

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: P1068071

Luminaire Tested: **NAV-SA3C-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068071
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3C-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1050mA 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: 11383.6 lumens
Efficiency: N/A
Efficacy: 81.1 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): 140.4
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



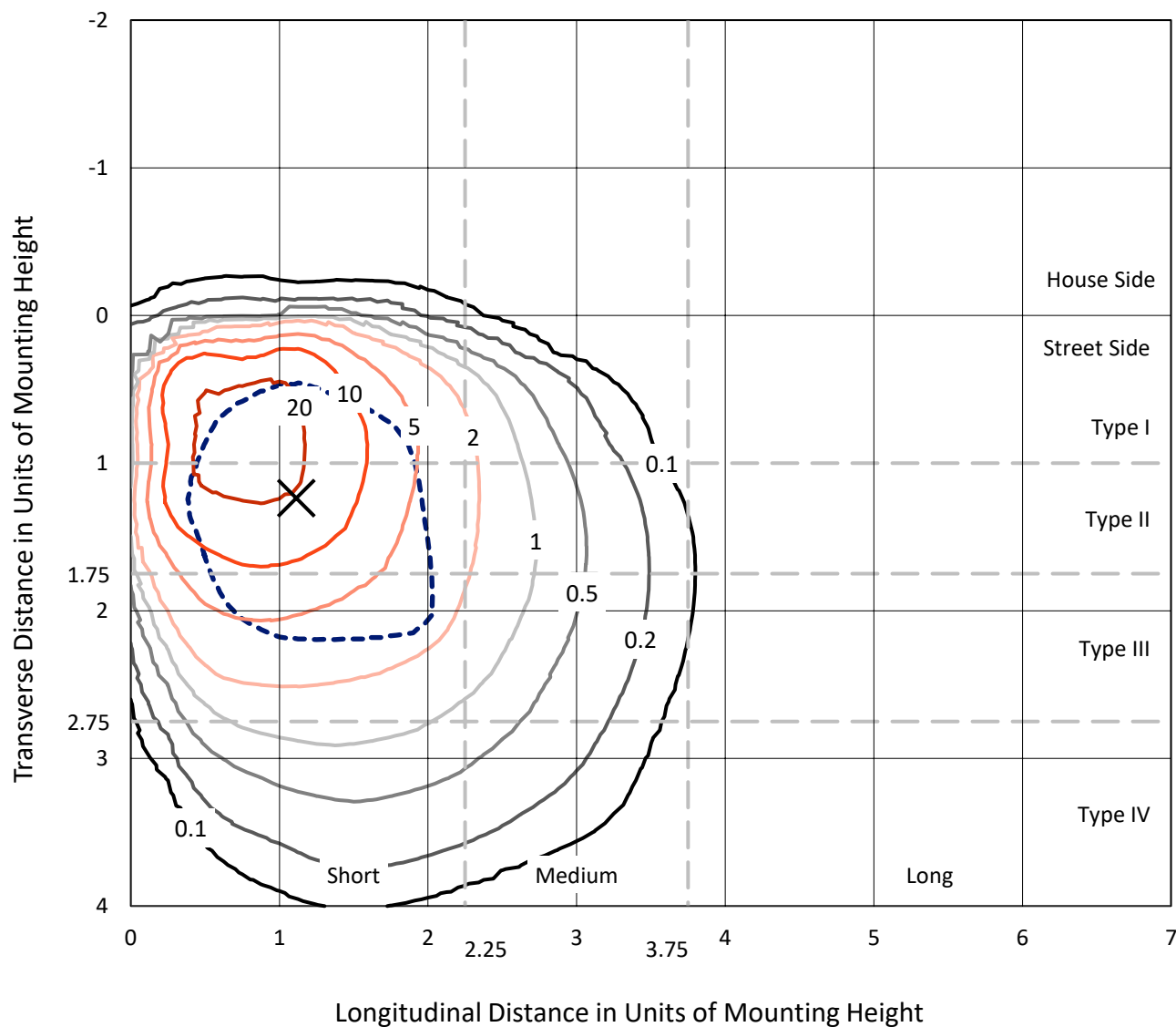
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

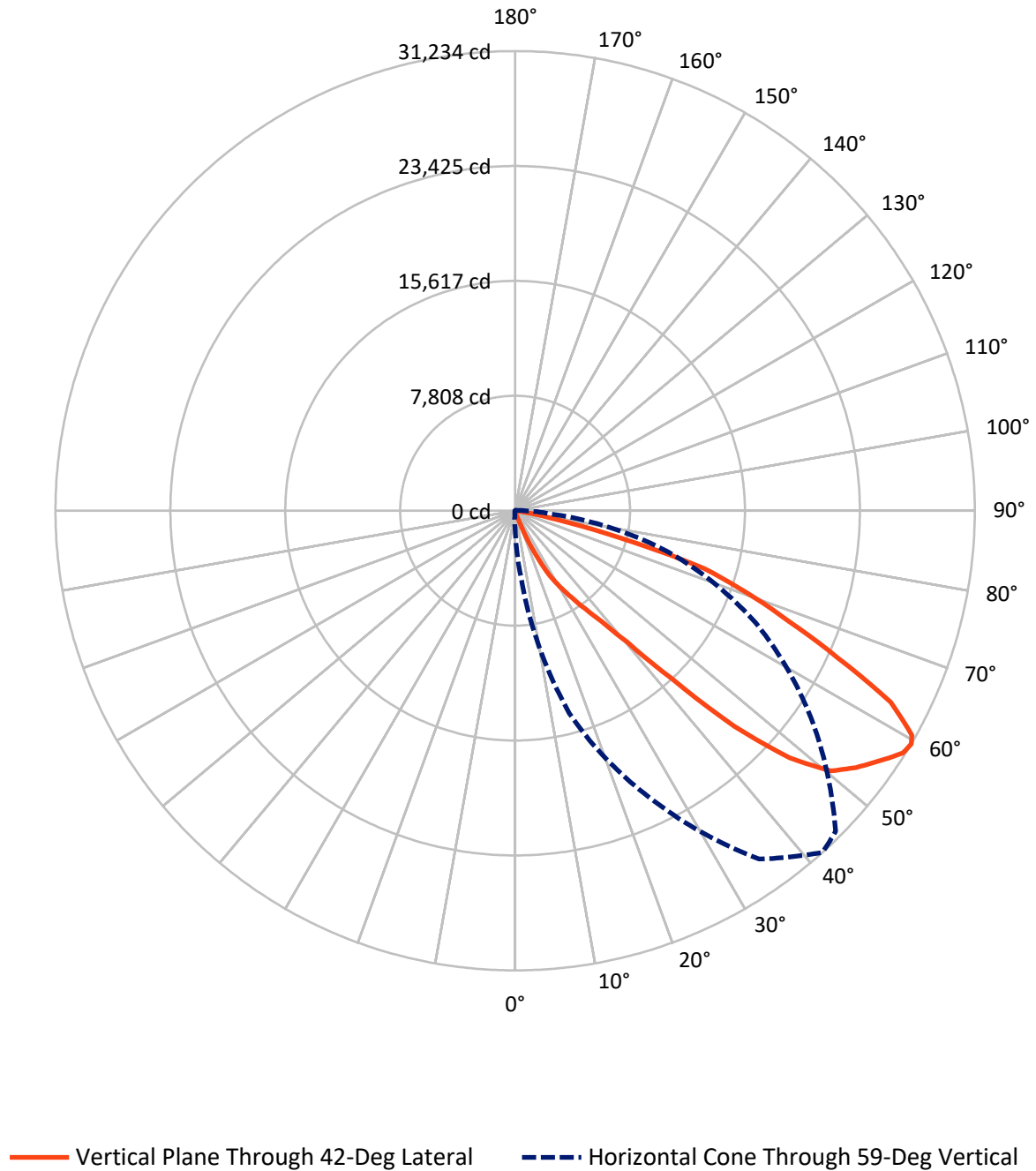


Based on 15 foot mounting height. Maximum calculated value = 33.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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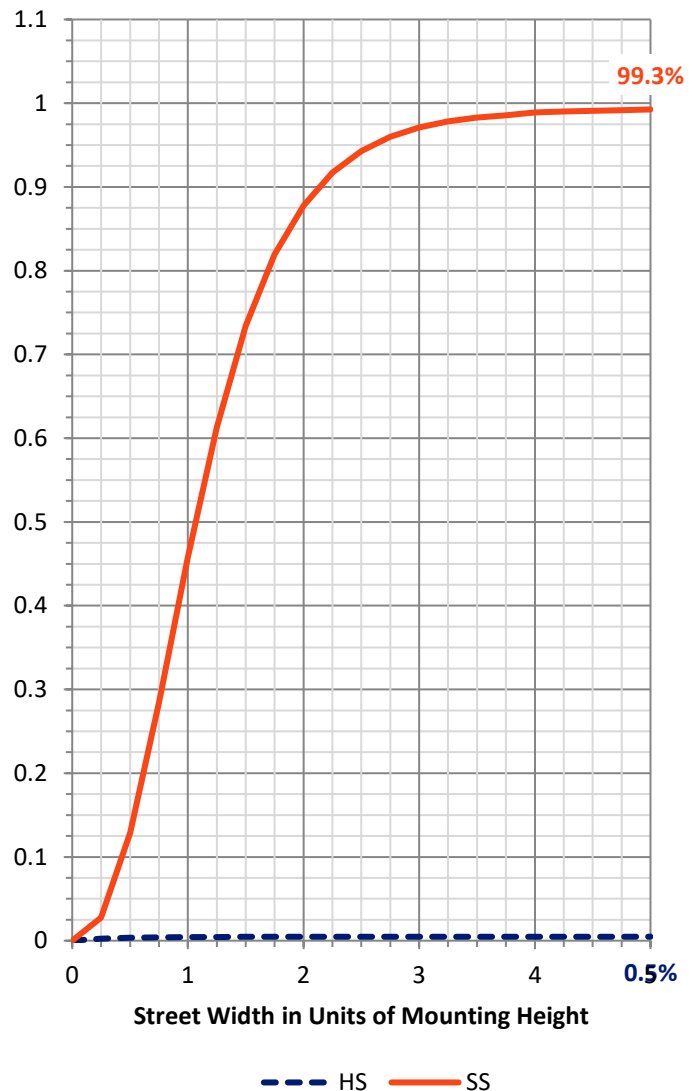
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	54.8	0.0	54.8
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	11328.8	0.0	11328.8
	% Fixture	99.5	0.0	99.5
Total	Lumens	11383.6	0.0	11383.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.3	0.0
10°-20°	16.6	0.1
20°-30°	212.3	1.9
30°-40°	715.9	6.3
40°-50°	2162.3	19.0
50°-60°	3817.0	33.5
60°-70°	3360.9	29.5
70°-80°	1069.8	9.4
80°-90°	25.6	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°	11383.6	100.0
0°-180°	11383.6	100.0



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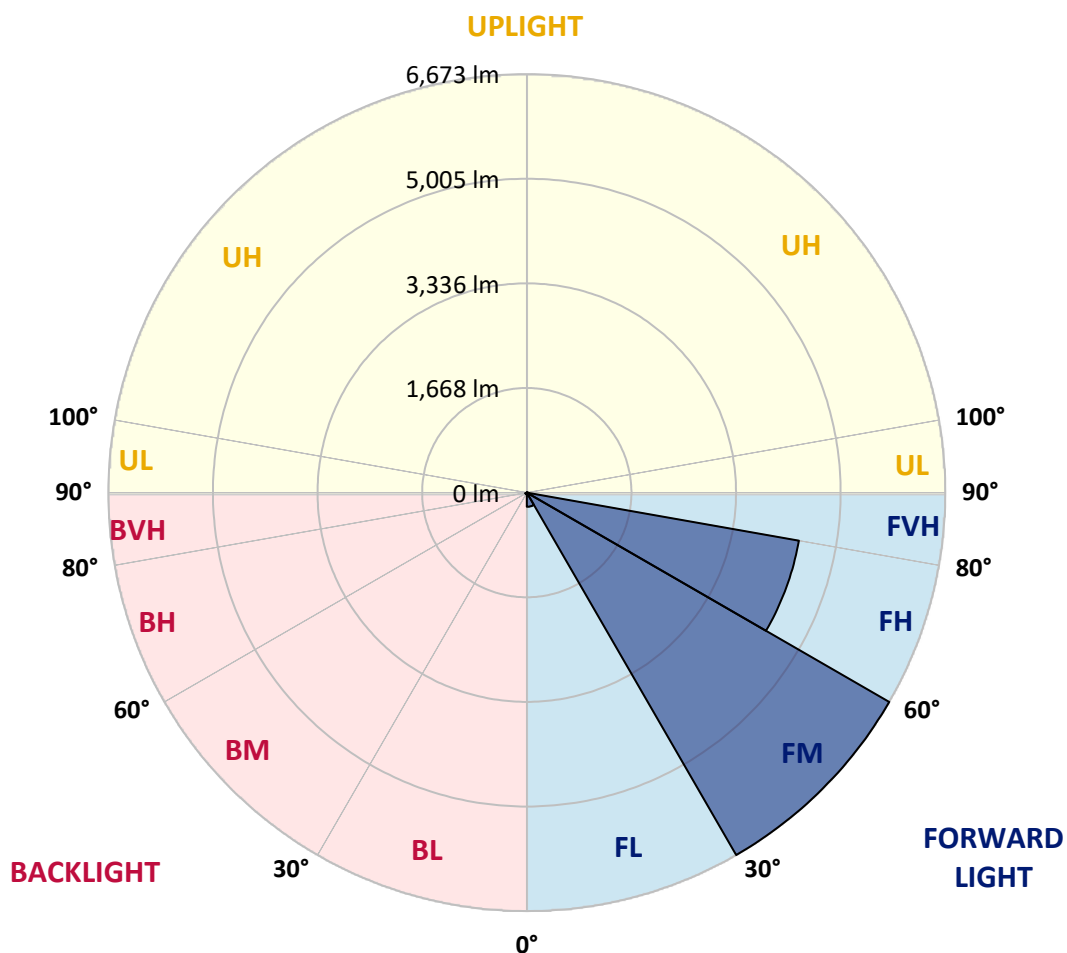
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	226.2	2.0			
FM	(30°-60°)	6672.7	58.6			
FH	(60°-80°)	4405.6	38.7			G2/5000
FVH	(80°-90°)	24.4	0.2			G1/100
BL	(0°-30°)	6.1	0.1	B0/110		
BM	(30°-60°)	22.4	0.2	B0/220		
BH	(60°-80°)	25.1	0.2	B0/110		G0/110
BVH	(80°-90°)	1.2	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°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
2.5°	50.0	50.0	46.4	42.8	39.3	35.7	35.7	35.7	32.1	32.1	28.6
5°	57.1	57.1	53.5	50.0	50.0	46.4	46.4	42.8	39.3	39.3	35.7
7.5°	60.7	60.7	60.7	60.7	57.1	57.1	57.1	53.5	50.0	46.4	42.8
10°	64.2	67.8	71.4	71.4	71.4	71.4	71.4	67.8	60.7	57.1	50.0
12.5°	71.4	75.0	82.1	89.2	89.2	92.8	89.2	85.7	78.5	67.8	57.1
15°	78.5	85.7	96.4	110.6	124.9	128.5	128.5	117.8	103.5	82.1	67.8
17.5°	89.2	99.9	128.5	174.9	224.9	264.1	264.1	235.6	164.2	107.1	78.5
20°	96.4	117.8	207.0	421.2	642.4	806.6	774.5	685.3	367.6	167.8	85.7
22.5°	107.1	149.9	439.0	1106.4	1713.2	2013.0	1941.6	1474.1	824.5	299.8	103.5
25°	121.4	217.7	870.9	2073.7	3183.7	3508.5	3462.1	2751.8	1502.6	503.3	132.1
27.5°	149.9	321.2	1395.5	3144.4	4697.0	4975.4	4957.6	4029.6	2402.0	810.2	171.3
30°	189.2	467.6	2070.1	4272.3	5699.9	5981.9	5892.7	4964.7	3240.8	1238.5	221.3
32.5°	235.6	653.2	2680.4	5103.9	6624.4	6995.5	6888.5	5778.5	3915.4	1602.6	328.4
35°	306.9	835.2	3283.6	5839.1	7691.5	8162.7	7984.2	6617.2	4497.1	2013.0	396.2
37.5°	342.6	942.3	3836.8	6638.6	8890.8	9533.2	9397.6	7677.3	5089.6	2537.7	485.4
40°	346.2	1070.7	4411.5	7680.8	10586.1	11731.8	11489.1	9497.5	6192.5	3212.2	624.6
42.5°	356.9	1263.5	5157.4	9458.3	13916.1	15561.5	15286.7	12845.4	8694.5	4564.9	885.2
45°	406.9	1627.5	6677.9	12781.1	18488.2	20901.0	20583.3	17510.3	12188.7	7109.8	1509.8
47.5°	581.8	2448.4	9344.0	16368.1	23163.8	25087.6	25009.1	21186.5	15354.5	9718.8	2559.1
50°	935.1	3758.3	12377.8	19384.1	26140.5	27793.0	27596.7	22721.2	17160.5	11499.8	3280.1
52.5°	1249.2	5011.1	14283.8	20494.1	27029.2	28999.4	28760.2	23281.6	17635.2	12024.5	3479.9
55°	1327.7	5464.4	14851.3	20836.7	27618.1	30020.2	29674.0	23656.4	17695.9	11649.7	3148.0
57.5°	1288.5	5036.1	14483.6	21172.2	28439.0	31069.5	30609.1	24388.0	17899.3	11014.4	2619.8
59°	1220.7	4507.8	14255.2	21439.9	28892.3	31233.7	30801.8	24548.6	18034.9	10725.3	2298.5
60°	1142.1	4150.9	14076.7	21614.8	28863.8	30976.7	30530.5	24473.7	18088.5	10475.5	2145.1
62.5°	881.6	3312.2	13819.8	21489.9	27061.3	28631.8	28378.3	22639.1	17303.3	9676.0	1691.8
65°	685.3	2534.1	12877.5	19166.4	23028.2	24084.7	24006.1	19169.9	14562.2	8341.1	1220.7
67.5°	542.5	1848.8	10889.5	15522.3	18527.5	20030.1	19973.0	15561.5	11053.7	6374.5	878.0
70°	442.6	1317.0	7466.7	11703.3	14819.1	16710.8	16628.7	12524.2	8191.2	4043.9	638.9
72.5°	374.8	842.3	4529.3	8823.0	12367.1	13448.6	13209.4	10104.3	5956.9	2202.2	506.8
75°	317.7	517.5	2245.0	5500.1	7366.7	7359.6	7120.5	5350.2	3198.0	1077.9	403.3
77.5°	257.0	364.1	881.6	1509.8	2323.5	2876.7	2830.3	1895.2	956.5	314.1	249.8
80°	167.8	171.3	235.6	414.0	638.9	706.7	803.1	578.2	278.4	149.9	103.5
82.5°	75.0	82.1	107.1	135.6	135.6	124.9	110.6	82.1	60.7	50.0	25.0
85°	17.8	25.0	17.8	21.4	17.8	14.3	14.3	7.1	0.0	0.0	0.0
87.5°	3.6	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°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
2.5°	28.6	28.6	28.6	25.0	25.0	25.0	21.4	21.4	21.4	17.8	17.8
5°	35.7	32.1	28.6	28.6	25.0	25.0	21.4	17.8	17.8	17.8	14.3
7.5°	39.3	35.7	32.1	28.6	25.0	21.4	21.4	17.8	14.3	14.3	14.3
10°	46.4	42.8	35.7	28.6	25.0	21.4	17.8	17.8	14.3	10.7	10.7
12.5°	53.5	46.4	39.3	32.1	25.0	21.4	17.8	17.8	14.3	10.7	7.1
15°	60.7	53.5	42.8	32.1	25.0	21.4	17.8	17.8	10.7	7.1	3.6
17.5°	67.8	57.1	42.8	35.7	25.0	21.4	17.8	14.3	7.1	3.6	0.0
20°	71.4	60.7	46.4	35.7	25.0	21.4	17.8	10.7	3.6	0.0	0.0
22.5°	78.5	67.8	50.0	35.7	25.0	17.8	10.7	3.6	0.0	0.0	0.0
25°	92.8	71.4	50.0	35.7	25.0	17.8	7.1	0.0	0.0	0.0	0.0
27.5°	103.5	78.5	50.0	35.7	25.0	14.3	3.6	0.0	0.0	0.0	0.0
30°	121.4	85.7	53.5	35.7	25.0	10.7	3.6	0.0	0.0	0.0	0.0
32.5°	149.9	92.8	53.5	35.7	21.4	10.7	0.0	0.0	0.0	0.0	0.0
35°	182.0	107.1	53.5	35.7	21.4	10.7	0.0	0.0	0.0	0.0	0.0
37.5°	185.6	114.2	53.5	35.7	21.4	7.1	0.0	0.0	0.0	0.0	0.0
40°	192.7	107.1	57.1	35.7	21.4	7.1	0.0	0.0	0.0	0.0	0.0
42.5°	221.3	99.9	60.7	35.7	21.4	7.1	0.0	0.0	0.0	0.0	0.0
45°	328.4	103.5	60.7	39.3	21.4	10.7	0.0	0.0	0.0	0.0	0.0
47.5°	571.1	107.1	57.1	39.3	21.4	10.7	0.0	0.0	0.0	0.0	0.0
50°	731.7	124.9	57.1	42.8	25.0	7.1	0.0	0.0	0.0	0.0	0.0
52.5°	778.1	146.3	57.1	46.4	32.1	3.6	0.0	0.0	0.0	0.0	0.0
55°	756.7	171.3	60.7	50.0	39.3	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	699.6	185.6	64.2	53.5	42.8	0.0	0.0	0.0	0.0	0.0	0.0
59°	638.9	196.3	75.0	57.1	42.8	0.0	0.0	0.0	0.0	0.0	0.0
60°	588.9	207.0	78.5	60.7	42.8	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	474.7	221.3	85.7	71.4	35.7	0.0	0.0	0.0	0.0	0.0	0.0
65°	414.0	232.0	89.2	78.5	32.1	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	378.3	239.1	96.4	82.1	28.6	0.0	0.0	0.0	0.0	0.0	0.0
70°	349.8	235.6	103.5	78.5	25.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	317.7	224.9	124.9	71.4	21.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	285.5	203.4	135.6	64.2	14.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	207.0	171.3	124.9	57.1	7.1	0.0	0.0	0.0	0.0	0.0	0.0
80°	89.2	92.8	89.2	42.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.8	21.4	17.8	10.7	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°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
2.5°	17.8	17.8	17.8	17.8	21.4	21.4	28.6	35.7	42.8	46.4	46.4
5°	14.3	14.3	14.3	14.3	14.3	17.8	21.4	28.6	39.3	42.8	42.8
7.5°	10.7	10.7	10.7	10.7	10.7	10.7	17.8	25.0	35.7	39.3	42.8
10°	10.7	7.1	7.1	3.6	3.6	7.1	10.7	21.4	32.1	35.7	39.3
12.5°	7.1	3.6	3.6	0.0	0.0	3.6	7.1	17.8	28.6	32.1	35.7
15°	3.6	0.0	0.0	0.0	0.0	0.0	3.6	14.3	25.0	28.6	35.7
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	21.4	28.6	32.1
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	17.8	25.0	28.6
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	14.3	21.4	25.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	14.3	17.8
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	10.7	14.3
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	10.7	14.3
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1	10.7
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1	10.7
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1	7.1
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6
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°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
2.5°	50.0	50.0	46.4	42.8	42.8	42.8	46.4	50.0	50.0	50.0
5°	46.4	46.4	42.8	42.8	42.8	42.8	46.4	53.5	57.1	57.1
7.5°	46.4	46.4	42.8	42.8	42.8	42.8	46.4	53.5	57.1	60.7
10°	42.8	42.8	42.8	42.8	39.3	42.8	46.4	53.5	64.2	64.2
12.5°	42.8	42.8	42.8	42.8	39.3	42.8	50.0	57.1	67.8	71.4
15°	42.8	42.8	42.8	39.3	39.3	42.8	50.0	60.7	71.4	78.5
17.5°	39.3	42.8	42.8	39.3	39.3	42.8	50.0	60.7	78.5	89.2
20°	35.7	39.3	42.8	39.3	39.3	39.3	50.0	60.7	82.1	96.4
22.5°	32.1	35.7	39.3	39.3	35.7	39.3	50.0	64.2	89.2	107.1
25°	28.6	32.1	32.1	35.7	35.7	39.3	50.0	64.2	92.8	121.4
27.5°	21.4	25.0	28.6	32.1	32.1	39.3	50.0	67.8	99.9	149.9
30°	17.8	21.4	25.0	28.6	32.1	39.3	50.0	67.8	107.1	189.2
32.5°	17.8	21.4	25.0	28.6	32.1	35.7	50.0	71.4	117.8	235.6
35°	14.3	17.8	21.4	28.6	28.6	35.7	50.0	71.4	128.5	306.9
37.5°	14.3	17.8	21.4	28.6	28.6	35.7	50.0	71.4	157.0	342.6
40°	10.7	14.3	17.8	28.6	28.6	35.7	53.5	75.0	160.6	346.2
42.5°	10.7	14.3	17.8	25.0	28.6	35.7	53.5	75.0	149.9	356.9
45°	10.7	14.3	17.8	28.6	32.1	39.3	53.5	78.5	146.3	406.9
47.5°	10.7	14.3	17.8	28.6	35.7	39.3	53.5	78.5	149.9	581.8
50°	10.7	14.3	17.8	28.6	39.3	39.3	53.5	78.5	164.2	935.1
52.5°	7.1	10.7	14.3	25.0	32.1	42.8	57.1	75.0	174.9	1249.2
55°	7.1	7.1	10.7	21.4	28.6	46.4	60.7	75.0	203.4	1327.7
57.5°	7.1	7.1	10.7	17.8	25.0	50.0	64.2	75.0	235.6	1288.5
59°	7.1	7.1	7.1	17.8	21.4	50.0	64.2	78.5	239.1	1220.7
60°	7.1	7.1	7.1	14.3	21.4	50.0	67.8	82.1	242.7	1142.1
62.5°	3.6	3.6	3.6	14.3	17.8	50.0	75.0	99.9	249.8	881.6
65°	7.1	7.1	3.6	10.7	17.8	42.8	85.7	107.1	253.4	685.3
67.5°	7.1	7.1	7.1	14.3	17.8	42.8	89.2	110.6	253.4	542.5
70°	7.1	7.1	7.1	14.3	21.4	42.8	89.2	114.2	249.8	442.6
72.5°	7.1	7.1	7.1	14.3	21.4	39.3	82.1	117.8	239.1	374.8
75°	7.1	7.1	7.1	10.7	17.8	35.7	78.5	128.5	217.7	317.7
77.5°	7.1	7.1	7.1	7.1	14.3	28.6	71.4	142.8	192.7	257.0
80°	10.7	7.1	7.1	7.1	10.7	25.0	67.8	139.2	160.6	167.8
82.5°	10.7	7.1	7.1	3.6	7.1	17.8	53.5	107.1	82.1	75.0
85°	7.1	7.1	7.1	3.6	3.6	10.7	25.0	32.1	25.0	17.8
87.5°	7.1	7.1	7.1	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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

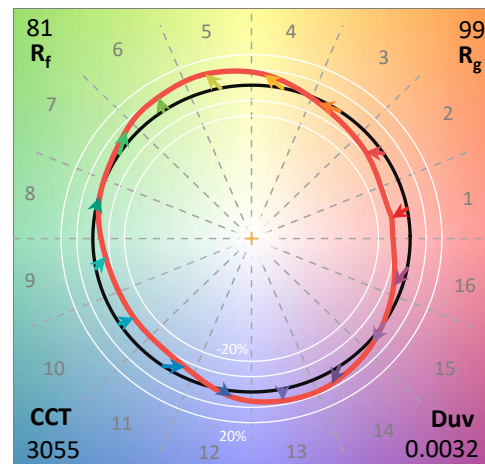
Test Information

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

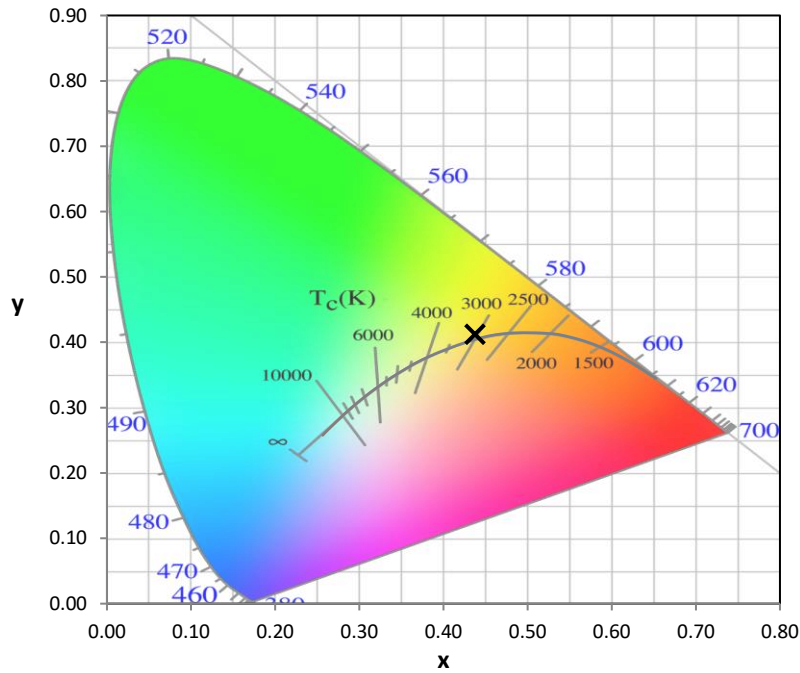
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

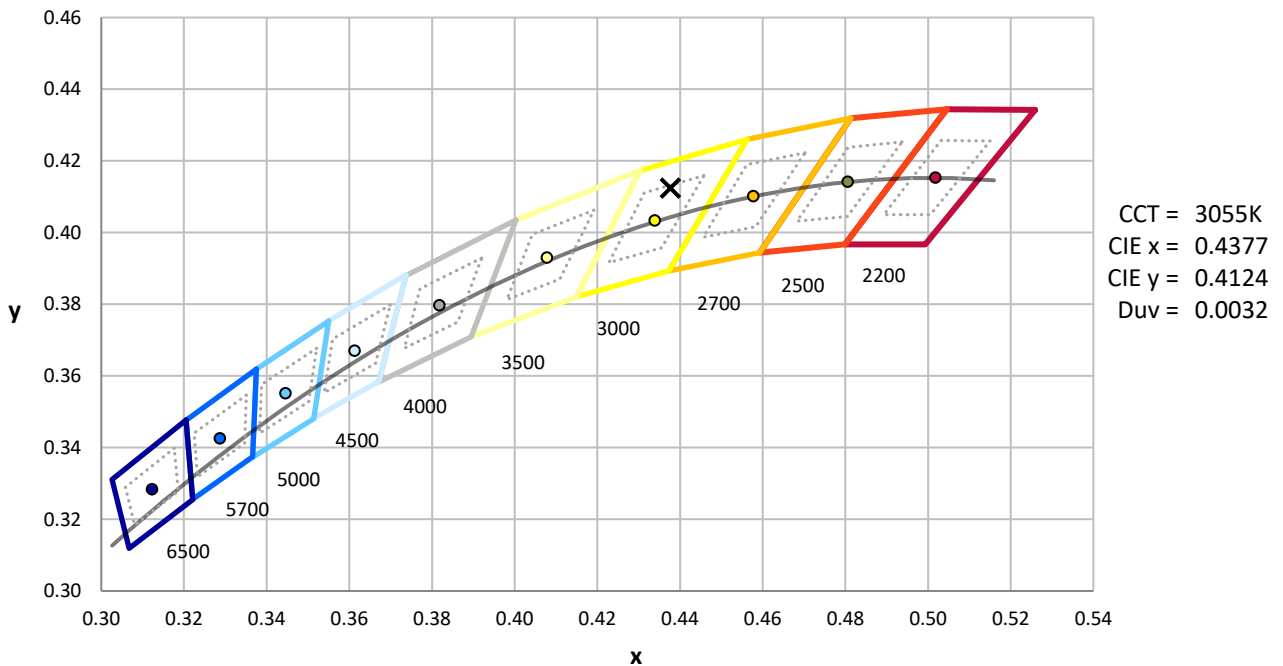
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



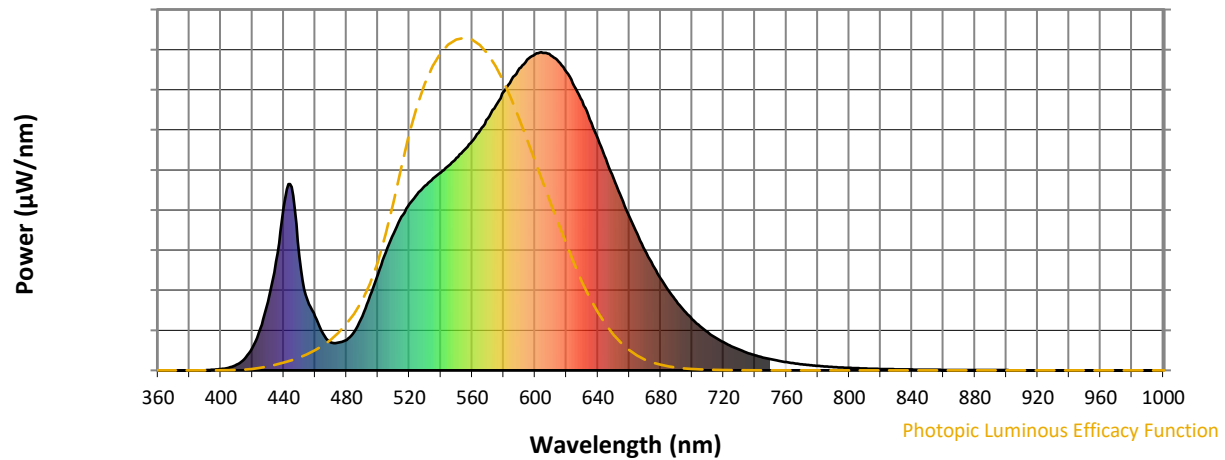
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

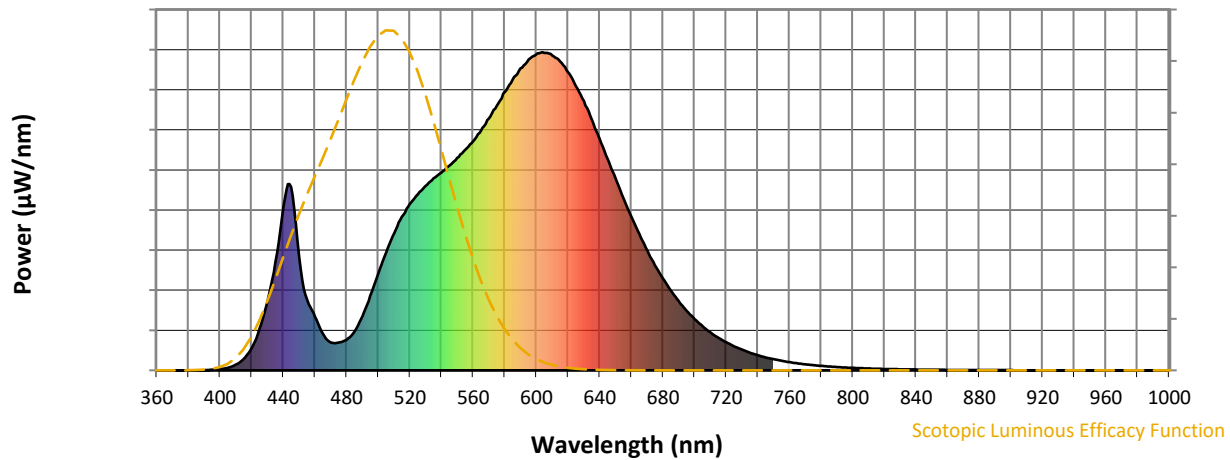


Photopic Lumens: NR

λ (nm)	Power W/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



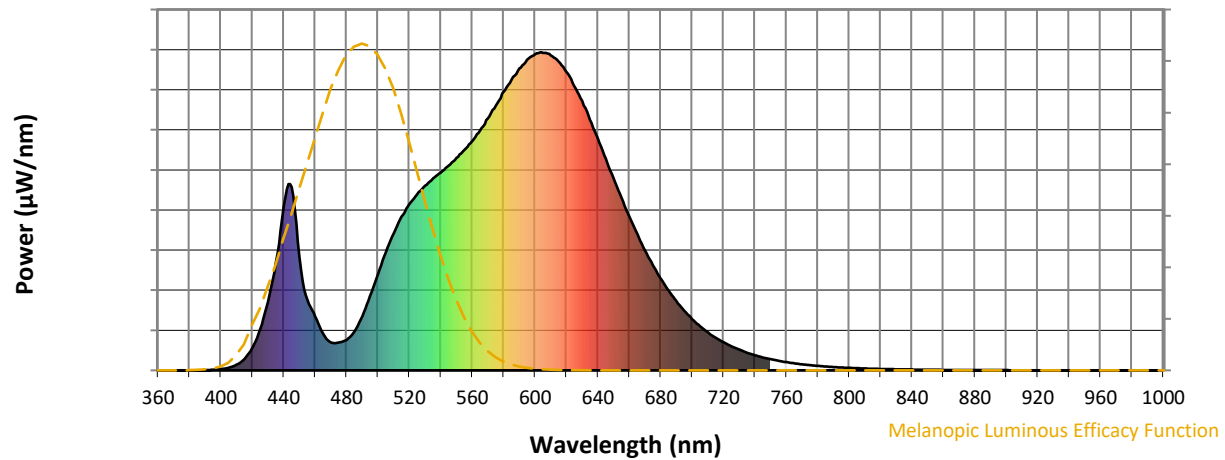
Scotopic Lumens: NR

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

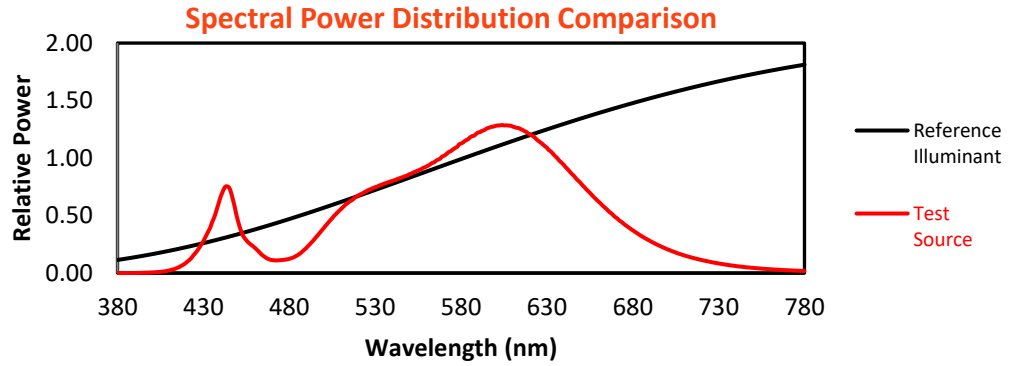
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938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

REPORT NUMBER: SP1-2407-184-9

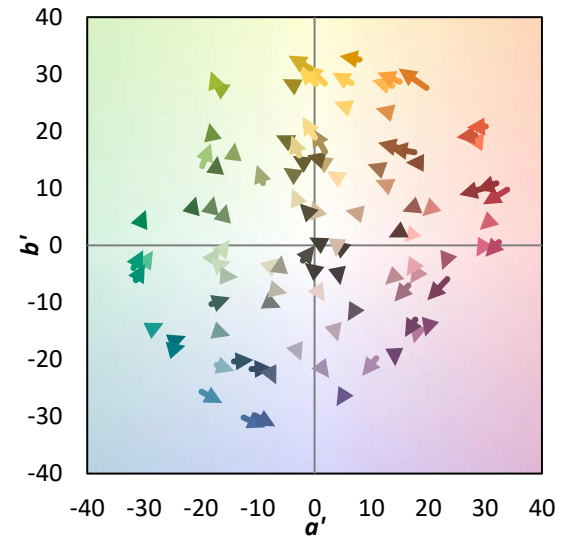
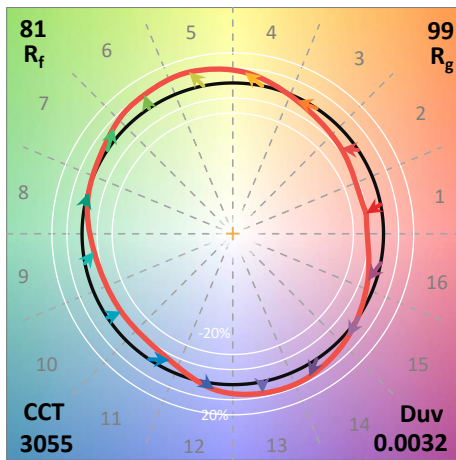
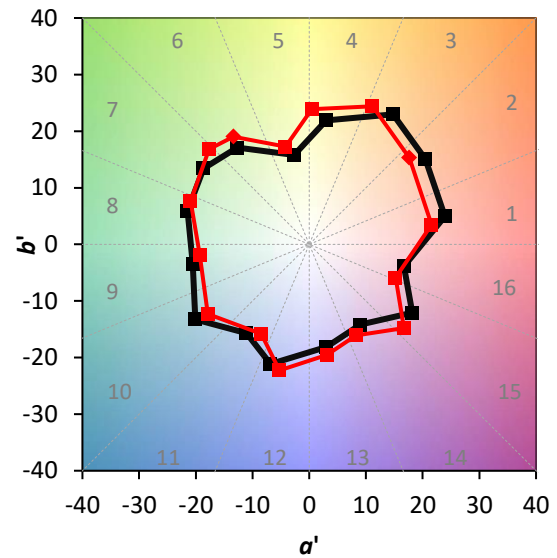
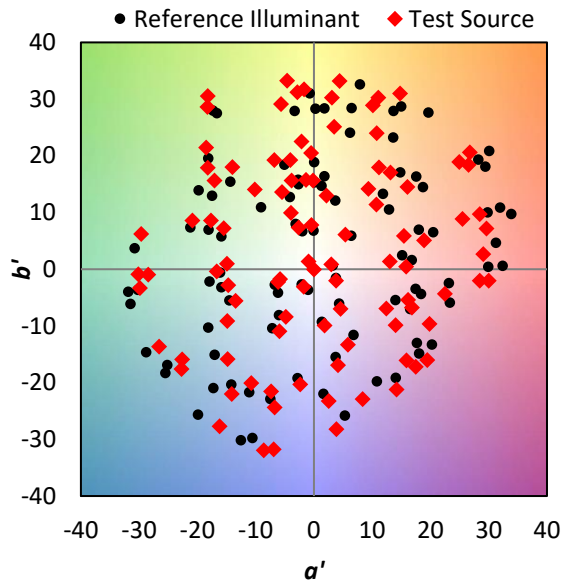
TM-30-18

Summary

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

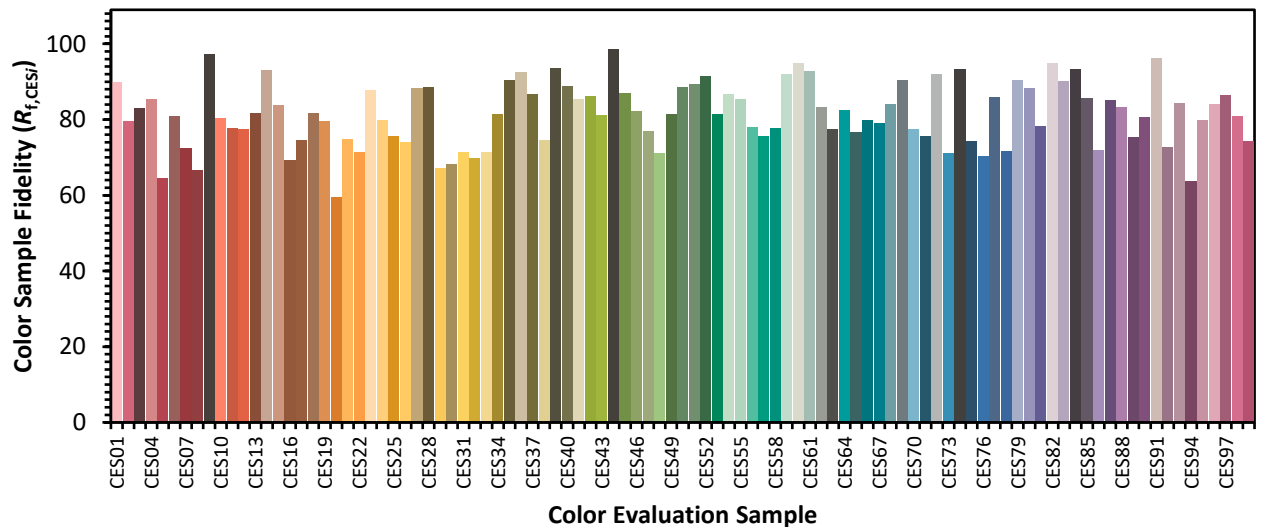


Color Vector Graphics

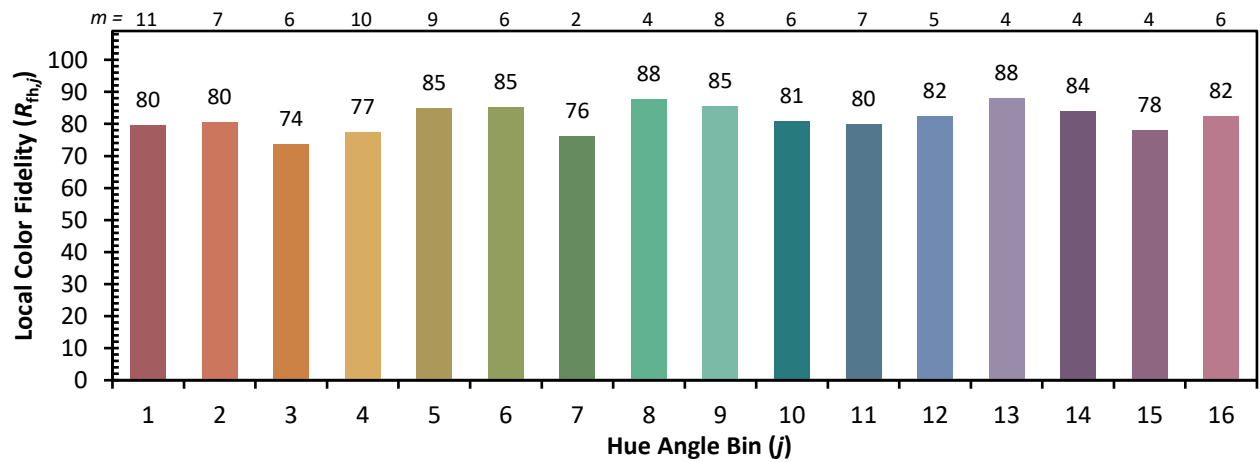
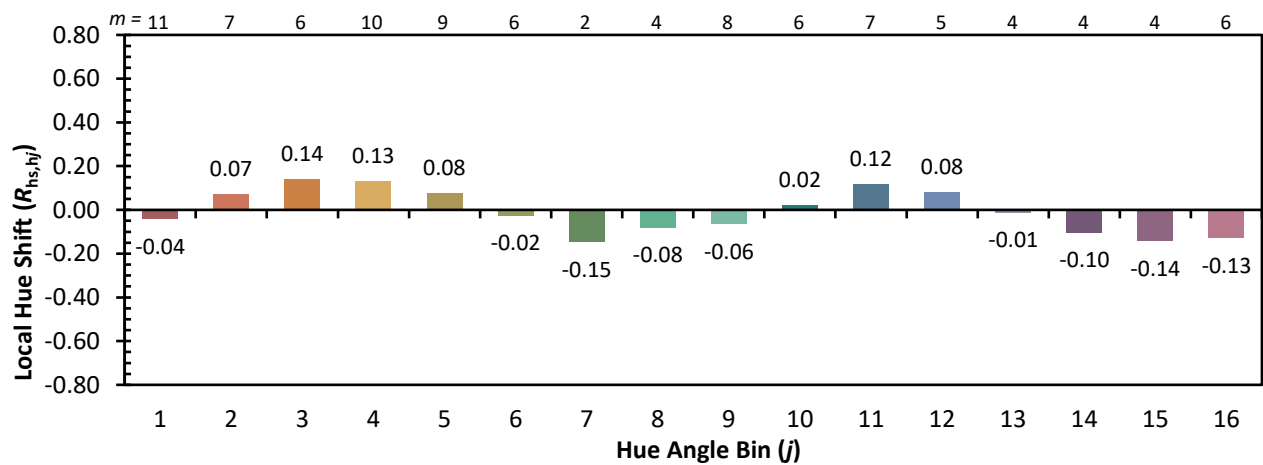
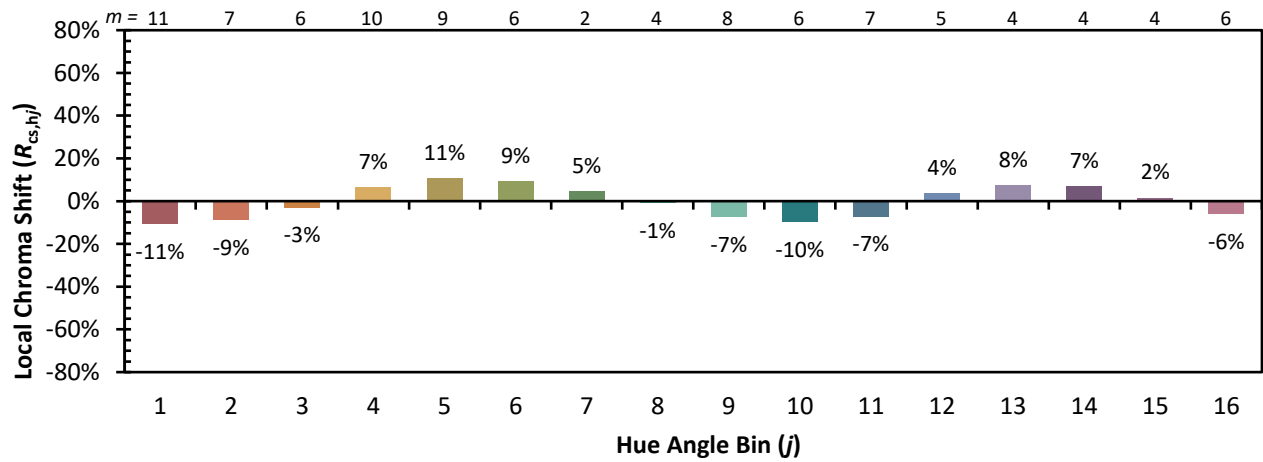


Individual Sample Fidelity Index ($R_{f,i}$)

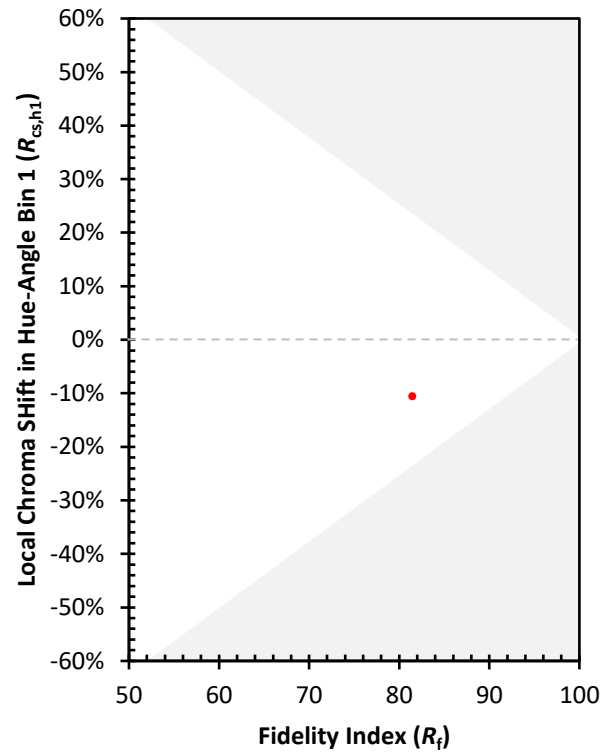
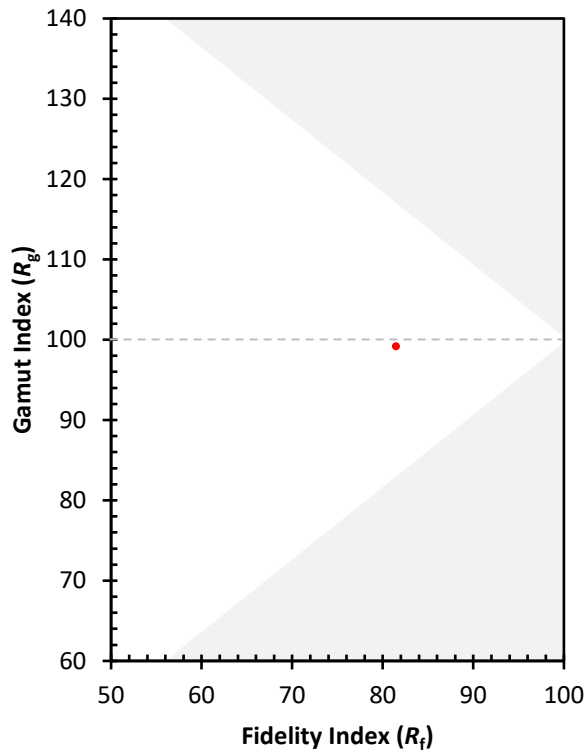
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)