

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: P1068088

Luminaire Tested: **NAV-SA1D-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068088
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1D-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1200mA 1xLight Square PACKAGE
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (14) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4817.3 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 56.5
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

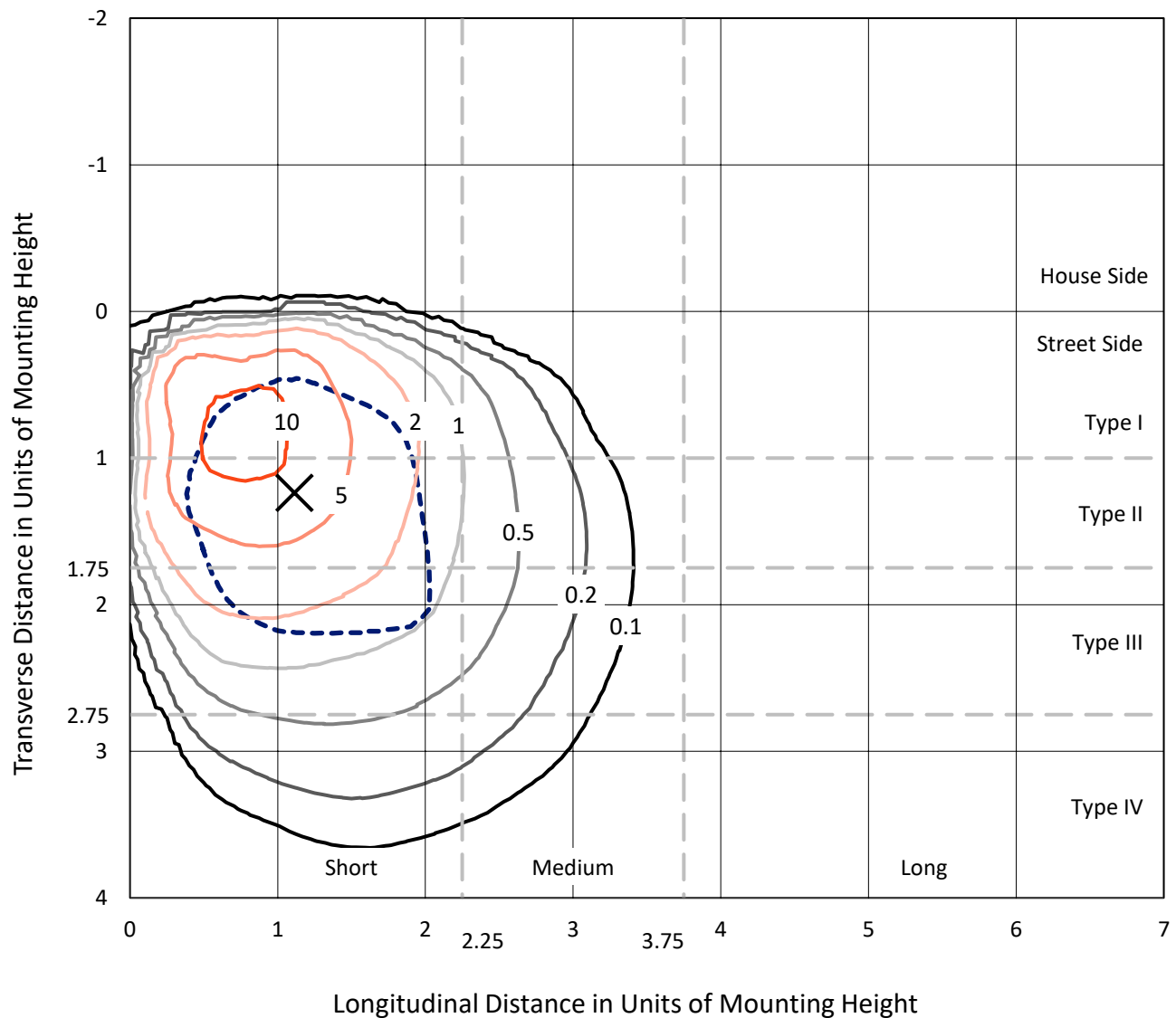


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

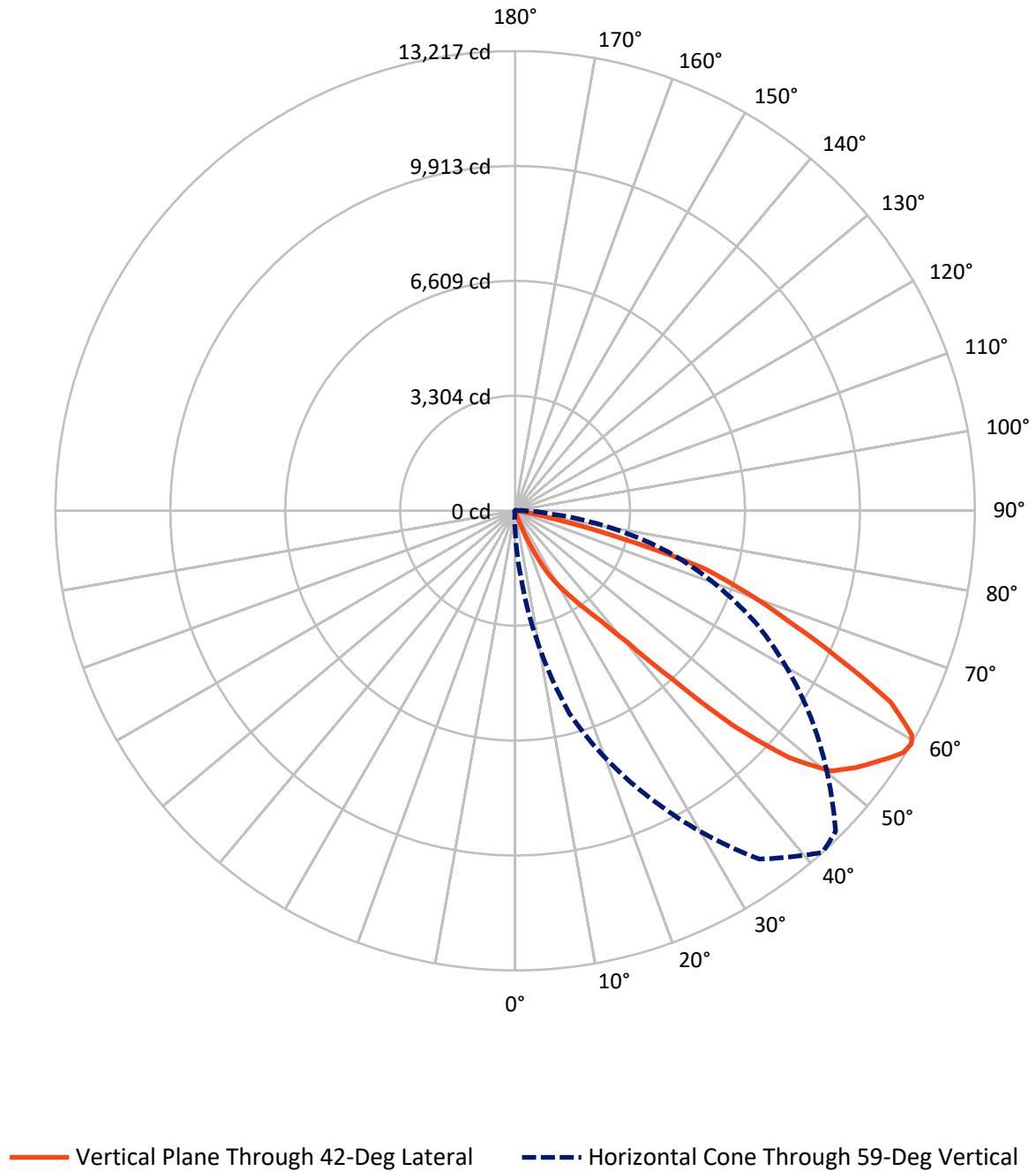


Based on 15 foot mounting height. Maximum calculated value = 14.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	23.2	0.0	23.2
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	4794.0	0.0	4794.0
	% Fixture	99.5	0.0	99.5
Total	Lumens	4817.3	0.0	4817.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.0
10°-20°	7.0	0.1
20°-30°	89.9	1.9
30°-40°	302.9	6.3
40°-50°	915.0	19.0
50°-60°	1615.2	33.5
60°-70°	1422.2	29.5
70°-80°	452.7	9.4
80°-90°	10.8	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°	4817.3	100.0
0°-180°	4817.3	100.0



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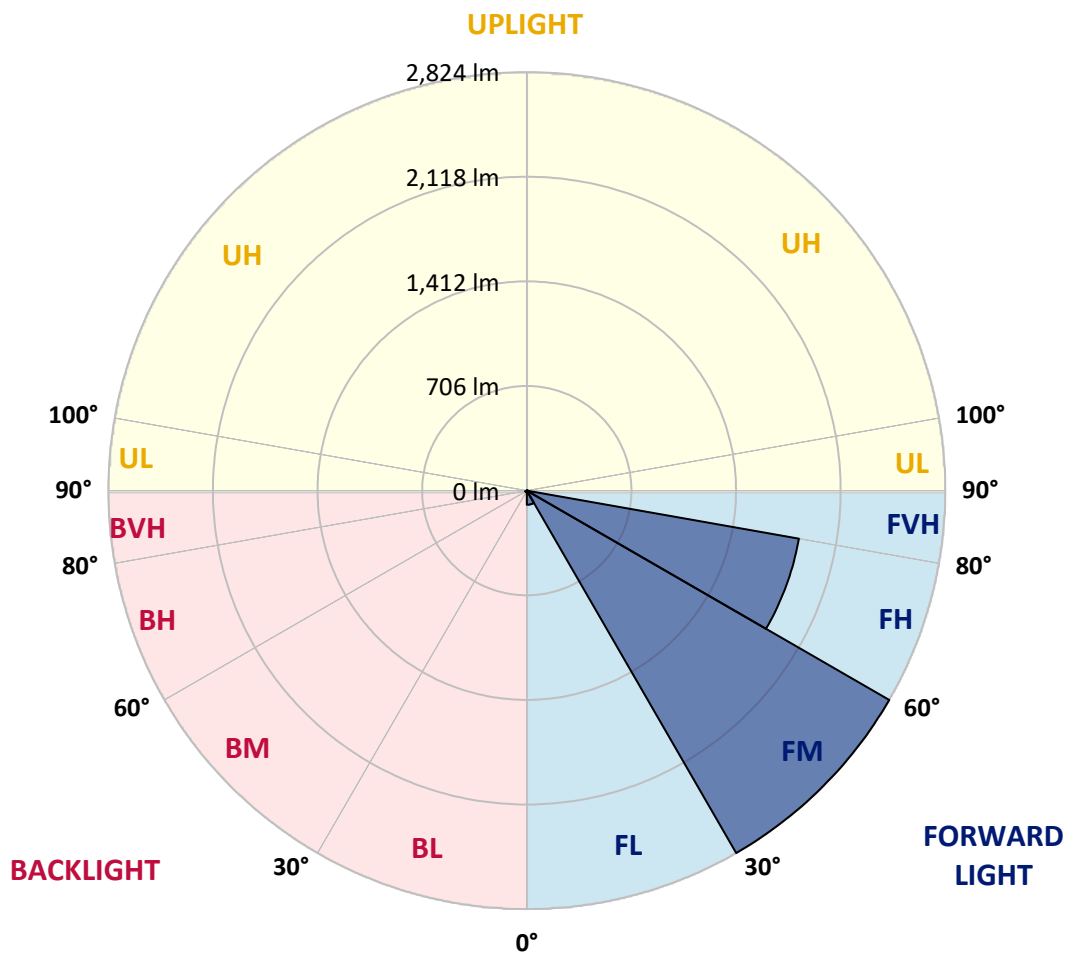
CATALOG NUMBER: NAV-SA1D-835-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	95.7	2.0			
FM	(30°-60°)	2823.7	58.6			
FH	(60°-80°)	1864.3	38.7			G2/5000
FVH	(80°-90°)	10.3	0.2			G1/100
BL	(0°-30°)	2.6	0.1	B0/110		
BM	(30°-60°)	9.5	0.2	B0/220		
BH	(60°-80°)	10.6	0.2	B0/110		G0/110
BVH	(80°-90°)	0.5	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°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.5°	21.1	21.1	19.6	18.1	16.6	15.1	15.1	15.1	13.6	13.6	12.1
5°	24.2	24.2	22.7	21.1	21.1	19.6	19.6	18.1	16.6	16.6	15.1
7.5°	25.7	25.7	25.7	25.7	24.2	24.2	24.2	22.7	21.1	19.6	18.1
10°	27.2	28.7	30.2	30.2	30.2	30.2	30.2	28.7	25.7	24.2	21.1
12.5°	30.2	31.7	34.7	37.8	37.8	39.3	37.8	36.2	33.2	28.7	24.2
15°	33.2	36.2	40.8	46.8	52.9	54.4	54.4	49.8	43.8	34.7	28.7
17.5°	37.8	42.3	54.4	74.0	95.2	111.8	111.8	99.7	69.5	45.3	33.2
20°	40.8	49.8	87.6	178.2	271.9	341.3	327.8	290.0	155.6	71.0	36.2
22.5°	45.3	63.4	185.8	468.2	725.0	851.9	821.6	623.8	348.9	126.9	43.8
25°	51.4	92.1	368.5	877.5	1347.3	1484.7	1465.1	1164.5	635.9	213.0	55.9
27.5°	63.4	135.9	590.6	1330.6	1987.7	2105.5	2097.9	1705.2	1016.5	342.9	72.5
30°	80.0	197.9	876.0	1807.9	2412.1	2531.4	2493.6	2100.9	1371.4	524.1	93.6
32.5°	99.7	276.4	1134.3	2159.8	2803.3	2960.3	2915.0	2445.3	1656.9	678.2	139.0
35°	129.9	353.4	1389.5	2471.0	3254.9	3454.2	3378.7	2800.2	1903.1	851.9	167.7
37.5°	145.0	398.7	1623.7	2809.3	3762.3	4034.2	3976.8	3248.8	2153.8	1073.9	205.4
40°	146.5	453.1	1866.8	3250.3	4479.8	4964.6	4861.9	4019.1	2620.5	1359.3	264.3
42.5°	151.0	534.7	2182.5	4002.5	5888.9	6585.2	6468.9	5435.8	3679.3	1931.8	374.6
45°	172.2	688.7	2825.9	5408.6	7823.7	8844.7	8710.3	7409.9	5157.9	3008.7	638.9
47.5°	246.2	1036.1	3954.2	6926.6	9802.3	10616.4	10583.2	8965.6	6497.6	4112.7	1082.9
50°	395.7	1590.4	5238.0	8202.8	11062.0	11761.3	11678.2	9615.0	7261.9	4866.4	1388.0
52.5°	528.6	2120.6	6044.5	8672.6	11438.1	12271.8	12170.6	9852.2	7462.8	5088.4	1472.6
55°	561.9	2312.4	6284.7	8817.6	11687.3	12703.7	12557.2	10010.7	7488.4	4929.9	1332.1
57.5°	545.2	2131.1	6129.1	8959.5	12034.6	13147.8	12953.0	10320.4	7574.5	4661.0	1108.6
59°	516.5	1907.6	6032.4	9072.8	12226.5	13217.3	13034.5	10388.3	7631.9	4538.7	972.7
60°	483.3	1756.6	5956.9	9146.8	12214.4	13108.5	12919.7	10356.6	7654.6	4432.9	907.7
62.5°	373.1	1401.6	5848.2	9094.0	11451.6	12116.2	12009.0	9580.3	7322.3	4094.6	715.9
65°	290.0	1072.4	5449.4	8110.7	9744.9	10192.0	10158.8	8112.2	6162.3	3529.7	516.5
67.5°	229.6	782.4	4608.1	6568.6	7840.3	8476.2	8452.0	6585.2	4677.6	2697.5	371.6
70°	187.3	557.3	3159.7	4952.5	6271.1	7071.6	7036.8	5299.9	3466.3	1711.3	270.4
72.5°	158.6	356.4	1916.7	3733.6	5233.4	5691.1	5589.9	4275.9	2520.8	931.9	214.5
75°	134.4	219.0	950.0	2327.5	3117.4	3114.4	3013.2	2264.0	1353.3	456.1	170.7
77.5°	108.7	154.1	373.1	638.9	983.3	1217.4	1197.7	802.0	404.8	132.9	105.7
80°	71.0	72.5	99.7	175.2	270.4	299.1	339.8	244.7	117.8	63.4	43.8
82.5°	31.7	34.7	45.3	57.4	57.4	52.9	46.8	34.7	25.7	21.1	10.6
85°	7.6	10.6	7.6	9.1	7.6	6.0	6.0	3.0	0.0	0.0	0.0
87.5°	1.5	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°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.5°	12.1	12.1	12.1	10.6	10.6	10.6	9.1	9.1	9.1	7.6	7.6
5°	15.1	13.6	12.1	12.1	10.6	10.6	9.1	7.6	7.6	7.6	6.0
7.5°	16.6	15.1	13.6	12.1	10.6	9.1	9.1	7.6	6.0	6.0	6.0
10°	19.6	18.1	15.1	12.1	10.6	9.1	7.6	7.6	6.0	4.5	4.5
12.5°	22.7	19.6	16.6	13.6	10.6	9.1	7.6	7.6	6.0	4.5	3.0
15°	25.7	22.7	18.1	13.6	10.6	9.1	7.6	7.6	4.5	3.0	1.5
17.5°	28.7	24.2	18.1	15.1	10.6	9.1	7.6	6.0	3.0	1.5	0.0
20°	30.2	25.7	19.6	15.1	10.6	9.1	7.6	4.5	1.5	0.0	0.0
22.5°	33.2	28.7	21.1	15.1	10.6	7.6	4.5	1.5	0.0	0.0	0.0
25°	39.3	30.2	21.1	15.1	10.6	7.6	3.0	0.0	0.0	0.0	0.0
27.5°	43.8	33.2	21.1	15.1	10.6	6.0	1.5	0.0	0.0	0.0	0.0
30°	51.4	36.2	22.7	15.1	10.6	4.5	1.5	0.0	0.0	0.0	0.0
32.5°	63.4	39.3	22.7	15.1	9.1	4.5	0.0	0.0	0.0	0.0	0.0
35°	77.0	45.3	22.7	15.1	9.1	4.5	0.0	0.0	0.0	0.0	0.0
37.5°	78.5	48.3	22.7	15.1	9.1	3.0	0.0	0.0	0.0	0.0	0.0
40°	81.6	45.3	24.2	15.1	9.1	3.0	0.0	0.0	0.0	0.0	0.0
42.5°	93.6	42.3	25.7	15.1	9.1	3.0	0.0	0.0	0.0	0.0	0.0
45°	139.0	43.8	25.7	16.6	9.1	4.5	0.0	0.0	0.0	0.0	0.0
47.5°	241.7	45.3	24.2	16.6	9.1	4.5	0.0	0.0	0.0	0.0	0.0
50°	309.6	52.9	24.2	18.1	10.6	3.0	0.0	0.0	0.0	0.0	0.0
52.5°	329.3	61.9	24.2	19.6	13.6	1.5	0.0	0.0	0.0	0.0	0.0
55°	320.2	72.5	25.7	21.1	16.6	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	296.0	78.5	27.2	22.7	18.1	0.0	0.0	0.0	0.0	0.0	0.0
59°	270.4	83.1	31.7	24.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0
60°	249.2	87.6	33.2	25.7	18.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	200.9	93.6	36.2	30.2	15.1	0.0	0.0	0.0	0.0	0.0	0.0
65°	175.2	98.2	37.8	33.2	13.6	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	160.1	101.2	40.8	34.7	12.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	148.0	99.7	43.8	33.2	10.6	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	134.4	95.2	52.9	30.2	9.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	120.8	86.1	57.4	27.2	6.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	87.6	72.5	52.9	24.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.8	39.3	37.8	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.6	9.1	7.6	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.5°	7.6	7.6	7.6	7.6	9.1	9.1	12.1	15.1	18.1	19.6	19.6
5°	6.0	6.0	6.0	6.0	6.0	7.6	9.1	12.1	16.6	18.1	18.1
7.5°	4.5	4.5	4.5	4.5	4.5	4.5	7.6	10.6	15.1	16.6	18.1
10°	4.5	3.0	3.0	1.5	1.5	3.0	4.5	9.1	13.6	15.1	16.6
12.5°	3.0	1.5	1.5	0.0	0.0	1.5	3.0	7.6	12.1	13.6	15.1
15°	1.5	0.0	0.0	0.0	0.0	0.0	1.5	6.0	10.6	12.1	15.1
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	9.1	12.1	13.6
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	7.6	10.6	12.1
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	6.0	9.1	10.6
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	6.0	7.6
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	4.5	6.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	4.5	6.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	4.5
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	4.5
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0	3.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
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°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
2.5°	21.1	21.1	19.6	18.1	18.1	18.1	19.6	21.1	21.1	21.1
5°	19.6	19.6	18.1	18.1	18.1	18.1	19.6	22.7	24.2	24.2
7.5°	19.6	19.6	18.1	18.1	18.1	18.1	19.6	22.7	24.2	25.7
10°	18.1	18.1	18.1	18.1	16.6	18.1	19.6	22.7	27.2	27.2
12.5°	18.1	18.1	18.1	18.1	16.6	18.1	21.1	24.2	28.7	30.2
15°	18.1	18.1	18.1	16.6	16.6	18.1	21.1	25.7	30.2	33.2
17.5°	16.6	18.1	18.1	16.6	16.6	18.1	21.1	25.7	33.2	37.8
20°	15.1	16.6	18.1	16.6	16.6	16.6	21.1	25.7	34.7	40.8
22.5°	13.6	15.1	16.6	16.6	15.1	16.6	21.1	27.2	37.8	45.3
25°	12.1	13.6	13.6	15.1	15.1	16.6	21.1	27.2	39.3	51.4
27.5°	9.1	10.6	12.1	13.6	13.6	16.6	21.1	28.7	42.3	63.4
30°	7.6	9.1	10.6	12.1	13.6	16.6	21.1	28.7	45.3	80.0
32.5°	7.6	9.1	10.6	12.1	13.6	15.1	21.1	30.2	49.8	99.7
35°	6.0	7.6	9.1	12.1	12.1	15.1	21.1	30.2	54.4	129.9
37.5°	6.0	7.6	9.1	12.1	12.1	15.1	21.1	30.2	66.5	145.0
40°	4.5	6.0	7.6	12.1	12.1	15.1	22.7	31.7	68.0	146.5
42.5°	4.5	6.0	7.6	10.6	12.1	15.1	22.7	31.7	63.4	151.0
45°	4.5	6.0	7.6	12.1	13.6	16.6	22.7	33.2	61.9	172.2
47.5°	4.5	6.0	7.6	12.1	15.1	16.6	22.7	33.2	63.4	246.2
50°	4.5	6.0	7.6	12.1	16.6	16.6	22.7	33.2	69.5	395.7
52.5°	3.0	4.5	6.0	10.6	13.6	18.1	24.2	31.7	74.0	528.6
55°	3.0	3.0	4.5	9.1	12.1	19.6	25.7	31.7	86.1	561.9
57.5°	3.0	3.0	4.5	7.6	10.6	21.1	27.2	31.7	99.7	545.2
59°	3.0	3.0	3.0	7.6	9.1	21.1	27.2	33.2	101.2	516.5
60°	3.0	3.0	3.0	6.0	9.1	21.1	28.7	34.7	102.7	483.3
62.5°	1.5	1.5	1.5	6.0	7.6	21.1	31.7	42.3	105.7	373.1
65°	3.0	3.0	1.5	4.5	7.6	18.1	36.2	45.3	107.2	290.0
67.5°	3.0	3.0	3.0	6.0	7.6	18.1	37.8	46.8	107.2	229.6
70°	3.0	3.0	3.0	6.0	9.1	18.1	37.8	48.3	105.7	187.3
72.5°	3.0	3.0	3.0	6.0	9.1	16.6	34.7	49.8	101.2	158.6
75°	3.0	3.0	3.0	4.5	7.6	15.1	33.2	54.4	92.1	134.4
77.5°	3.0	3.0	3.0	3.0	6.0	12.1	30.2	60.4	81.6	108.7
80°	4.5	3.0	3.0	3.0	4.5	10.6	28.7	58.9	68.0	71.0
82.5°	4.5	3.0	3.0	1.5	3.0	7.6	22.7	45.3	34.7	31.7
85°	3.0	3.0	3.0	1.5	1.5	4.5	10.6	13.6	10.6	7.6
87.5°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-10

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-835-U-5WQ

Data in this report applies to families of products including GSS-SB1A-835-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-10
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGraw-Edison
 Catalog Number: **GSS-SB1A-835-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3500K CCT 26 LEDS

Spectral Parameters

CCT (K): 3411
 CIE u' : 0.2360
 CIE v' : 0.5189
 Duv: 0.0044
 CIE x: 0.4154
 CIE y: 0.4059
 CIE z: 0.1787
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 579
 Purity: 46.51914
 R_f: 86.6
 R_g: 95.9

CRI (Ra): 83.5
 R1: 81.1
 R2: 88.9
 R3: 97.2
 R4: 83.8
 R5: 81.7
 R6: 86.9
 R7: 86.1
 R8: 62.2
 R9: 6.3
 R10: 75.4
 R11: 84.1
 R12: 69.7
 R13: 82.8
 R14: 98.5
 R15: 72.6



Test Conditions

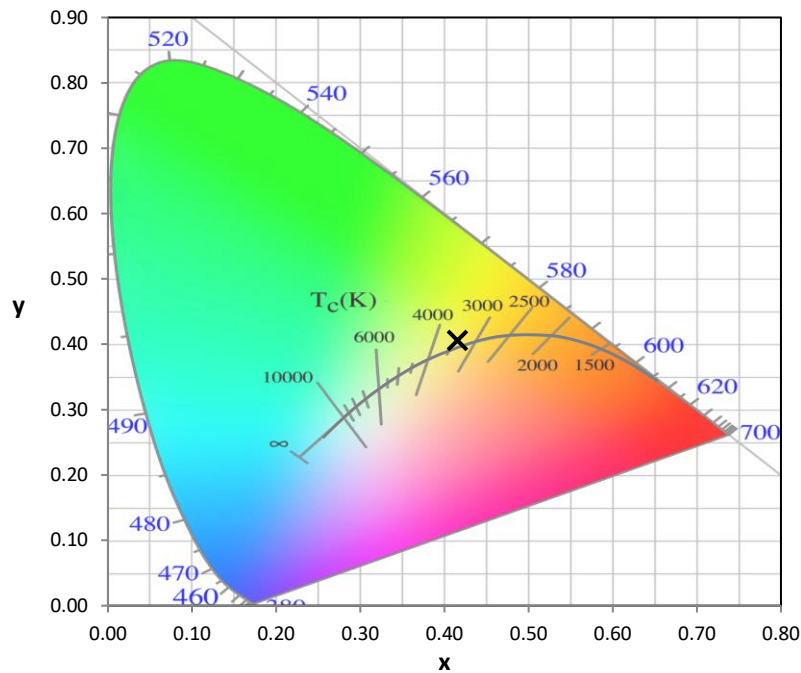
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

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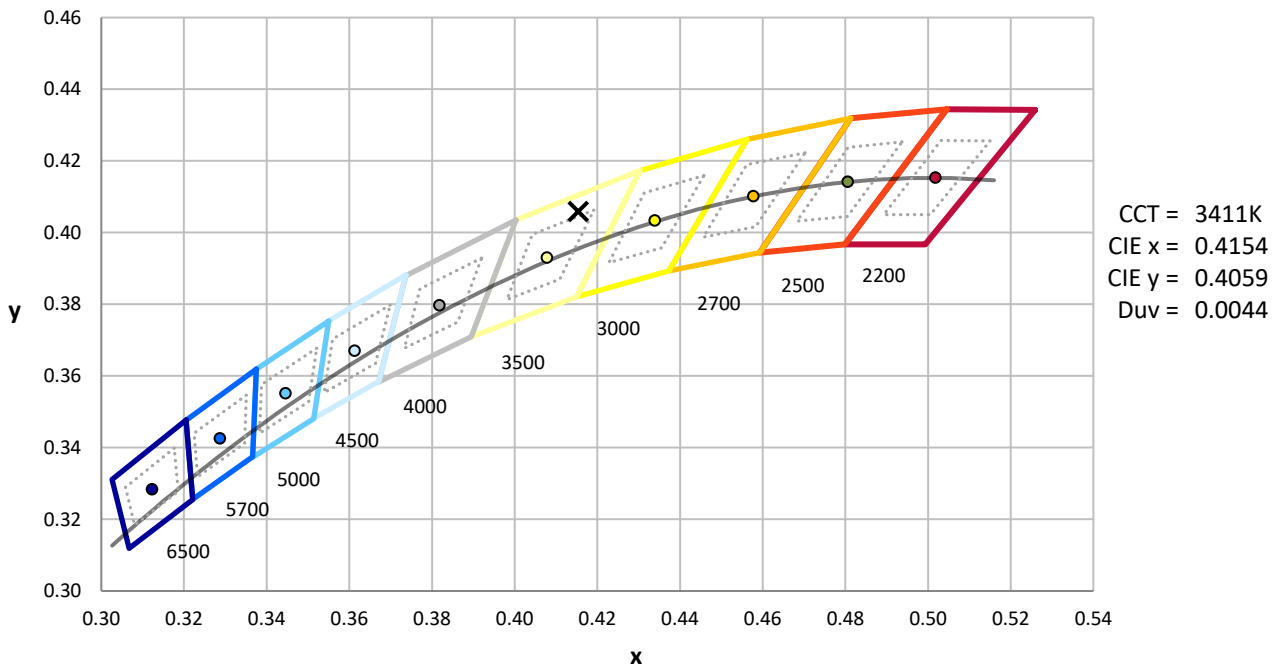
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-10

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)	λ (nm)	Power W/nm	Lumens (ϕ/nm)
360	0	NR	490	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-10

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.48

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.88

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	311	NR	620	903	NR	750	26	NR	880	1	NR
365	0	NR	495	376	NR	625	851	NR	755	22	NR	885	1	NR
370	0	NR	500	438	NR	630	797	NR	760	19	NR	890	0	NR
375	0	NR	505	491	NR	635	735	NR	765	16	NR	895	0	NR
380	0	NR	510	533	NR	640	672	NR	770	14	NR	900	0	NR
385	0	NR	515	566	NR	645	607	NR	775	12	NR	905	0	NR
390	0	NR	520	592	NR	650	546	NR	780	10	NR	910	0	NR
395	1	NR	525	608	NR	655	487	NR	785	9	NR	915	0	NR
400	3	NR	530	625	NR	660	429	NR	790	7	NR	920	0	NR
405	6	NR	535	642	NR	665	378	NR	795	6	NR	925	0	NR
410	12	NR	540	657	NR	670	329	NR	800	5	NR	930	0	NR
415	22	NR	545	677	NR	675	286	NR	805	5	NR	935	0	NR
420	43	NR	550	701	NR	680	248	NR	810	4	NR	940	0	NR
425	80	NR	555	728	NR	685	213	NR	815	3	NR	945	0	NR
430	140	NR	560	757	NR	690	184	NR	820	3	NR	950	0	NR
435	243	NR	565	793	NR	695	156	NR	825	3	NR	955	0	NR
440	412	NR	570	831	NR	700	134	NR	830	2	NR	960	0	NR
445	610	NR	575	872	NR	705	114	NR	835	2	NR	965	0	NR
450	597	NR	580	911	NR	710	97	NR	840	2	NR	970	0	NR
455	412	NR	585	944	NR	715	83	NR	845	1	NR	975	0	NR
460	330	NR	590	974	NR	720	70	NR	850	1	NR	980	0	NR
465	274	NR	595	992	NR	725	60	NR	855	1	NR	985	0	NR
470	211	NR	600	999	NR	730	51	NR	860	1	NR	990	0	NR
475	200	NR	605	992	NR	735	43	NR	865	1	NR	995	0	NR
480	220	NR	610	975	NR	740	36	NR	870	1	NR	1000	0	NR
485	255	NR	615	944	NR	745	31	NR	875	1	NR			

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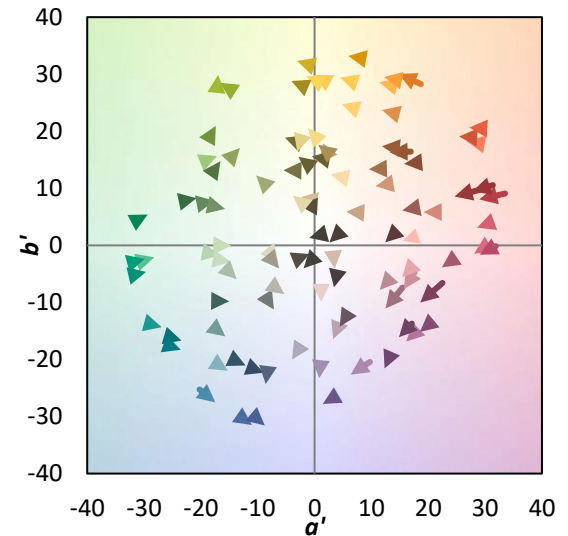
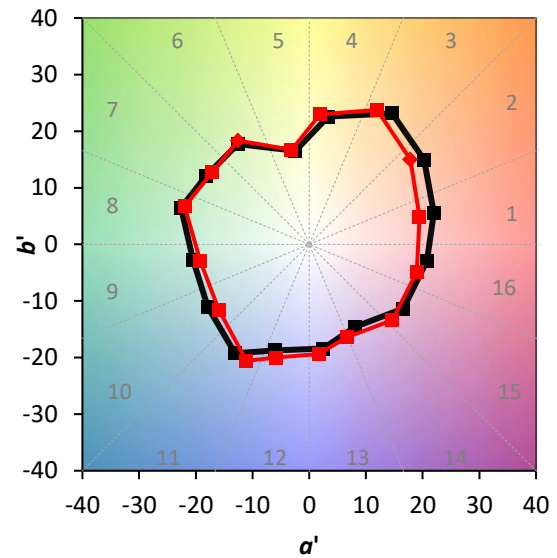
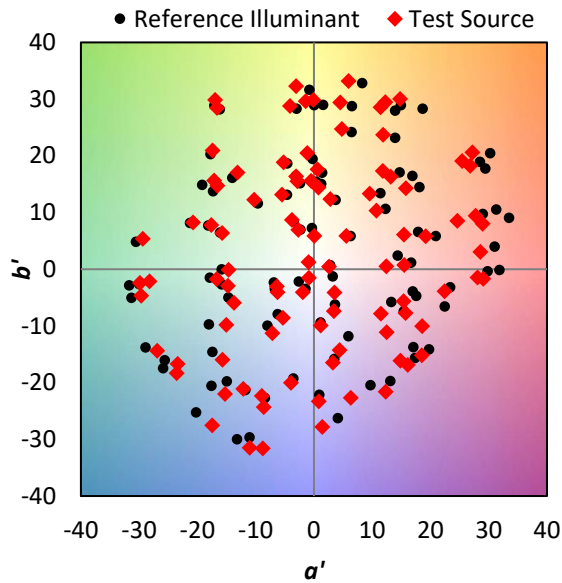
TM-30-18

Summary

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

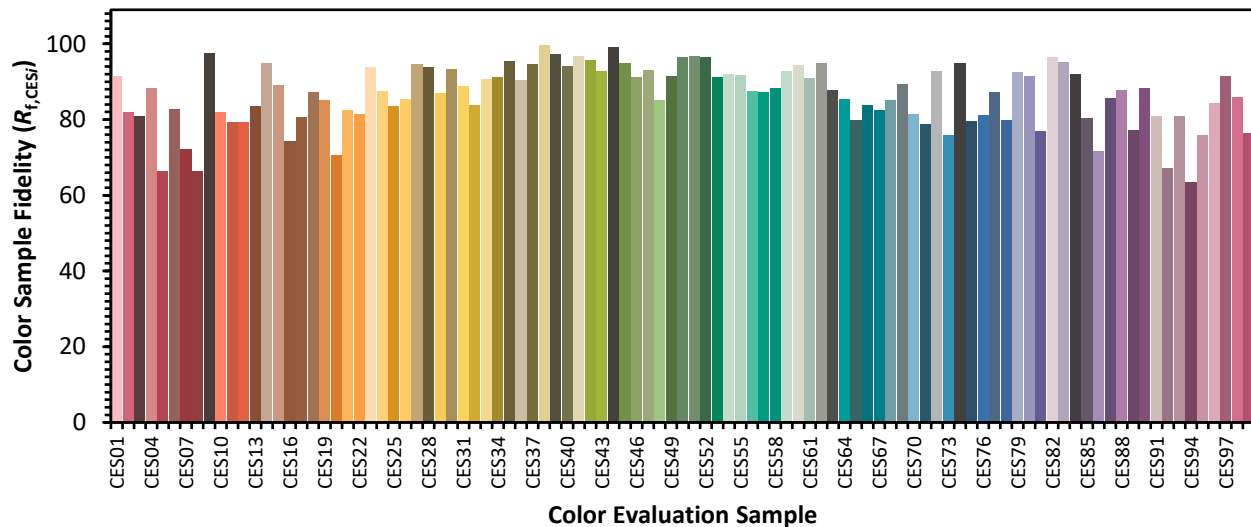


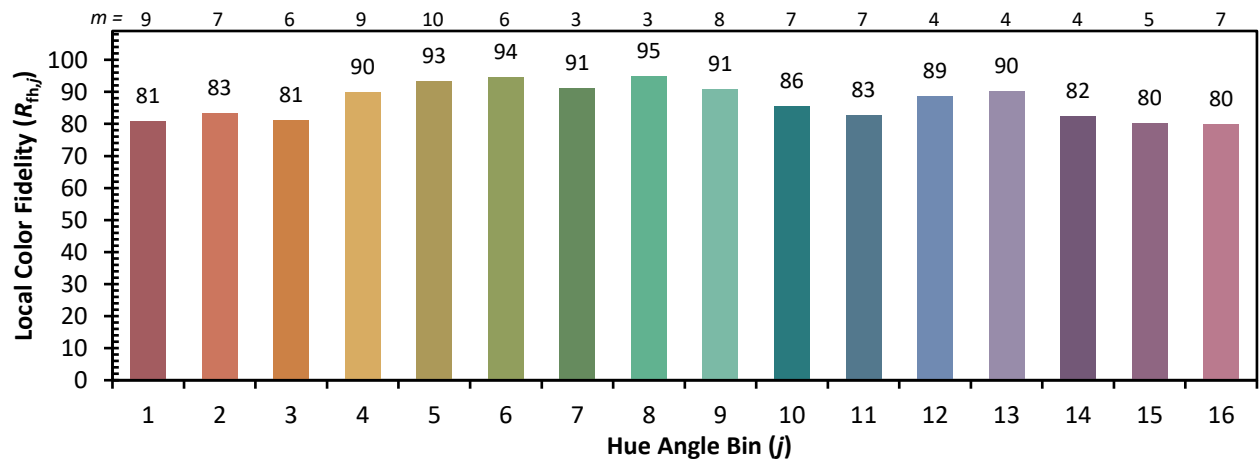
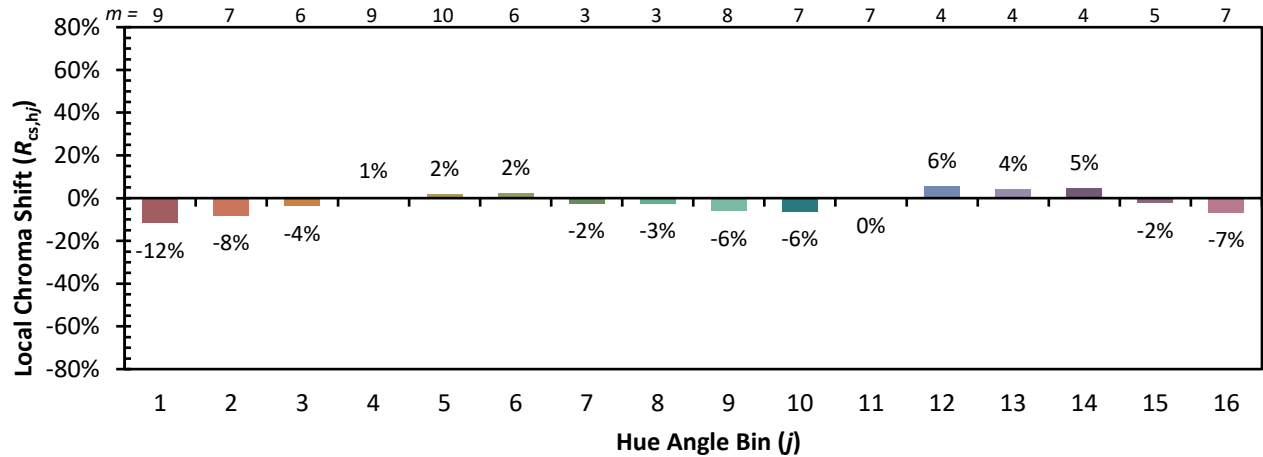
Color Vector Graphics



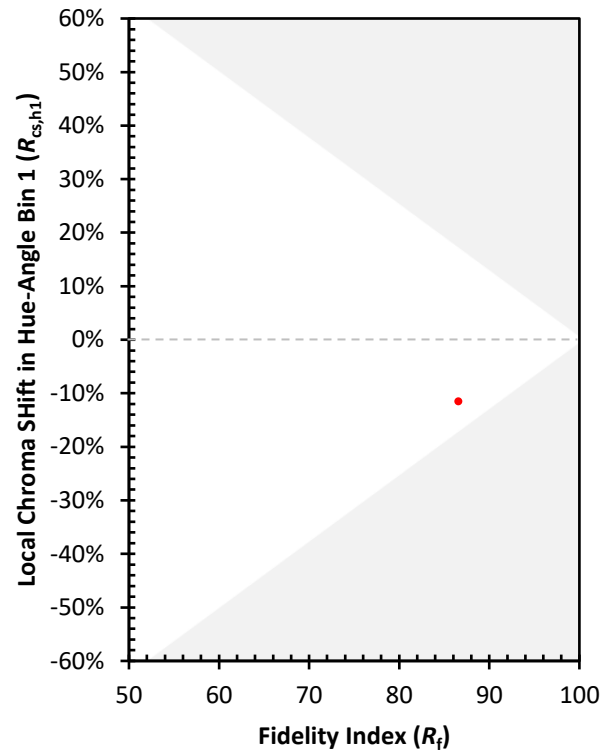
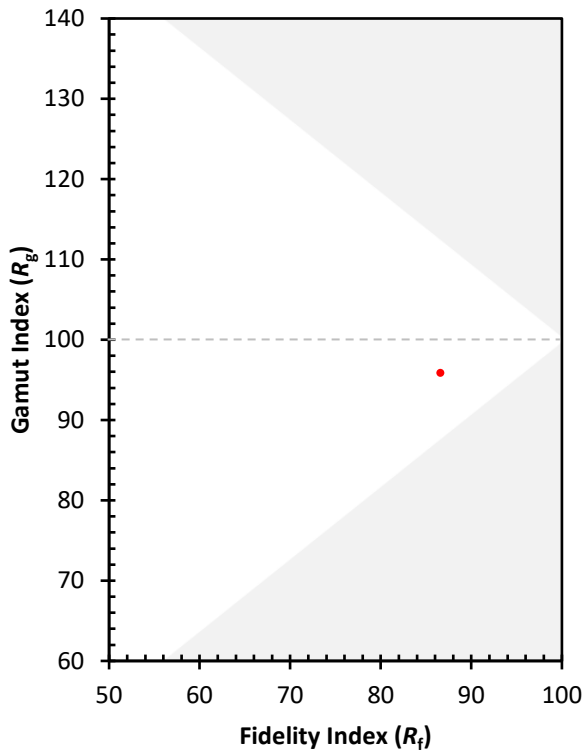
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82 = 96
CES08 = 40	CES33 = 91	CES58 = 88	CES83 = 95
CES09 = 29	CES34 = 91	CES59 = 93	CES84 = 92
CES10 = 75	CES35 = 95	CES60 = 94	CES85 = 80
CES11 = 58	CES36 = 90	CES61 = 91	CES86 = 72
CES12 = 64	CES37 = 95	CES62 = 95	CES87 = 86
CES13 = 43	CES38 = 100	CES63 = 88	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 85	CES89 = 77
CES15 = 71	CES40 = 94	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 84	CES91 = 81
CES17 = 49	CES42 = 96	CES67 = 82	CES92 = 67
CES18 = 56	CES43 = 93	CES68 = 85	CES93 = 81
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 63
CES20 = 66	CES45 = 95	CES70 = 81	CES95 = 76
CES21 = 86	CES46 = 91	CES71 = 79	CES96 = 84
CES22 = 78	CES47 = 93	CES72 = 93	CES97 = 92
CES23 = 91	CES48 = 85	CES73 = 76	CES98 = 86
CES24 = 90	CES49 = 92	CES74 = 95	CES99 = 77
CES25 = 72	CES50 = 96	CES75 = 80	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)