

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: P1068039

Luminaire Tested: **NAV-SA1C-827-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068039
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1C-827-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1050mA 1xLight Square PACKAGE
80CRI 2700K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (14) 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3647 lumens
Efficiency: N/A
Efficacy: 72.8 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): 50.1
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



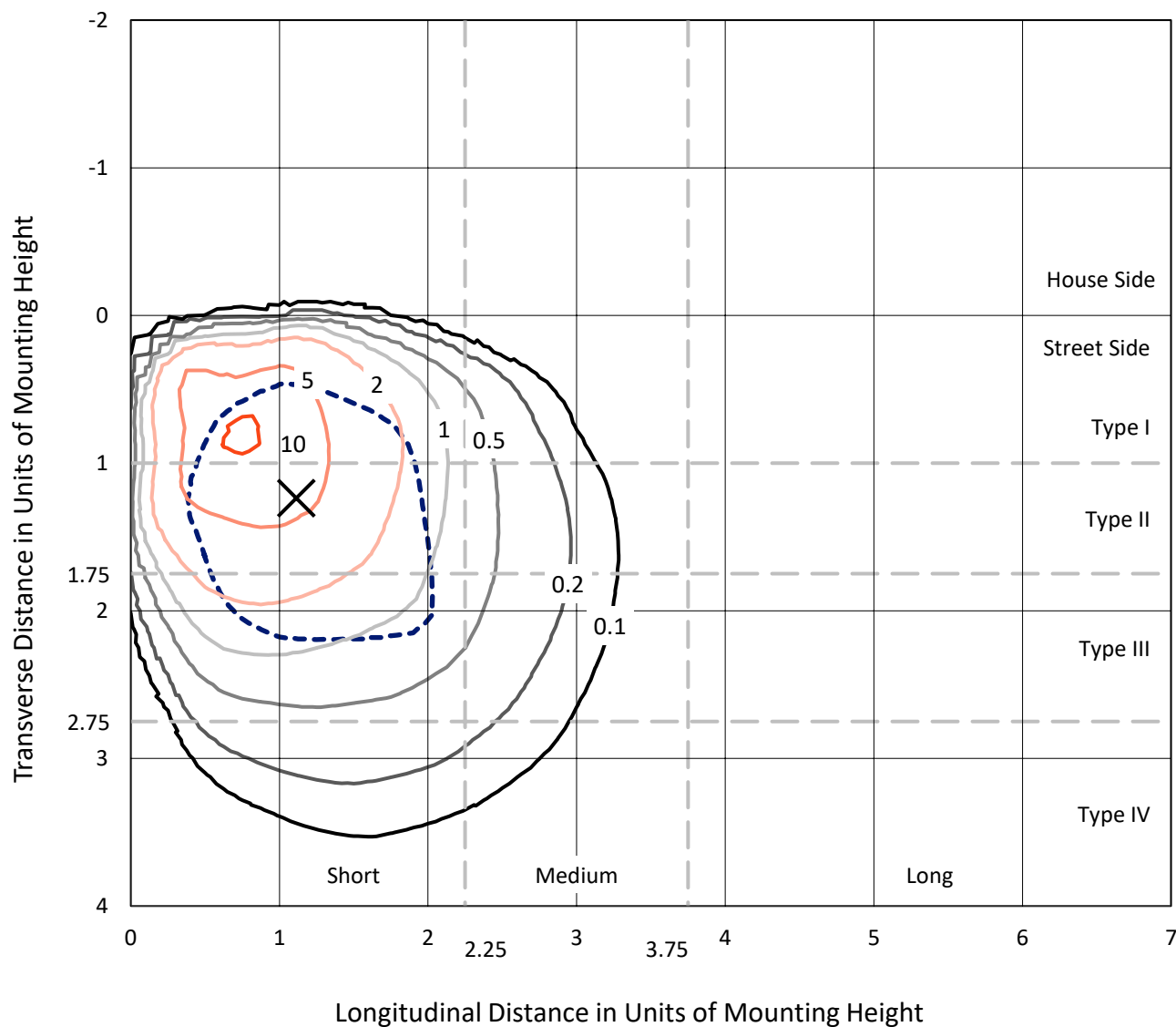
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

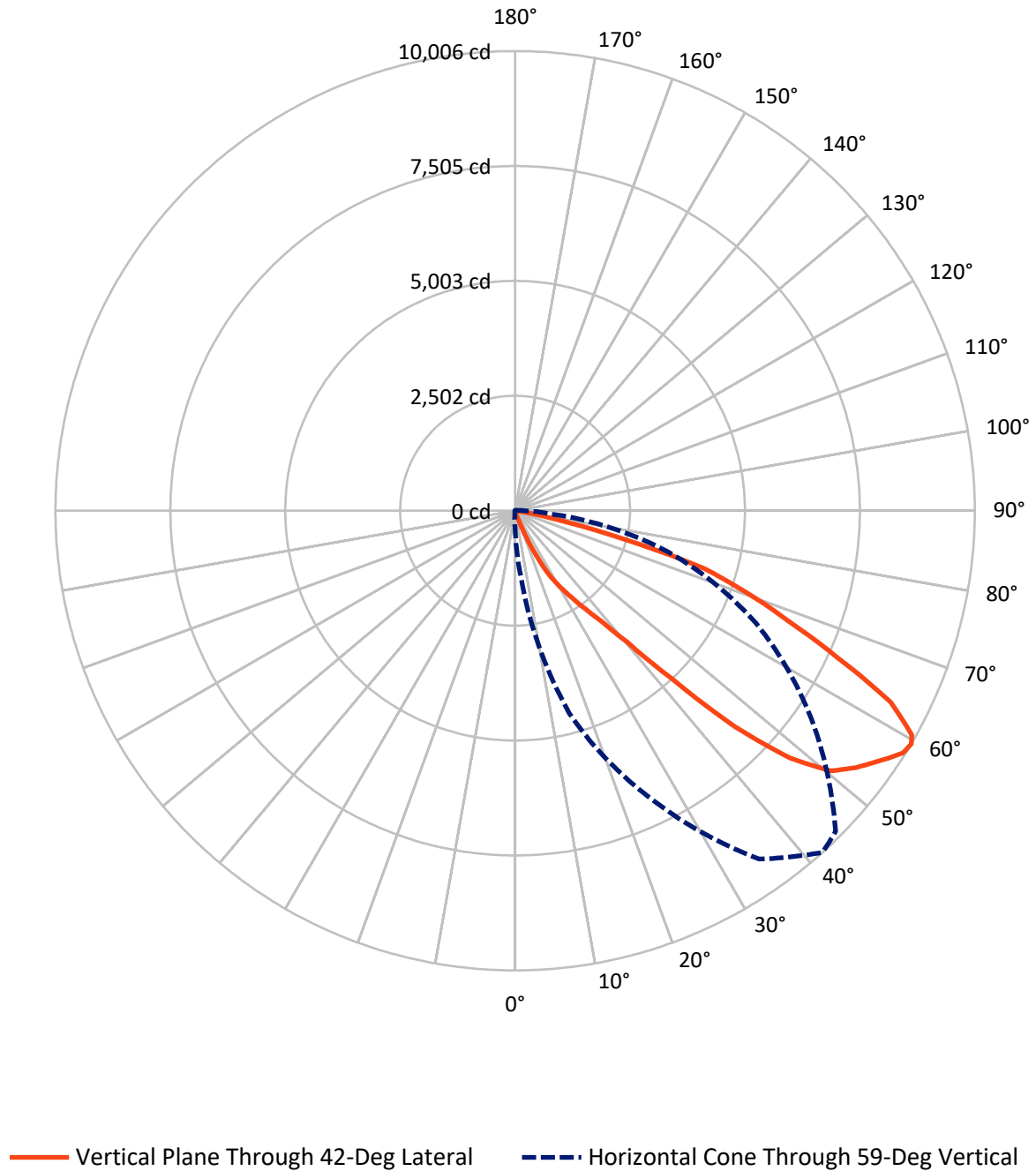


Based on 15 foot mounting height. Maximum calculated value = 10.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17.6	0.0	17.6
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	3629.4	0.0	3629.4
	% Fixture	99.5	0.0	99.5
Total	Lumens	3647.0	0.0	3647.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.1	0.0
10°-20°	5.3	0.1
20°-30°	68.0	1.9
30°-40°	229.3	6.3
40°-50°	692.7	19.0
50°-60°	1222.8	33.5
60°-70°	1076.7	29.5
70°-80°	342.7	9.4
80°-90°	8.2	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°	3647.0	100.0
0°-180°	3647.0	100.0



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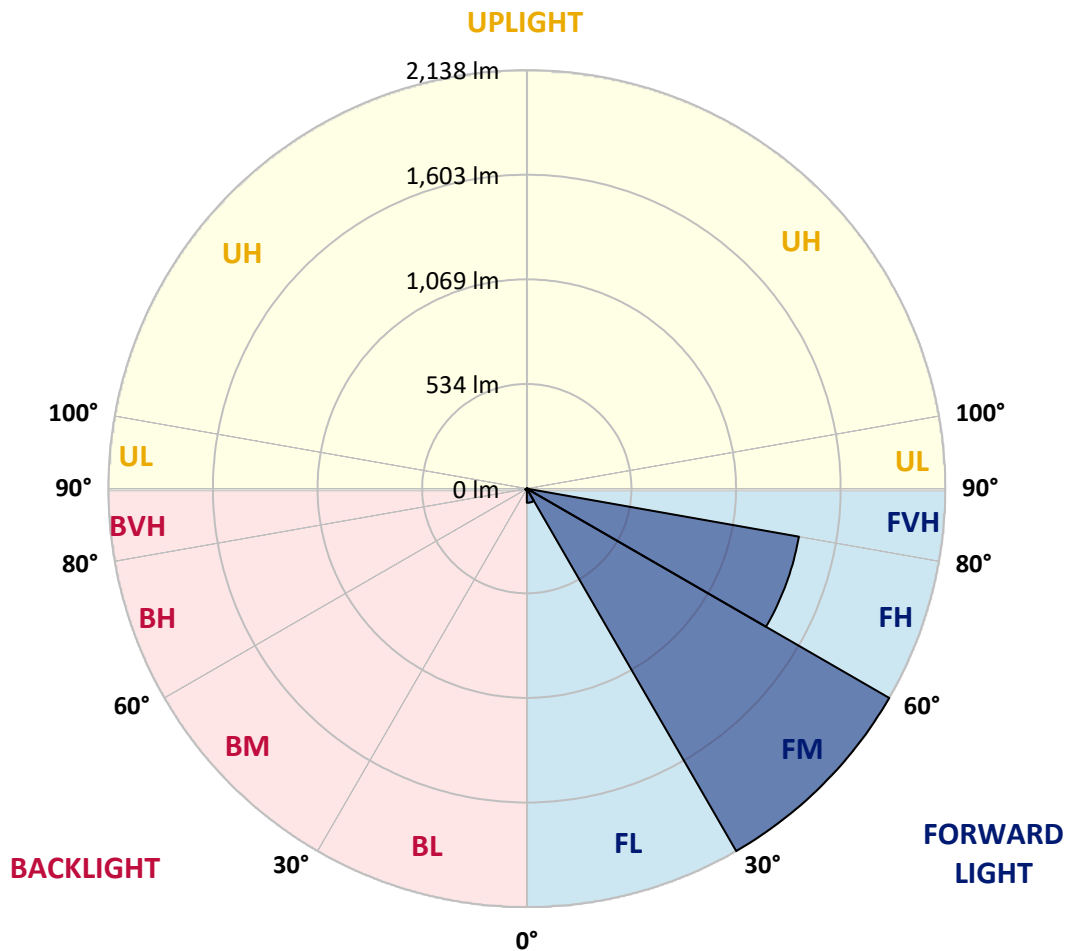
CATALOG NUMBER: NAV-SA1C-827-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	72.5	2.0			
FM	(30°-60°)	2137.7	58.6			
FH	(60°-80°)	1411.4	38.7			G1/1800
FVH	(80°-90°)	7.8	0.2			G0/10
BL	(0°-30°)	2.0	0.1	B0/110		
BM	(30°-60°)	7.2	0.2	B0/220		
BH	(60°-80°)	8.0	0.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	16.0	16.0	14.9	13.7	12.6	11.4	11.4	11.4	10.3	10.3	9.1
5°	18.3	18.3	17.2	16.0	16.0	14.9	14.9	13.7	12.6	12.6	11.4
7.5°	19.4	19.4	19.4	19.4	18.3	18.3	18.3	17.2	16.0	14.9	13.7
10°	20.6	21.7	22.9	22.9	22.9	22.9	22.9	21.7	19.4	18.3	16.0
12.5°	22.9	24.0	26.3	28.6	28.6	29.7	28.6	27.4	25.2	21.7	18.3
15°	25.2	27.4	30.9	35.4	40.0	41.2	41.2	37.7	33.2	26.3	21.7
17.5°	28.6	32.0	41.2	56.0	72.0	84.6	84.6	75.5	52.6	34.3	25.2
20°	30.9	37.7	66.3	134.9	205.8	258.4	248.1	219.5	117.8	53.7	27.4
22.5°	34.3	48.0	140.6	354.5	548.9	644.9	622.0	472.2	264.1	96.0	33.2
25°	38.9	69.8	279.0	664.3	1020.0	1124.0	1109.1	881.6	481.4	161.2	42.3
27.5°	48.0	102.9	447.1	1007.4	1504.8	1594.0	1588.3	1291.0	769.5	259.6	54.9
30°	60.6	149.8	663.2	1368.7	1826.1	1916.4	1887.8	1590.5	1038.3	396.8	70.9
32.5°	75.5	209.3	858.7	1635.1	2122.2	2241.2	2206.9	1851.2	1254.4	513.4	105.2
35°	98.3	267.6	1052.0	1870.7	2464.1	2615.1	2557.9	2120.0	1440.7	644.9	126.9
37.5°	109.8	301.9	1229.2	2126.8	2848.3	3054.2	3010.7	2459.6	1630.6	813.0	155.5
40°	110.9	343.0	1413.3	2460.7	3391.5	3758.5	3680.8	3042.7	1983.9	1029.1	200.1
42.5°	114.3	404.8	1652.3	3030.1	4458.3	4985.4	4897.4	4115.3	2785.4	1462.5	283.6
45°	130.4	521.4	2139.4	4094.7	5923.1	6696.0	6594.3	5609.8	3904.9	2277.8	483.7
47.5°	186.4	784.4	2993.6	5243.9	7421.0	8037.3	8012.2	6787.5	4919.1	3113.6	819.9
50°	299.6	1204.1	3965.5	6210.1	8374.6	8904.0	8841.2	7279.2	5497.7	3684.2	1050.8
52.5°	400.2	1605.4	4576.1	6565.7	8659.3	9290.5	9213.9	7458.7	5649.8	3852.3	1114.9
55°	425.4	1750.6	4757.9	6675.5	8848.0	9617.6	9506.6	7578.8	5669.2	3732.2	1008.5
57.5°	412.8	1613.4	4640.1	6782.9	9111.0	9953.7	9806.2	7813.2	5734.4	3528.7	839.3
59°	391.1	1444.2	4566.9	6868.7	9256.2	10006.3	9868.0	7864.6	5777.9	3436.1	736.4
60°	365.9	1329.8	4509.8	6924.7	9247.1	9924.0	9781.1	7840.6	5795.0	3356.0	687.2
62.5°	282.4	1061.1	4427.4	6884.7	8669.6	9172.8	9091.6	7252.9	5543.4	3099.9	542.0
65°	219.5	811.8	4125.6	6140.3	7377.5	7716.0	7690.8	6141.5	4665.3	2672.2	391.1
67.5°	173.8	592.3	3488.7	4972.9	5935.6	6417.0	6398.7	4985.4	3541.3	2042.2	281.3
70°	141.8	421.9	2392.1	3749.4	4747.6	5353.6	5327.3	4012.4	2624.2	1295.5	204.7
72.5°	120.1	269.9	1451.0	2826.6	3962.1	4308.5	4231.9	3237.1	1908.4	705.5	162.4
75°	101.8	165.8	719.2	1762.1	2360.1	2357.8	2281.2	1714.0	1024.5	345.3	129.2
77.5°	82.3	116.6	282.4	483.7	744.4	921.6	906.8	607.2	306.4	100.6	80.0
80°	53.7	54.9	75.5	132.6	204.7	226.4	257.3	185.2	89.2	48.0	33.2
82.5°	24.0	26.3	34.3	43.5	43.5	40.0	35.4	26.3	19.4	16.0	8.0
85°	5.7	8.0	5.7	6.9	5.7	4.6	4.6	2.3	0.0	0.0	0.0
87.5°	1.1	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°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	9.1	9.1	9.1	8.0	8.0	8.0	6.9	6.9	6.9	5.7	5.7
5°	11.4	10.3	9.1	9.1	8.0	8.0	6.9	5.7	5.7	5.7	4.6
7.5°	12.6	11.4	10.3	9.1	8.0	6.9	6.9	5.7	4.6	4.6	4.6
10°	14.9	13.7	11.4	9.1	8.0	6.9	5.7	5.7	4.6	3.4	3.4
12.5°	17.2	14.9	12.6	10.3	8.0	6.9	5.7	5.7	4.6	3.4	2.3
15°	19.4	17.2	13.7	10.3	8.0	6.9	5.7	5.7	3.4	2.3	1.1
17.5°	21.7	18.3	13.7	11.4	8.0	6.9	5.7	4.6	2.3	1.1	0.0
20°	22.9	19.4	14.9	11.4	8.0	6.9	5.7	3.4	1.1	0.0	0.0
22.5°	25.2	21.7	16.0	11.4	8.0	5.7	3.4	1.1	0.0	0.0	0.0
25°	29.7	22.9	16.0	11.4	8.0	5.7	2.3	0.0	0.0	0.0	0.0
27.5°	33.2	25.2	16.0	11.4	8.0	4.6	1.1	0.0	0.0	0.0	0.0
30°	38.9	27.4	17.2	11.4	8.0	3.4	1.1	0.0	0.0	0.0	0.0
32.5°	48.0	29.7	17.2	11.4	6.9	3.4	0.0	0.0	0.0	0.0	0.0
35°	58.3	34.3	17.2	11.4	6.9	3.4	0.0	0.0	0.0	0.0	0.0
37.5°	59.5	36.6	17.2	11.4	6.9	2.3	0.0	0.0	0.0	0.0	0.0
40°	61.7	34.3	18.3	11.4	6.9	2.3	0.0	0.0	0.0	0.0	0.0
42.5°	70.9	32.0	19.4	11.4	6.9	2.3	0.0	0.0	0.0	0.0	0.0
45°	105.2	33.2	19.4	12.6	6.9	3.4	0.0	0.0	0.0	0.0	0.0
47.5°	183.0	34.3	18.3	12.6	6.9	3.4	0.0	0.0	0.0	0.0	0.0
50°	234.4	40.0	18.3	13.7	8.0	2.3	0.0	0.0	0.0	0.0	0.0
52.5°	249.3	46.9	18.3	14.9	10.3	1.1	0.0	0.0	0.0	0.0	0.0
55°	242.4	54.9	19.4	16.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	224.1	59.5	20.6	17.2	13.7	0.0	0.0	0.0	0.0	0.0	0.0
59°	204.7	62.9	24.0	18.3	13.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	188.7	66.3	25.2	19.4	13.7	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	152.1	70.9	27.4	22.9	11.4	0.0	0.0	0.0	0.0	0.0	0.0
65°	132.6	74.3	28.6	25.2	10.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	121.2	76.6	30.9	26.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	112.1	75.5	33.2	25.2	8.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	101.8	72.0	40.0	22.9	6.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	91.5	65.2	43.5	20.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	66.3	54.9	40.0	18.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	28.6	29.7	28.6	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.7	6.9	5.7	3.4	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°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	5.7	5.7	5.7	5.7	6.9	6.9	9.1	11.4	13.7	14.9	14.9
5°	4.6	4.6	4.6	4.6	4.6	5.7	6.9	9.1	12.6	13.7	13.7
7.5°	3.4	3.4	3.4	3.4	3.4	3.4	5.7	8.0	11.4	12.6	13.7
10°	3.4	2.3	2.3	1.1	1.1	2.3	3.4	6.9	10.3	11.4	12.6
12.5°	2.3	1.1	1.1	0.0	0.0	1.1	2.3	5.7	9.1	10.3	11.4
15°	1.1	0.0	0.0	0.0	0.0	0.0	1.1	4.6	8.0	9.1	11.4
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	6.9	9.1	10.3
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	5.7	8.0	9.1
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.6	6.9	8.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	4.6	5.7
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.4	4.6
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.4	4.6
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3	3.4
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3	3.4
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3	2.3
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.3
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
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°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	16.0	16.0	14.9	13.7	13.7	13.7	14.9	16.0	16.0	16.0
5°	14.9	14.9	13.7	13.7	13.7	13.7	14.9	17.2	18.3	18.3
7.5°	14.9	14.9	13.7	13.7	13.7	13.7	14.9	17.2	18.3	19.4
10°	13.7	13.7	13.7	13.7	12.6	13.7	14.9	17.2	20.6	20.6
12.5°	13.7	13.7	13.7	13.7	12.6	13.7	16.0	18.3	21.7	22.9
15°	13.7	13.7	13.7	12.6	12.6	13.7	16.0	19.4	22.9	25.2
17.5°	12.6	13.7	13.7	12.6	12.6	13.7	16.0	19.4	25.2	28.6
20°	11.4	12.6	13.7	12.6	12.6	12.6	16.0	19.4	26.3	30.9
22.5°	10.3	11.4	12.6	12.6	11.4	12.6	16.0	20.6	28.6	34.3
25°	9.1	10.3	10.3	11.4	11.4	12.6	16.0	20.6	29.7	38.9
27.5°	6.9	8.0	9.1	10.3	10.3	12.6	16.0	21.7	32.0	48.0
30°	5.7	6.9	8.0	9.1	10.3	12.6	16.0	21.7	34.3	60.6
32.5°	5.7	6.9	8.0	9.1	10.3	11.4	16.0	22.9	37.7	75.5
35°	4.6	5.7	6.9	9.1	9.1	11.4	16.0	22.9	41.2	98.3
37.5°	4.6	5.7	6.9	9.1	9.1	11.4	16.0	22.9	50.3	109.8
40°	3.4	4.6	5.7	9.1	9.1	11.4	17.2	24.0	51.5	110.9
42.5°	3.4	4.6	5.7	8.0	9.1	11.4	17.2	24.0	48.0	114.3
45°	3.4	4.6	5.7	9.1	10.3	12.6	17.2	25.2	46.9	130.4
47.5°	3.4	4.6	5.7	9.1	11.4	12.6	17.2	25.2	48.0	186.4
50°	3.4	4.6	5.7	9.1	12.6	12.6	17.2	25.2	52.6	299.6
52.5°	2.3	3.4	4.6	8.0	10.3	13.7	18.3	24.0	56.0	400.2
55°	2.3	2.3	3.4	6.9	9.1	14.9	19.4	24.0	65.2	425.4
57.5°	2.3	2.3	3.4	5.7	8.0	16.0	20.6	24.0	75.5	412.8
59°	2.3	2.3	2.3	5.7	6.9	16.0	20.6	25.2	76.6	391.1
60°	2.3	2.3	2.3	4.6	6.9	16.0	21.7	26.3	77.8	365.9
62.5°	1.1	1.1	1.1	4.6	5.7	16.0	24.0	32.0	80.0	282.4
65°	2.3	2.3	1.1	3.4	5.7	13.7	27.4	34.3	81.2	219.5
67.5°	2.3	2.3	2.3	4.6	5.7	13.7	28.6	35.4	81.2	173.8
70°	2.3	2.3	2.3	4.6	6.9	13.7	28.6	36.6	80.0	141.8
72.5°	2.3	2.3	2.3	4.6	6.9	12.6	26.3	37.7	76.6	120.1
75°	2.3	2.3	2.3	3.4	5.7	11.4	25.2	41.2	69.8	101.8
77.5°	2.3	2.3	2.3	2.3	4.6	9.1	22.9	45.7	61.7	82.3
80°	3.4	2.3	2.3	2.3	3.4	8.0	21.7	44.6	51.5	53.7
82.5°	3.4	2.3	2.3	1.1	2.3	5.7	17.2	34.3	26.3	24.0
85°	2.3	2.3	2.3	1.1	1.1	3.4	8.0	10.3	8.0	5.7
87.5°	2.3	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: SP1-2407-184-8

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-827-U-5WQ

Data in this report applies to families of products including GSS-SB1A-827-U-5WQ

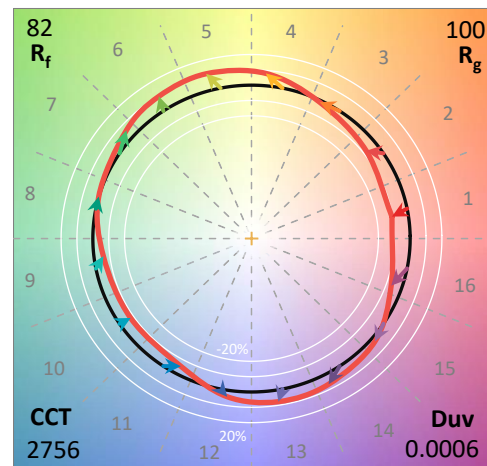
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-8
 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-827-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI
 2700K CCT 26 LEDS

Spectral Parameters

CCT (K): 2756
 CIE u' : 0.2599
 CIE v' : 0.5271
 Duv: 0.0006
 CIE x: 0.4563
 CIE y: 0.4112
 CIE z: 0.1325
 Peak Wavelength (nm): 609
 Dominant Wavelength (nm): 583
 Purity: 60.41121
 R_f: 82.2
 R_g: 99.9

CRI (Ra): 82.9
 R1: 81.6
 R2: 88.8
 R3: 96.0
 R4: 83.4
 R5: 81.4
 R6: 87.0
 R7: 84.0
 R8: 60.8
 R9: 10.8
 R10: 74.8
 R11: 84.3
 R12: 72.1
 R13: 82.9
 R14: 97.3
 R15: 73.7



Test Conditions

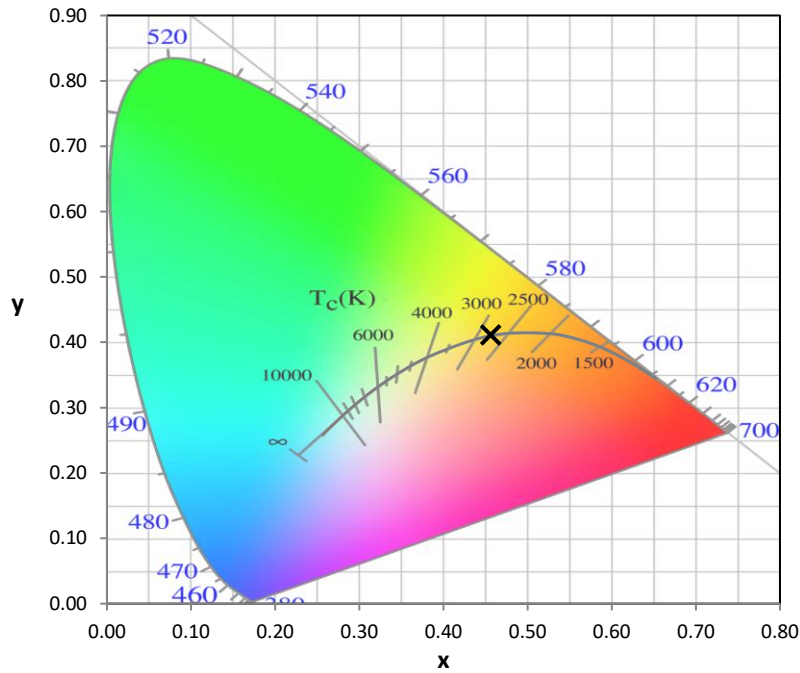
Stabilization Time: 29M
 Operation Time: 1H 29M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-8

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



REPORT NUMBER: SP1-2407-184-8

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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	158	NR	620	959	NR	750	35	NR	880	1	NR
365	0	NR	495	211	NR	625	918	NR	755	30	NR	885	1	NR
370	0	NR	500	264	NR	630	873	NR	760	26	NR	890	1	NR
375	0	NR	505	318	NR	635	816	NR	765	22	NR	895	1	NR
380	0	NR	510	363	NR	640	755	NR	770	19	NR	900	1	NR
385	0	NR	515	403	NR	645	689	NR	775	16	NR	905	1	NR
390	0	NR	520	435	NR	650	626	NR	780	14	NR	910	0	NR
395	1	NR	525	459	NR	655	564	NR	785	12	NR	915	0	NR
400	3	NR	530	481	NR	660	503	NR	790	10	NR	920	0	NR
405	6	NR	535	501	NR	665	447	NR	795	9	NR	925	0	NR
410	13	NR	540	519	NR	670	392	NR	800	8	NR	930	0	NR
415	26	NR	545	542	NR	675	343	NR	805	7	NR	935	0	NR
420	51	NR	550	565	NR	680	299	NR	810	6	NR	940	0	NR
425	93	NR	555	593	NR	685	260	NR	815	5	NR	945	0	NR
430	156	NR	560	624	NR	690	225	NR	820	4	NR	950	0	NR
435	250	NR	565	662	NR	695	194	NR	825	4	NR	955	0	NR
440	391	NR	570	707	NR	700	166	NR	830	3	NR	960	0	NR
445	460	NR	575	756	NR	705	143	NR	835	3	NR	965	0	NR
450	293	NR	580	810	NR	710	122	NR	840	2	NR	970	0	NR
455	188	NR	585	860	NR	715	105	NR	845	2	NR	975	0	NR
460	149	NR	590	910	NR	720	90	NR	850	2	NR	980	0	NR
465	103	NR	595	950	NR	725	77	NR	855	2	NR	985	0	NR
470	80	NR	600	980	NR	730	66	NR	860	1	NR	990	0	NR
475	82	NR	605	995	NR	735	56	NR	865	1	NR	995	0	NR
480	92	NR	610	998	NR	740	48	NR	870	1	NR	1000	0	NR
485	116	NR	615	985	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.2

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	158	NR	620	959	NR	750	35	NR	880	1	NR
365	0	NR	495	211	NR	625	918	NR	755	30	NR	885	1	NR
370	0	NR	500	264	NR	630	873	NR	760	26	NR	890	1	NR
375	0	NR	505	318	NR	635	816	NR	765	22	NR	895	1	NR
380	0	NR	510	363	NR	640	755	NR	770	19	NR	900	1	NR
385	0	NR	515	403	NR	645	689	NR	775	16	NR	905	1	NR
390	0	NR	520	435	NR	650	626	NR	780	14	NR	910	0	NR
395	1	NR	525	459	NR	655	564	NR	785	12	NR	915	0	NR
400	3	NR	530	481	NR	660	503	NR	790	10	NR	920	0	NR
405	6	NR	535	501	NR	665	447	NR	795	9	NR	925	0	NR
410	13	NR	540	519	NR	670	392	NR	800	8	NR	930	0	NR
415	26	NR	545	542	NR	675	343	NR	805	7	NR	935	0	NR
420	51	NR	550	565	NR	680	299	NR	810	6	NR	940	0	NR
425	93	NR	555	593	NR	685	260	NR	815	5	NR	945	0	NR
430	156	NR	560	624	NR	690	225	NR	820	4	NR	950	0	NR
435	250	NR	565	662	NR	695	194	NR	825	4	NR	955	0	NR
440	391	NR	570	707	NR	700	166	NR	830	3	NR	960	0	NR
445	460	NR	575	756	NR	705	143	NR	835	3	NR	965	0	NR
450	293	NR	580	810	NR	710	122	NR	840	2	NR	970	0	NR
455	188	NR	585	860	NR	715	105	NR	845	2	NR	975	0	NR
460	149	NR	590	910	NR	720	90	NR	850	2	NR	980	0	NR
465	103	NR	595	950	NR	725	77	NR	855	2	NR	985	0	NR
470	80	NR	600	980	NR	730	66	NR	860	1	NR	990	0	NR
475	82	NR	605	995	NR	735	56	NR	865	1	NR	995	0	NR
480	92	NR	610	998	NR	740	48	NR	870	1	NR	1000	0	NR
485	116	NR	615	985	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-8

Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.16

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	158	NR	620	959	NR	750	35	NR	880	1	NR
365	0	NR	495	211	NR	625	918	NR	755	30	NR	885	1	NR
370	0	NR	500	264	NR	630	873	NR	760	26	NR	890	1	NR
375	0	NR	505	318	NR	635	816	NR	765	22	NR	895	1	NR
380	0	NR	510	363	NR	640	755	NR	770	19	NR	900	1	NR
385	0	NR	515	403	NR	645	689	NR	775	16	NR	905	1	NR
390	0	NR	520	435	NR	650	626	NR	780	14	NR	910	0	NR
395	1	NR	525	459	NR	655	564	NR	785	12	NR	915	0	NR
400	3	NR	530	481	NR	660	503	NR	790	10	NR	920	0	NR
405	6	NR	535	501	NR	665	447	NR	795	9	NR	925	0	NR
410	13	NR	540	519	NR	670	392	NR	800	8	NR	930	0	NR
415	26	NR	545	542	NR	675	343	NR	805	7	NR	935	0	NR
420	51	NR	550	565	NR	680	299	NR	810	6	NR	940	0	NR
425	93	NR	555	593	NR	685	260	NR	815	5	NR	945	0	NR
430	156	NR	560	624	NR	690	225	NR	820	4	NR	950	0	NR
435	250	NR	565	662	NR	695	194	NR	825	4	NR	955	0	NR
440	391	NR	570	707	NR	700	166	NR	830	3	NR	960	0	NR
445	460	NR	575	756	NR	705	143	NR	835	3	NR	965	0	NR
450	293	NR	580	810	NR	710	122	NR	840	2	NR	970	0	NR
455	188	NR	585	860	NR	715	105	NR	845	2	NR	975	0	NR
460	149	NR	590	910	NR	720	90	NR	850	2	NR	980	0	NR
465	103	NR	595	950	NR	725	77	NR	855	2	NR	985	0	NR
470	80	NR	600	980	NR	730	66	NR	860	1	NR	990	0	NR
475	82	NR	605	995	NR	735	56	NR	865	1	NR	995	0	NR
480	92	NR	610	998	NR	740	48	NR	870	1	NR	1000	0	NR
485	116	NR	615	985	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-8

TM-30-18

Summary

$R_f = 82.2$
 $R_g = 99.9$
 $CIE R_a = 82.9$
 $R_9 = 10.8$

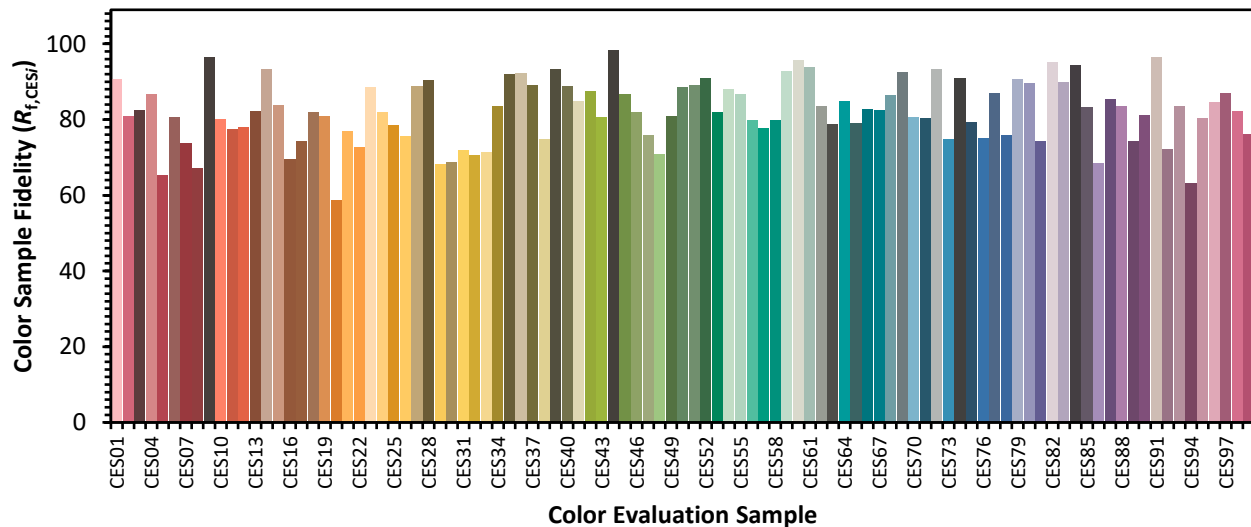


Color Vector Graphics

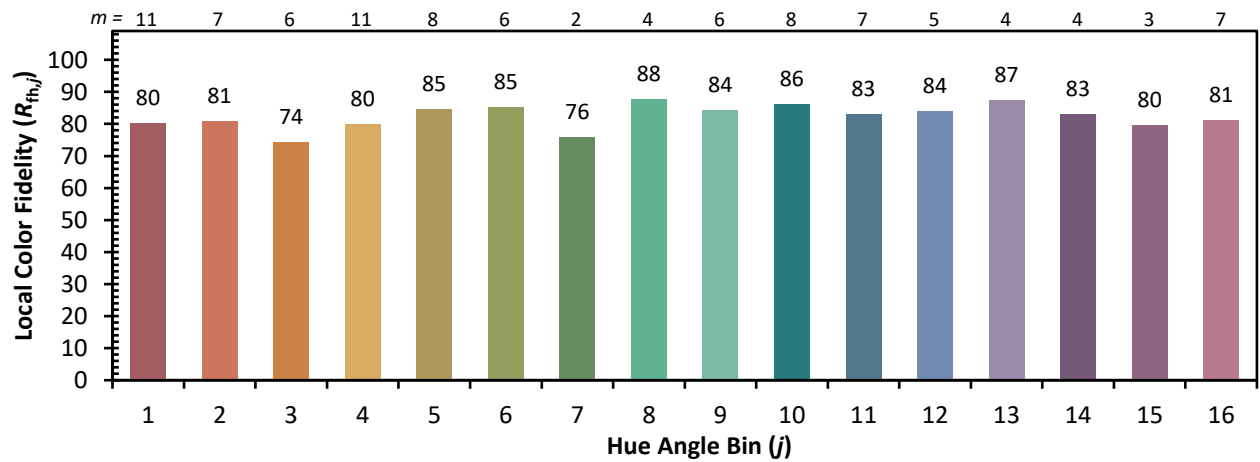
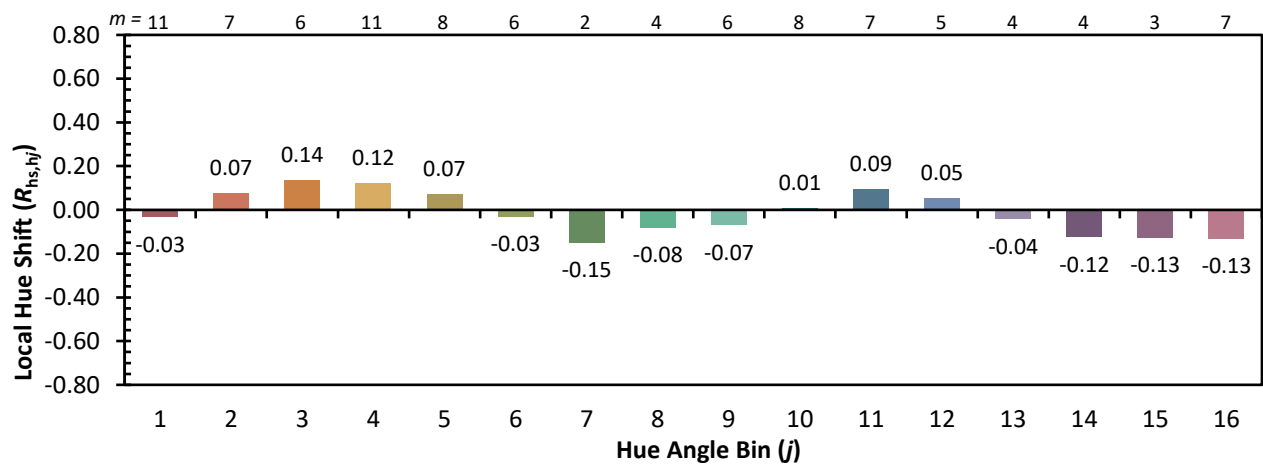
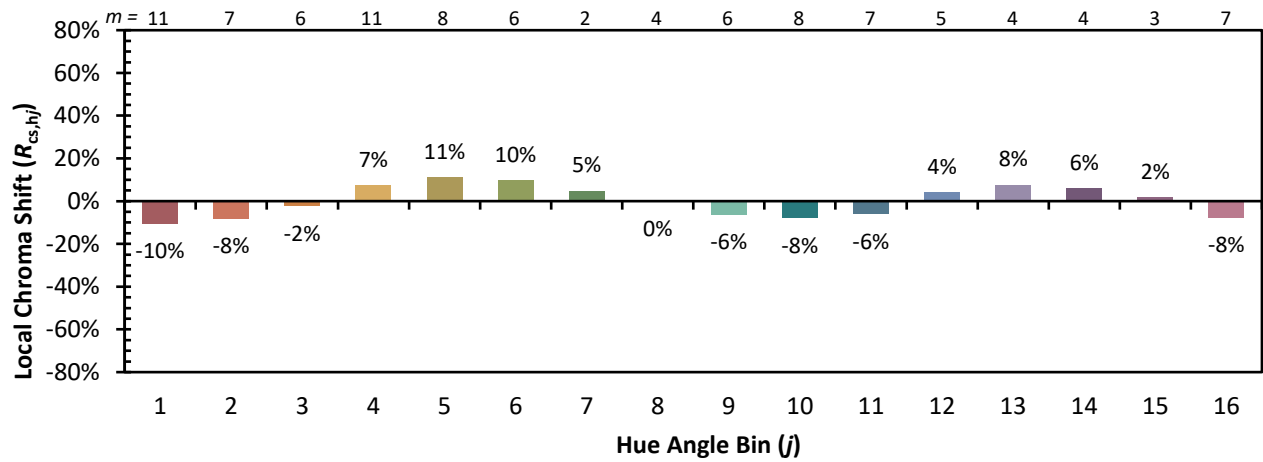


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 76	CES51 = 89	CES76 = 75
CES02 = 63	CES27 = 89	CES52 = 91	CES77 = 87
CES03 = 31	CES28 = 90	CES53 = 82	CES78 = 76
CES04 = 71	CES29 = 68	CES54 = 88	CES79 = 91
CES05 = 50	CES30 = 69	CES55 = 87	CES80 = 90
CES06 = 52	CES31 = 72	CES56 = 80	CES81 = 74
CES07 = 43	CES32 = 71	CES57 = 78	CES82 = 95
CES08 = 42	CES33 = 71	CES58 = 80	CES83 = 90
CES09 = 29	CES34 = 84	CES59 = 93	CES84 = 94
CES10 = 77	CES35 = 92	CES60 = 96	CES85 = 83
CES11 = 59	CES36 = 92	CES61 = 94	CES86 = 69
CES12 = 66	CES37 = 89	CES62 = 84	CES87 = 85
CES13 = 44	CES38 = 75	CES63 = 79	CES88 = 84
CES14 = 74	CES39 = 93	CES64 = 85	CES89 = 74
CES15 = 72	CES40 = 89	CES65 = 79	CES90 = 81
CES16 = 48	CES41 = 85	CES66 = 83	CES91 = 96
CES17 = 50	CES42 = 88	CES67 = 82	CES92 = 72
CES18 = 57	CES43 = 81	CES68 = 86	CES93 = 84
CES19 = 73	CES44 = 98	CES69 = 92	CES94 = 63
CES20 = 67	CES45 = 87	CES70 = 81	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 81	CES96 = 85
CES22 = 79	CES47 = 76	CES72 = 93	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 75	CES98 = 82
CES24 = 91	CES49 = 81	CES74 = 91	CES99 = 76
CES25 = 72	CES50 = 88	CES75 = 79	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)