

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: P1068072

Luminaire Tested: **NAV-SA3D-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068072
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3D-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1200mA 3xLight Square PACKAGE
80CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (42) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12542.9 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 160.9
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

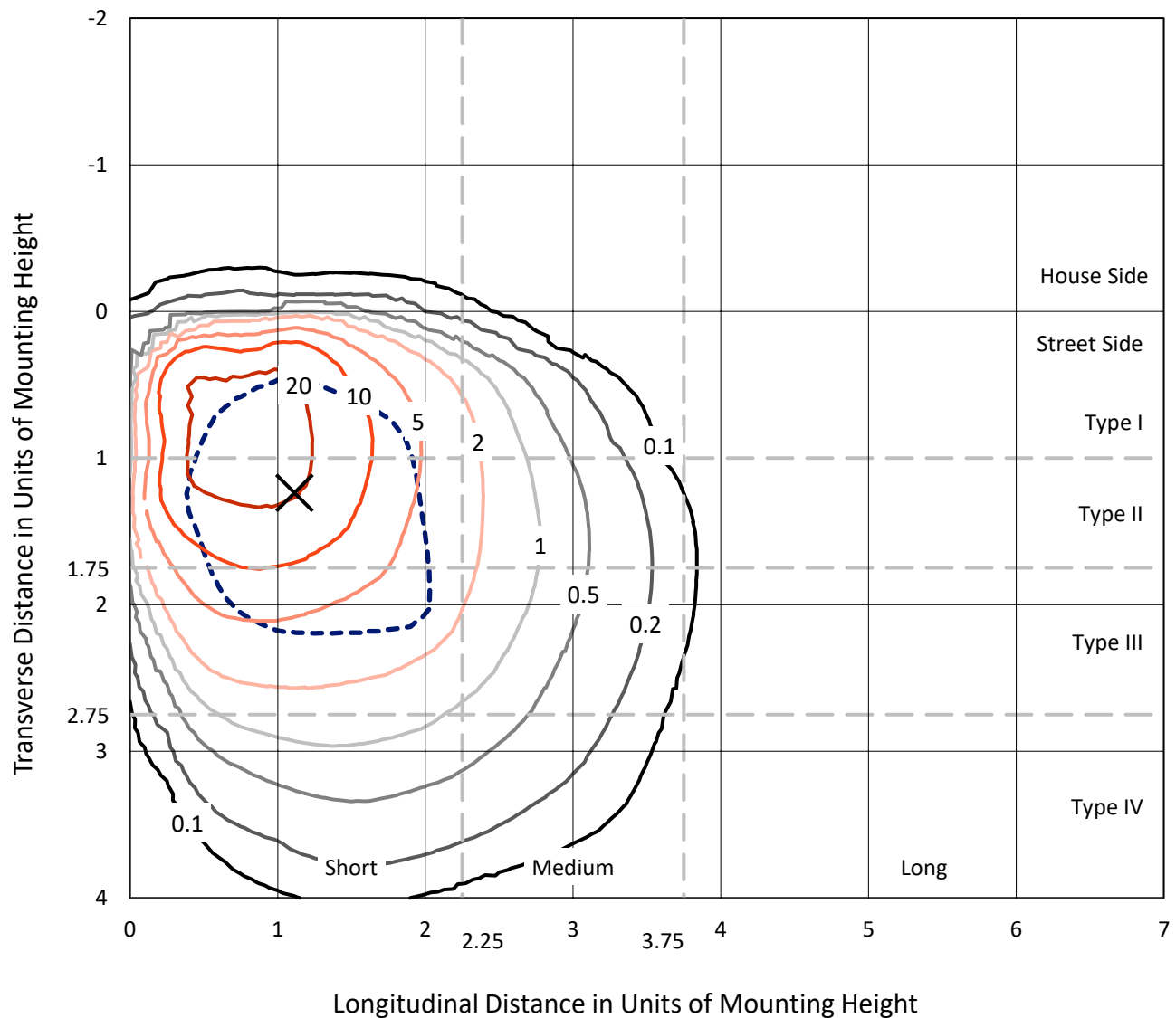


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

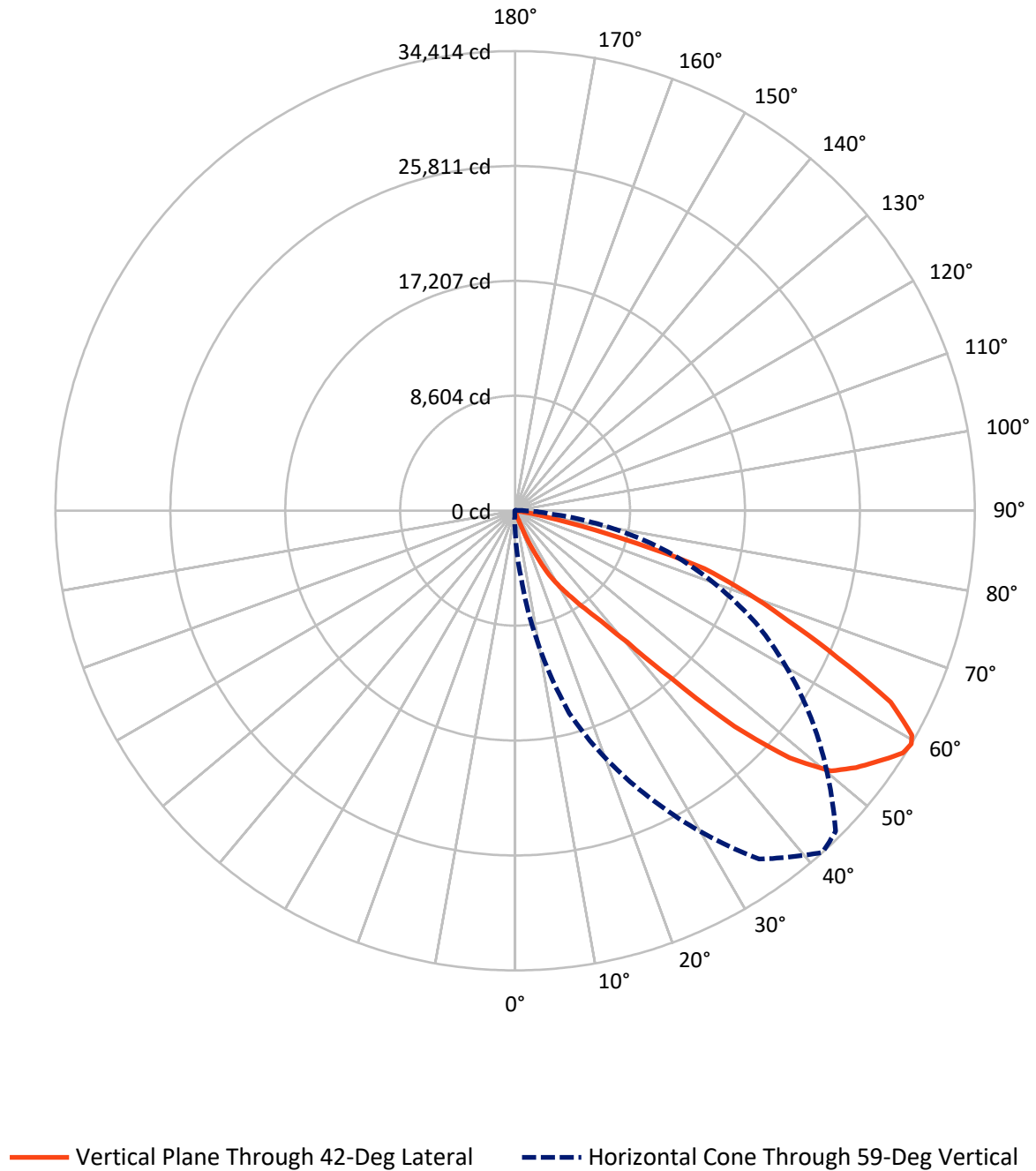


Based on 15 foot mounting height. Maximum calculated value = 37.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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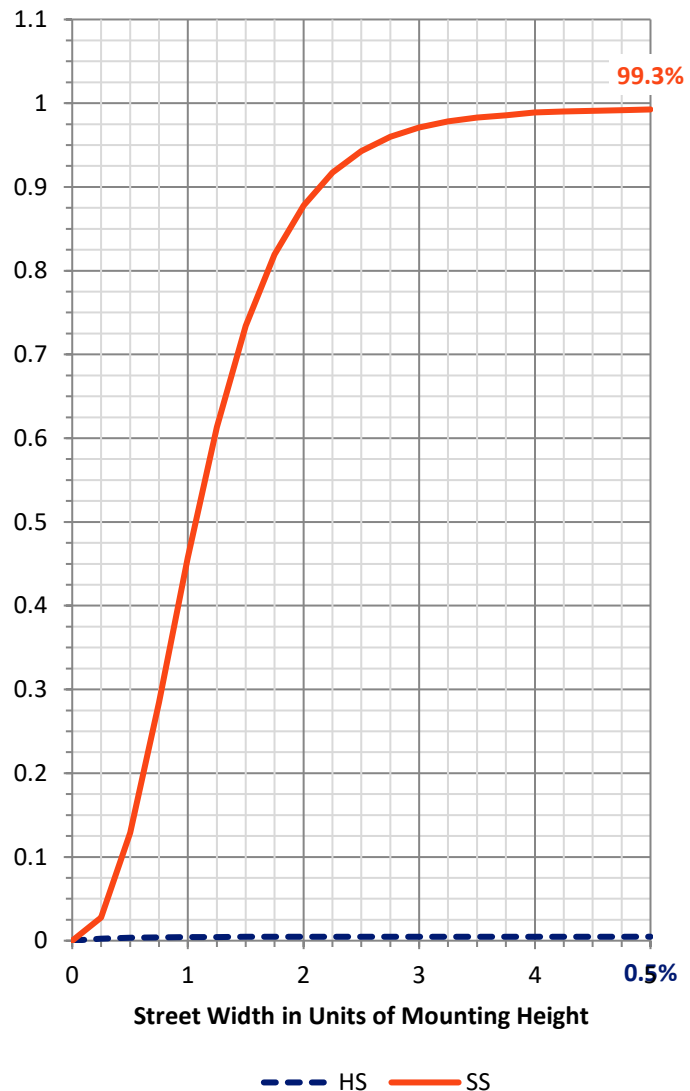
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	60.4	0.0	60.4
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	12482.5	0.0	12482.5
	% Fixture	99.5	0.0	99.5
Total	Lumens	12542.9	0.0	12542.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	0.0
10°-20°	18.3	0.1
20°-30°	234.0	1.9
30°-40°	788.8	6.3
40°-50°	2382.5	19.0
50°-60°	4205.7	33.5
60°-70°	3703.2	29.5
70°-80°	1178.7	9.4
80°-90°	28.2	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°	12542.9	100.0
0°-180°	12542.9	100.0



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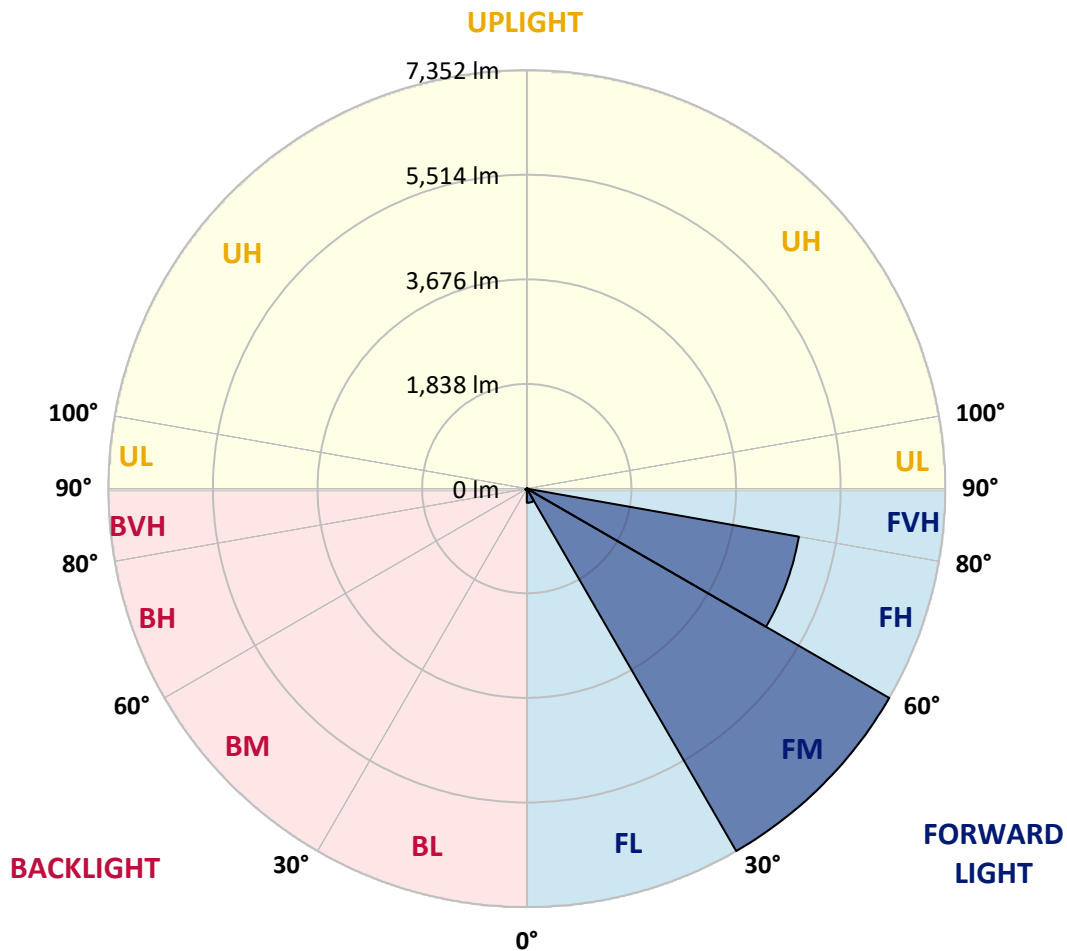
CATALOG NUMBER: NAV-SA3D-830-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	249.2	2.0			
FM	(30°-60°)	7352.2	58.6			
FH	(60°-80°)	4854.2	38.7			G2/5000
FVH	(80°-90°)	26.8	0.2			G1/100
BL	(0°-30°)	6.7	0.1	B0/110		
BM	(30°-60°)	24.7	0.2	B0/220		
BH	(60°-80°)	27.6	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	55.1	55.1	51.1	47.2	43.3	39.3	39.3	39.3	35.4	35.4	31.5
5°	62.9	62.9	59.0	55.1	55.1	51.1	51.1	47.2	43.3	43.3	39.3
7.5°	66.9	66.9	66.9	66.9	62.9	62.9	62.9	59.0	55.1	51.1	47.2
10°	70.8	74.7	78.7	78.7	78.7	78.7	78.7	74.7	66.9	62.9	55.1
12.5°	78.7	82.6	90.5	98.3	98.3	102.2	98.3	94.4	86.5	74.7	62.9
15°	86.5	94.4	106.2	121.9	137.6	141.6	141.6	129.8	114.0	90.5	74.7
17.5°	98.3	110.1	141.6	192.7	247.8	291.0	291.0	259.6	180.9	118.0	86.5
20°	106.2	129.8	228.1	464.0	707.9	888.8	853.4	755.1	405.1	184.8	94.4
22.5°	118.0	165.2	483.7	1219.1	1887.7	2218.0	2139.3	1624.2	908.4	330.3	114.0
25°	133.7	239.9	959.6	2284.9	3507.9	3865.8	3814.6	3032.1	1655.6	554.5	145.5
27.5°	165.2	353.9	1537.7	3464.6	5175.3	5482.1	5462.4	4439.9	2646.7	892.7	188.8
30°	208.4	515.2	2280.9	4707.4	6280.4	6591.1	6492.8	5470.3	3570.8	1364.6	243.8
32.5°	259.6	719.7	2953.4	5623.7	7299.0	7707.9	7590.0	6366.9	4314.1	1765.7	361.8
35°	338.2	920.2	3618.0	6433.8	8474.8	8993.9	8797.3	7291.1	4955.1	2218.0	436.5
37.5°	377.5	1038.2	4227.6	7314.7	9796.2	10504.0	10354.6	8459.1	5607.9	2796.1	534.8
40°	381.5	1179.8	4860.7	8463.0	11664.2	12926.5	12659.1	10464.7	6823.1	3539.4	688.2
42.5°	393.3	1392.1	5682.6	10421.5	15333.3	17146.3	16843.4	14153.5	9579.9	5029.8	975.3
45°	448.3	1793.3	7357.9	14082.7	20371.0	23029.5	22679.5	19293.5	13429.9	7833.8	1663.5
47.5°	641.0	2697.8	10295.6	18035.0	25522.7	27642.4	27555.9	23344.1	16918.2	10708.5	2819.7
50°	1030.3	4141.1	13638.3	21358.1	28802.6	30623.4	30407.1	25035.1	18908.1	12670.9	3614.1
52.5°	1376.4	5521.4	15738.4	22581.1	29781.8	31952.6	31689.1	25652.5	19431.1	13249.0	3834.3
55°	1462.9	6020.9	16363.7	22958.7	30430.7	33077.3	32695.9	26065.4	19498.0	12836.1	3468.6
57.5°	1419.7	5548.9	15958.6	23328.3	31335.2	34233.5	33726.2	26871.6	19722.1	12136.1	2886.5
59°	1345.0	4966.9	15706.9	23623.3	31834.6	34414.4	33938.6	27048.6	19871.6	11817.5	2532.6
60°	1258.4	4573.6	15510.3	23816.0	31803.1	34131.3	33639.7	26966.0	19930.5	11542.3	2363.5
62.5°	971.4	3649.5	15227.1	23678.3	29817.2	31547.5	31268.3	24944.6	19065.4	10661.3	1864.1
65°	755.1	2792.2	14188.9	21118.2	25373.3	26537.4	26450.8	21122.1	16045.1	9190.5	1345.0
67.5°	597.8	2037.1	11998.4	17103.0	20414.3	22069.9	22007.0	17146.3	12179.3	7023.7	967.4
70°	487.6	1451.1	8227.1	12895.1	16328.3	18412.6	18322.1	13799.6	9025.4	4455.7	703.9
72.5°	412.9	928.1	4990.5	9721.5	13626.5	14818.1	14554.6	11133.3	6563.6	2426.4	558.4
75°	350.0	570.2	2473.6	6060.2	8116.9	8109.1	7845.6	5895.0	3523.6	1187.7	444.4
77.5°	283.1	401.1	971.4	1663.5	2560.1	3169.7	3118.6	2088.2	1053.9	346.1	275.3
80°	184.8	188.8	259.6	456.2	703.9	778.7	884.8	637.1	306.7	165.2	114.0
82.5°	82.6	90.5	118.0	149.4	149.4	137.6	121.9	90.5	66.9	55.1	27.5
85°	19.7	27.5	19.7	23.6	19.7	15.7	15.7	7.9	0.0	0.0	0.0
87.5°	3.9	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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	31.5	31.5	31.5	27.5	27.5	27.5	23.6	23.6	23.6	19.7	19.7
5°	39.3	35.4	31.5	31.5	27.5	27.5	23.6	19.7	19.7	19.7	15.7
7.5°	43.3	39.3	35.4	31.5	27.5	23.6	23.6	19.7	15.7	15.7	15.7
10°	51.1	47.2	39.3	31.5	27.5	23.6	19.7	19.7	15.7	11.8	11.8
12.5°	59.0	51.1	43.3	35.4	27.5	23.6	19.7	19.7	15.7	11.8	7.9
15°	66.9	59.0	47.2	35.4	27.5	23.6	19.7	19.7	11.8	7.9	3.9
17.5°	74.7	62.9	47.2	39.3	27.5	23.6	19.7	15.7	7.9	3.9	0.0
20°	78.7	66.9	51.1	39.3	27.5	23.6	19.7	11.8	3.9	0.0	0.0
22.5°	86.5	74.7	55.1	39.3	27.5	19.7	11.8	3.9	0.0	0.0	0.0
25°	102.2	78.7	55.1	39.3	27.5	19.7	7.9	0.0	0.0	0.0	0.0
27.5°	114.0	86.5	55.1	39.3	27.5	15.7	3.9	0.0	0.0	0.0	0.0
30°	133.7	94.4	59.0	39.3	27.5	11.8	3.9	0.0	0.0	0.0	0.0
32.5°	165.2	102.2	59.0	39.3	23.6	11.8	0.0	0.0	0.0	0.0	0.0
35°	200.6	118.0	59.0	39.3	23.6	11.8	0.0	0.0	0.0	0.0	0.0
37.5°	204.5	125.8	59.0	39.3	23.6	7.9	0.0	0.0	0.0	0.0	0.0
40°	212.4	118.0	62.9	39.3	23.6	7.9	0.0	0.0	0.0	0.0	0.0
42.5°	243.8	110.1	66.9	39.3	23.6	7.9	0.0	0.0	0.0	0.0	0.0
45°	361.8	114.0	66.9	43.3	23.6	11.8	0.0	0.0	0.0	0.0	0.0
47.5°	629.2	118.0	62.9	43.3	23.6	11.8	0.0	0.0	0.0	0.0	0.0
50°	806.2	137.6	62.9	47.2	27.5	7.9	0.0	0.0	0.0	0.0	0.0
52.5°	857.3	161.2	62.9	51.1	35.4	3.9	0.0	0.0	0.0	0.0	0.0
55°	833.7	188.8	66.9	55.1	43.3	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	770.8	204.5	70.8	59.0	47.2	0.0	0.0	0.0	0.0	0.0	0.0
59°	703.9	216.3	82.6	62.9	47.2	0.0	0.0	0.0	0.0	0.0	0.0
60°	648.9	228.1	86.5	66.9	47.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	523.0	243.8	94.4	78.7	39.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	456.2	255.6	98.3	86.5	35.4	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	416.9	263.5	106.2	90.5	31.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	385.4	259.6	114.0	86.5	27.5	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	350.0	247.8	137.6	78.7	23.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	314.6	224.2	149.4	70.8	15.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	228.1	188.8	137.6	62.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	98.3	102.2	98.3	47.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.7	23.6	19.7	11.8	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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	19.7	19.7	19.7	19.7	23.6	23.6	31.5	39.3	47.2	51.1	51.1
5°	15.7	15.7	15.7	15.7	15.7	19.7	23.6	31.5	43.3	47.2	47.2
7.5°	11.8	11.8	11.8	11.8	11.8	11.8	19.7	27.5	39.3	43.3	47.2
10°	11.8	7.9	7.9	3.9	3.9	7.9	11.8	23.6	35.4	39.3	43.3
12.5°	7.9	3.9	3.9	0.0	0.0	3.9	7.9	19.7	31.5	35.4	39.3
15°	3.9	0.0	0.0	0.0	0.0	0.0	3.9	15.7	27.5	31.5	39.3
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	23.6	31.5	35.4
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	19.7	27.5	31.5
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	15.7	23.6	27.5
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	15.7	19.7
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	11.8	15.7
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	11.8	15.7
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9	11.8
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9	11.8
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9	7.9
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	7.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9
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°	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
2.5°	55.1	55.1	51.1	47.2	47.2	47.2	51.1	55.1	55.1	55.1
5°	51.1	51.1	47.2	47.2	47.2	47.2	51.1	59.0	62.9	62.9
7.5°	51.1	51.1	47.2	47.2	47.2	47.2	51.1	59.0	62.9	66.9
10°	47.2	47.2	47.2	47.2	43.3	47.2	51.1	59.0	70.8	70.8
12.5°	47.2	47.2	47.2	47.2	43.3	47.2	55.1	62.9	74.7	78.7
15°	47.2	47.2	47.2	43.3	43.3	47.2	55.1	66.9	78.7	86.5
17.5°	43.3	47.2	47.2	43.3	43.3	47.2	55.1	66.9	86.5	98.3
20°	39.3	43.3	47.2	43.3	43.3	43.3	55.1	66.9	90.5	106.2
22.5°	35.4	39.3	43.3	43.3	39.3	43.3	55.1	70.8	98.3	118.0
25°	31.5	35.4	35.4	39.3	39.3	43.3	55.1	70.8	102.2	133.7
27.5°	23.6	27.5	31.5	35.4	35.4	43.3	55.1	74.7	110.1	165.2
30°	19.7	23.6	27.5	31.5	35.4	43.3	55.1	74.7	118.0	208.4
32.5°	19.7	23.6	27.5	31.5	35.4	39.3	55.1	78.7	129.8	259.6
35°	15.7	19.7	23.6	31.5	31.5	39.3	55.1	78.7	141.6	338.2
37.5°	15.7	19.7	23.6	31.5	31.5	39.3	55.1	78.7	173.0	377.5
40°	11.8	15.7	19.7	31.5	31.5	39.3	59.0	82.6	177.0	381.5
42.5°	11.8	15.7	19.7	27.5	31.5	39.3	59.0	82.6	165.2	393.3
45°	11.8	15.7	19.7	31.5	35.4	43.3	59.0	86.5	161.2	448.3
47.5°	11.8	15.7	19.7	31.5	39.3	43.3	59.0	86.5	165.2	641.0
50°	11.8	15.7	19.7	31.5	43.3	43.3	59.0	86.5	180.9	1030.3
52.5°	7.9	11.8	15.7	27.5	35.4	47.2	62.9	82.6	192.7	1376.4
55°	7.9	7.9	11.8	23.6	31.5	51.1	66.9	82.6	224.2	1462.9
57.5°	7.9	7.9	11.8	19.7	27.5	55.1	70.8	82.6	259.6	1419.7
59°	7.9	7.9	7.9	19.7	23.6	55.1	70.8	86.5	263.5	1345.0
60°	7.9	7.9	7.9	15.7	23.6	55.1	74.7	90.5	267.4	1258.4
62.5°	3.9	3.9	3.9	15.7	19.7	55.1	82.6	110.1	275.3	971.4
65°	7.9	7.9	3.9	11.8	19.7	47.2	94.4	118.0	279.2	755.1
67.5°	7.9	7.9	7.9	15.7	19.7	47.2	98.3	121.9	279.2	597.8
70°	7.9	7.9	7.9	15.7	23.6	47.2	98.3	125.8	275.3	487.6
72.5°	7.9	7.9	7.9	15.7	23.6	43.3	90.5	129.8	263.5	412.9
75°	7.9	7.9	7.9	11.8	19.7	39.3	86.5	141.6	239.9	350.0
77.5°	7.9	7.9	7.9	7.9	15.7	31.5	78.7	157.3	212.4	283.1
80°	11.8	7.9	7.9	7.9	11.8	27.5	74.7	153.4	177.0	184.8
82.5°	11.8	7.9	7.9	3.9	7.9	19.7	59.0	118.0	90.5	82.6
85°	7.9	7.9	7.9	3.9	3.9	11.8	27.5	35.4	27.5	19.7
87.5°	7.9	7.9	7.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

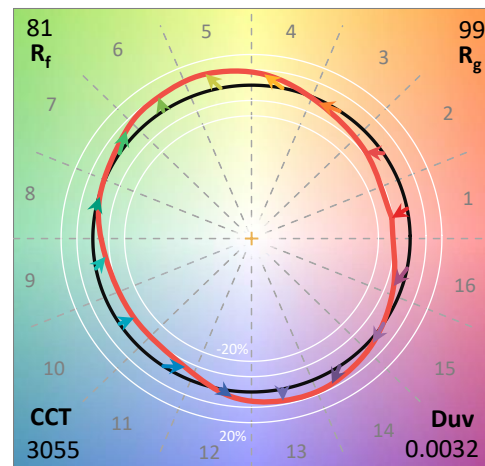
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGraw-Edison
 Catalog Number: **GSS-SB1A-830-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI
 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3055
 CIE u' : 0.2475
 CIE v' : 0.5247
 Duv: 0.0032
 CIE x: 0.4377
 CIE y: 0.4124
 CIE z: 0.1499
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 581
 Purity: 55.16339
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 80.9
 R1: 79.5
 R2: 85.6
 R3: 92.1
 R4: 82.4
 R5: 78.9
 R6: 81.7
 R7: 85.1
 R8: 61.9
 R9: 6.8
 R10: 67.1
 R11: 82.5
 R12: 63.4
 R13: 80.2
 R14: 95.1
 R15: 71.7



Test Conditions

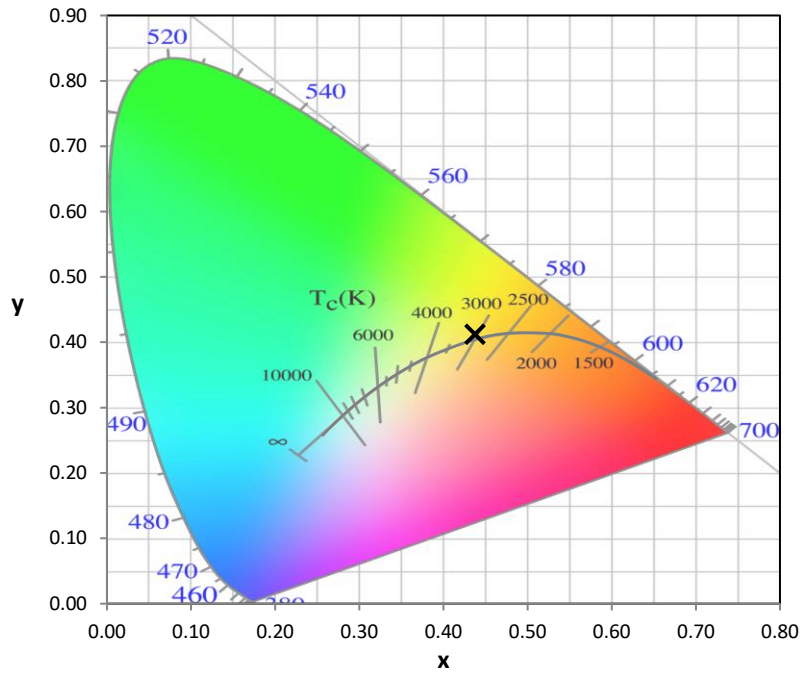
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

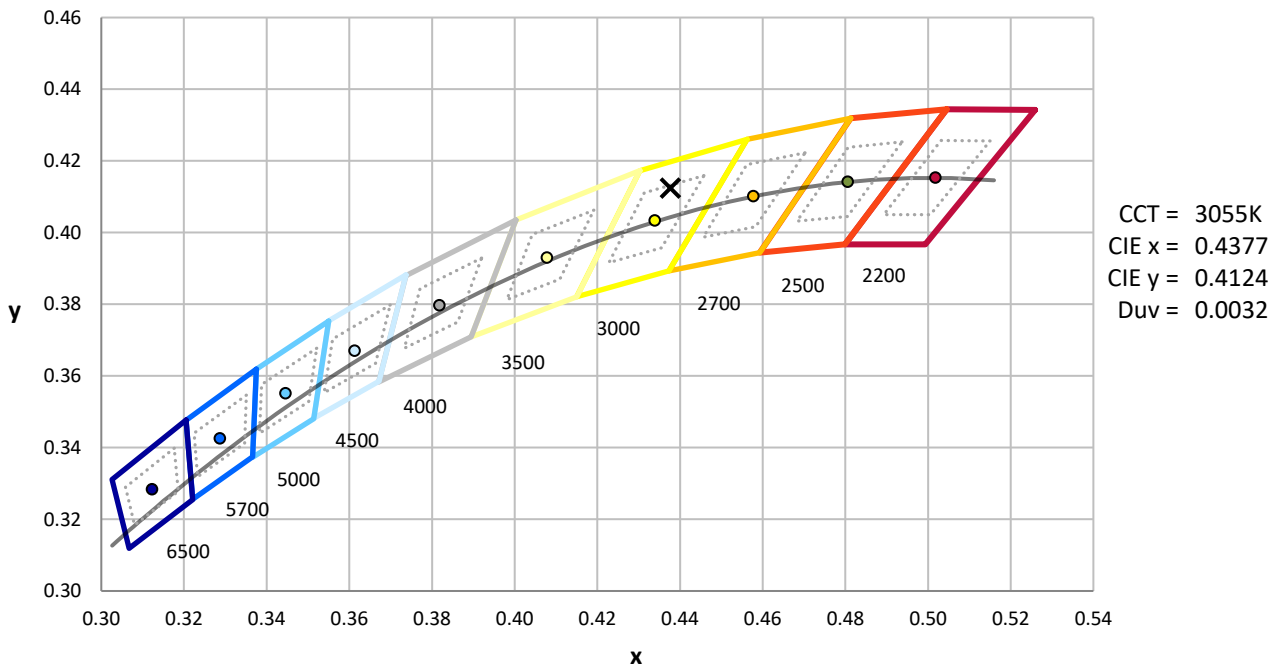
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-9

CIE 1931 Chromaticity Diagram

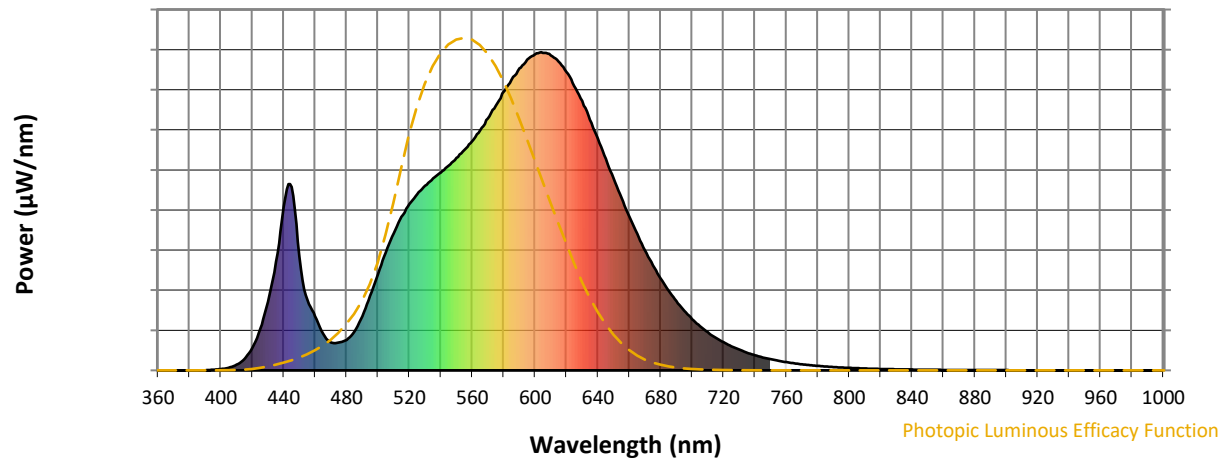


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

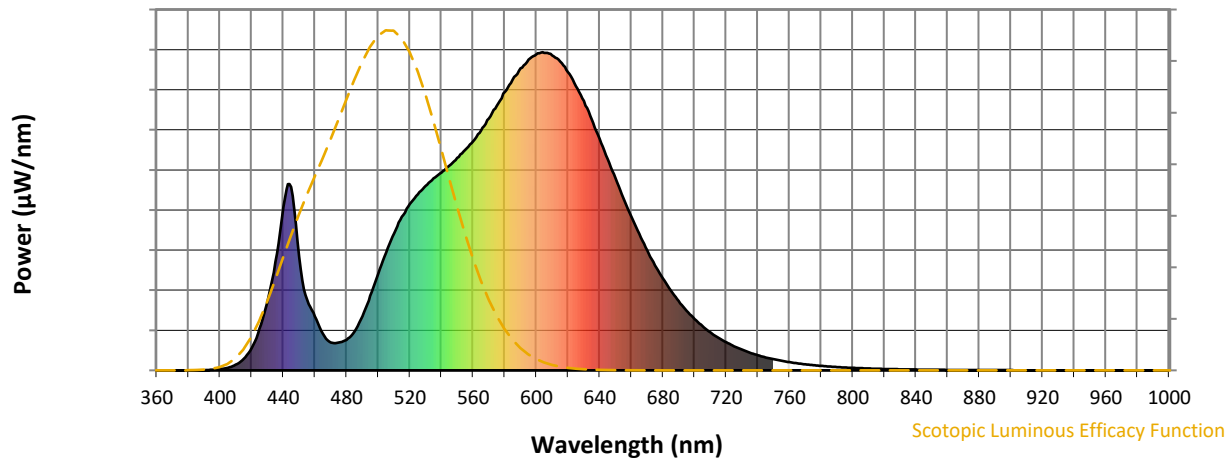


Photopic Lumens: NR

λ (nm)	Power 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			

REPORT NUMBER: SP1-2407-184-9

Scotopic Flux vs. Wavelength



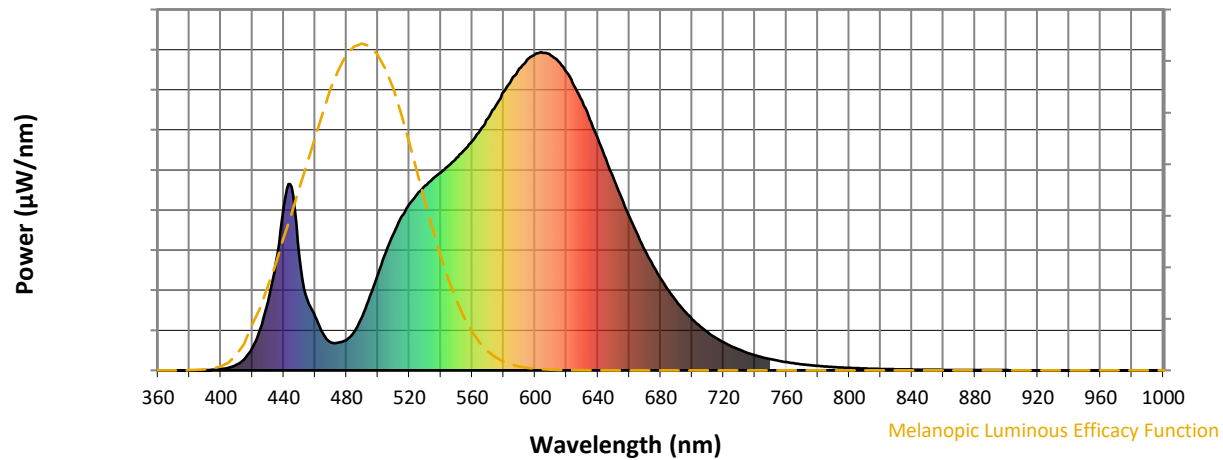
Scotopic Lumens: NR

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

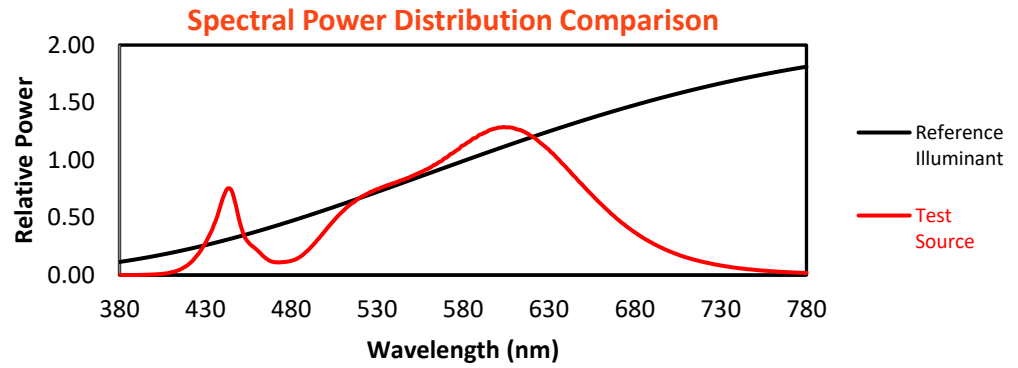
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	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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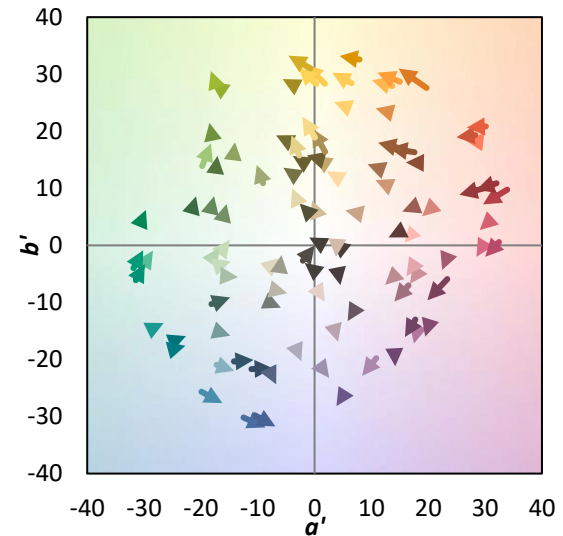
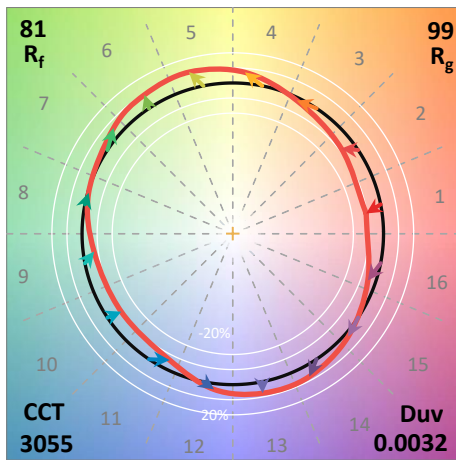
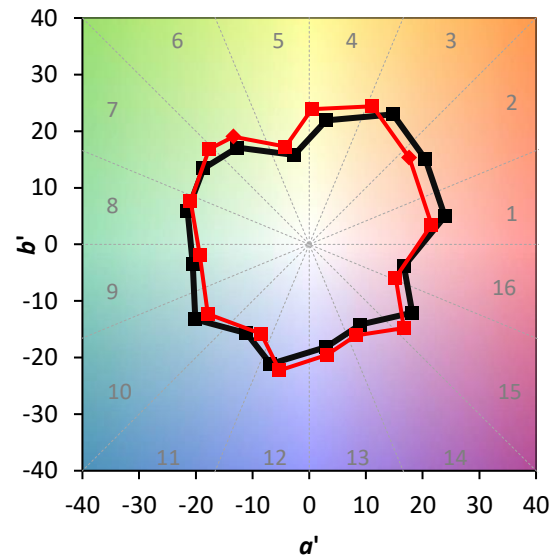
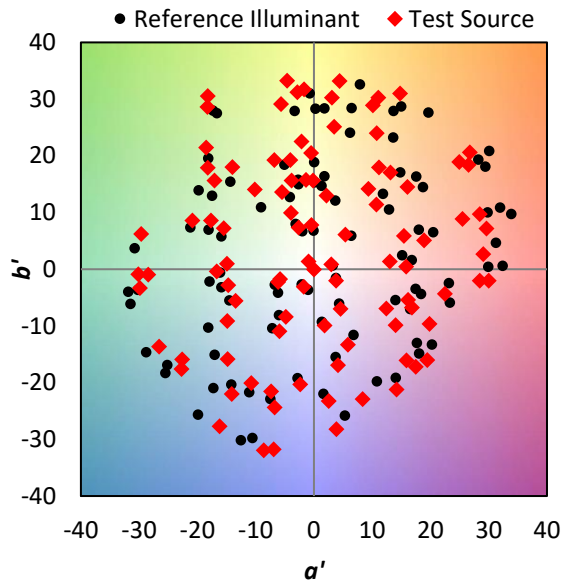
TM-30-18

Summary

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

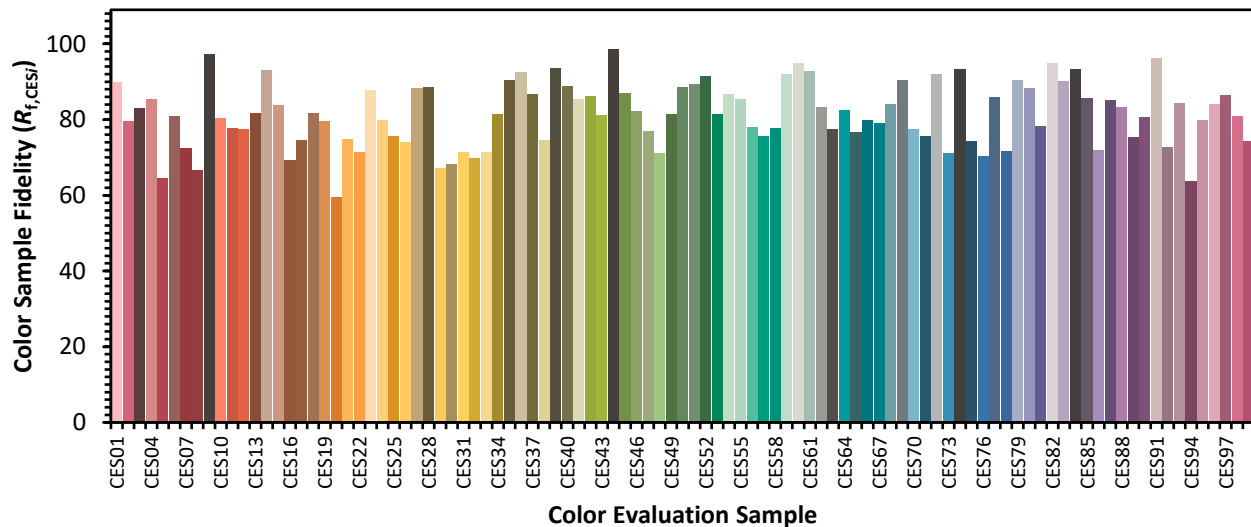


Color Vector Graphics

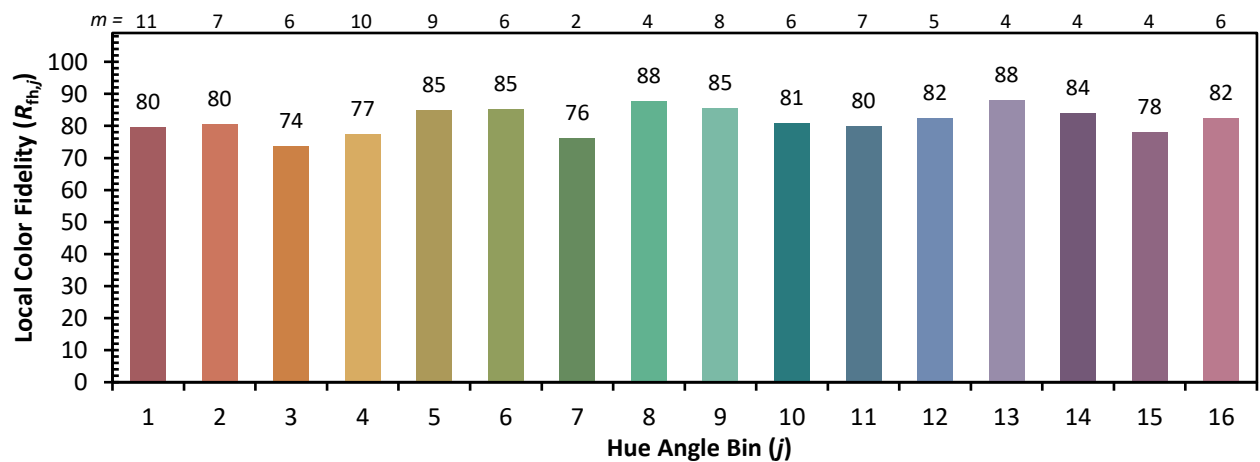
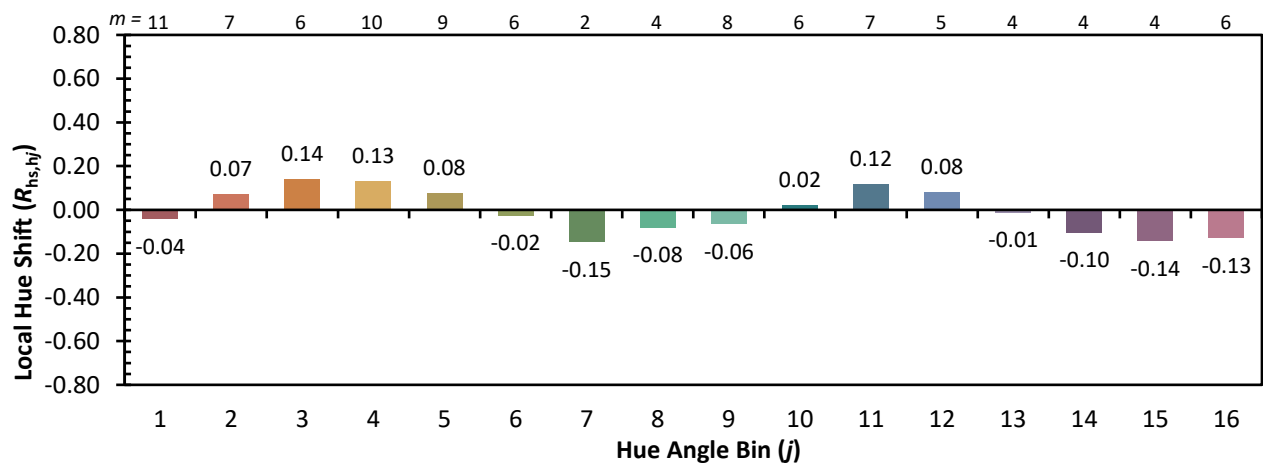
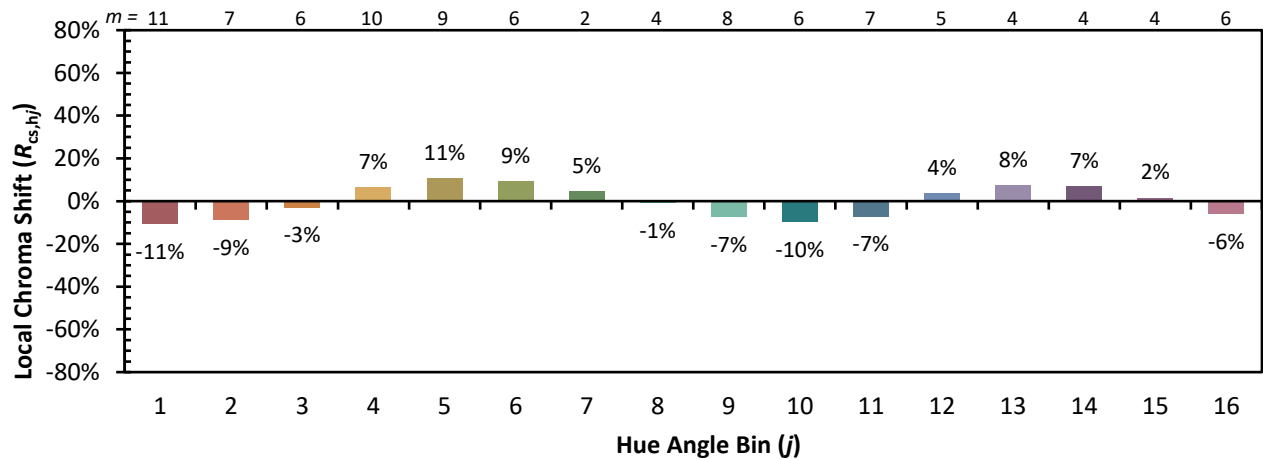


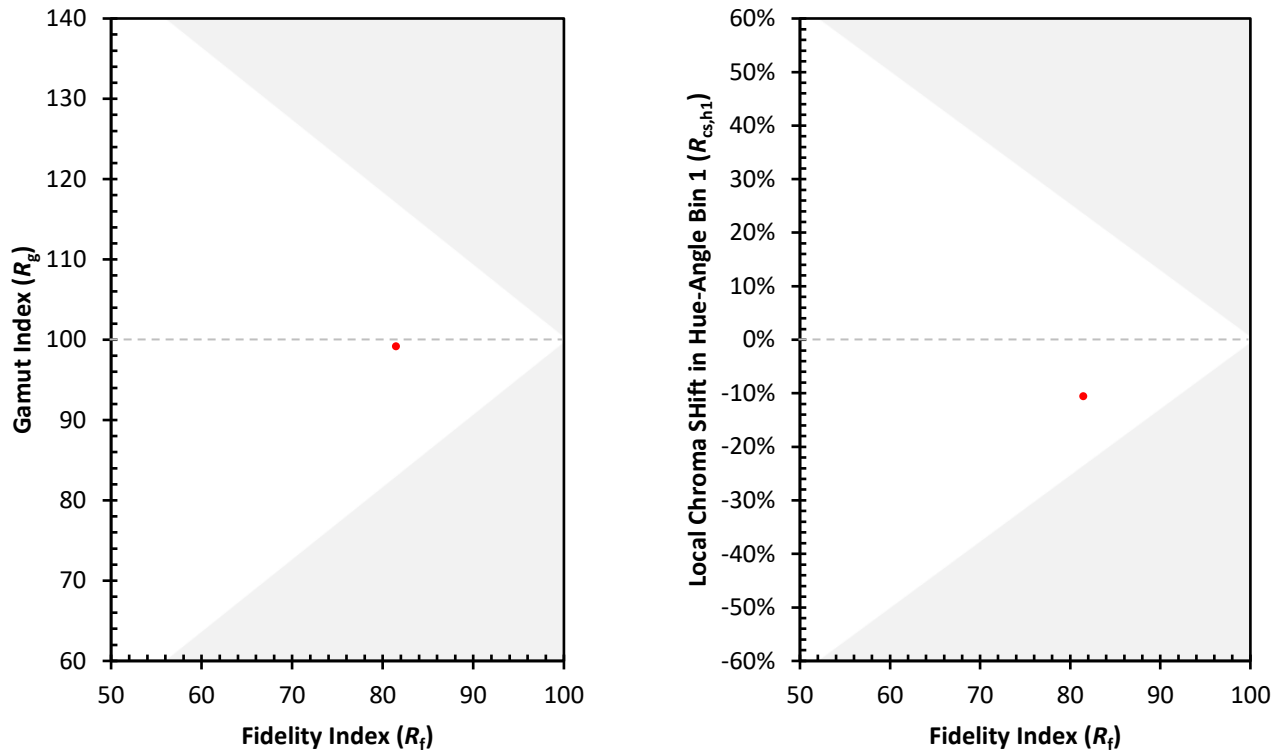
Individual Sample Fidelity Index ($R_{f,i}$)

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)