

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: P1068074

Luminaire Tested: **NAV-SA4B-830-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1068074
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA4B-830-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 800mA 4xLight Square PACKAGE
80CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (56) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12092.5 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 144.1
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



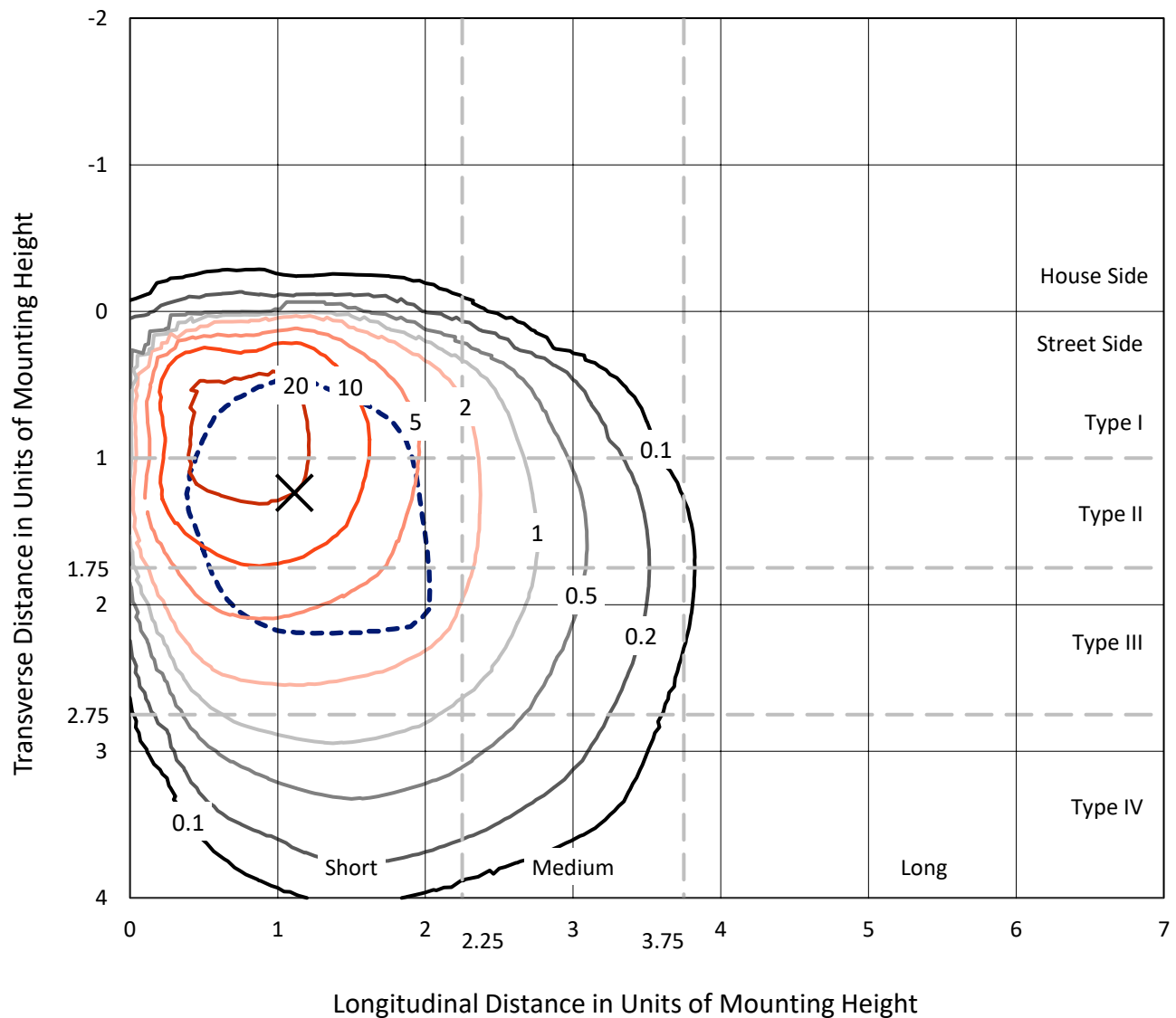
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

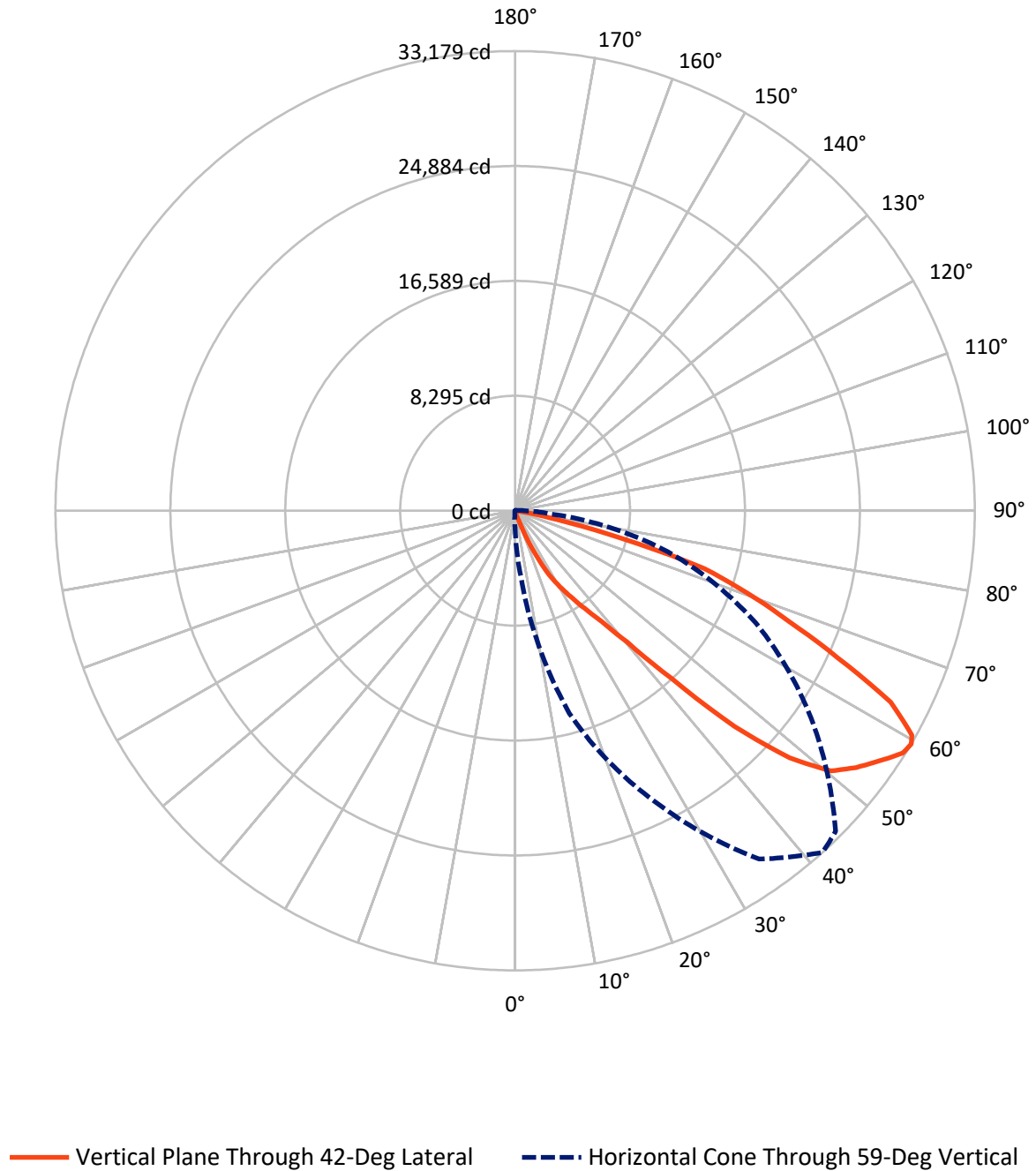


Based on 15 foot mounting height. Maximum calculated value = 35.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	58.3	0.0	58.3
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	12034.2	0.0	12034.2
	% Fixture	99.5	0.0	99.5
Total	Lumens	12092.5	0.0	12092.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.5	0.0
10°-20°	17.6	0.1
20°-30°	225.6	1.9
30°-40°	760.5	6.3
40°-50°	2296.9	19.0
50°-60°	4054.6	33.5
60°-70°	3570.2	29.5
70°-80°	1136.4	9.4
80°-90°	27.2	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°	12092.5	100.0
0°-180°	12092.5	100.0



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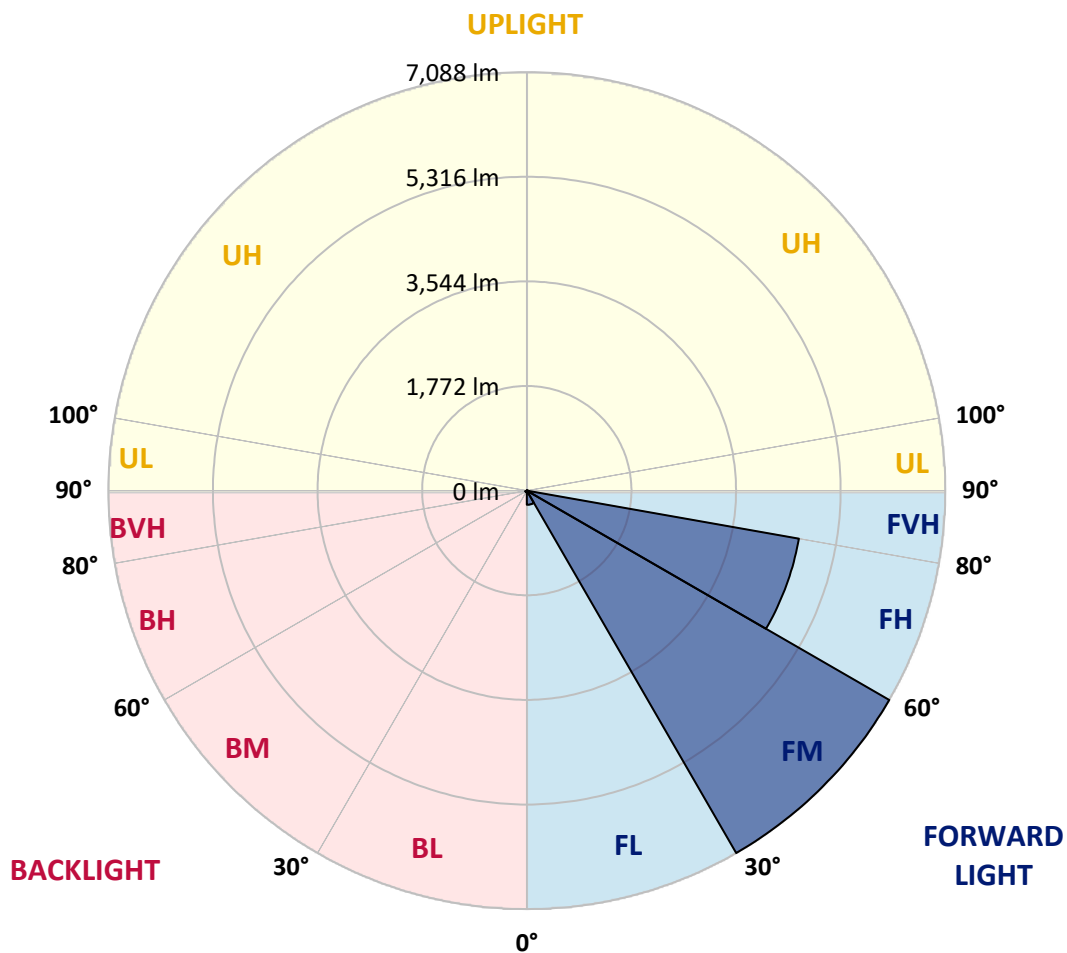
CATALOG NUMBER: NAV-SA4B-830-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	240.2	2.0			
FM	(30°-60°)	7088.2	58.6			
FH	(60°-80°)	4679.9	38.7			G2/5000
FVH	(80°-90°)	25.9	0.2			G1/100
BL	(0°-30°)	6.5	0.1	B0/110		
BM	(30°-60°)	23.8	0.2	B0/220		
BH	(60°-80°)	26.7	0.2	B0/110		G0/110
BVH	(80°-90°)	1.3	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
2.5°	53.1	53.1	49.3	45.5	41.7	37.9	37.9	37.9	34.1	34.1	30.3
5°	60.7	60.7	56.9	53.1	53.1	49.3	49.3	45.5	41.7	41.7	37.9
7.5°	64.5	64.5	64.5	64.5	60.7	60.7	60.7	56.9	53.1	49.3	45.5
10°	68.2	72.0	75.8	75.8	75.8	75.8	75.8	72.0	64.5	60.7	53.1
12.5°	75.8	79.6	87.2	94.8	94.8	98.6	94.8	91.0	83.4	72.0	60.7
15°	83.4	91.0	102.4	117.5	132.7	136.5	136.5	125.1	110.0	87.2	72.0
17.5°	94.8	106.2	136.5	185.8	238.9	280.6	280.6	250.2	174.4	113.7	83.4
20°	102.4	125.1	219.9	447.4	682.5	856.9	822.7	727.9	390.5	178.2	91.0
22.5°	113.7	159.2	466.3	1175.3	1819.9	2138.4	2062.5	1565.8	875.8	318.5	110.0
25°	128.9	231.3	925.1	2202.8	3381.9	3726.9	3677.7	2923.2	1596.2	534.6	140.3
27.5°	159.2	341.2	1482.4	3340.2	4989.5	5285.2	5266.3	4280.5	2551.6	860.6	182.0
30°	200.9	496.7	2199.0	4538.3	6054.9	6354.4	6259.6	5273.8	3442.6	1315.6	235.1
32.5°	250.2	693.8	2847.3	5421.7	7036.8	7431.1	7317.4	6138.3	4159.2	1702.3	348.8
35°	326.1	887.2	3488.1	6202.7	8170.5	8670.9	8481.4	7029.3	4777.2	2138.4	420.8
37.5°	364.0	1000.9	4075.8	7052.0	9444.4	10126.8	9982.8	8155.3	5406.5	2695.7	515.6
40°	367.8	1137.4	4686.2	8159.1	11245.3	12462.3	12204.5	10088.9	6578.1	3412.3	663.5
42.5°	379.1	1342.2	5478.6	10047.2	14782.7	16530.5	16238.6	13645.3	9235.9	4849.2	940.3
45°	432.2	1728.9	7093.7	13577.0	19639.5	22202.5	21865.0	18600.6	12947.6	7552.5	1603.8
47.5°	618.0	2600.9	9925.9	17387.4	24606.2	26649.8	26566.4	22505.8	16310.6	10324.0	2718.4
50°	993.3	3992.3	13148.6	20591.1	27768.2	29523.6	29315.1	24136.1	18229.1	12215.9	3484.3
52.5°	1327.0	5323.1	15173.2	21770.2	28712.3	30805.1	30551.1	24731.3	18733.3	12773.2	3696.6
55°	1410.4	5804.6	15776.0	22134.2	29337.9	31889.5	31521.7	25129.4	18797.8	12375.1	3344.0
57.5°	1368.7	5349.7	15385.5	22490.6	30209.9	33004.2	32515.1	25906.7	19013.9	11700.3	2782.9
59°	1296.7	4788.5	15142.9	22775.0	30691.4	33178.6	32719.8	26077.3	19158.0	11393.2	2441.7
60°	1213.2	4409.4	14953.3	22960.7	30661.1	32905.6	32431.7	25997.6	19214.8	11127.8	2278.6
62.5°	936.5	3518.4	14680.3	22828.0	28746.4	30414.6	30145.4	24048.9	18380.7	10278.5	1797.1
65°	727.9	2691.9	13679.4	20359.8	24462.1	25584.4	25501.0	20363.6	15468.9	8860.5	1296.7
67.5°	576.3	1963.9	11567.6	16488.8	19681.2	21277.3	21216.7	16530.5	11742.0	6771.4	932.7
70°	470.1	1399.0	7931.6	12432.0	15741.9	17751.3	17664.1	13304.0	8701.3	4295.7	678.7
72.5°	398.1	894.8	4811.3	9372.3	13137.2	14286.0	14032.0	10733.5	6327.9	2339.3	538.4
75°	337.4	549.8	2384.8	5842.6	7825.5	7817.9	7563.8	5683.3	3397.1	1145.0	428.4
77.5°	273.0	386.7	936.5	1603.8	2468.2	3055.9	3006.6	2013.2	1016.1	333.6	265.4
80°	178.2	182.0	250.2	439.8	678.7	750.7	853.1	614.2	295.7	159.2	110.0
82.5°	79.6	87.2	113.7	144.1	144.1	132.7	117.5	87.2	64.5	53.1	26.5
85°	19.0	26.5	19.0	22.7	19.0	15.2	15.2	7.6	0.0	0.0	0.0
87.5°	3.8	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°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
2.5°	30.3	30.3	30.3	26.5	26.5	26.5	22.7	22.7	22.7	19.0	19.0
5°	37.9	34.1	30.3	30.3	26.5	26.5	22.7	19.0	19.0	19.0	15.2
7.5°	41.7	37.9	34.1	30.3	26.5	22.7	22.7	19.0	15.2	15.2	15.2
10°	49.3	45.5	37.9	30.3	26.5	22.7	19.0	19.0	15.2	11.4	11.4
12.5°	56.9	49.3	41.7	34.1	26.5	22.7	19.0	19.0	15.2	11.4	7.6
15°	64.5	56.9	45.5	34.1	26.5	22.7	19.0	19.0	11.4	7.6	3.8
17.5°	72.0	60.7	45.5	37.9	26.5	22.7	19.0	15.2	7.6	3.8	0.0
20°	75.8	64.5	49.3	37.9	26.5	22.7	19.0	11.4	3.8	0.0	0.0
22.5°	83.4	72.0	53.1	37.9	26.5	19.0	11.4	3.8	0.0	0.0	0.0
25°	98.6	75.8	53.1	37.9	26.5	19.0	7.6	0.0	0.0	0.0	0.0
27.5°	110.0	83.4	53.1	37.9	26.5	15.2	3.8	0.0	0.0	0.0	0.0
30°	128.9	91.0	56.9	37.9	26.5	11.4	3.8	0.0	0.0	0.0	0.0
32.5°	159.2	98.6	56.9	37.9	22.7	11.4	0.0	0.0	0.0	0.0	0.0
35°	193.4	113.7	56.9	37.9	22.7	11.4	0.0	0.0	0.0	0.0	0.0
37.5°	197.2	121.3	56.9	37.9	22.7	7.6	0.0	0.0	0.0	0.0	0.0
40°	204.7	113.7	60.7	37.9	22.7	7.6	0.0	0.0	0.0	0.0	0.0
42.5°	235.1	106.2	64.5	37.9	22.7	7.6	0.0	0.0	0.0	0.0	0.0
45°	348.8	110.0	64.5	41.7	22.7	11.4	0.0	0.0	0.0	0.0	0.0
47.5°	606.6	113.7	60.7	41.7	22.7	11.4	0.0	0.0	0.0	0.0	0.0
50°	777.2	132.7	60.7	45.5	26.5	7.6	0.0	0.0	0.0	0.0	0.0
52.5°	826.5	155.4	60.7	49.3	34.1	3.8	0.0	0.0	0.0	0.0	0.0
55°	803.8	182.0	64.5	53.1	41.7	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	743.1	197.2	68.2	56.9	45.5	0.0	0.0	0.0	0.0	0.0	0.0
59°	678.7	208.5	79.6	60.7	45.5	0.0	0.0	0.0	0.0	0.0	0.0
60°	625.6	219.9	83.4	64.5	45.5	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	504.3	235.1	91.0	75.8	37.9	0.0	0.0	0.0	0.0	0.0	0.0
65°	439.8	246.4	94.8	83.4	34.1	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	401.9	254.0	102.4	87.2	30.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	371.6	250.2	110.0	83.4	26.5	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	337.4	238.9	132.7	75.8	22.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	303.3	216.1	144.1	68.2	15.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	219.9	182.0	132.7	60.7	7.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	94.8	98.6	94.8	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.0	22.7	19.0	11.4	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°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
2.5°	19.0	19.0	19.0	19.0	22.7	22.7	30.3	37.9	45.5	49.3	49.3
5°	15.2	15.2	15.2	15.2	15.2	19.0	22.7	30.3	41.7	45.5	45.5
7.5°	11.4	11.4	11.4	11.4	11.4	11.4	19.0	26.5	37.9	41.7	45.5
10°	11.4	7.6	7.6	3.8	3.8	7.6	11.4	22.7	34.1	37.9	41.7
12.5°	7.6	3.8	3.8	0.0	0.0	3.8	7.6	19.0	30.3	34.1	37.9
15°	3.8	0.0	0.0	0.0	0.0	0.0	3.8	15.2	26.5	30.3	37.9
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	22.7	30.3	34.1
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	19.0	26.5	30.3
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	15.2	22.7	26.5
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	15.2	19.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	11.4	15.2
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	11.4	15.2
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6	11.4
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6	11.4
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6	7.6
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	7.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8
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°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
2.5°	53.1	53.1	49.3	45.5	45.5	45.5	49.3	53.1	53.1	53.1
5°	49.3	49.3	45.5	45.5	45.5	45.5	49.3	56.9	60.7	60.7
7.5°	49.3	49.3	45.5	45.5	45.5	45.5	49.3	56.9	60.7	64.5
10°	45.5	45.5	45.5	45.5	41.7	45.5	49.3	56.9	68.2	68.2
12.5°	45.5	45.5	45.5	45.5	41.7	45.5	53.1	60.7	72.0	75.8
15°	45.5	45.5	45.5	41.7	41.7	45.5	53.1	64.5	75.8	83.4
17.5°	41.7	45.5	45.5	41.7	41.7	45.5	53.1	64.5	83.4	94.8
20°	37.9	41.7	45.5	41.7	41.7	41.7	53.1	64.5	87.2	102.4
22.5°	34.1	37.9	41.7	41.7	37.9	41.7	53.1	68.2	94.8	113.7
25°	30.3	34.1	34.1	37.9	37.9	41.7	53.1	68.2	98.6	128.9
27.5°	22.7	26.5	30.3	34.1	34.1	41.7	53.1	72.0	106.2	159.2
30°	19.0	22.7	26.5	30.3	34.1	41.7	53.1	72.0	113.7	200.9
32.5°	19.0	22.7	26.5	30.3	34.1	37.9	53.1	75.8	125.1	250.2
35°	15.2	19.0	22.7	30.3	30.3	37.9	53.1	75.8	136.5	326.1
37.5°	15.2	19.0	22.7	30.3	30.3	37.9	53.1	75.8	166.8	364.0
40°	11.4	15.2	19.0	30.3	30.3	37.9	56.9	79.6	170.6	367.8
42.5°	11.4	15.2	19.0	26.5	30.3	37.9	56.9	79.6	159.2	379.1
45°	11.4	15.2	19.0	30.3	34.1	41.7	56.9	83.4	155.4	432.2
47.5°	11.4	15.2	19.0	30.3	37.9	41.7	56.9	83.4	159.2	618.0
50°	11.4	15.2	19.0	30.3	41.7	41.7	56.9	83.4	174.4	993.3
52.5°	7.6	11.4	15.2	26.5	34.1	45.5	60.7	79.6	185.8	1327.0
55°	7.6	7.6	11.4	22.7	30.3	49.3	64.5	79.6	216.1	1410.4
57.5°	7.6	7.6	11.4	19.0	26.5	53.1	68.2	79.6	250.2	1368.7
59°	7.6	7.6	7.6	19.0	22.7	53.1	68.2	83.4	254.0	1296.7
60°	7.6	7.6	7.6	15.2	22.7	53.1	72.0	87.2	257.8	1213.2
62.5°	3.8	3.8	3.8	15.2	19.0	53.1	79.6	106.2	265.4	936.5
65°	7.6	7.6	3.8	11.4	19.0	45.5	91.0	113.7	269.2	727.9
67.5°	7.6	7.6	7.6	15.2	19.0	45.5	94.8	117.5	269.2	576.3
70°	7.6	7.6	7.6	15.2	22.7	45.5	94.8	121.3	265.4	470.1
72.5°	7.6	7.6	7.6	15.2	22.7	41.7	87.2	125.1	254.0	398.1
75°	7.6	7.6	7.6	11.4	19.0	37.9	83.4	136.5	231.3	337.4
77.5°	7.6	7.6	7.6	7.6	15.2	30.3	75.8	151.7	204.7	273.0
80°	11.4	7.6	7.6	7.6	11.4	26.5	72.0	147.9	170.6	178.2
82.5°	11.4	7.6	7.6	3.8	7.6	19.0	56.9	113.7	87.2	79.6
85°	7.6	7.6	7.6	3.8	3.8	11.4	26.5	34.1	26.5	19.0
87.5°	7.6	7.6	7.6	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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

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CIE 1931 Chromaticity Diagram



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



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Photopic Flux vs. Wavelength

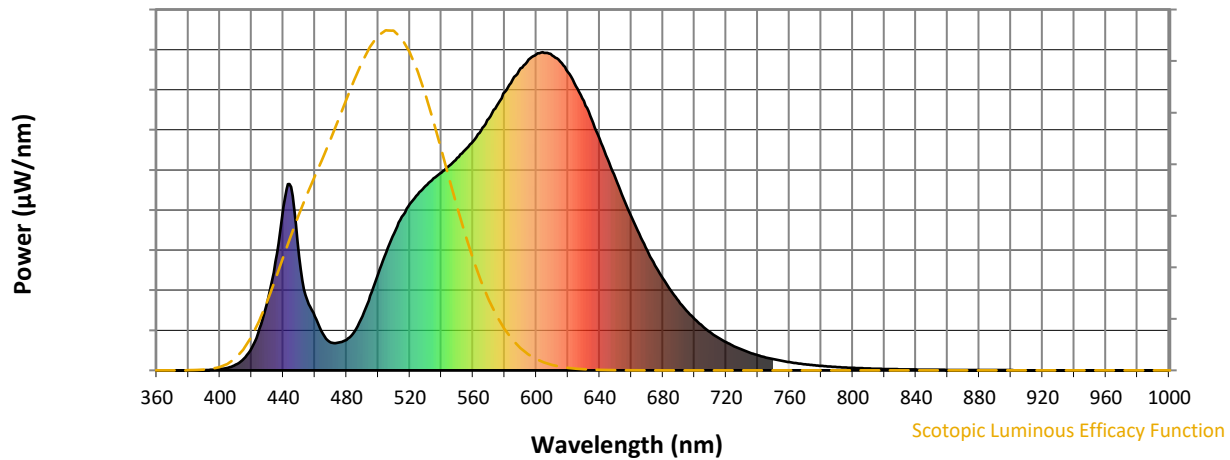


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /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



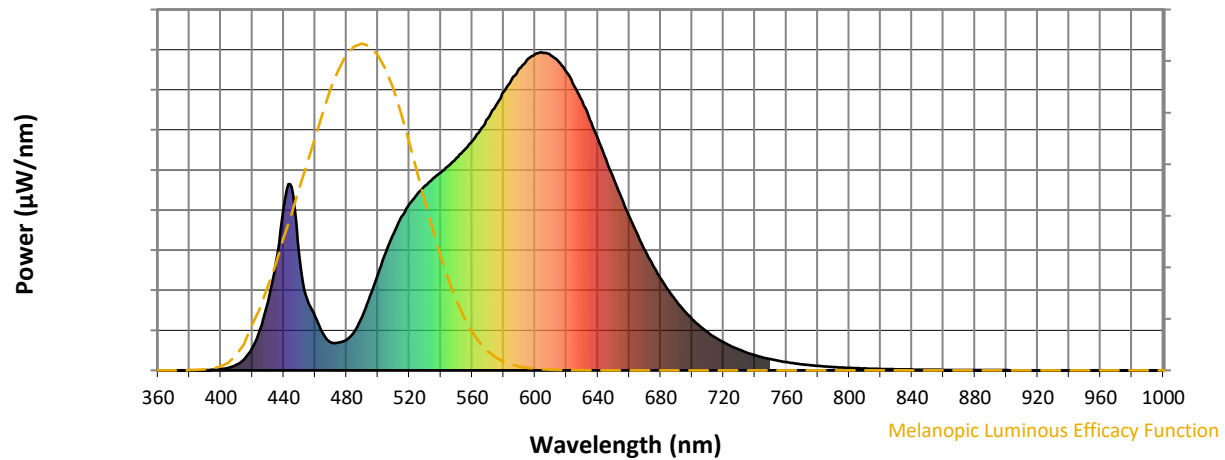
Scotopic Lumens: NR

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

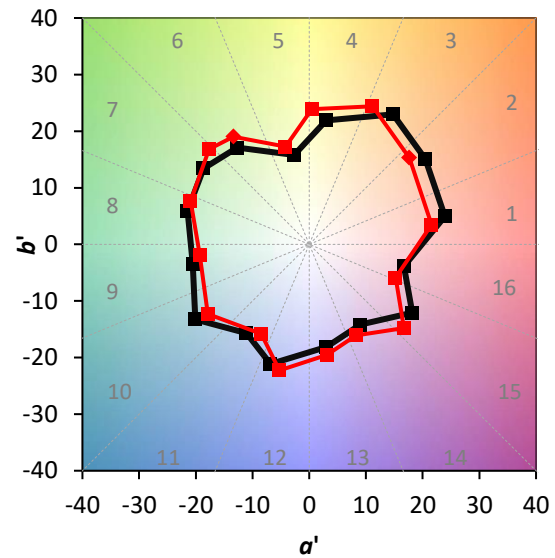
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 80.9$
 $R_9 = 6.8$

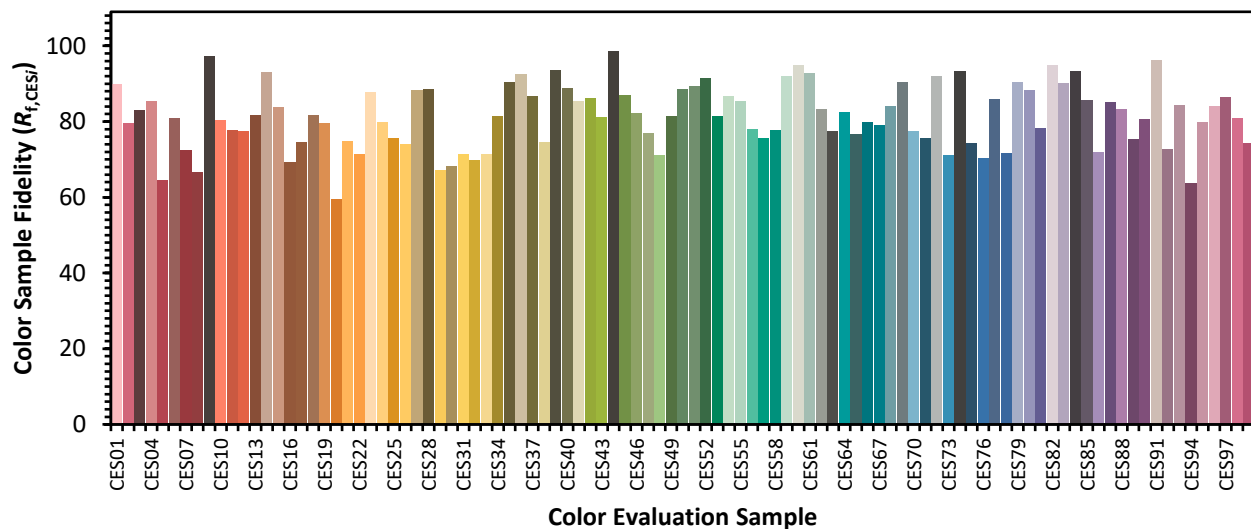


Color Vector Graphics

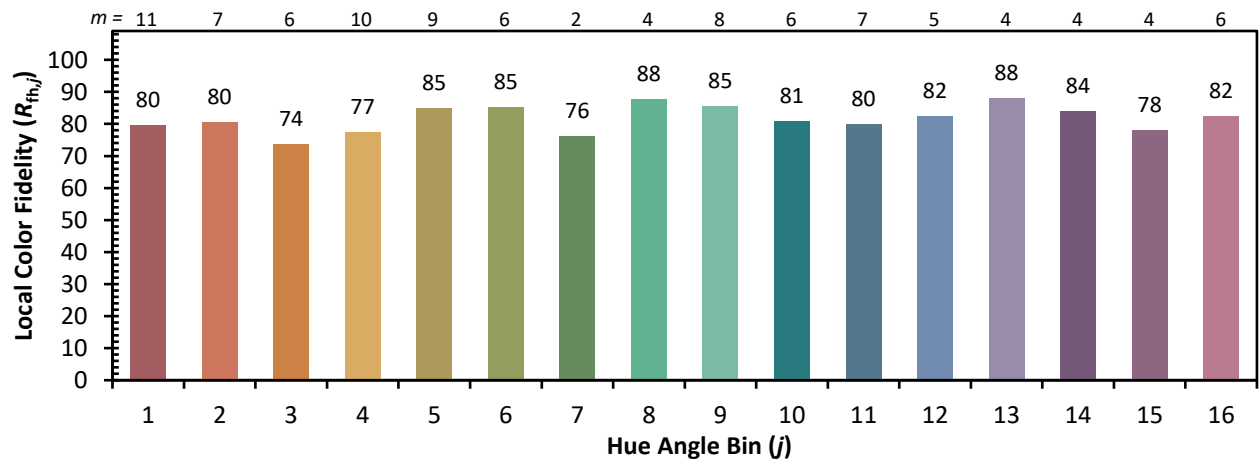
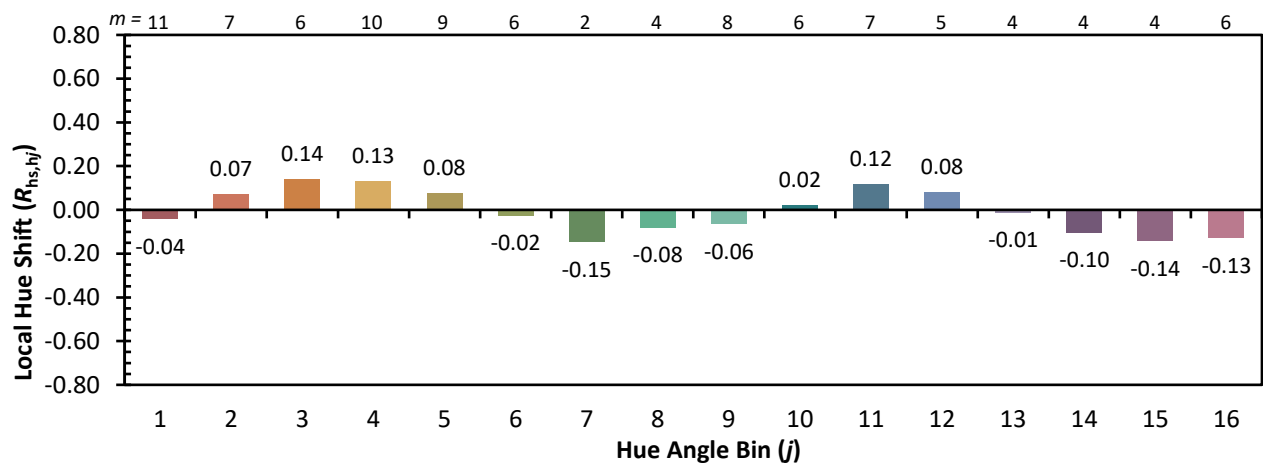


Individual Sample Fidelity Index ($R_{f,i}$)

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)