

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: P1068096

Luminaire Tested: **NAV-SA3D-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068096
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3D-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1200mA 3xLight Square PACKAGE
80CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (42) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13836.7 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G3

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

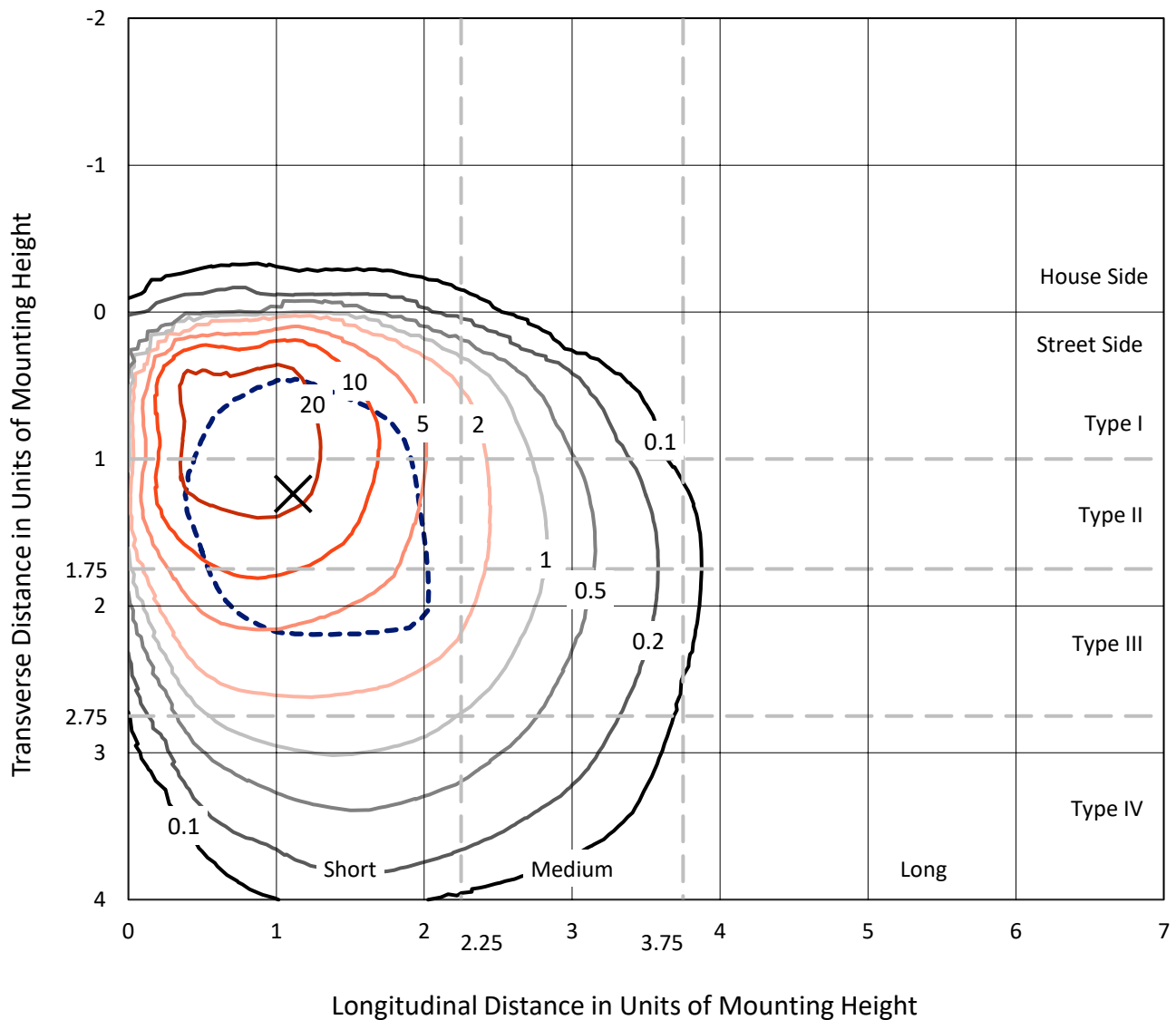


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

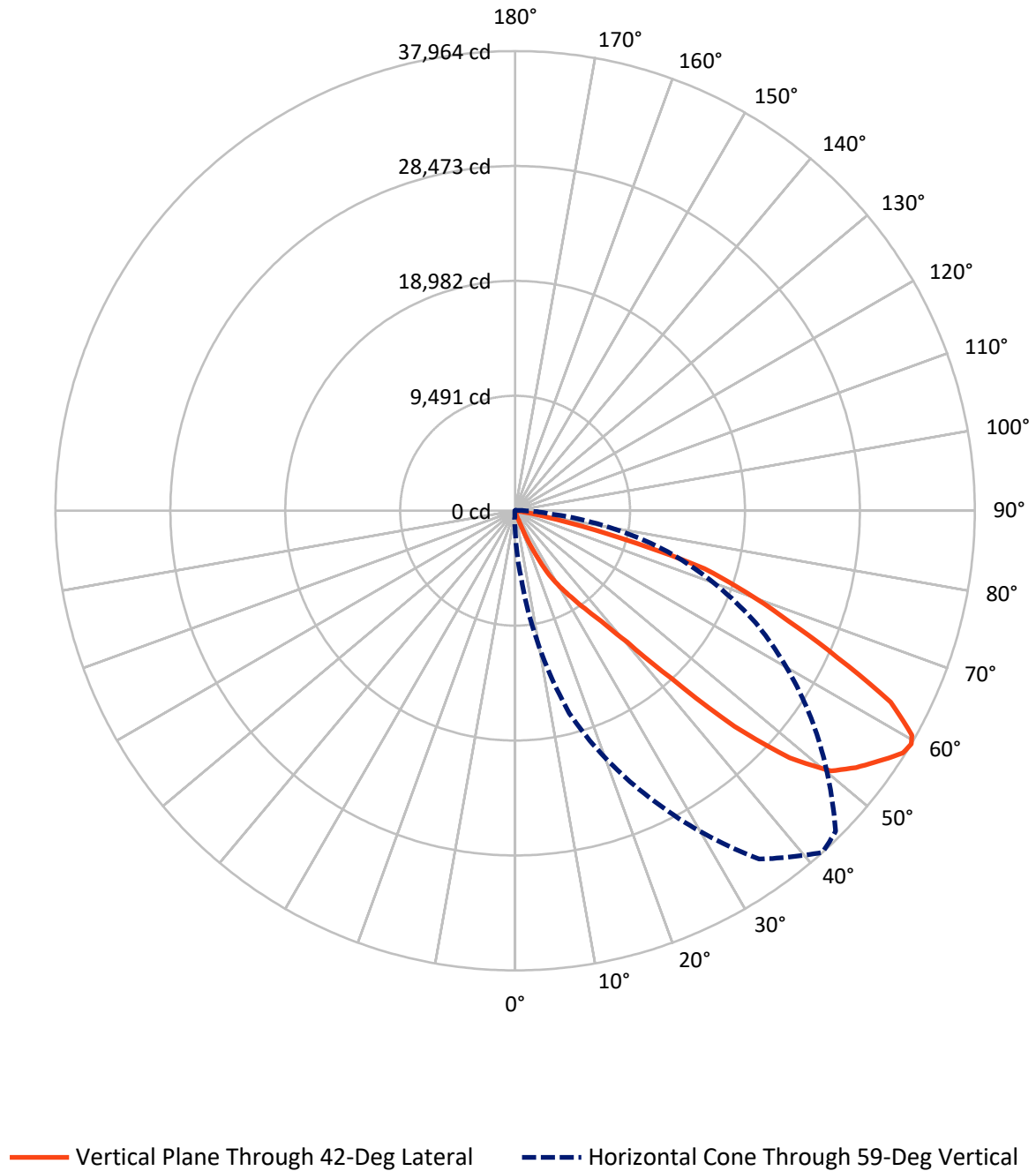


Based on 15 foot mounting height. Maximum calculated value = 41.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	66.7	0.0	66.7
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	13770.0	0.0	13770.0
	% Fixture	99.5	0.0	99.5
Total	Lumens	13836.7	0.0	13836.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.1	0.0
10°-20°	20.2	0.1
20°-30°	258.1	1.9
30°-40°	870.1	6.3
40°-50°	2628.2	19.0
50°-60°	4639.5	33.5
60°-70°	4085.1	29.5
70°-80°	1300.3	9.4
80°-90°	31.1	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	13836.7	100.0
0°-180°	13836.7	100.0



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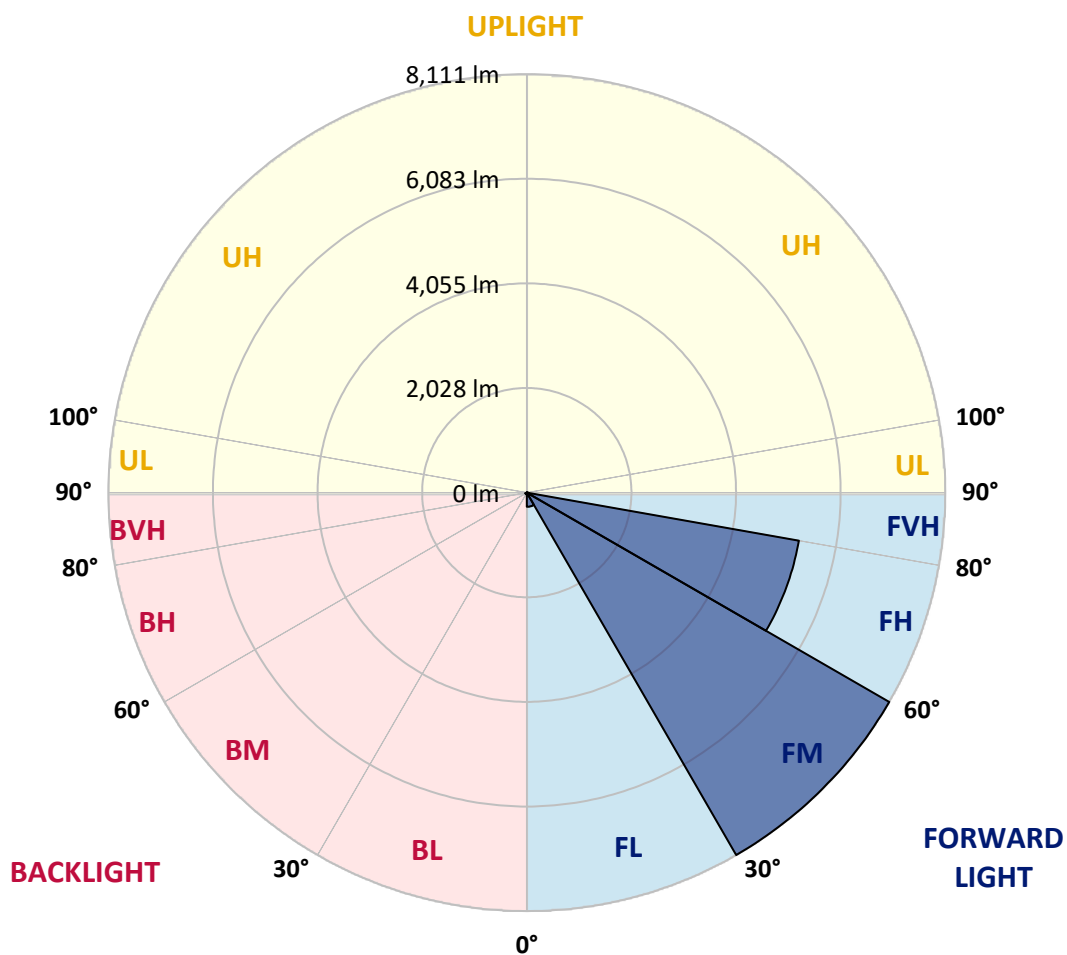
CATALOG NUMBER: NAV-SA3D-835-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	274.9	2.0			
FM	(30°-60°)	8110.6	58.6			
FH	(60°-80°)	5354.9	38.7			G3/7500
FVH	(80°-90°)	29.6	0.2			G1/100
BL	(0°-30°)	7.4	0.1	B0/110		
BM	(30°-60°)	27.2	0.2	B0/220		
BH	(60°-80°)	30.5	0.2	B0/110		G0/110
BVH	(80°-90°)	1.5	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
2.5°	60.7	60.7	56.4	52.1	47.7	43.4	43.4	43.4	39.0	39.0	34.7
5°	69.4	69.4	65.1	60.7	60.7	56.4	56.4	52.1	47.7	47.7	43.4
7.5°	73.8	73.8	73.8	73.8	69.4	69.4	69.4	65.1	60.7	56.4	52.1
10°	78.1	82.4	86.8	86.8	86.8	86.8	86.8	82.4	73.8	69.4	60.7
12.5°	86.8	91.1	99.8	108.5	108.5	112.8	108.5	104.1	95.4	82.4	69.4
15°	95.4	104.1	117.1	134.5	151.8	156.2	156.2	143.2	125.8	99.8	82.4
17.5°	108.5	121.5	156.2	212.6	273.3	321.0	321.0	286.3	199.6	130.1	95.4
20°	117.1	143.2	251.6	511.9	780.9	980.4	941.4	832.9	446.8	203.9	104.1
22.5°	130.1	182.2	533.6	1344.9	2082.4	2446.8	2360.0	1791.7	1002.1	364.4	125.8
25°	147.5	264.6	1058.5	2520.5	3869.7	4264.5	4208.1	3344.8	1826.4	611.7	160.5
27.5°	182.2	390.4	1696.3	3822.0	5709.1	6047.5	6025.8	4897.9	2919.6	984.8	208.2
30°	229.9	568.3	2516.2	5192.9	6928.2	7270.9	7162.5	6034.5	3939.1	1505.4	269.0
32.5°	286.3	793.9	3258.0	6203.7	8051.8	8503.0	8372.8	7023.6	4759.1	1947.9	399.1
35°	373.1	1015.2	3991.2	7097.4	9348.9	9921.6	9704.7	8043.1	5466.2	2446.8	481.5
37.5°	416.5	1145.3	4663.6	8069.2	10806.6	11587.5	11422.6	9331.6	6186.4	3084.5	590.0
40°	420.8	1301.5	5362.1	9335.9	12867.3	14259.8	13964.8	11544.1	7526.9	3904.4	759.2
42.5°	433.8	1535.7	6268.8	11496.4	16914.9	18914.8	18580.7	15613.4	10568.0	5548.6	1075.9
45°	494.6	1978.2	8116.9	15535.3	22472.2	25404.8	25018.7	21283.5	14815.1	8641.8	1835.1
47.5°	707.1	2976.0	11357.6	19895.2	28155.3	30493.6	30398.2	25751.9	18663.2	11813.1	3110.5
50°	1136.6	4568.2	15045.1	23561.1	31773.4	33782.0	33543.4	27617.3	20858.3	13977.9	3986.9
52.5°	1518.4	6090.9	17361.7	24910.3	32853.6	35248.3	34957.7	28298.4	21435.3	14615.6	4229.8
55°	1613.8	6641.9	18051.5	25326.7	33569.4	36489.1	36068.3	28754.0	21509.1	14160.1	3826.3
57.5°	1566.1	6121.3	17604.6	25734.5	34567.2	37764.5	37204.9	29643.3	21756.4	13387.9	3184.3
59°	1483.7	5479.2	17327.0	26059.9	35118.2	37964.1	37439.1	29838.5	21921.2	13036.5	2793.8
60°	1388.2	5045.4	17110.1	26272.5	35083.5	37651.7	37109.4	29747.4	21986.3	12732.8	2607.3
62.5°	1071.5	4025.9	16797.7	26120.6	32892.7	34801.5	34493.5	27517.6	21031.9	11761.0	2056.3
65°	832.9	3080.2	15652.4	23296.4	27990.4	29274.5	29179.1	23300.8	17700.1	10138.5	1483.7
67.5°	659.4	2247.2	13236.0	18867.1	22519.9	24346.3	24276.9	18914.8	13435.6	7748.1	1067.2
70°	537.9	1600.8	9075.6	14225.1	18012.4	20311.7	20211.9	15222.9	9956.3	4915.2	776.5
72.5°	455.5	1023.8	5505.2	10724.2	15032.1	16346.5	16055.9	12281.6	7240.5	2676.7	616.0
75°	386.1	629.0	2728.8	6685.3	8954.2	8945.5	8654.8	6503.0	3887.1	1310.2	490.2
77.5°	312.4	442.5	1071.5	1835.1	2824.2	3496.6	3440.2	2303.6	1162.7	381.8	303.7
80°	203.9	208.2	286.3	503.2	776.5	859.0	976.1	702.8	338.4	182.2	125.8
82.5°	91.1	99.8	130.1	164.9	164.9	151.8	134.5	99.8	73.8	60.7	30.4
85°	21.7	30.4	21.7	26.0	21.7	17.4	17.4	8.7	0.0	0.0	0.0
87.5°	4.3	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°	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
2.5°	34.7	34.7	34.7	30.4	30.4	30.4	26.0	26.0	26.0	21.7	21.7
5°	43.4	39.0	34.7	34.7	30.4	30.4	26.0	21.7	21.7	21.7	17.4
7.5°	47.7	43.4	39.0	34.7	30.4	26.0	26.0	21.7	17.4	17.4	17.4
10°	56.4	52.1	43.4	34.7	30.4	26.0	21.7	21.7	17.4	13.0	13.0
12.5°	65.1	56.4	47.7	39.0	30.4	26.0	21.7	21.7	17.4	13.0	8.7
15°	73.8	65.1	52.1	39.0	30.4	26.0	21.7	21.7	13.0	8.7	4.3
17.5°	82.4	69.4	52.1	43.4	30.4	26.0	21.7	17.4	8.7	4.3	0.0
20°	86.8	73.8	56.4	43.4	30.4	26.0	21.7	13.0	4.3	0.0	0.0
22.5°	95.4	82.4	60.7	43.4	30.4	21.7	13.0	4.3	0.0	0.0	0.0
25°	112.8	86.8	60.7	43.4	30.4	21.7	8.7	0.0	0.0	0.0	0.0
27.5°	125.8	95.4	60.7	43.4	30.4	17.4	4.3	0.0	0.0	0.0	0.0
30°	147.5	104.1	65.1	43.4	30.4	13.0	4.3	0.0	0.0	0.0	0.0
32.5°	182.2	112.8	65.1	43.4	26.0	13.0	0.0	0.0	0.0	0.0	0.0
35°	221.3	130.1	65.1	43.4	26.0	13.0	0.0	0.0	0.0	0.0	0.0
37.5°	225.6	138.8	65.1	43.4	26.0	8.7	0.0	0.0	0.0	0.0	0.0
40°	234.3	130.1	69.4	43.4	26.0	8.7	0.0	0.0	0.0	0.0	0.0
42.5°	269.0	121.5	73.8	43.4	26.0	8.7	0.0	0.0	0.0	0.0	0.0
45°	399.1	125.8	73.8	47.7	26.0	13.0	0.0	0.0	0.0	0.0	0.0
47.5°	694.1	130.1	69.4	47.7	26.0	13.0	0.0	0.0	0.0	0.0	0.0
50°	889.3	151.8	69.4	52.1	30.4	8.7	0.0	0.0	0.0	0.0	0.0
52.5°	945.7	177.9	69.4	56.4	39.0	4.3	0.0	0.0	0.0	0.0	0.0
55°	919.7	208.2	73.8	60.7	47.7	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	850.3	225.6	78.1	65.1	52.1	0.0	0.0	0.0	0.0	0.0	0.0
59°	776.5	238.6	91.1	69.4	52.1	0.0	0.0	0.0	0.0	0.0	0.0
60°	715.8	251.6	95.4	73.8	52.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	577.0	269.0	104.1	86.8	43.4	0.0	0.0	0.0	0.0	0.0	0.0
65°	503.2	282.0	108.5	95.4	39.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	459.9	290.7	117.1	99.8	34.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	425.1	286.3	125.8	95.4	30.4	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	386.1	273.3	151.8	86.8	26.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	347.1	247.3	164.9	78.1	17.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	251.6	208.2	151.8	69.4	8.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	108.5	112.8	108.5	52.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.7	26.0	21.7	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
2.5°	21.7	21.7	21.7	21.7	26.0	26.0	34.7	43.4	52.1	56.4	56.4
5°	17.4	17.4	17.4	17.4	17.4	21.7	26.0	34.7	47.7	52.1	52.1
7.5°	13.0	13.0	13.0	13.0	13.0	13.0	21.7	30.4	43.4	47.7	52.1
10°	13.0	8.7	8.7	4.3	4.3	8.7	13.0	26.0	39.0	43.4	47.7
12.5°	8.7	4.3	4.3	0.0	0.0	4.3	8.7	21.7	34.7	39.0	43.4
15°	4.3	0.0	0.0	0.0	0.0	0.0	4.3	17.4	30.4	34.7	43.4
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	26.0	34.7	39.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	21.7	30.4	34.7
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	17.4	26.0	30.4
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	17.4	21.7
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	13.0	17.4
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	13.0	17.4
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7	13.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7	13.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7	8.7
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.7
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3
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°	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
2.5°	60.7	60.7	56.4	52.1	52.1	52.1	56.4	60.7	60.7	60.7
5°	56.4	56.4	52.1	52.1	52.1	52.1	56.4	65.1	69.4	69.4
7.5°	56.4	56.4	52.1	52.1	52.1	52.1	56.4	65.1	69.4	73.8
10°	52.1	52.1	52.1	52.1	47.7	52.1	56.4	65.1	78.1	78.1
12.5°	52.1	52.1	52.1	52.1	47.7	52.1	60.7	69.4	82.4	86.8
15°	52.1	52.1	52.1	47.7	47.7	52.1	60.7	73.8	86.8	95.4
17.5°	47.7	52.1	52.1	47.7	47.7	52.1	60.7	73.8	95.4	108.5
20°	43.4	47.7	52.1	47.7	47.7	47.7	60.7	73.8	99.8	117.1
22.5°	39.0	43.4	47.7	47.7	43.4	47.7	60.7	78.1	108.5	130.1
25°	34.7	39.0	39.0	43.4	43.4	47.7	60.7	78.1	112.8	147.5
27.5°	26.0	30.4	34.7	39.0	39.0	47.7	60.7	82.4	121.5	182.2
30°	21.7	26.0	30.4	34.7	39.0	47.7	60.7	82.4	130.1	229.9
32.5°	21.7	26.0	30.4	34.7	39.0	43.4	60.7	86.8	143.2	286.3
35°	17.4	21.7	26.0	34.7	34.7	43.4	60.7	86.8	156.2	373.1
37.5°	17.4	21.7	26.0	34.7	34.7	43.4	60.7	86.8	190.9	416.5
40°	13.0	17.4	21.7	34.7	34.7	43.4	65.1	91.1	195.2	420.8
42.5°	13.0	17.4	21.7	30.4	34.7	43.4	65.1	91.1	182.2	433.8
45°	13.0	17.4	21.7	34.7	39.0	47.7	65.1	95.4	177.9	494.6
47.5°	13.0	17.4	21.7	34.7	43.4	47.7	65.1	95.4	182.2	707.1
50°	13.0	17.4	21.7	34.7	47.7	47.7	65.1	95.4	199.6	1136.6
52.5°	8.7	13.0	17.4	30.4	39.0	52.1	69.4	91.1	212.6	1518.4
55°	8.7	8.7	13.0	26.0	34.7	56.4	73.8	91.1	247.3	1613.8
57.5°	8.7	8.7	13.0	21.7	30.4	60.7	78.1	91.1	286.3	1566.1
59°	8.7	8.7	8.7	21.7	26.0	60.7	78.1	95.4	290.7	1483.7
60°	8.7	8.7	8.7	17.4	26.0	60.7	82.4	99.8	295.0	1388.2
62.5°	4.3	4.3	4.3	17.4	21.7	60.7	91.1	121.5	303.7	1071.5
65°	8.7	8.7	4.3	13.0	21.7	52.1	104.1	130.1	308.0	832.9
67.5°	8.7	8.7	8.7	17.4	21.7	52.1	108.5	134.5	308.0	659.4
70°	8.7	8.7	8.7	17.4	26.0	52.1	108.5	138.8	303.7	537.9
72.5°	8.7	8.7	8.7	17.4	26.0	47.7	99.8	143.2	290.7	455.5
75°	8.7	8.7	8.7	13.0	21.7	43.4	95.4	156.2	264.6	386.1
77.5°	8.7	8.7	8.7	8.7	17.4	34.7	86.8	173.5	234.3	312.4
80°	13.0	8.7	8.7	8.7	13.0	30.4	82.4	169.2	195.2	203.9
82.5°	13.0	8.7	8.7	4.3	8.7	21.7	65.1	130.1	99.8	91.1
85°	8.7	8.7	8.7	4.3	4.3	13.0	30.4	39.0	30.4	21.7
87.5°	8.7	8.7	8.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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

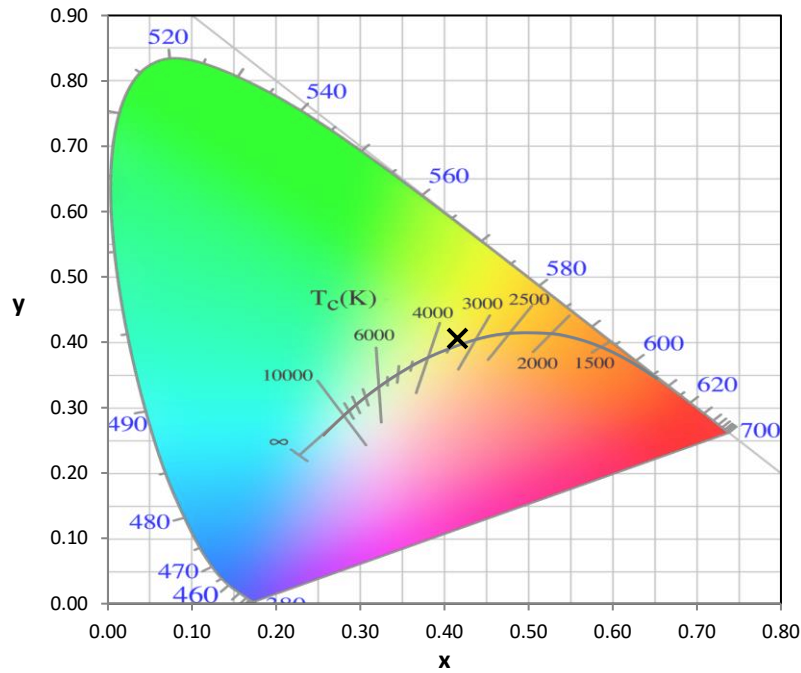
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

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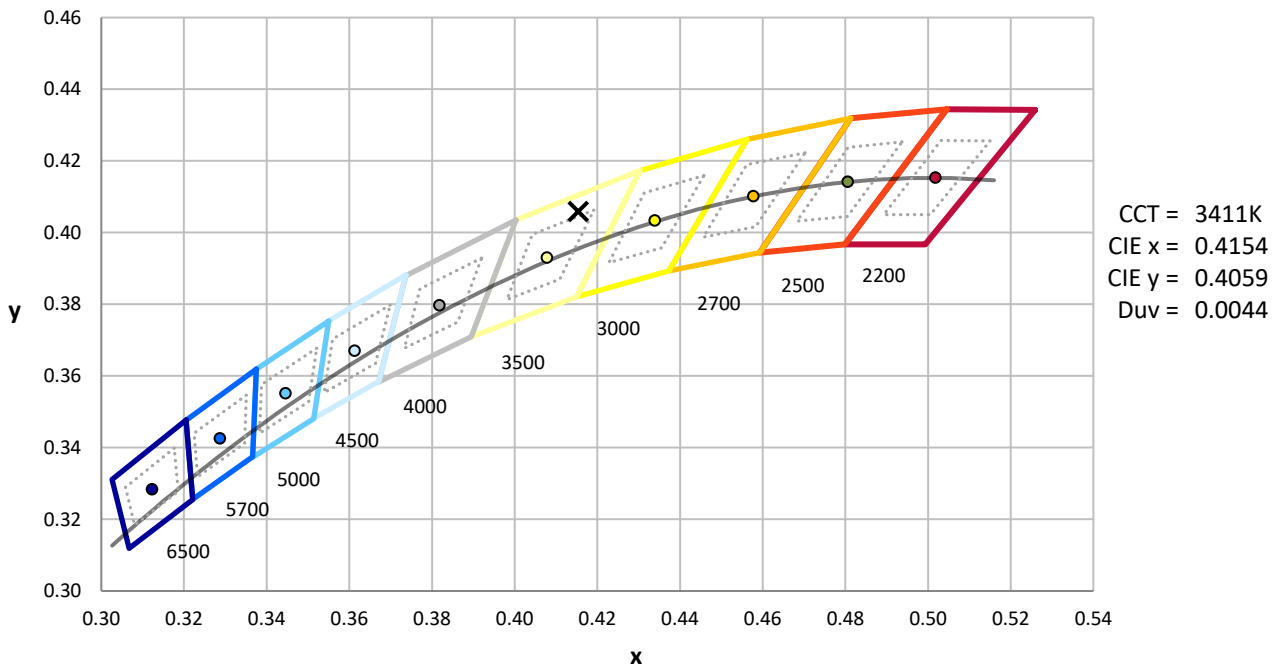
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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 $\text{W}^\wedge/\text{nm}$	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			

REPORT NUMBER: SP1-2407-184-10

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.48

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			

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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			

REPORT NUMBER: SP1-2407-184-10

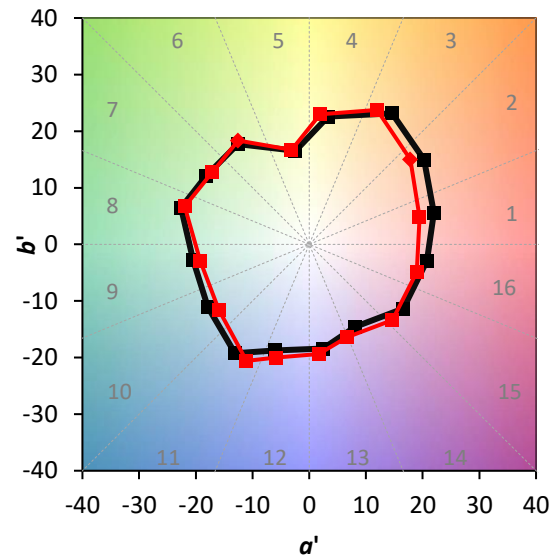
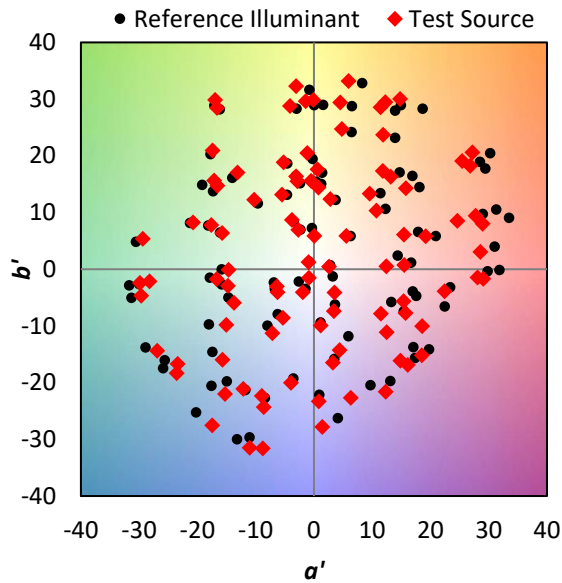
TM-30-18

Summary

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

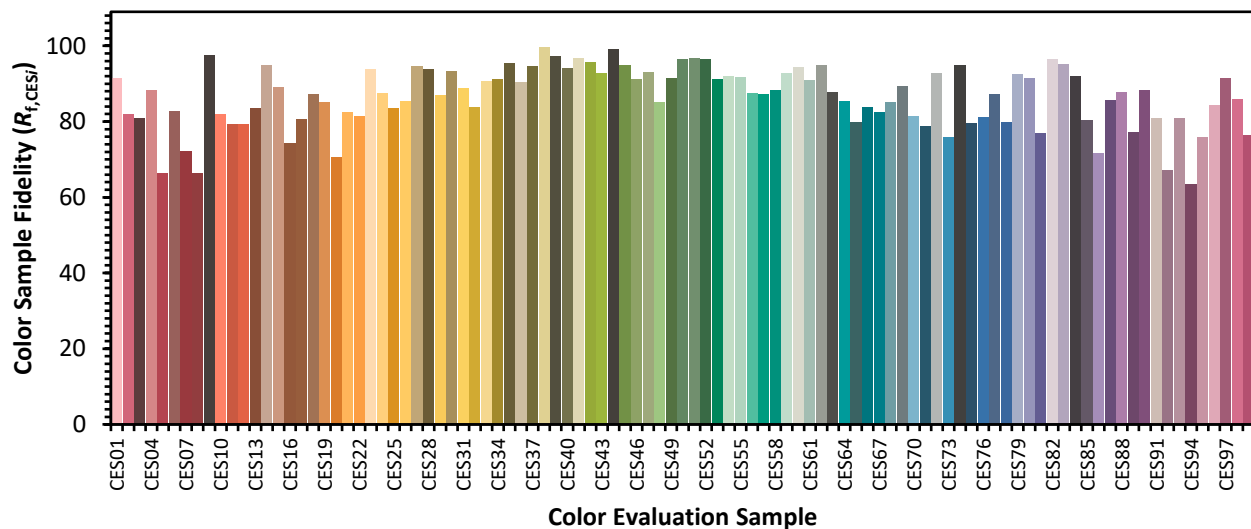


Color Vector Graphics

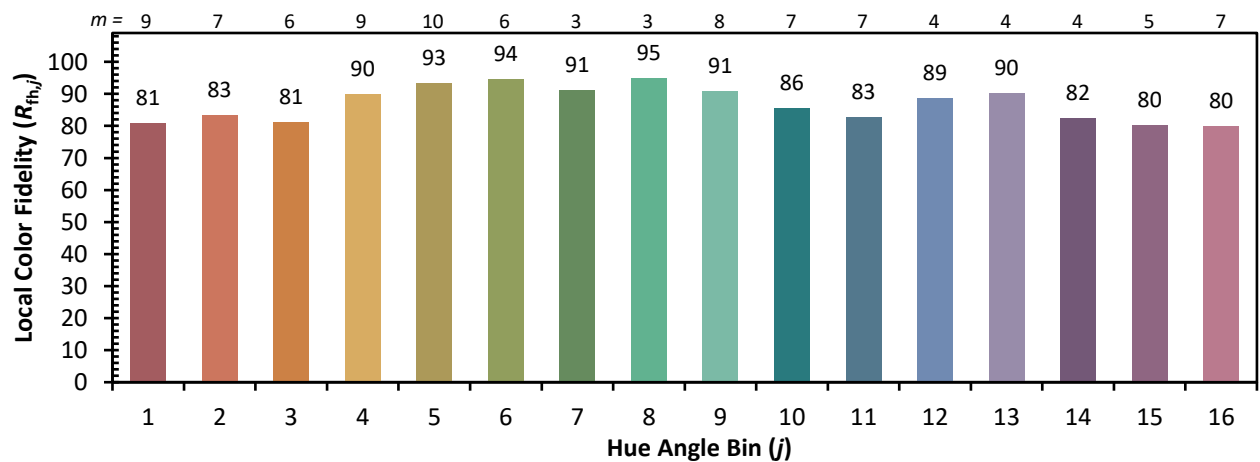
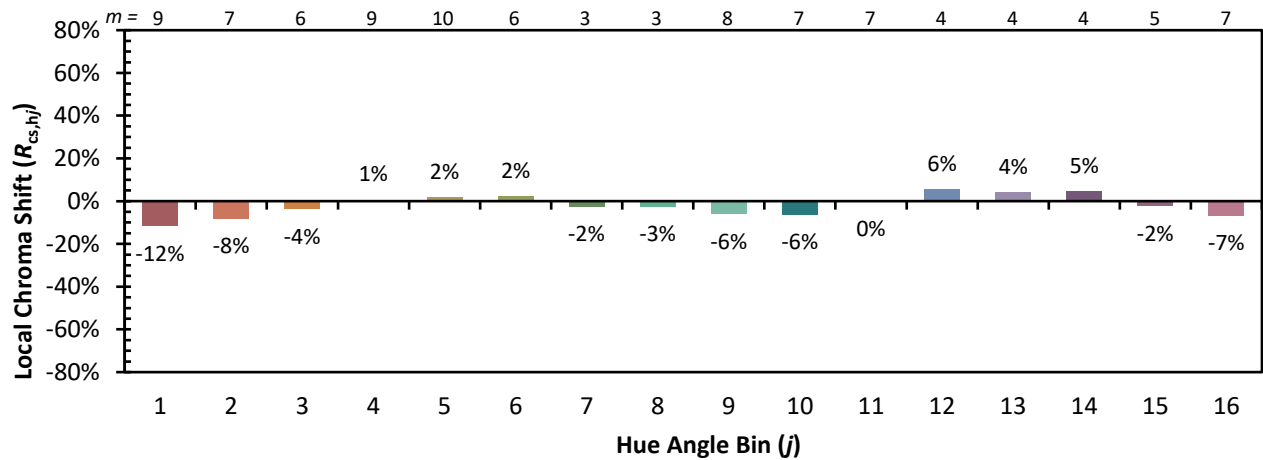


Individual Sample Fidelity Index ($R_{f,i}$)

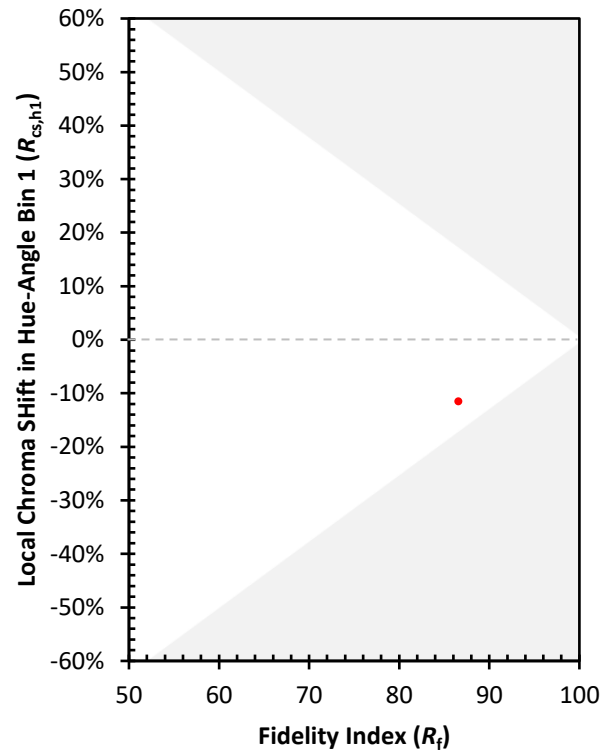
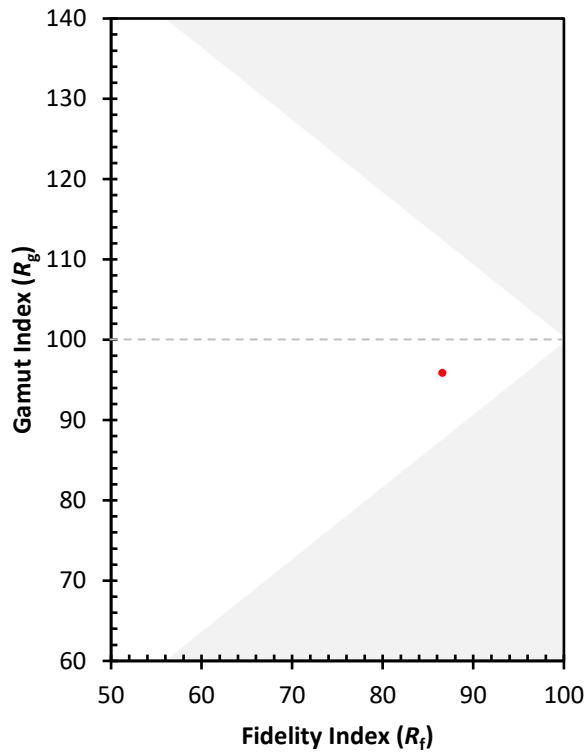
CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82 = 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)