

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: P1068085

Luminaire Tested: **NAV-SA1A-835-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068085
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1A-835-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 615mA 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: 2795.6 lumens
Efficiency: N/A
Efficacy: 95.7 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): 29.2
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



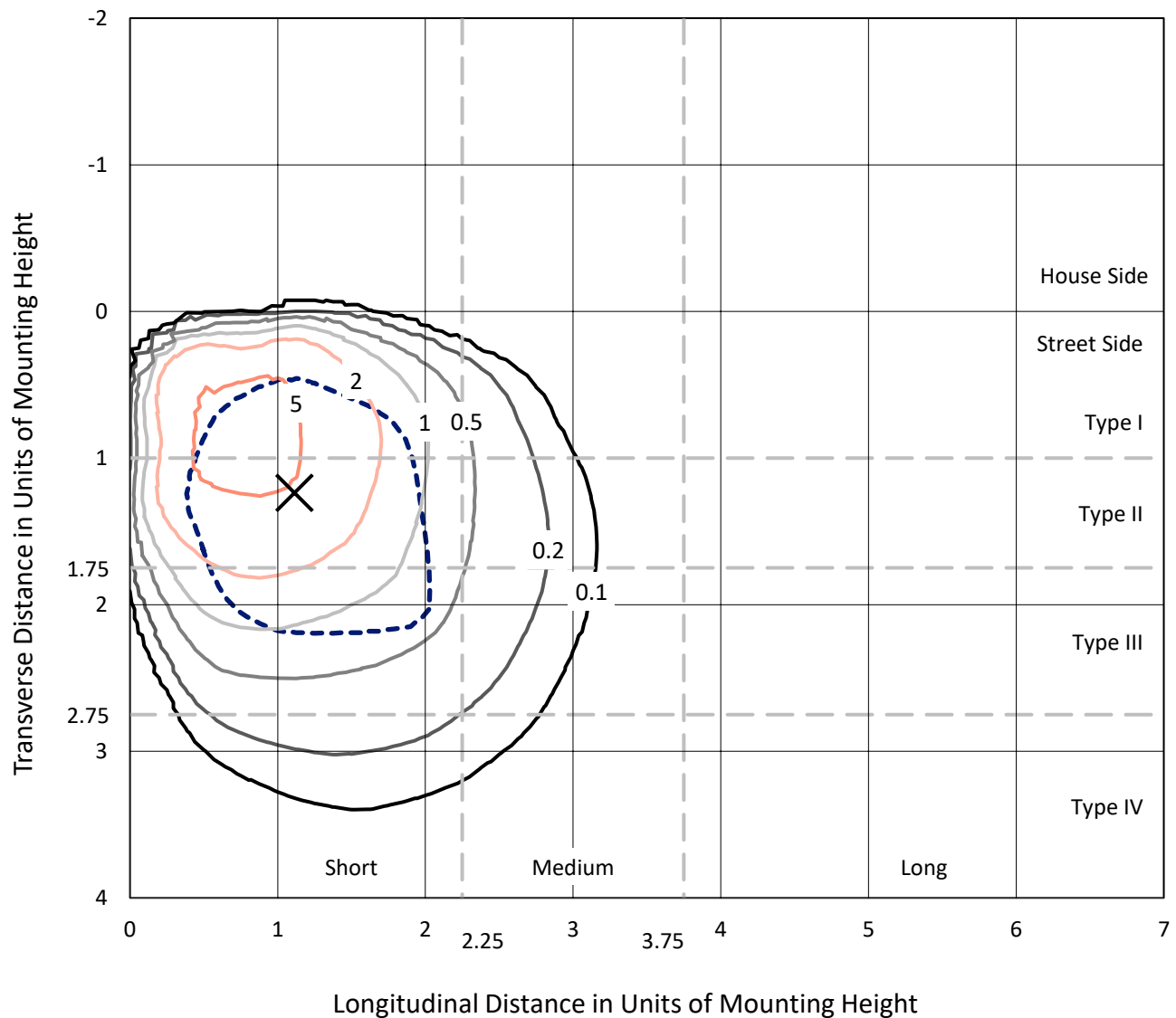
REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

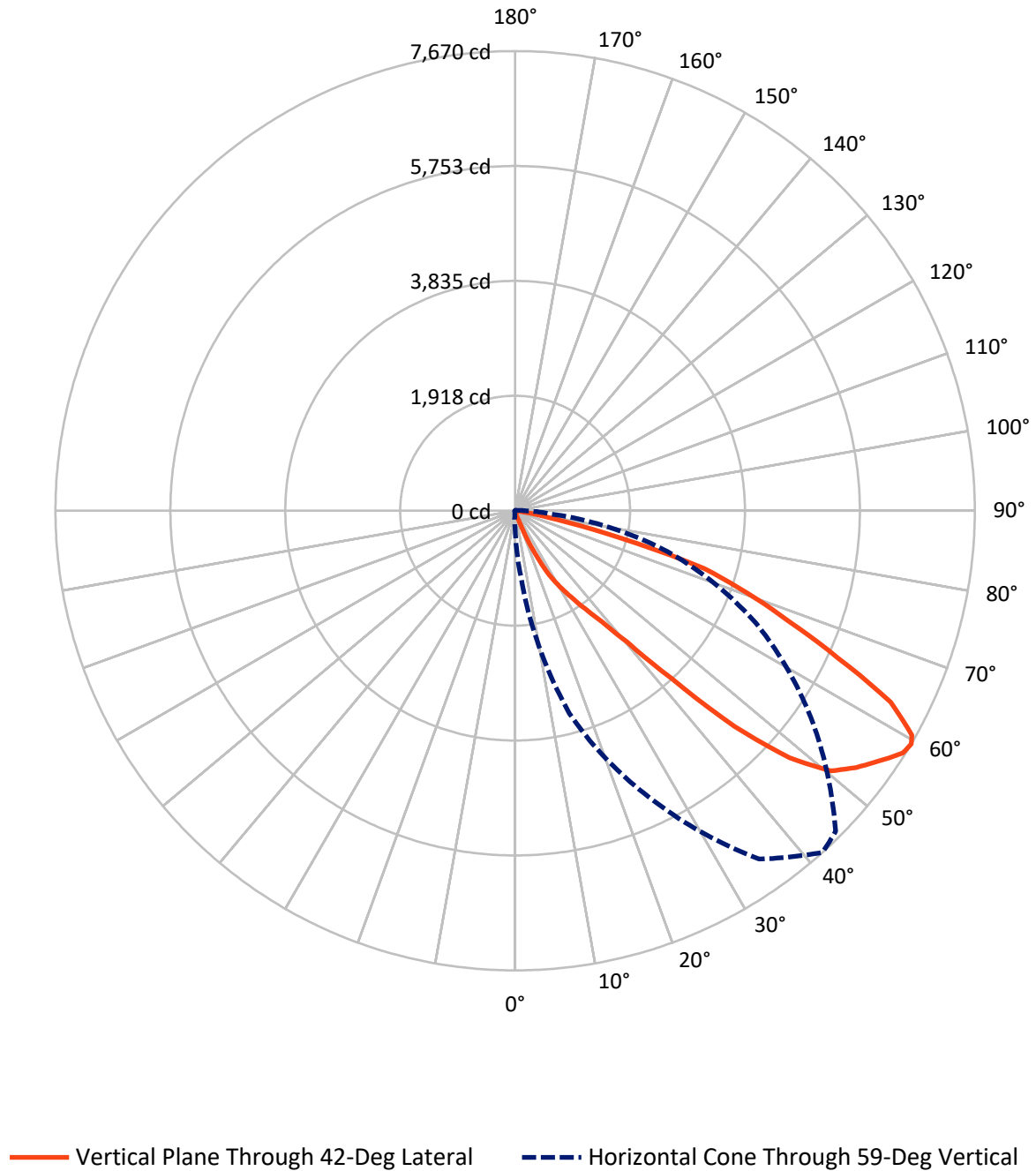


Based on 15 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Short - N/A

REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

Luminous Intensity Polar Plot



REPORT NUMBER: P1068085

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13.5	0.0	13.5
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	2782.2	0.0	2782.2
	% Fixture	99.5	0.0	99.5
Total	Lumens	2795.6	0.0	2795.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.0
10°-20°	4.1	0.1
20°-30°	52.1	1.9
30°-40°	175.8	6.3
40°-50°	531.0	19.0
50°-60°	937.4	33.5
60°-70°	825.4	29.5
70°-80°	262.7	9.4
80°-90°	6.3	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°	2795.6	100.0
0°-180°	2795.6	100.0



REPORT NUMBER: P1068085

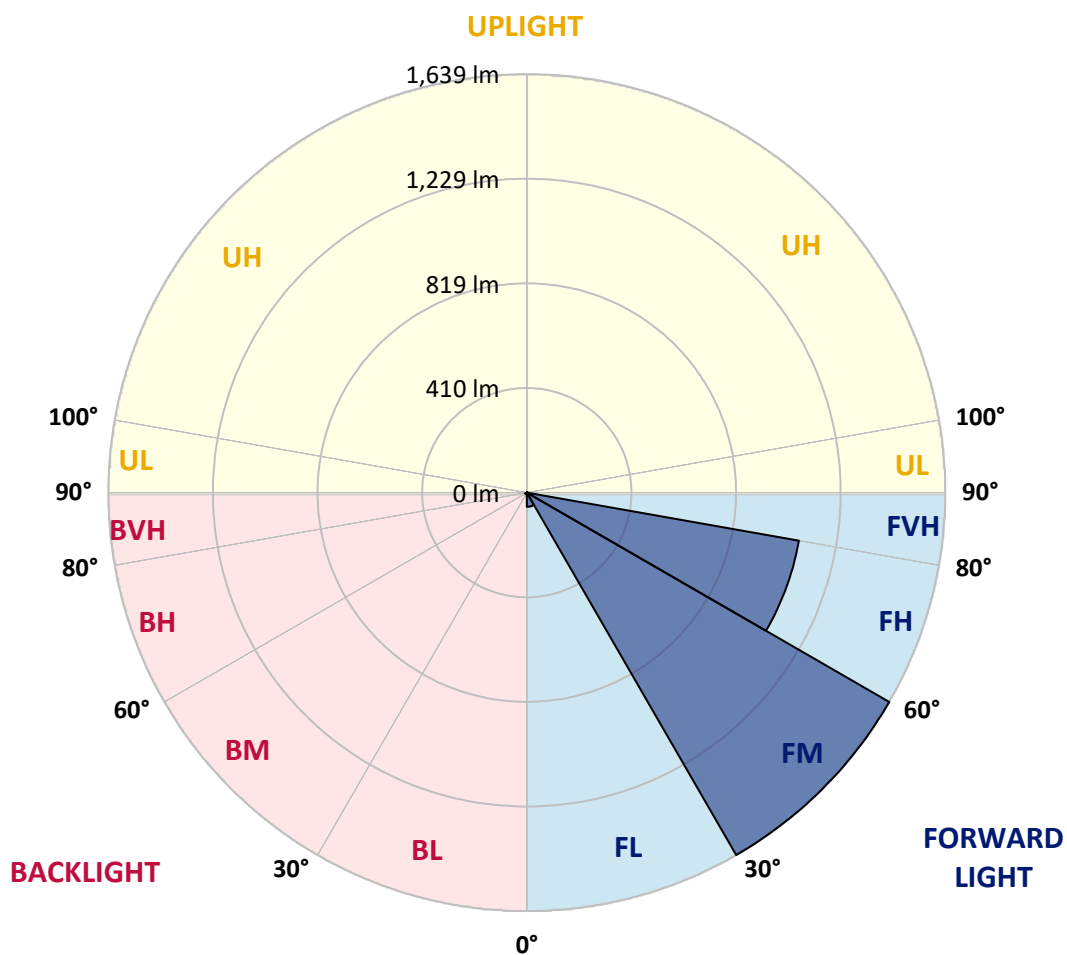
CATALOG NUMBER: NAV-SA1A-835-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	55.5	2.0			
FM	(30°-60°)	1638.7	58.6			
FH	(60°-80°)	1081.9	38.7			G1/1800
FVH	(80°-90°)	6.0	0.2			G0/10
BL	(0°-30°)	1.5	0.1	B0/110		
BM	(30°-60°)	5.5	0.2	B0/220		
BH	(60°-80°)	6.2	0.2	B0/110		G0/110
BVH	(80°-90°)	0.3	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



REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	12.3	12.3	11.4	10.5	9.6	8.8	8.8	8.8	7.9	7.9	7.0
5°	14.0	14.0	13.1	12.3	12.3	11.4	11.4	10.5	9.6	9.6	8.8
7.5°	14.9	14.9	14.9	14.9	14.0	14.0	14.0	13.1	12.3	11.4	10.5
10°	15.8	16.7	17.5	17.5	17.5	17.5	17.5	16.7	14.9	14.0	12.3
12.5°	17.5	18.4	20.2	21.9	21.9	22.8	21.9	21.0	19.3	16.7	14.0
15°	19.3	21.0	23.7	27.2	30.7	31.6	31.6	28.9	25.4	20.2	16.7
17.5°	21.9	24.5	31.6	42.9	55.2	64.9	64.9	57.9	40.3	26.3	19.3
20°	23.7	28.9	50.8	103.4	157.8	198.1	190.2	168.3	90.3	41.2	21.0
22.5°	26.3	36.8	107.8	271.7	420.7	494.4	476.8	362.0	202.5	73.6	25.4
25°	29.8	53.5	213.9	509.3	781.9	861.6	850.2	675.8	369.0	123.6	32.4
27.5°	36.8	78.9	342.7	772.2	1153.5	1221.9	1217.5	989.6	589.9	199.0	42.1
30°	46.5	114.8	508.4	1049.2	1399.8	1469.0	1447.1	1219.2	795.9	304.2	54.3
32.5°	57.9	160.4	658.3	1253.4	1626.8	1718.0	1691.7	1419.1	961.5	393.6	80.6
35°	75.4	205.1	806.4	1434.0	1888.9	2004.6	1960.8	1625.1	1104.4	494.4	97.3
37.5°	84.1	231.4	942.3	1630.3	2183.4	2341.2	2307.9	1885.4	1249.9	623.2	119.2
40°	85.0	263.0	1083.4	1886.3	2599.8	2881.1	2821.5	2332.4	1520.8	788.9	153.4
42.5°	87.7	310.3	1266.6	2322.8	3417.6	3821.6	3754.1	3154.6	2135.2	1121.1	217.4
45°	99.9	399.7	1640.0	3138.8	4540.4	5132.9	5054.9	4300.2	2993.3	1746.0	370.8
47.5°	142.9	601.3	2294.7	4019.7	5688.6	6161.1	6141.8	5203.0	3770.8	2386.8	628.5
50°	229.6	923.0	3039.8	4760.4	6419.6	6825.5	6777.3	5579.9	4214.3	2824.2	805.5
52.5°	306.8	1230.6	3507.8	5033.0	6637.9	7121.7	7063.0	5717.5	4330.9	2953.0	854.6
55°	326.1	1342.0	3647.2	5117.1	6782.5	7372.4	7287.4	5809.6	4345.8	2861.0	773.1
57.5°	316.4	1236.8	3556.9	5199.5	6984.1	7630.1	7517.0	5989.3	4395.8	2704.9	643.4
59°	299.8	1107.0	3500.8	5265.3	7095.4	7670.4	7564.4	6028.7	4429.1	2633.9	564.5
60°	280.5	1019.4	3457.0	5308.2	7088.4	7607.3	7497.8	6010.3	4442.2	2572.6	526.8
62.5°	216.5	813.4	3393.9	5277.5	6645.8	7031.5	6969.2	5559.8	4249.4	2376.2	415.5
65°	168.3	622.3	3162.5	4706.9	5655.3	5914.8	5895.5	4707.8	3576.2	2048.4	299.8
67.5°	133.2	454.0	2674.3	3812.0	4550.0	4919.0	4905.0	3821.6	2714.6	1565.5	215.6
70°	108.7	323.4	1833.7	2874.1	3639.3	4103.9	4083.7	3075.7	2011.6	993.1	156.9
72.5°	92.0	206.9	1112.3	2166.8	3037.1	3302.7	3244.0	2481.4	1462.9	540.8	124.5
75°	78.0	127.1	551.3	1350.7	1809.1	1807.4	1748.7	1313.9	785.4	264.7	99.0
77.5°	63.1	89.4	216.5	370.8	570.6	706.5	695.1	465.4	234.9	77.1	61.4
80°	41.2	42.1	57.9	101.7	156.9	173.6	197.2	142.0	68.4	36.8	25.4
82.5°	18.4	20.2	26.3	33.3	33.3	30.7	27.2	20.2	14.9	12.3	6.1
85°	4.4	6.1	4.4	5.3	4.4	3.5	3.5	1.8	0.0	0.0	0.0
87.5°	0.9	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



REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	7.0	7.0	7.0	6.1	6.1	6.1	5.3	5.3	5.3	4.4	4.4
5°	8.8	7.9	7.0	7.0	6.1	6.1	5.3	4.4	4.4	4.4	3.5
7.5°	9.6	8.8	7.9	7.0	6.1	5.3	5.3	4.4	3.5	3.5	3.5
10°	11.4	10.5	8.8	7.0	6.1	5.3	4.4	4.4	3.5	2.6	2.6
12.5°	13.1	11.4	9.6	7.9	6.1	5.3	4.4	4.4	3.5	2.6	1.8
15°	14.9	13.1	10.5	7.9	6.1	5.3	4.4	4.4	2.6	1.8	0.9
17.5°	16.7	14.0	10.5	8.8	6.1	5.3	4.4	3.5	1.8	0.9	0.0
20°	17.5	14.9	11.4	8.8	6.1	5.3	4.4	2.6	0.9	0.0	0.0
22.5°	19.3	16.7	12.3	8.8	6.1	4.4	2.6	0.9	0.0	0.0	0.0
25°	22.8	17.5	12.3	8.8	6.1	4.4	1.8	0.0	0.0	0.0	0.0
27.5°	25.4	19.3	12.3	8.8	6.1	3.5	0.9	0.0	0.0	0.0	0.0
30°	29.8	21.0	13.1	8.8	6.1	2.6	0.9	0.0	0.0	0.0	0.0
32.5°	36.8	22.8	13.1	8.8	5.3	2.6	0.0	0.0	0.0	0.0	0.0
35°	44.7	26.3	13.1	8.8	5.3	2.6	0.0	0.0	0.0	0.0	0.0
37.5°	45.6	28.0	13.1	8.8	5.3	1.8	0.0	0.0	0.0	0.0	0.0
40°	47.3	26.3	14.0	8.8	5.3	1.8	0.0	0.0	0.0	0.0	0.0
42.5°	54.3	24.5	14.9	8.8	5.3	1.8	0.0	0.0	0.0	0.0	0.0
45°	80.6	25.4	14.9	9.6	5.3	2.6	0.0	0.0	0.0	0.0	0.0
47.5°	140.2	26.3	14.0	9.6	5.3	2.6	0.0	0.0	0.0	0.0	0.0
50°	179.7	30.7	14.0	10.5	6.1	1.8	0.0	0.0	0.0	0.0	0.0
52.5°	191.1	35.9	14.0	11.4	7.9	0.9	0.0	0.0	0.0	0.0	0.0
55°	185.8	42.1	14.9	12.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	171.8	45.6	15.8	13.1	10.5	0.0	0.0	0.0	0.0	0.0	0.0
59°	156.9	48.2	18.4	14.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
60°	144.6	50.8	19.3	14.9	10.5	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	116.6	54.3	21.0	17.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0
65°	101.7	57.0	21.9	19.3	7.9	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	92.9	58.7	23.7	20.2	7.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	85.9	57.9	25.4	19.3	6.1	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	78.0	55.2	30.7	17.5	5.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	70.1	50.0	33.3	15.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	50.8	42.1	30.7	14.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	21.9	22.8	21.9	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.4	5.3	4.4	2.6	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



REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	4.4	4.4	4.4	4.4	5.3	5.3	7.0	8.8	10.5	11.4	11.4
5°	3.5	3.5	3.5	3.5	3.5	4.4	5.3	7.0	9.6	10.5	10.5
7.5°	2.6	2.6	2.6	2.6	2.6	2.6	4.4	6.1	8.8	9.6	10.5
10°	2.6	1.8	1.8	0.9	0.9	1.8	2.6	5.3	7.9	8.8	9.6
12.5°	1.8	0.9	0.9	0.0	0.0	0.9	1.8	4.4	7.0	7.9	8.8
15°	0.9	0.0	0.0	0.0	0.0	0.0	0.9	3.5	6.1	7.0	8.8
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.3	7.0	7.9
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.4	6.1	7.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.5	5.3	6.1
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	3.5	4.4
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.6	3.5
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.6	3.5
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	2.6
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	2.6
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.8
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1068085

CATALOG NUMBER: NAV-SA1A-835-U-LBC

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2.5°	12.3	12.3	11.4	10.5	10.5	10.5	11.4	12.3	12.3	12.3
5°	11.4	11.4	10.5	10.5	10.5	10.5	11.4	13.1	14.0	14.0
7.5°	11.4	11.4	10.5	10.5	10.5	10.5	11.4	13.1	14.0	14.9
10°	10.5	10.5	10.5	10.5	9.6	10.5	11.4	13.1	15.8	15.8
12.5°	10.5	10.5	10.5	10.5	9.6	10.5	12.3	14.0	16.7	17.5
15°	10.5	10.5	10.5	9.6	9.6	10.5	12.3	14.9	17.5	19.3
17.5°	9.6	10.5	10.5	9.6	9.6	10.5	12.3	14.9	19.3	21.9
20°	8.8	9.6	10.5	9.6	9.6	9.6	12.3	14.9	20.2	23.7
22.5°	7.9	8.8	9.6	9.6	8.8	9.6	12.3	15.8	21.9	26.3
25°	7.0	7.9	7.9	8.8	8.8	9.6	12.3	15.8	22.8	29.8
27.5°	5.3	6.1	7.0	7.9	7.9	9.6	12.3	16.7	24.5	36.8
30°	4.4	5.3	6.1	7.0	7.9	9.6	12.3	16.7	26.3	46.5
32.5°	4.4	5.3	6.1	7.0	7.9	8.8	12.3	17.5	28.9	57.9
35°	3.5	4.4	5.3	7.0	7.0	8.8	12.3	17.5	31.6	75.4
37.5°	3.5	4.4	5.3	7.0	7.0	8.8	12.3	17.5	38.6	84.1
40°	2.6	3.5	4.4	7.0	7.0	8.8	13.1	18.4	39.4	85.0
42.5°	2.6	3.5	4.4	6.1	7.0	8.8	13.1	18.4	36.8	87.7
45°	2.6	3.5	4.4	7.0	7.9	9.6	13.1	19.3	35.9	99.9
47.5°	2.6	3.5	4.4	7.0	8.8	9.6	13.1	19.3	36.8	142.9
50°	2.6	3.5	4.4	7.0	9.6	9.6	13.1	19.3	40.3	229.6
52.5°	1.8	2.6	3.5	6.1	7.9	10.5	14.0	18.4	42.9	306.8
55°	1.8	1.8	2.6	5.3	7.0	11.4	14.9	18.4	50.0	326.1
57.5°	1.8	1.8	2.6	4.4	6.1	12.3	15.8	18.4	57.9	316.4
59°	1.8	1.8	1.8	4.4	5.3	12.3	15.8	19.3	58.7	299.8
60°	1.8	1.8	1.8	3.5	5.3	12.3	16.7	20.2	59.6	280.5
62.5°	0.9	0.9	0.9	3.5	4.4	12.3	18.4	24.5	61.4	216.5
65°	1.8	1.8	0.9	2.6	4.4	10.5	21.0	26.3	62.2	168.3
67.5°	1.8	1.8	1.8	3.5	4.4	10.5	21.9	27.2	62.2	133.2
70°	1.8	1.8	1.8	3.5	5.3	10.5	21.9	28.0	61.4	108.7
72.5°	1.8	1.8	1.8	3.5	5.3	9.6	20.2	28.9	58.7	92.0
75°	1.8	1.8	1.8	2.6	4.4	8.8	19.3	31.6	53.5	78.0
77.5°	1.8	1.8	1.8	1.8	3.5	7.0	17.5	35.1	47.3	63.1
80°	2.6	1.8	1.8	1.8	2.6	6.1	16.7	34.2	39.4	41.2
82.5°	2.6	1.8	1.8	0.9	1.8	4.4	13.1	26.3	20.2	18.4
85°	1.8	1.8	1.8	0.9	0.9	2.6	6.1	7.9	6.1	4.4
87.5°	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: SP1-2407-184-10

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
 Rf: 86.6
 Rg: 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

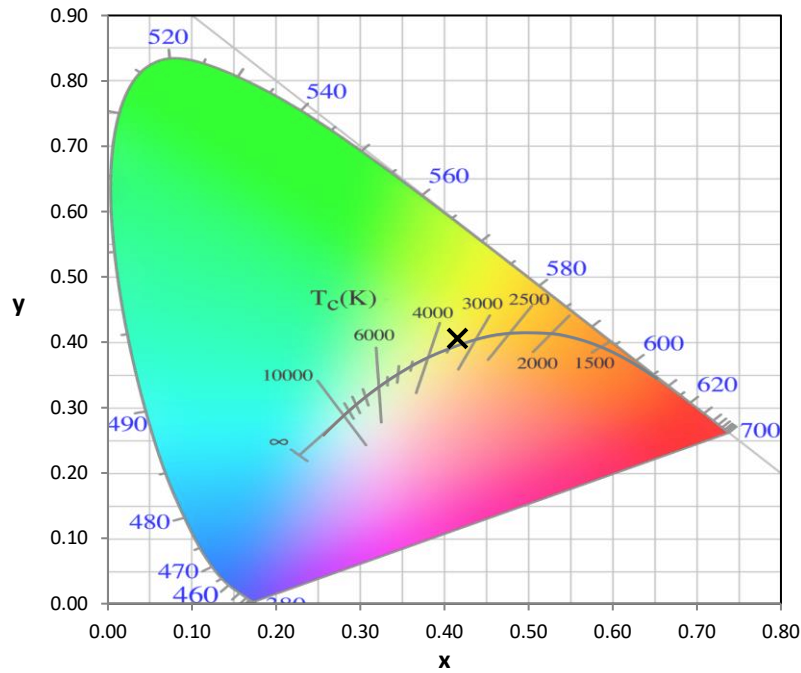
Stabilization Time: 35M
 Operation Time: 1H 35M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-10

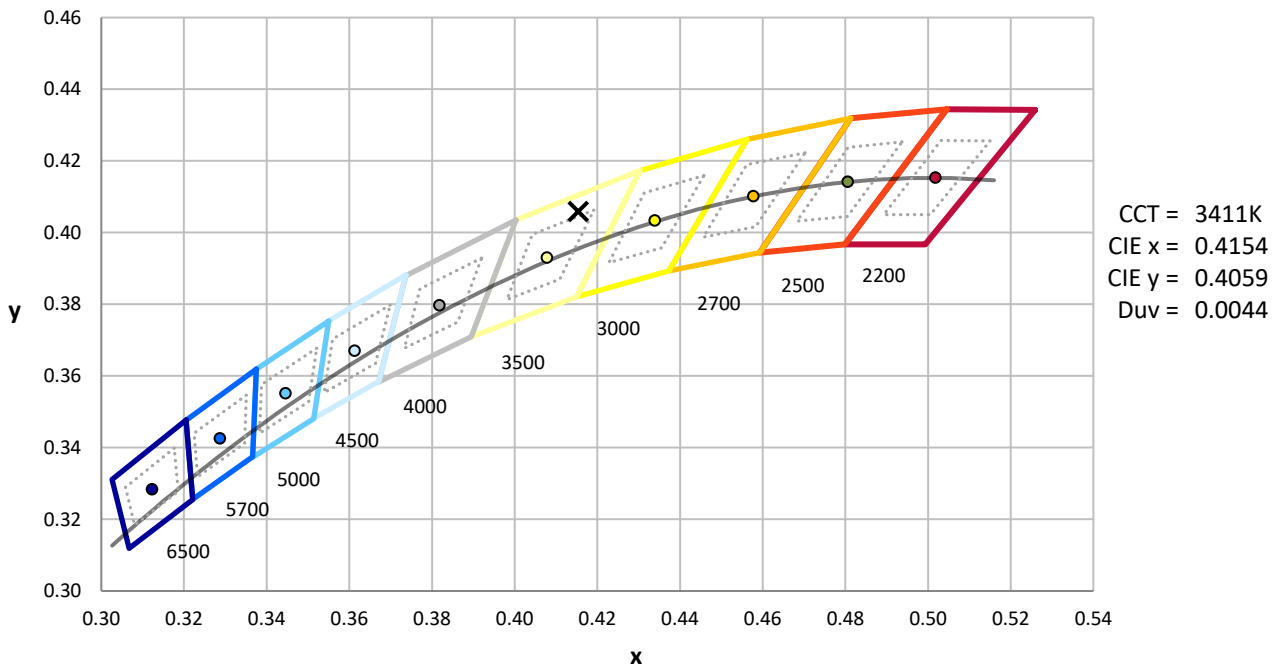
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-10

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 $\text{W}^\wedge/\text{nm}$	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

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

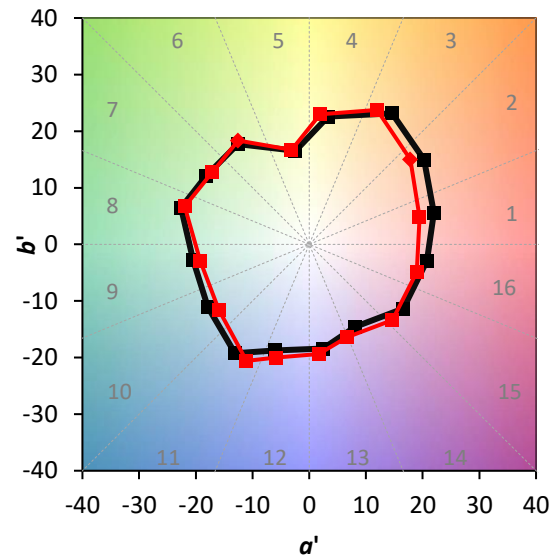
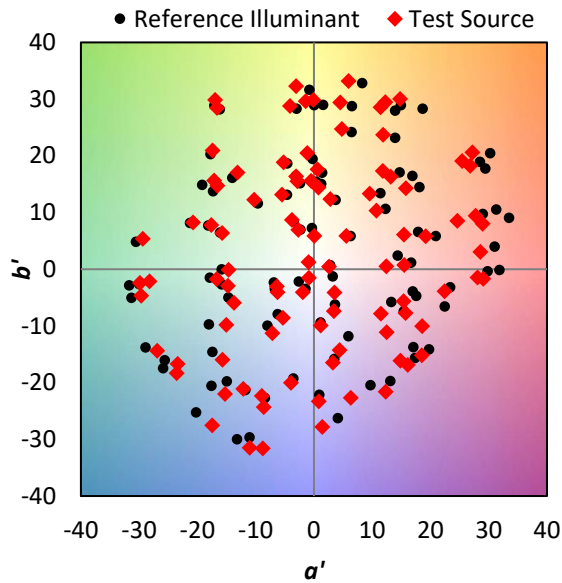
TM-30-18

Summary

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

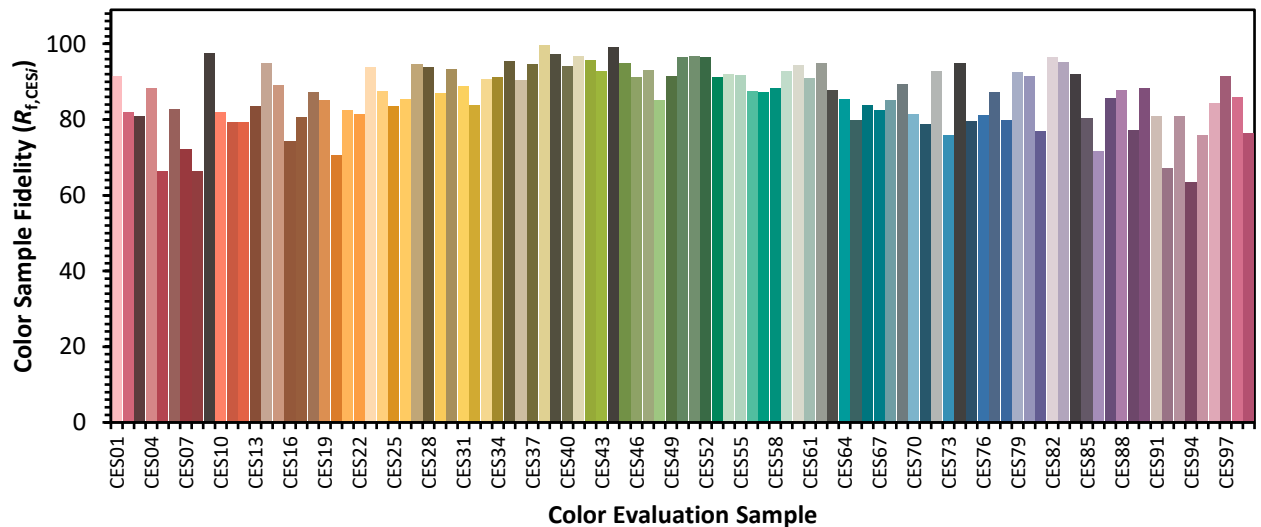


Color Vector Graphics

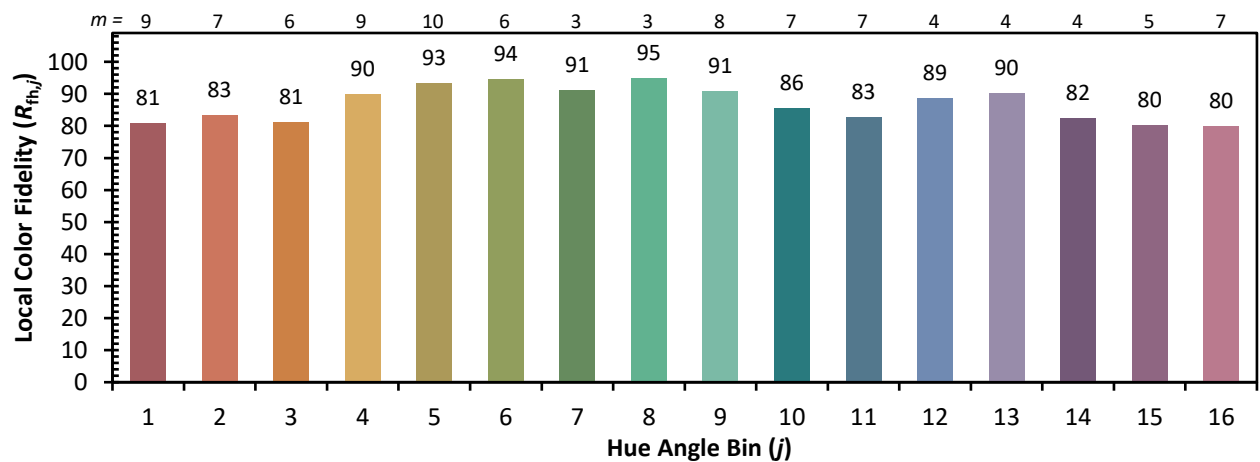
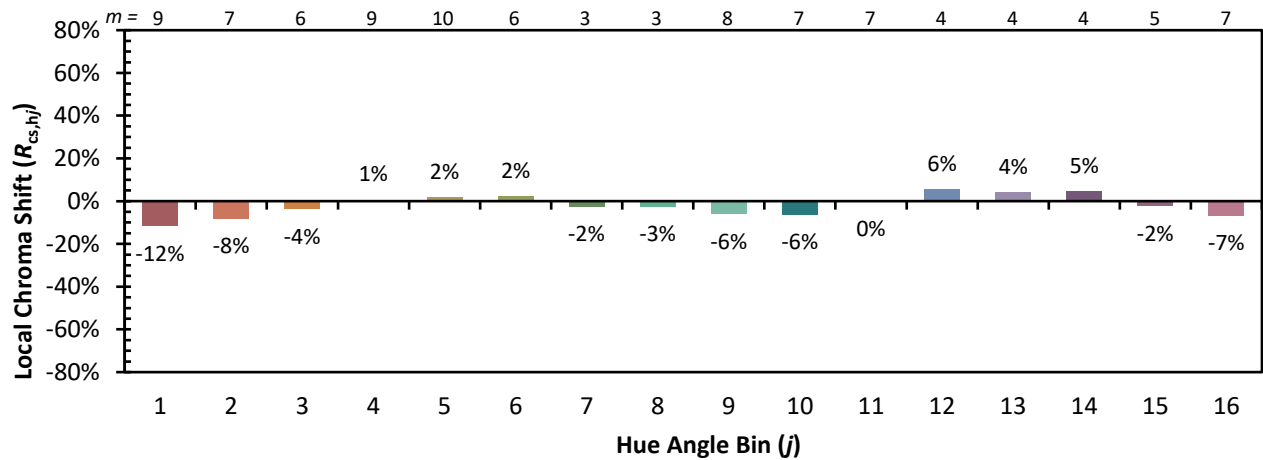


Individual Sample Fidelity Index ($R_{f,i}$)

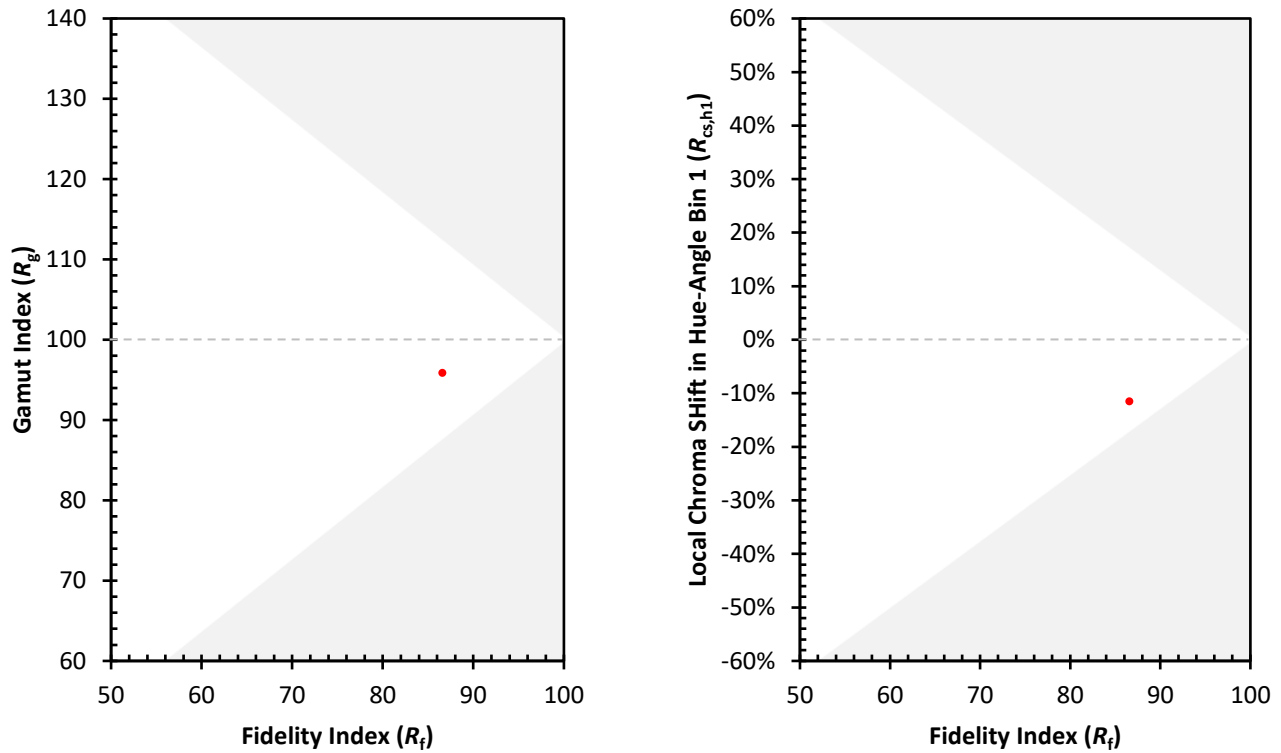
CES01 = 86	CES26 = 85	CES51 = 97	CES76 = 81
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 94	CES53 = 91	CES78 = 80
CES04 = 70	CES29 = 87	CES54 = 92	CES79 = 93
CES05 = 49	CES30 = 93	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 77
CES07 = 41	CES32 = 84	CES57 = 87	CES82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