

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: P1068062

Luminaire Tested: **NAV-SA1B-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068062
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1B-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 800mA 1xLight Square PACKAGE
80CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3178.7 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 37.9
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

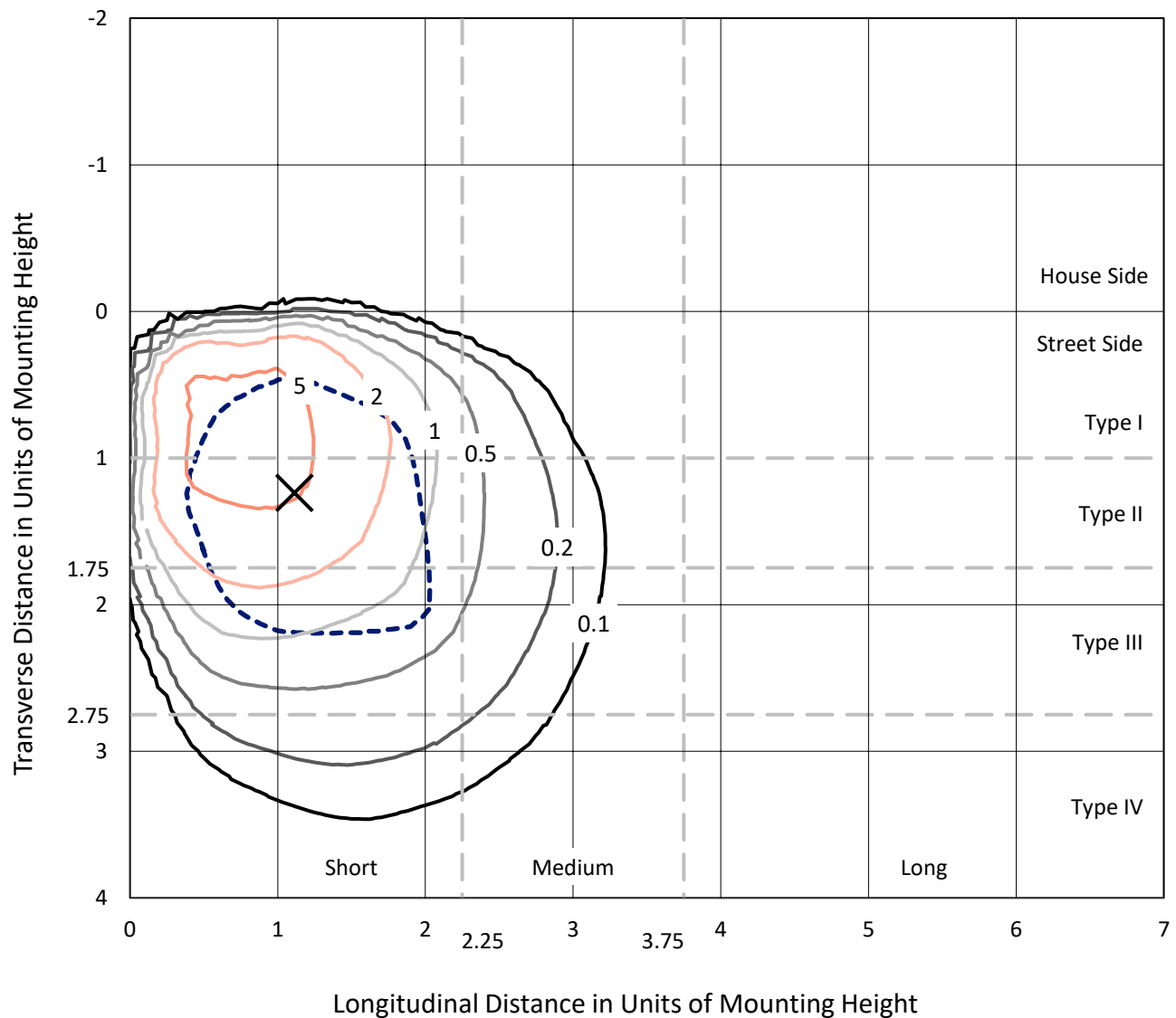


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

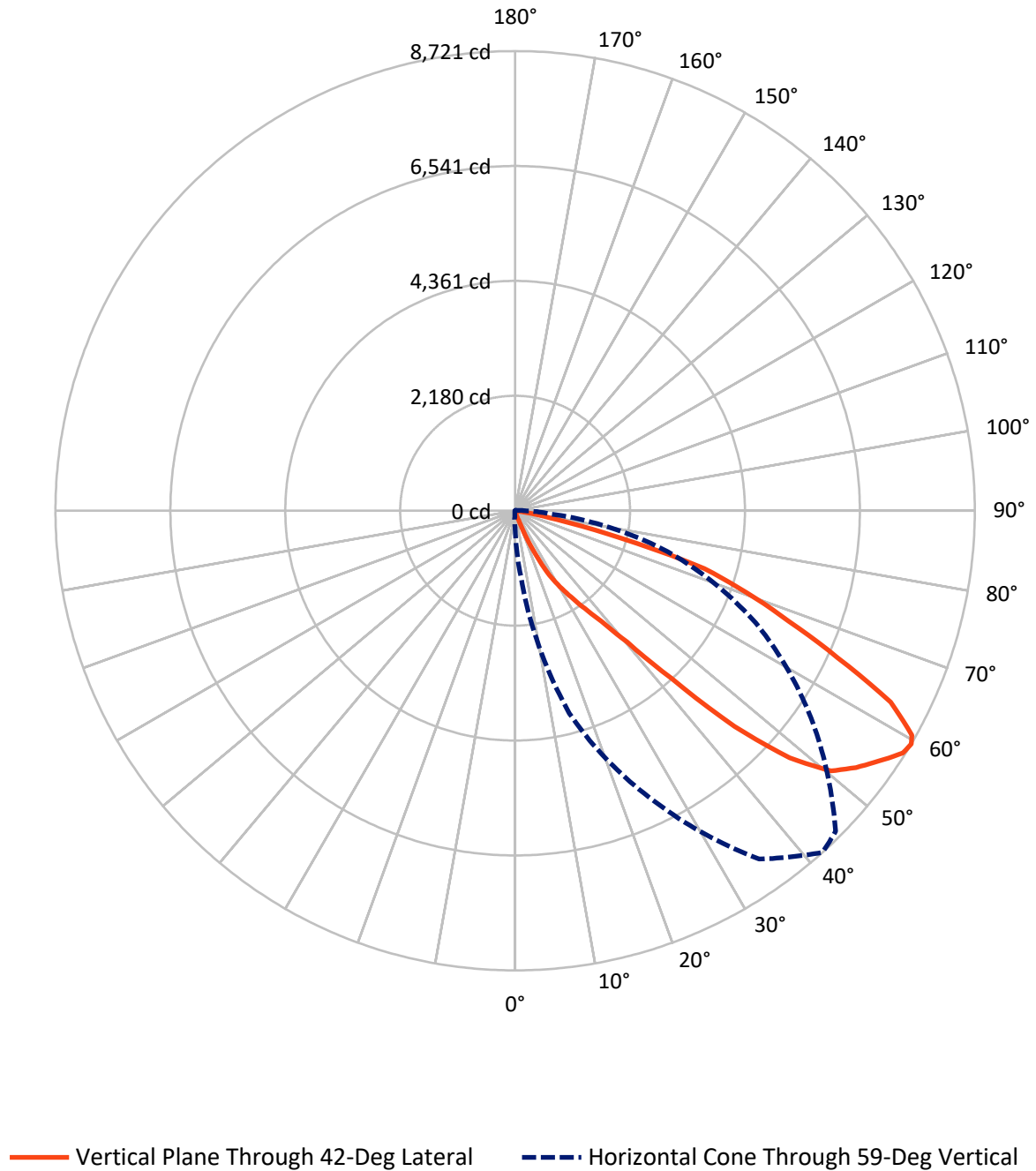


Based on 15 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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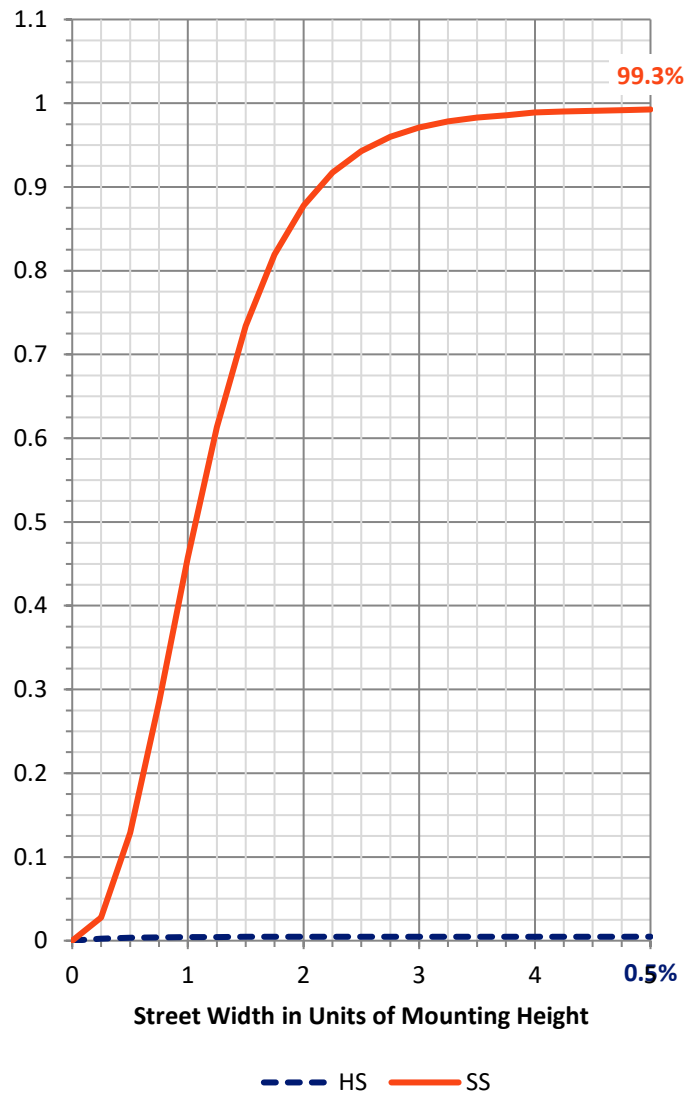
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15.3	0.0	15.3
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	3163.3	0.0	3163.3
	% Fixture	99.5	0.0	99.5
Total	Lumens	3178.7	0.0	3178.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.0
10°-20°	4.6	0.1
20°-30°	59.3	1.9
30°-40°	199.9	6.3
40°-50°	603.8	19.0
50°-60°	1065.8	33.5
60°-70°	938.5	29.5
70°-80°	298.7	9.4
80°-90°	7.1	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°	3178.7	100.0
0°-180°	3178.7	100.0



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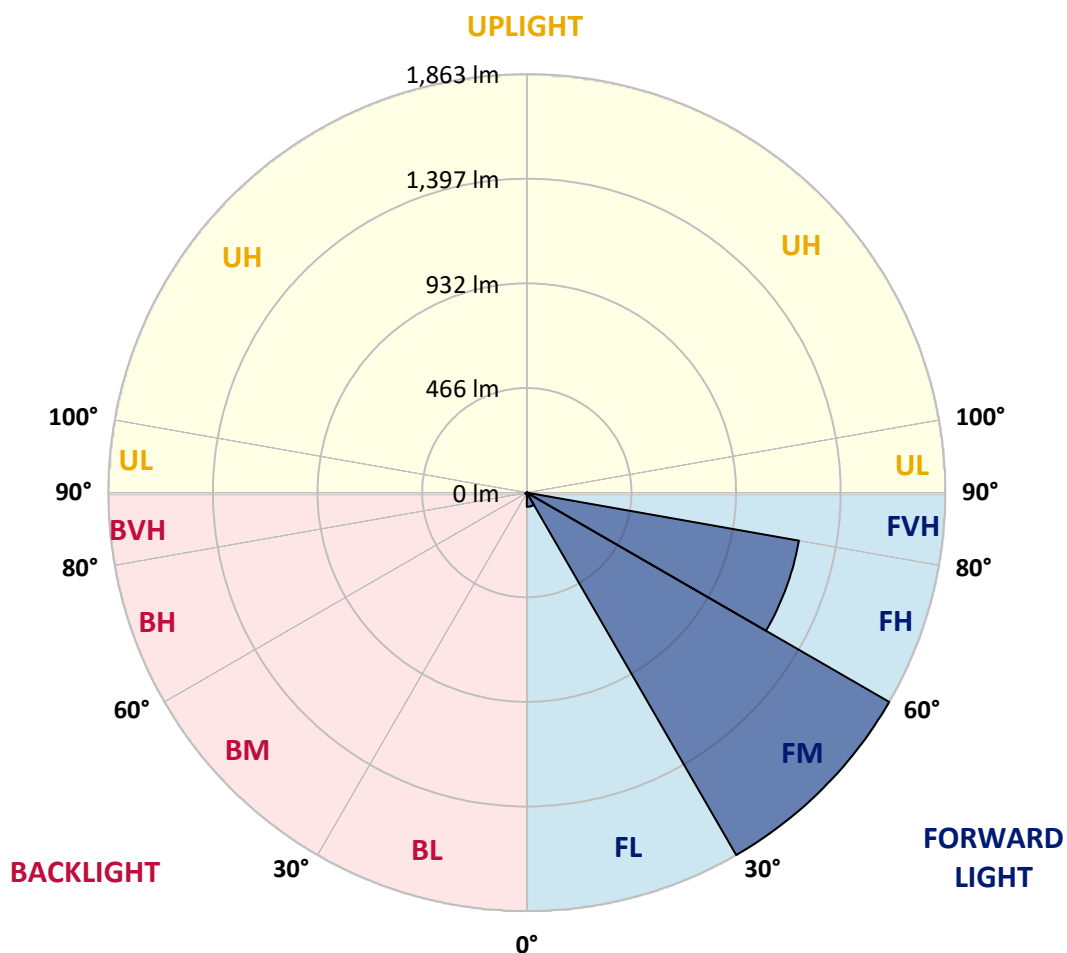
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	63.2	2.0			
FM	(30°-60°)	1863.2	58.6			
FH	(60°-80°)	1230.2	38.7			G1/1800
FVH	(80°-90°)	6.8	0.2			G0/10
BL	(0°-30°)	1.7	0.1	B0/110		
BM	(30°-60°)	6.3	0.2	B0/220		
BH	(60°-80°)	7.0	0.2	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2.5°	14.0	14.0	13.0	12.0	11.0	10.0	10.0	10.0	9.0	9.0	8.0
5°	15.9	15.9	14.9	14.0	14.0	13.0	13.0	12.0	11.0	11.0	10.0
7.5°	16.9	16.9	16.9	16.9	15.9	15.9	15.9	14.9	14.0	13.0	12.0
10°	17.9	18.9	19.9	19.9	19.9	19.9	19.9	18.9	16.9	15.9	14.0
12.5°	19.9	20.9	22.9	24.9	24.9	25.9	24.9	23.9	21.9	18.9	15.9
15°	21.9	23.9	26.9	30.9	34.9	35.9	35.9	32.9	28.9	22.9	18.9
17.5°	24.9	27.9	35.9	48.8	62.8	73.7	73.7	65.8	45.8	29.9	21.9
20°	26.9	32.9	57.8	117.6	179.4	225.2	216.3	191.3	102.7	46.8	23.9
22.5°	29.9	41.9	122.6	308.9	478.4	562.1	542.2	411.6	230.2	83.7	28.9
25°	33.9	60.8	243.2	579.0	889.0	979.7	966.7	768.4	419.6	140.5	36.9
27.5°	41.9	89.7	389.7	878.0	1311.5	1389.3	1384.3	1125.2	670.7	226.2	47.8
30°	52.8	130.6	578.0	1192.9	1591.6	1670.3	1645.4	1386.3	904.9	345.8	61.8
32.5°	65.8	182.4	748.5	1425.2	1849.7	1953.4	1923.5	1613.5	1093.3	447.5	91.7
35°	85.7	233.2	916.9	1630.5	2147.7	2279.2	2229.4	1847.7	1255.7	562.1	110.6
37.5°	95.7	263.1	1071.4	1853.7	2482.6	2661.9	2624.1	2143.7	1421.2	708.6	135.5
40°	96.7	299.0	1231.8	2144.7	2955.9	3275.9	3208.1	2652.0	1729.1	896.9	174.4
42.5°	99.7	352.8	1440.1	2641.0	3885.8	4345.2	4268.5	3586.8	2427.7	1274.7	247.2
45°	113.6	454.5	1864.7	3568.9	5162.4	5836.1	5747.4	4889.4	3403.4	1985.2	421.6
47.5°	162.4	683.7	2609.1	4570.4	6468.0	7005.2	6983.2	5915.9	4287.4	2713.8	714.6
50°	261.1	1049.4	3456.2	5412.6	7299.2	7760.6	7705.8	6344.4	4791.7	3211.1	915.9
52.5°	348.8	1399.2	3988.4	5722.5	7547.3	8097.4	8030.7	6500.9	4924.2	3357.6	971.7
55°	370.7	1525.8	4146.9	5818.2	7711.8	8382.5	8285.8	6605.5	4941.2	3252.9	879.0
57.5°	359.8	1406.2	4044.2	5911.9	7941.0	8675.5	8546.9	6809.8	4998.0	3075.5	731.5
59°	340.8	1258.7	3980.5	5986.6	8067.5	8721.3	8600.7	6854.7	5035.9	2994.8	641.8
60°	318.9	1159.1	3930.6	6035.5	8059.6	8649.6	8525.0	6833.7	5050.8	2925.0	599.0
62.5°	246.2	924.9	3858.9	6000.6	7556.3	7994.8	7924.0	6321.5	4831.6	2701.8	472.4
65°	191.3	707.6	3595.8	5351.8	6430.1	6725.1	6703.2	5352.8	4066.2	2329.1	340.8
67.5°	151.5	516.2	3040.7	4334.3	5173.4	5593.0	5577.0	4345.2	3086.5	1779.9	245.2
70°	123.6	367.7	2084.9	3267.9	4137.9	4666.1	4643.2	3497.1	2287.2	1129.2	178.4
72.5°	104.6	235.2	1264.7	2463.6	3453.2	3755.2	3688.4	2821.4	1663.3	614.9	141.5
75°	88.7	144.5	626.9	1535.8	2057.0	2055.0	1988.2	1493.9	893.0	301.0	112.6
77.5°	71.8	101.7	246.2	421.6	648.8	803.3	790.3	529.2	267.1	87.7	69.8
80°	46.8	47.8	65.8	115.6	178.4	197.3	224.2	161.5	77.7	41.9	28.9
82.5°	20.9	22.9	29.9	37.9	37.9	34.9	30.9	22.9	16.9	14.0	7.0
85°	5.0	7.0	5.0	6.0	5.0	4.0	4.0	2.0	0.0	0.0	0.0
87.5°	1.0	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2.5°	8.0	8.0	8.0	7.0	7.0	7.0	6.0	6.0	6.0	5.0	5.0
5°	10.0	9.0	8.0	8.0	7.0	7.0	6.0	5.0	5.0	5.0	4.0
7.5°	11.0	10.0	9.0	8.0	7.0	6.0	6.0	5.0	4.0	4.0	4.0
10°	13.0	12.0	10.0	8.0	7.0	6.0	5.0	5.0	4.0	3.0	3.0
12.5°	14.9	13.0	11.0	9.0	7.0	6.0	5.0	5.0	4.0	3.0	2.0
15°	16.9	14.9	12.0	9.0	7.0	6.0	5.0	5.0	3.0	2.0	1.0
17.5°	18.9	15.9	12.0	10.0	7.0	6.0	5.0	4.0	2.0	1.0	0.0
20°	19.9	16.9	13.0	10.0	7.0	6.0	5.0	3.0	1.0	0.0	0.0
22.5°	21.9	18.9	14.0	10.0	7.0	5.0	3.0	1.0	0.0	0.0	0.0
25°	25.9	19.9	14.0	10.0	7.0	5.0	2.0	0.0	0.0	0.0	0.0
27.5°	28.9	21.9	14.0	10.0	7.0	4.0	1.0	0.0	0.0	0.0	0.0
30°	33.9	23.9	14.9	10.0	7.0	3.0	1.0	0.0	0.0	0.0	0.0
32.5°	41.9	25.9	14.9	10.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0
35°	50.8	29.9	14.9	10.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0
37.5°	51.8	31.9	14.9	10.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0
40°	53.8	29.9	15.9	10.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0
42.5°	61.8	27.9	16.9	10.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0
45°	91.7	28.9	16.9	11.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0
47.5°	159.5	29.9	15.9	11.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0
50°	204.3	34.9	15.9	12.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0
52.5°	217.3	40.9	15.9	13.0	9.0	1.0	0.0	0.0	0.0	0.0	0.0
55°	211.3	47.8	16.9	14.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	195.3	51.8	17.9	14.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0
59°	178.4	54.8	20.9	15.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	164.4	57.8	21.9	16.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	132.5	61.8	23.9	19.9	10.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	115.6	64.8	24.9	21.9	9.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	105.6	66.8	26.9	22.9	8.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	97.7	65.8	28.9	21.9	7.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	88.7	62.8	34.9	19.9	6.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	79.7	56.8	37.9	17.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	57.8	47.8	34.9	15.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.9	25.9	24.9	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.0	6.0	5.0	3.0	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°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2.5°	5.0	5.0	5.0	5.0	6.0	6.0	8.0	10.0	12.0	13.0	13.0
5°	4.0	4.0	4.0	4.0	4.0	5.0	6.0	8.0	11.0	12.0	12.0
7.5°	3.0	3.0	3.0	3.0	3.0	3.0	5.0	7.0	10.0	11.0	12.0
10°	3.0	2.0	2.0	1.0	1.0	2.0	3.0	6.0	9.0	10.0	11.0
12.5°	2.0	1.0	1.0	0.0	0.0	1.0	2.0	5.0	8.0	9.0	10.0
15°	1.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	7.0	8.0	10.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.0	8.0	9.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0	7.0	8.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	6.0	7.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	5.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	4.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	4.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
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):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2.5°	14.0	14.0	13.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0
5°	13.0	13.0	12.0	12.0	12.0	12.0	13.0	14.9	15.9	15.9
7.5°	13.0	13.0	12.0	12.0	12.0	12.0	13.0	14.9	15.9	16.9
10°	12.0	12.0	12.0	12.0	11.0	12.0	13.0	14.9	17.9	17.9
12.5°	12.0	12.0	12.0	12.0	11.0	12.0	14.0	15.9	18.9	19.9
15°	12.0	12.0	12.0	11.0	11.0	12.0	14.0	16.9	19.9	21.9
17.5°	11.0	12.0	12.0	11.0	11.0	12.0	14.0	16.9	21.9	24.9
20°	10.0	11.0	12.0	11.0	11.0	11.0	14.0	16.9	22.9	26.9
22.5°	9.0	10.0	11.0	11.0	10.0	11.0	14.0	17.9	24.9	29.9
25°	8.0	9.0	9.0	10.0	10.0	11.0	14.0	17.9	25.9	33.9
27.5°	6.0	7.0	8.0	9.0	9.0	11.0	14.0	18.9	27.9	41.9
30°	5.0	6.0	7.0	8.0	9.0	11.0	14.0	18.9	29.9	52.8
32.5°	5.0	6.0	7.0	8.0	9.0	10.0	14.0	19.9	32.9	65.8
35°	4.0	5.0	6.0	8.0	8.0	10.0	14.0	19.9	35.9	85.7
37.5°	4.0	5.0	6.0	8.0	8.0	10.0	14.0	19.9	43.9	95.7
40°	3.0	4.0	5.0	8.0	8.0	10.0	14.9	20.9	44.8	96.7
42.5°	3.0	4.0	5.0	7.0	8.0	10.0	14.9	20.9	41.9	99.7
45°	3.0	4.0	5.0	8.0	9.0	11.0	14.9	21.9	40.9	113.6
47.5°	3.0	4.0	5.0	8.0	10.0	11.0	14.9	21.9	41.9	162.4
50°	3.0	4.0	5.0	8.0	11.0	11.0	14.9	21.9	45.8	261.1
52.5°	2.0	3.0	4.0	7.0	9.0	12.0	15.9	20.9	48.8	348.8
55°	2.0	2.0	3.0	6.0	8.0	13.0	16.9	20.9	56.8	370.7
57.5°	2.0	2.0	3.0	5.0	7.0	14.0	17.9	20.9	65.8	359.8
59°	2.0	2.0	2.0	5.0	6.0	14.0	17.9	21.9	66.8	340.8
60°	2.0	2.0	2.0	4.0	6.0	14.0	18.9	22.9	67.8	318.9
62.5°	1.0	1.0	1.0	4.0	5.0	14.0	20.9	27.9	69.8	246.2
65°	2.0	2.0	1.0	3.0	5.0	12.0	23.9	29.9	70.8	191.3
67.5°	2.0	2.0	2.0	4.0	5.0	12.0	24.9	30.9	70.8	151.5
70°	2.0	2.0	2.0	4.0	6.0	12.0	24.9	31.9	69.8	123.6
72.5°	2.0	2.0	2.0	4.0	6.0	11.0	22.9	32.9	66.8	104.6
75°	2.0	2.0	2.0	3.0	5.0	10.0	21.9	35.9	60.8	88.7
77.5°	2.0	2.0	2.0	2.0	4.0	8.0	19.9	39.9	53.8	71.8
80°	3.0	2.0	2.0	2.0	3.0	7.0	18.9	38.9	44.8	46.8
82.5°	3.0	2.0	2.0	1.0	2.0	5.0	14.9	29.9	22.9	20.9
85°	2.0	2.0	2.0	1.0	1.0	3.0	7.0	9.0	7.0	5.0
87.5°	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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

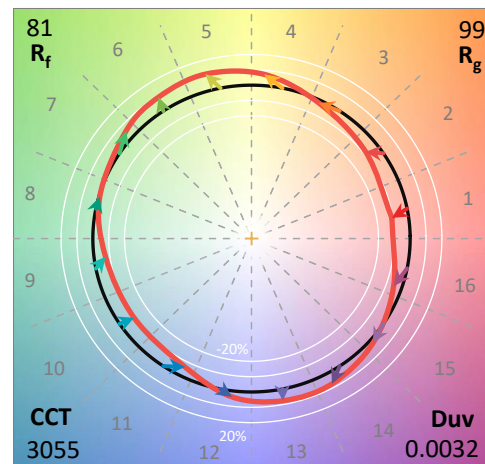
Test Information

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

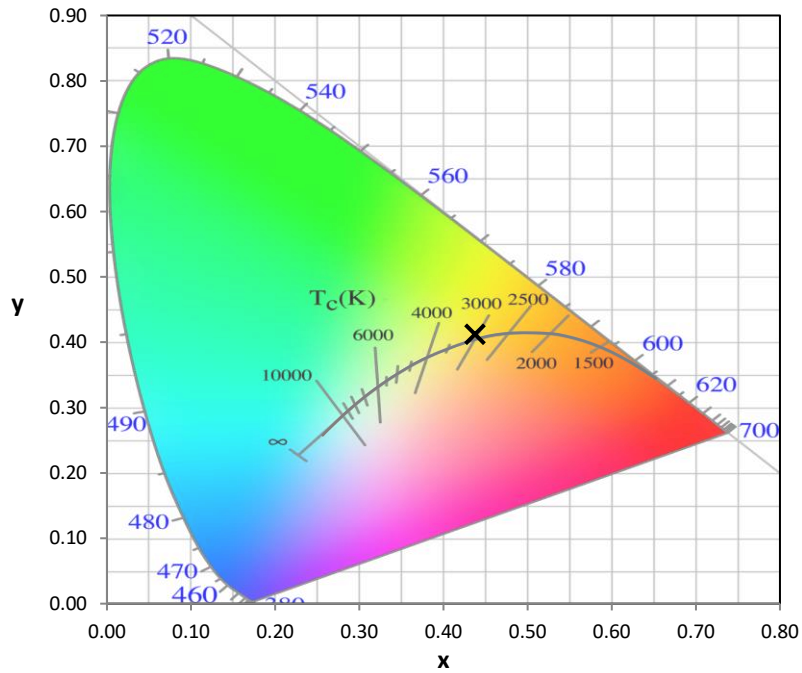
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

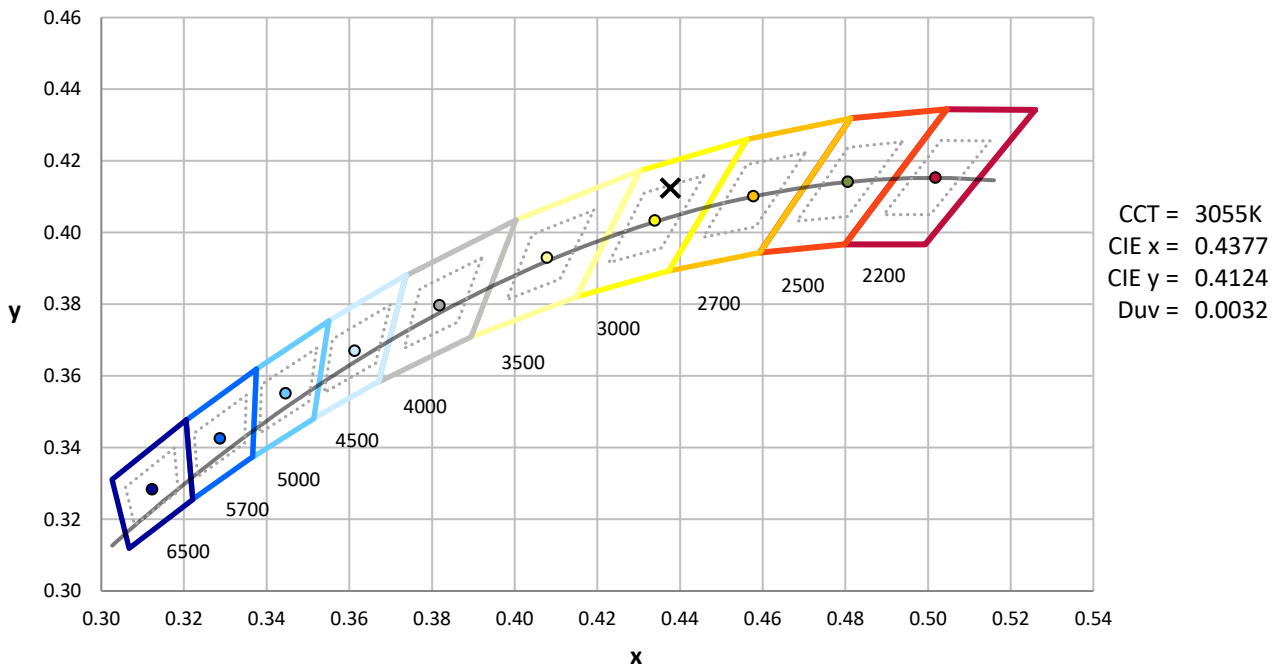
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



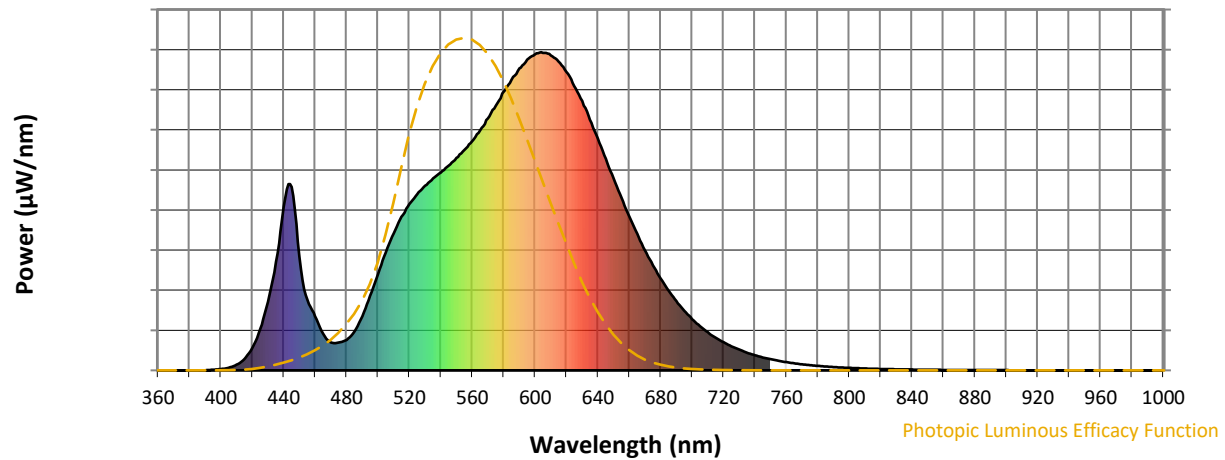
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

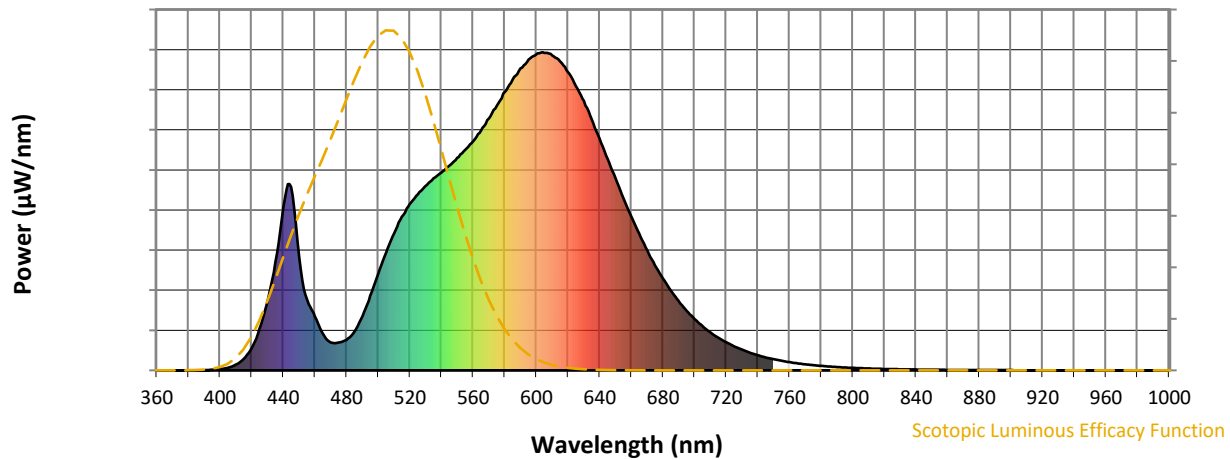


Photopic Lumens: NR

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	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			

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Scotopic Flux vs. Wavelength



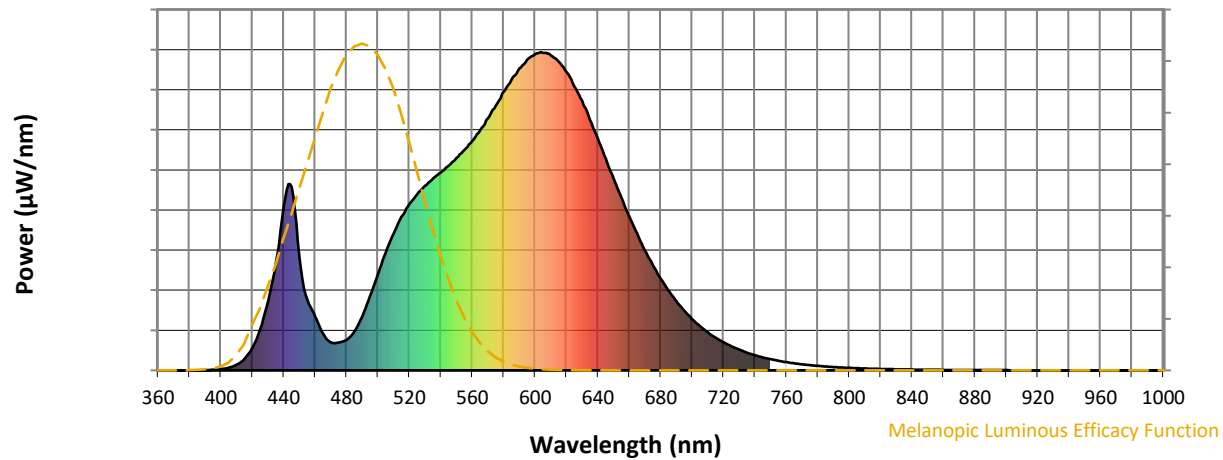
Scotopic Lumens: NR

S/P: 1.28

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

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.33

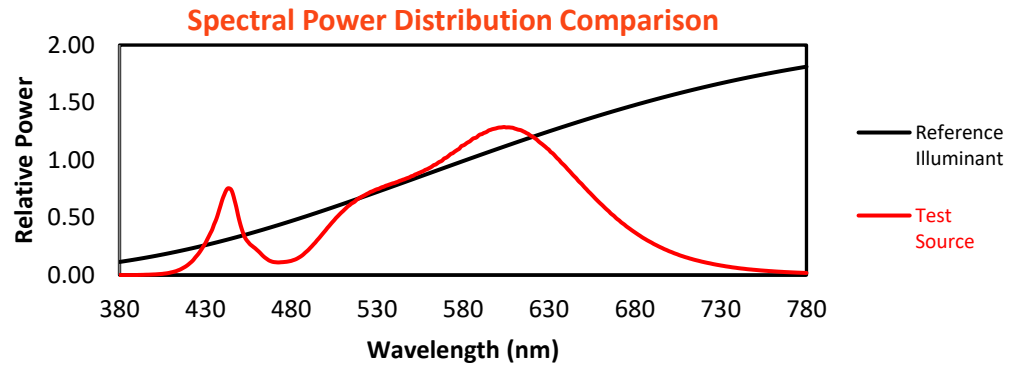
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	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			

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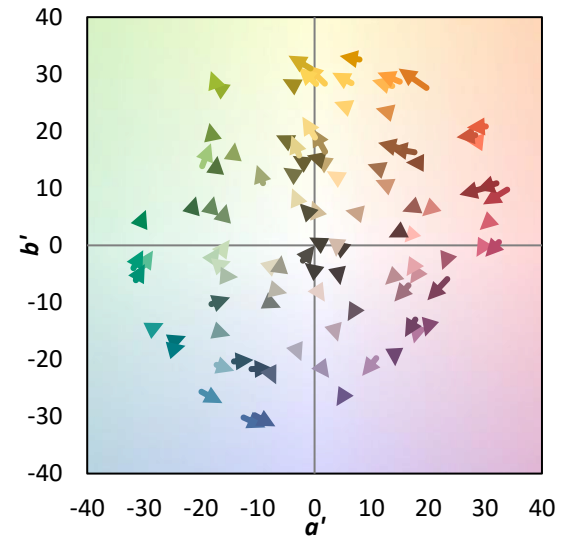
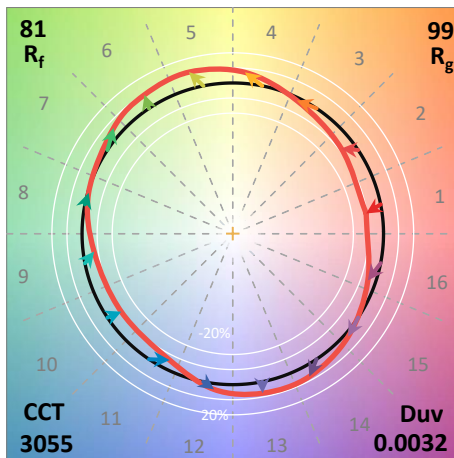
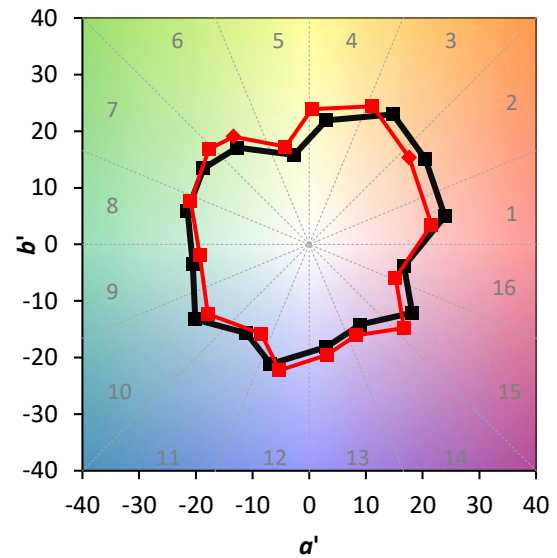
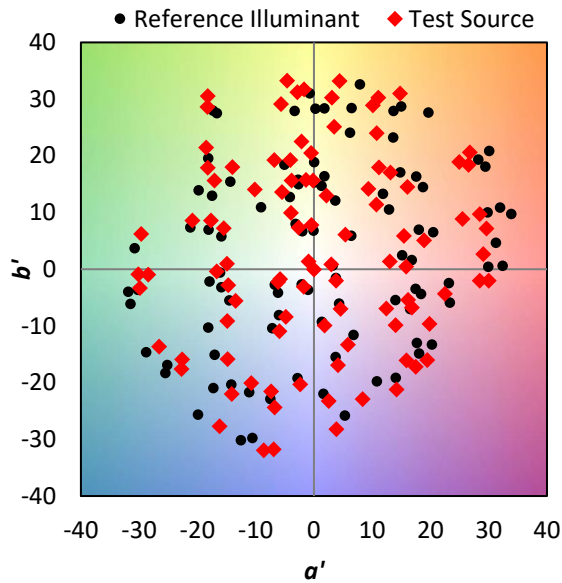
TM-30-18

Summary

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

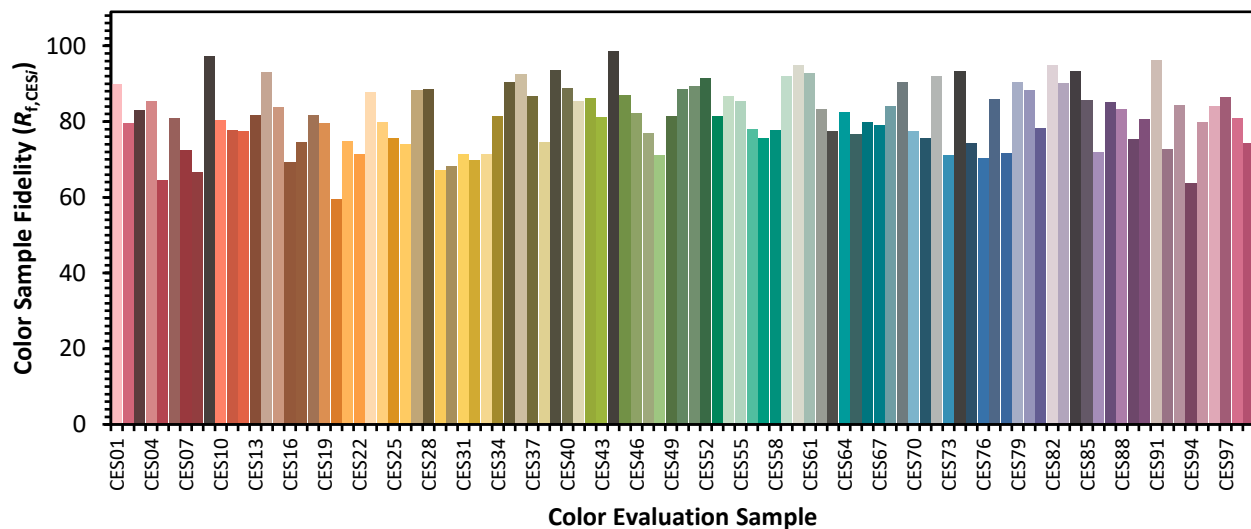


Color Vector Graphics

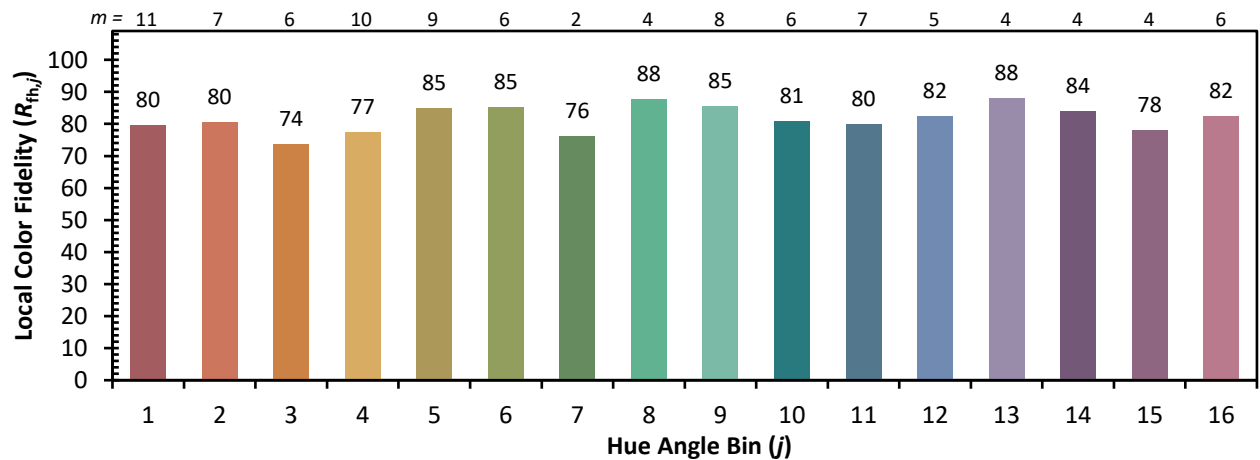
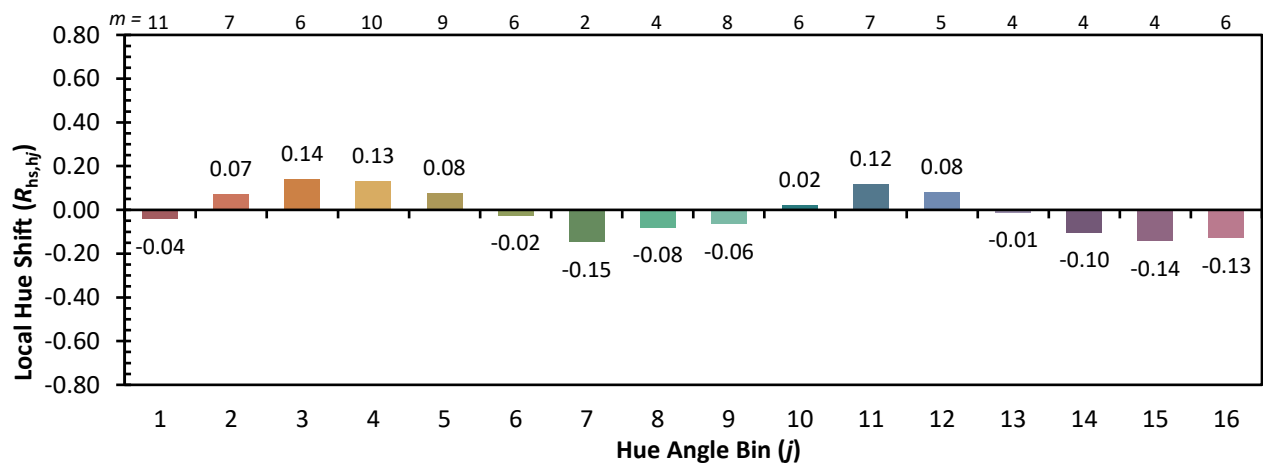
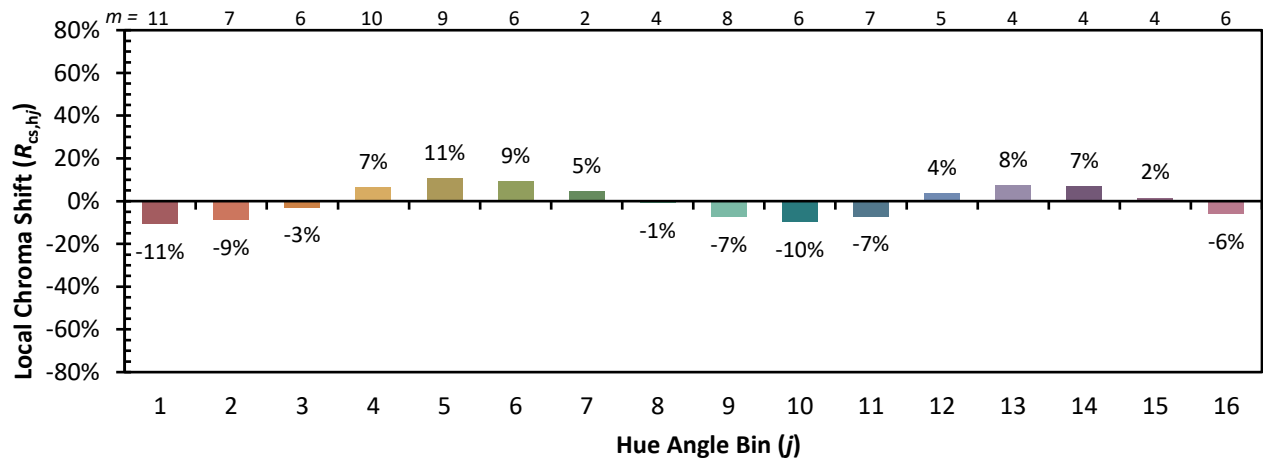


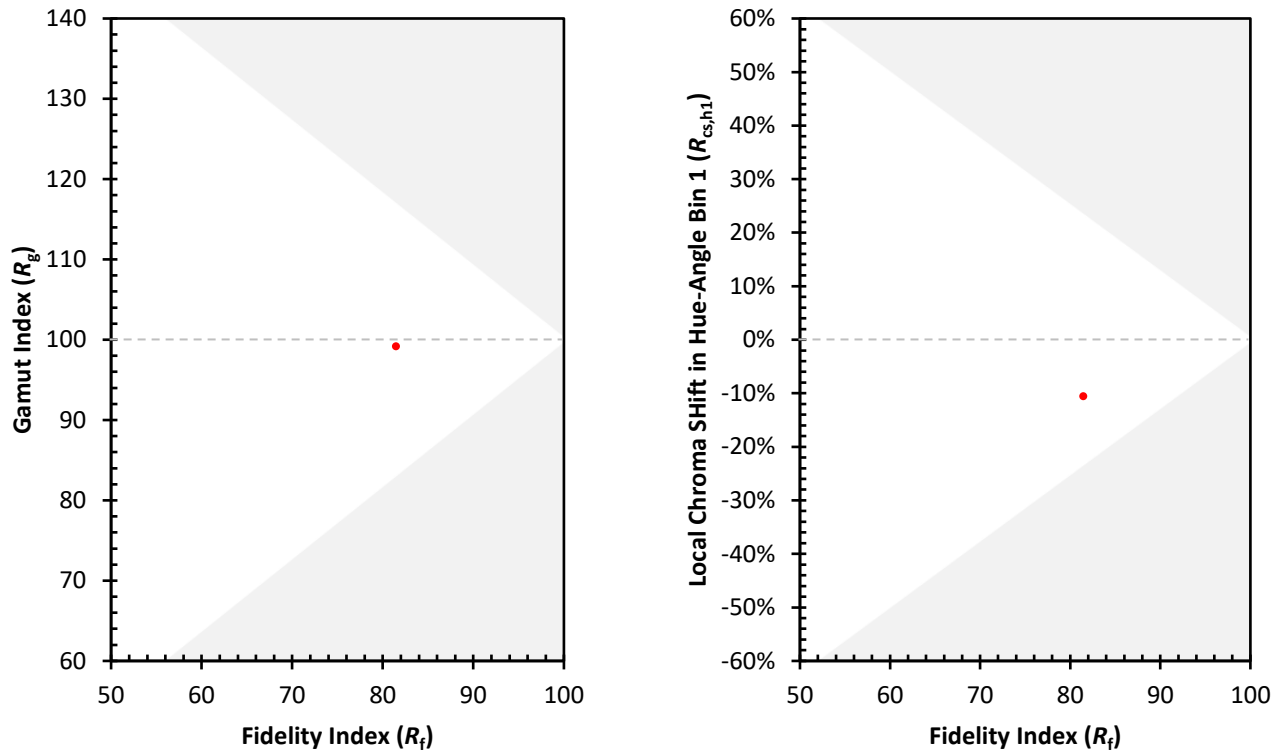
Individual Sample Fidelity Index ($R_{f,i}$)

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)