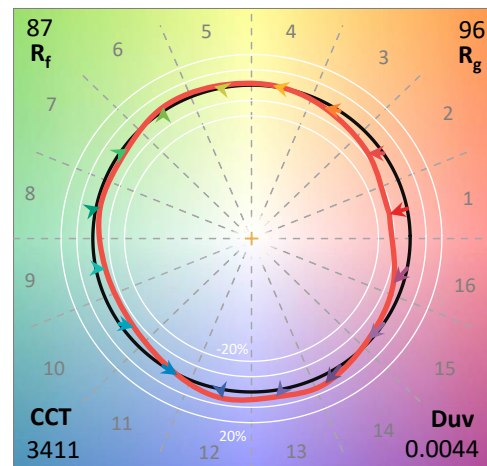
Test Information

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

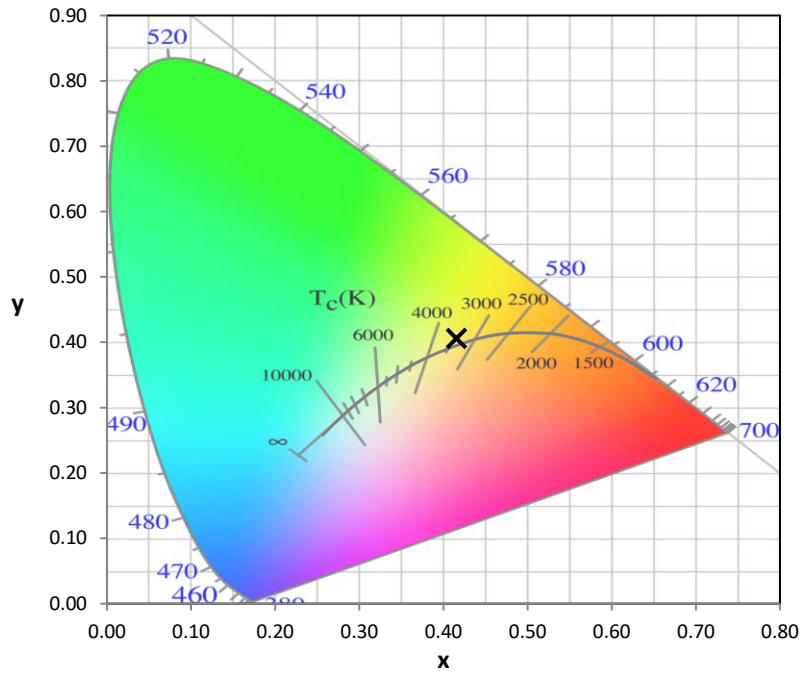
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

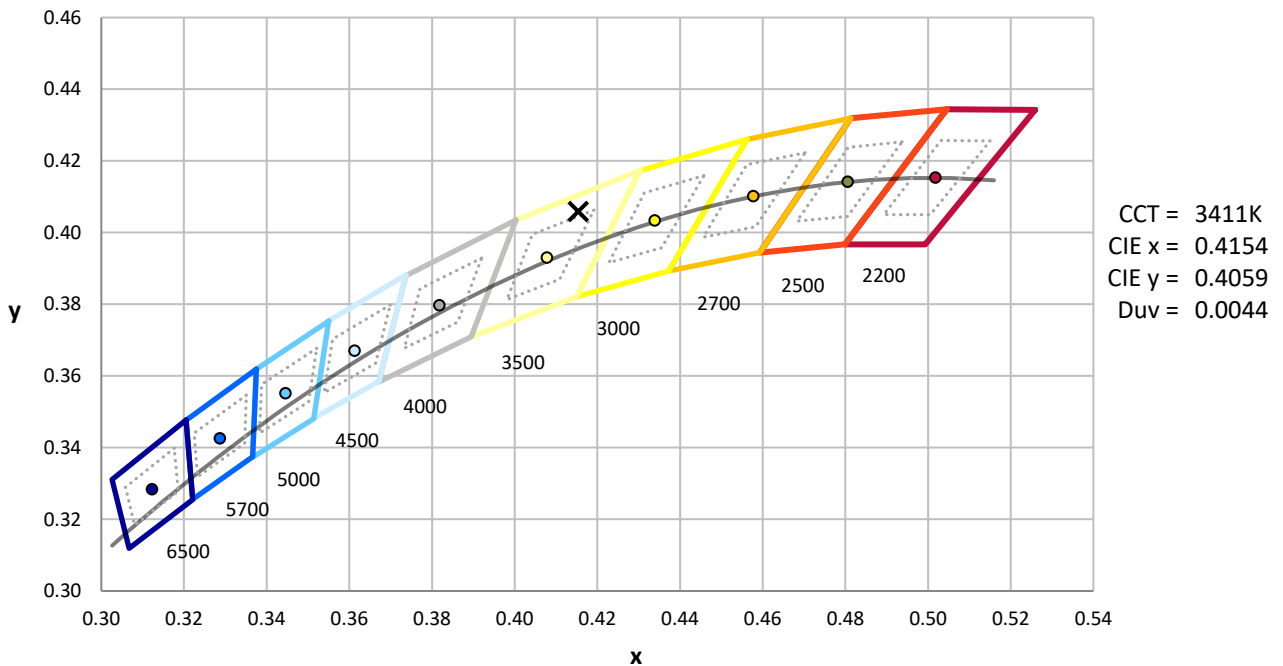
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



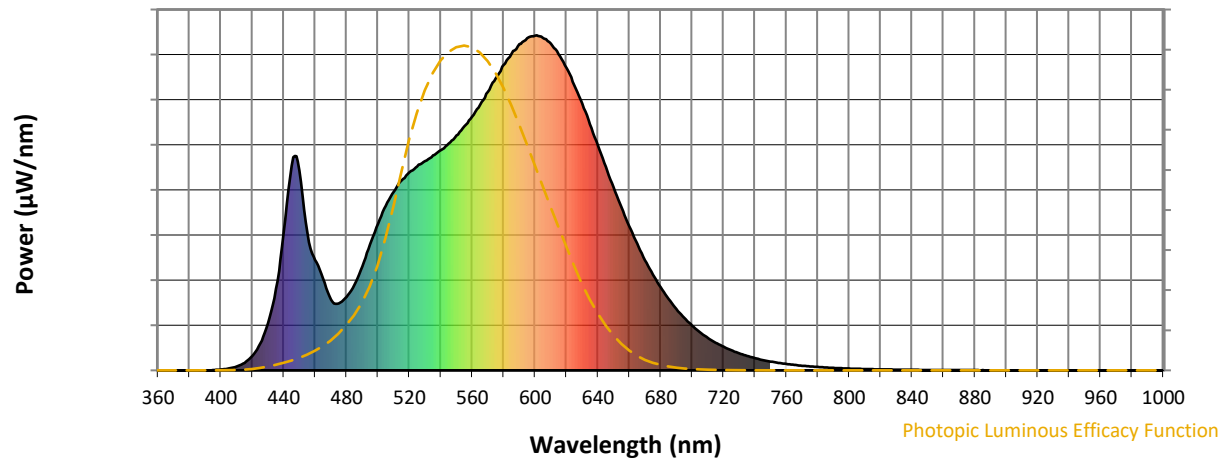
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

Photopic Flux vs. Wavelength

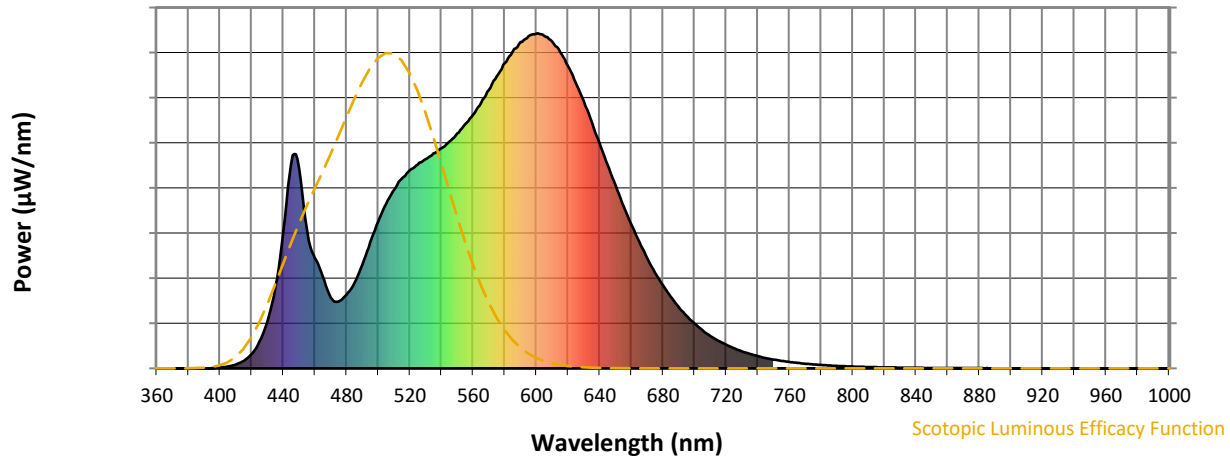


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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



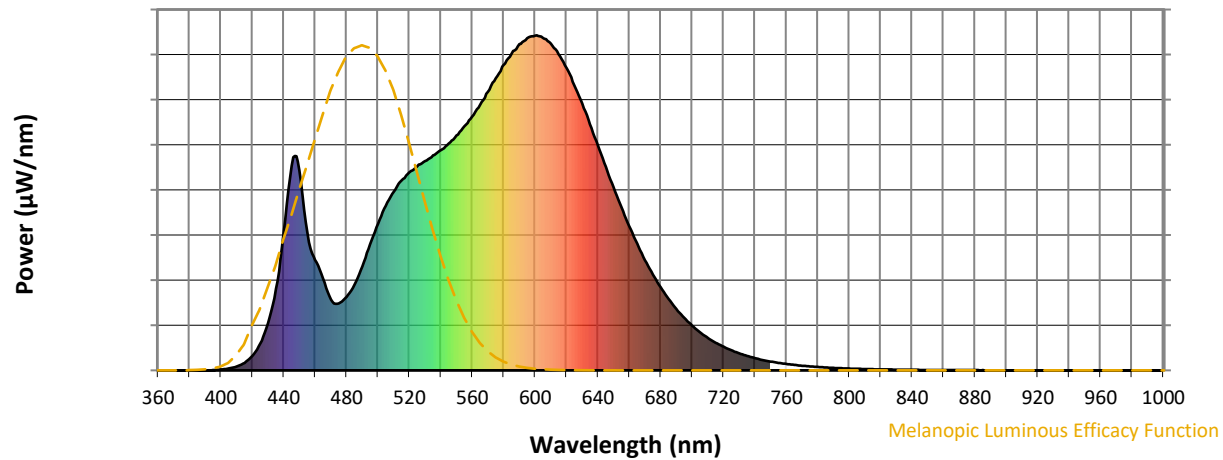
Scotopic Lumens: NR

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

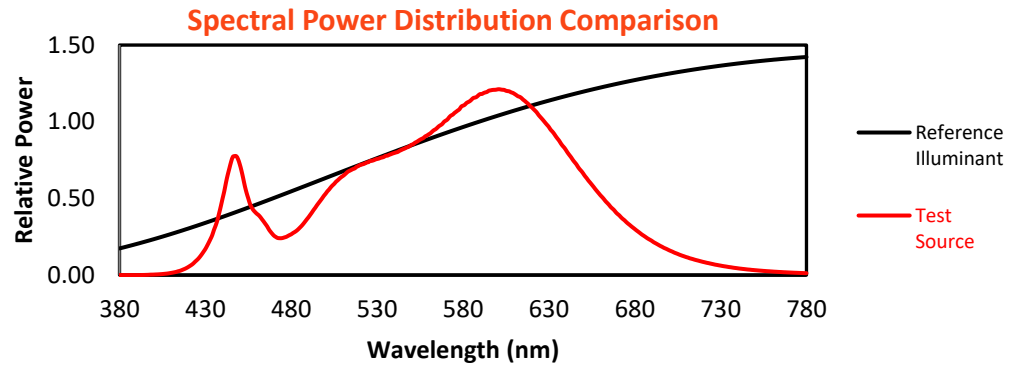
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	311	NR	620	903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

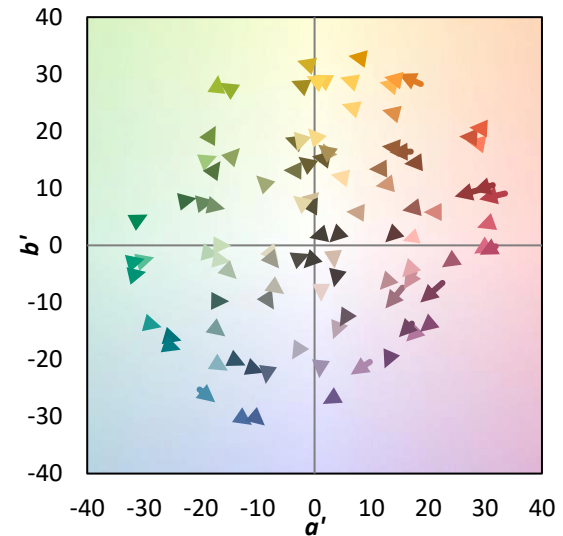
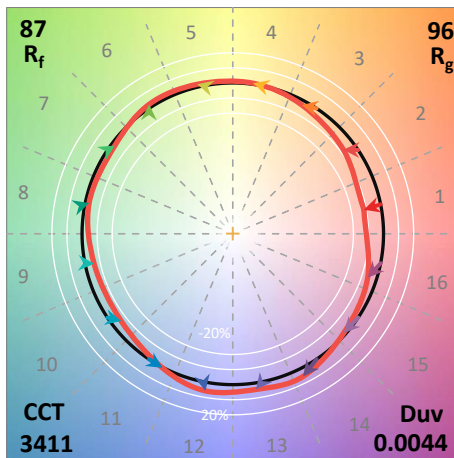
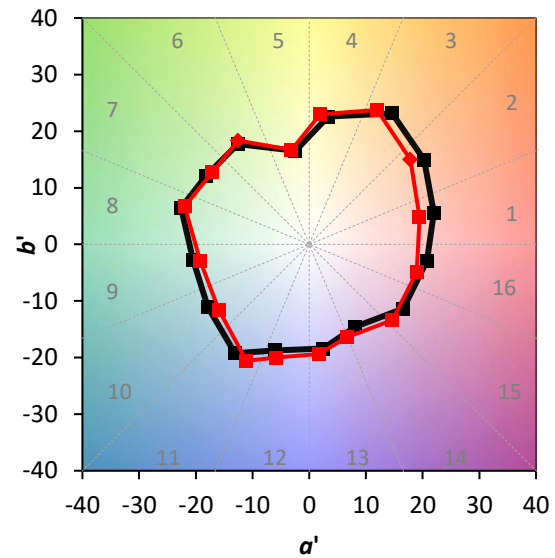
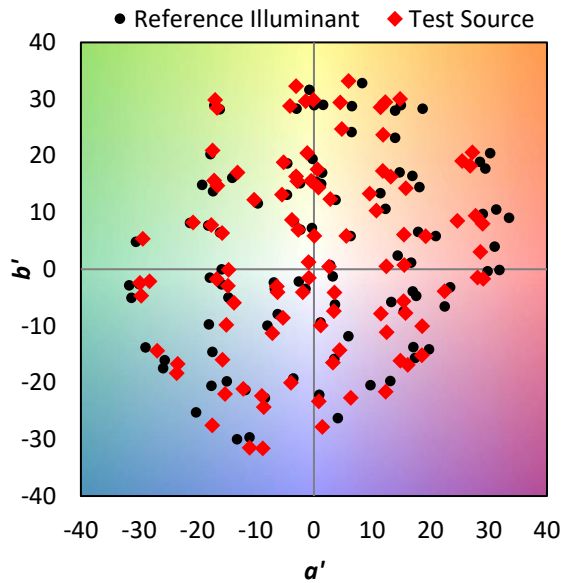
TM-30-18

Summary

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

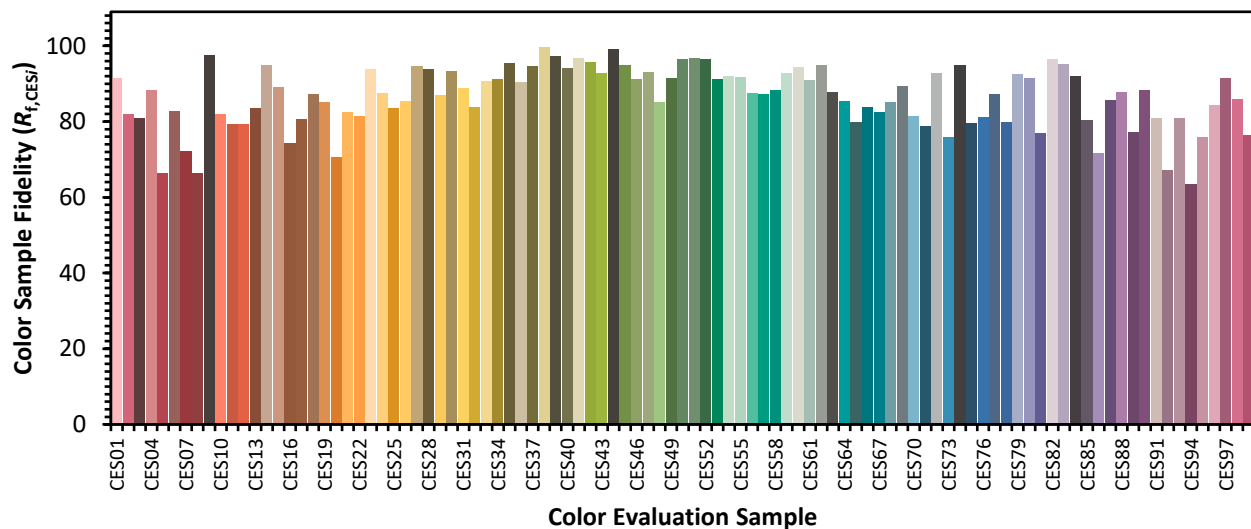


Color Vector Graphics

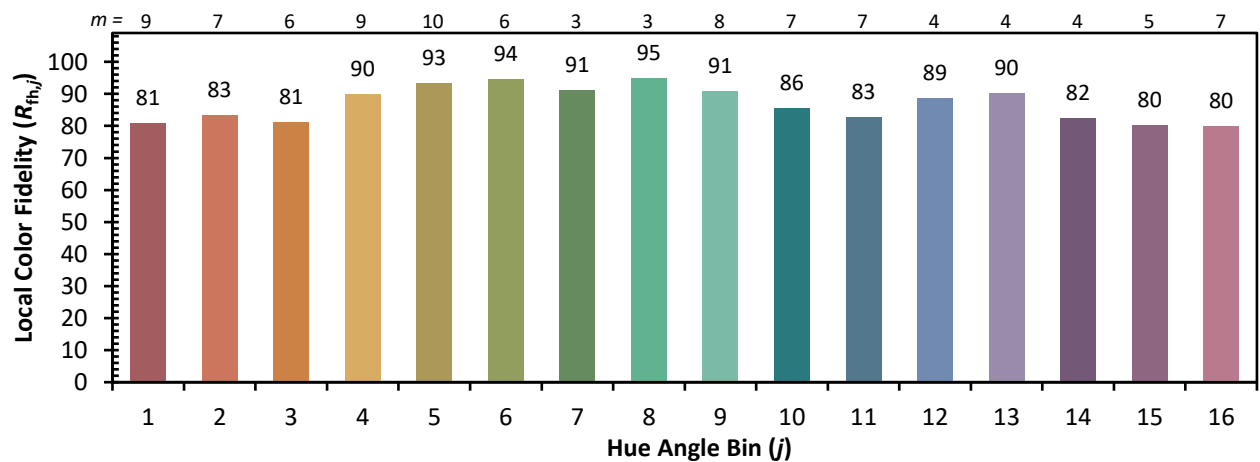
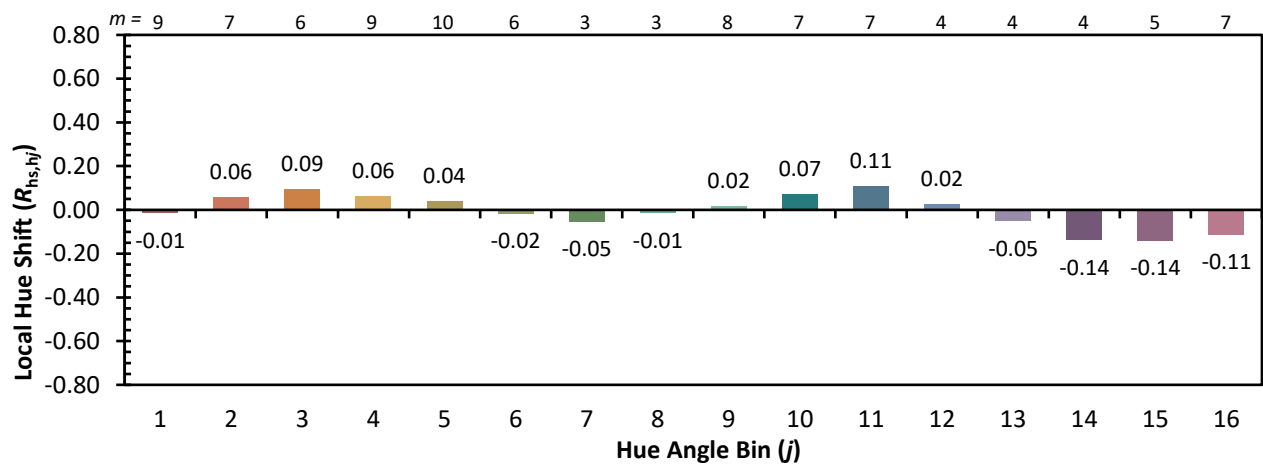
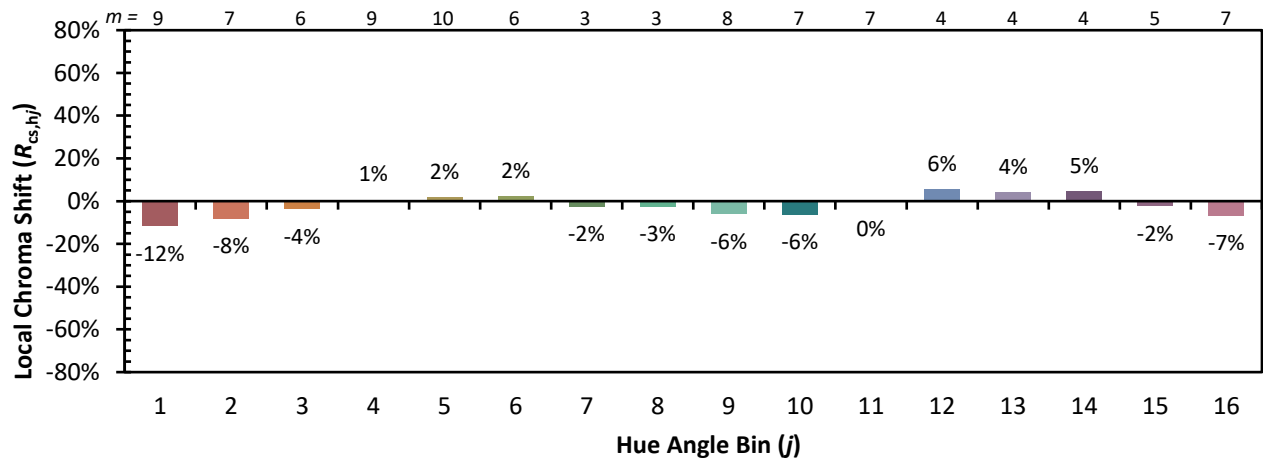


Individual Sample Fidelity Index ($R_{f,i}$)

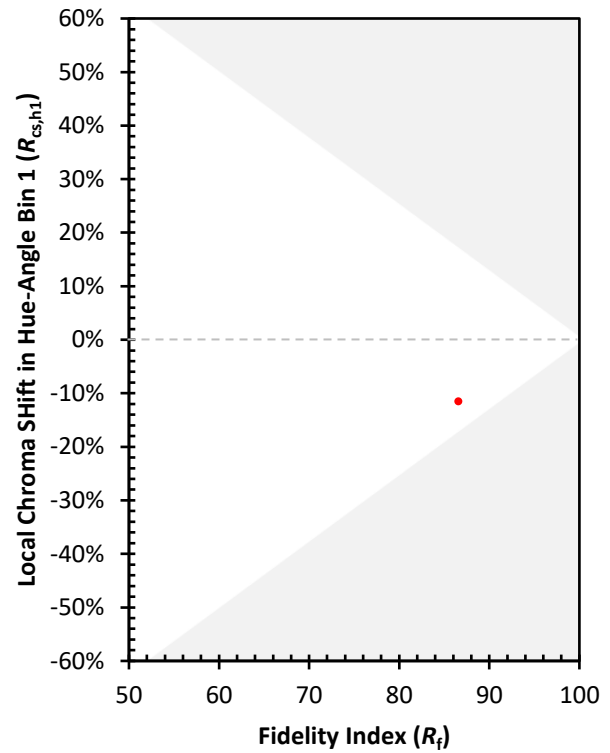
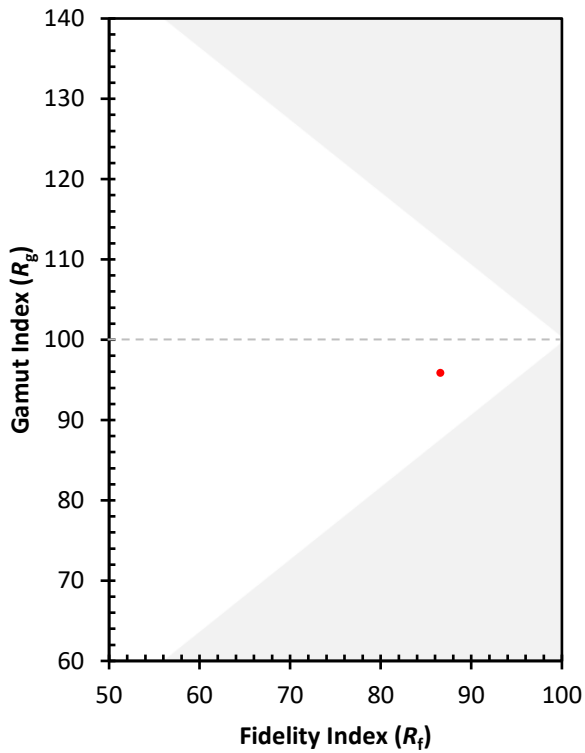
CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82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