

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: P1067897

Luminaire Tested: **NAV-SA2A-722-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1067897
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA2A-722-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 615mA 2xLight Square PACKAGE
70CRI 2200K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (28) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4572.9 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 55.3
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

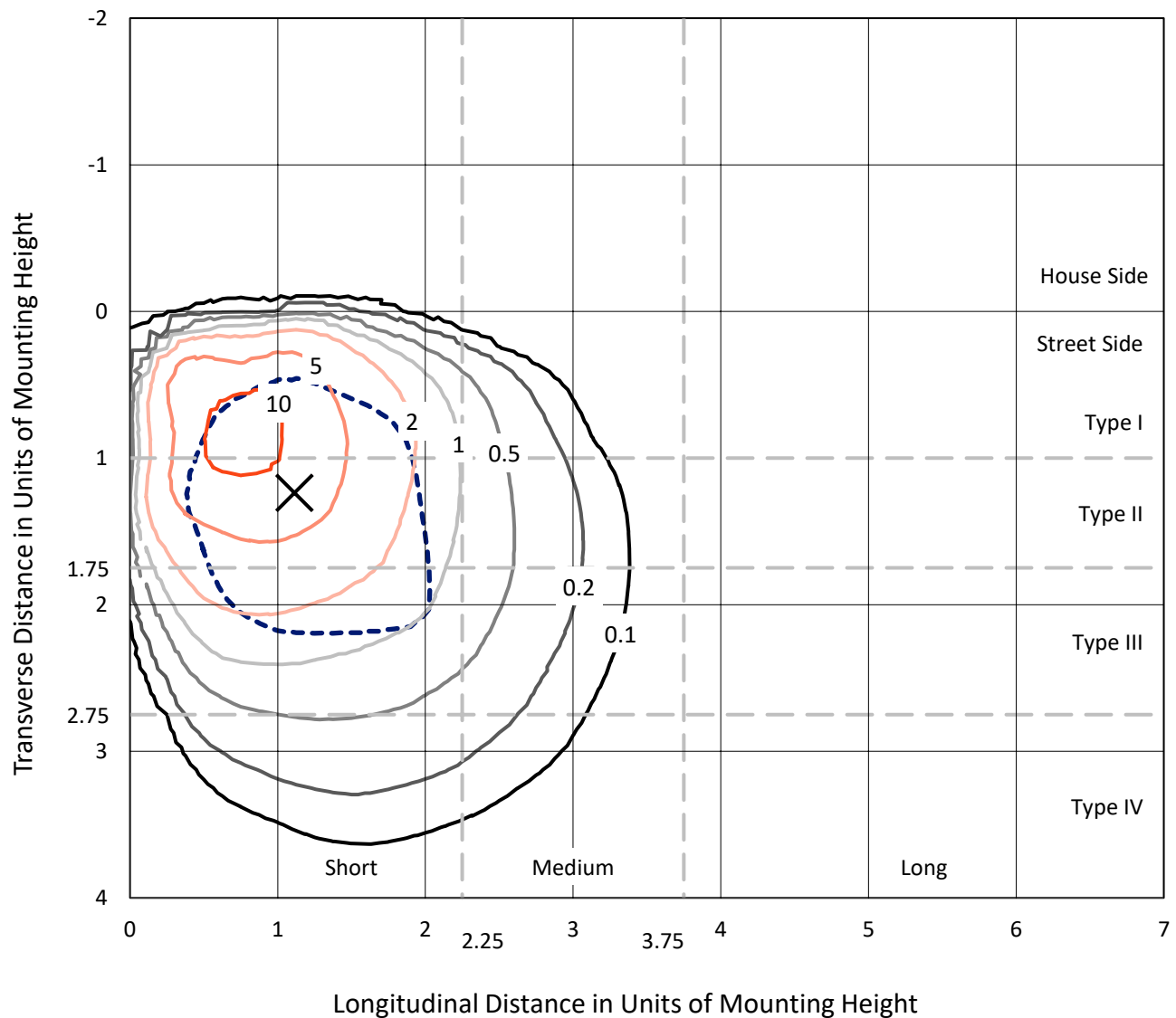


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

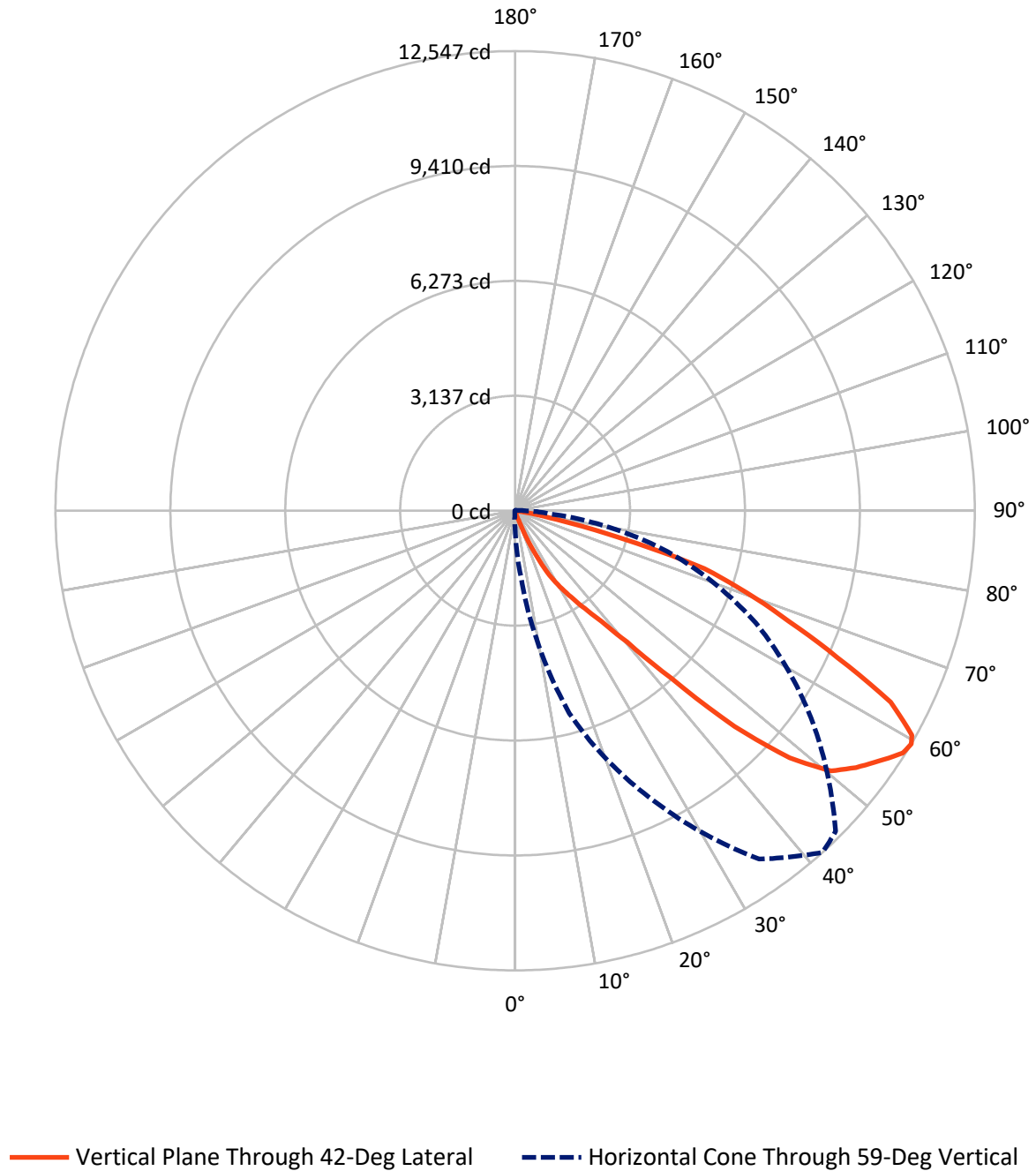


Based on 15 foot mounting height. Maximum calculated value = 13.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	22.0	0.0	22.0
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	4550.8	0.0	4550.8
	% Fixture	99.5	0.0	99.5
Total	Lumens	4572.9	0.0	4572.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.0
10°-20°	6.7	0.1
20°-30°	85.3	1.9
30°-40°	287.6	6.3
40°-50°	868.6	19.0
50°-60°	1533.3	33.5
60°-70°	1350.1	29.5
70°-80°	429.7	9.4
80°-90°	10.3	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°	4572.9	100.0
0°-180°	4572.9	100.0



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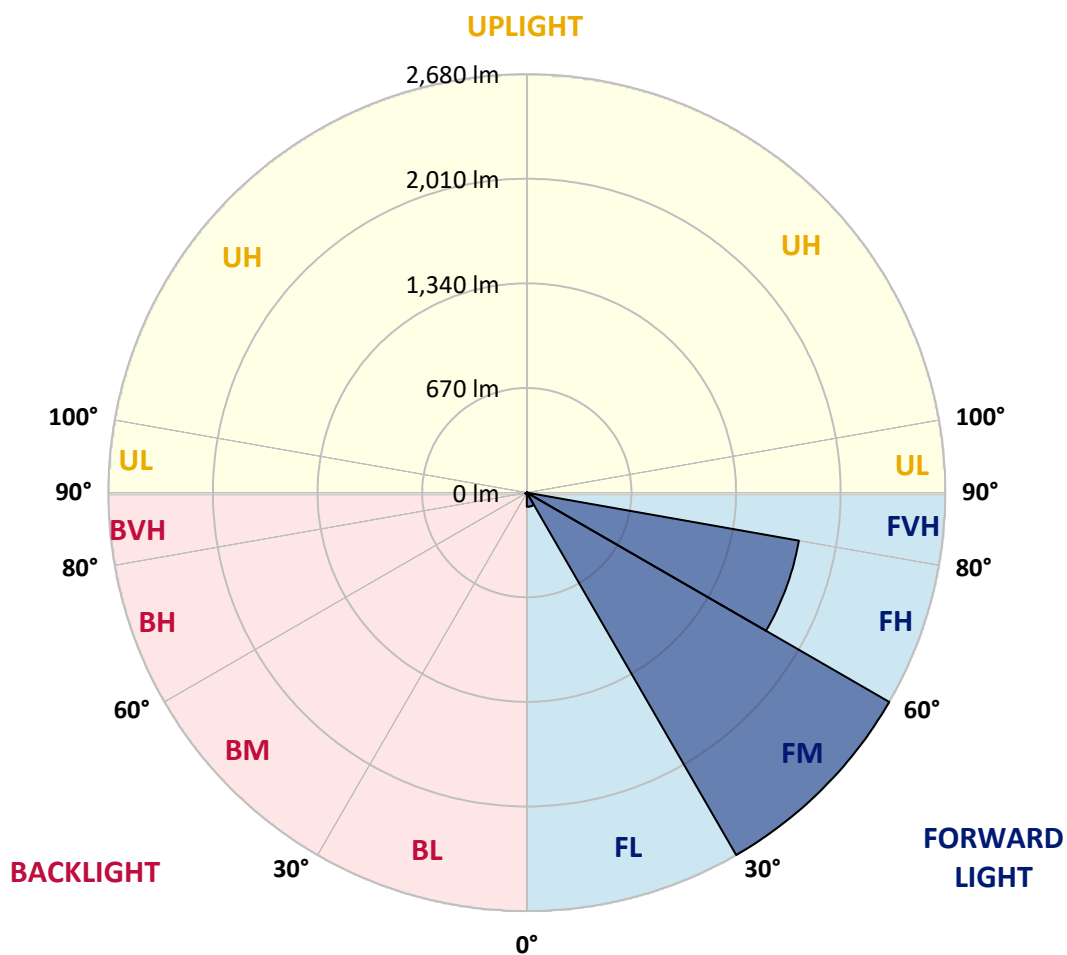
CATALOG NUMBER: NAV-SA2A-722-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	90.8	2.0			
FM	(30°-60°)	2680.5	58.6			
FH	(60°-80°)	1769.7	38.7			G1/1800
FVH	(80°-90°)	9.8	0.2			G0/10
BL	(0°-30°)	2.5	0.1	B0/110		
BM	(30°-60°)	9.0	0.2	B0/220		
BH	(60°-80°)	10.1	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-G1

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	42°	45°	55°	65°	75°	85°
0°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.5°	20.1	20.1	18.6	17.2	15.8	14.3	14.3	14.3	12.9	12.9	11.5
5°	22.9	22.9	21.5	20.1	20.1	18.6	18.6	17.2	15.8	15.8	14.3
7.5°	24.4	24.4	24.4	24.4	22.9	22.9	22.9	21.5	20.1	18.6	17.2
10°	25.8	27.2	28.7	28.7	28.7	28.7	28.7	27.2	24.4	22.9	20.1
12.5°	28.7	30.1	33.0	35.8	35.8	37.3	35.8	34.4	31.5	27.2	22.9
15°	31.5	34.4	38.7	44.4	50.2	51.6	51.6	47.3	41.6	33.0	27.2
17.5°	35.8	40.1	51.6	70.3	90.3	106.1	106.1	94.6	66.0	43.0	31.5
20°	38.7	47.3	83.2	169.2	258.1	324.0	311.1	275.3	147.7	67.4	34.4
22.5°	43.0	60.2	176.4	444.5	688.2	808.6	780.0	592.1	331.2	120.4	41.6
25°	48.7	87.5	349.8	833.0	1278.9	1409.4	1390.7	1105.4	603.6	202.2	53.0
27.5°	60.2	129.0	560.6	1263.1	1886.8	1998.6	1991.5	1618.7	964.9	325.5	68.8
30°	76.0	187.8	831.6	1716.2	2289.7	2403.0	2367.1	1994.3	1301.8	497.5	88.9
32.5°	94.6	262.4	1076.7	2050.3	2661.0	2810.1	2767.1	2321.2	1572.8	643.8	131.9
35°	123.3	335.5	1319.0	2345.6	3089.7	3279.0	3207.3	2658.2	1806.5	808.6	159.1
37.5°	137.6	378.5	1541.3	2666.8	3571.5	3829.5	3775.0	3084.0	2044.5	1019.4	195.0
40°	139.1	430.1	1772.1	3085.4	4252.5	4712.7	4615.2	3815.2	2487.5	1290.4	250.9
42.5°	143.4	507.5	2071.8	3799.4	5590.2	6251.1	6140.7	5160.0	3492.6	1833.8	355.6
45°	163.4	653.8	2682.5	5134.2	7426.8	8396.0	8268.4	7033.9	4896.2	2856.0	606.5
47.5°	233.7	983.5	3753.5	6575.2	9305.0	10077.8	10046.2	8510.7	6168.0	3904.1	1028.0
50°	375.6	1509.7	4972.2	7786.7	10500.7	11164.6	11085.7	9127.2	6893.4	4619.5	1317.6
52.5°	501.8	2013.0	5737.8	8232.6	10857.7	11649.2	11553.1	9352.3	7084.1	4830.3	1397.9
55°	533.4	2195.1	5965.8	8370.2	11094.3	12059.2	11920.1	9502.9	7108.5	4679.7	1264.6
57.5°	517.6	2023.0	5818.1	8505.0	11424.1	12480.7	12295.8	9796.8	7190.2	4424.5	1052.4
59°	490.3	1810.8	5726.4	8612.5	11606.2	12546.7	12373.2	9861.3	7244.7	4308.4	923.3
60°	458.8	1667.4	5654.7	8682.8	11594.7	12443.5	12264.2	9831.2	7266.2	4208.0	861.7
62.5°	354.1	1330.5	5551.5	8632.6	10870.6	11501.5	11399.7	9094.2	6950.8	3886.9	679.6
65°	275.3	1018.0	5172.9	7699.2	9250.5	9674.9	9643.4	7700.6	5849.7	3350.7	490.3
67.5°	217.9	742.7	4374.4	6235.4	7442.6	8046.2	8023.2	6251.1	4440.3	2560.7	352.7
70°	177.8	529.1	2999.4	4701.2	5952.9	6712.8	6679.8	5031.0	3290.4	1624.4	256.6
72.5°	150.5	338.4	1819.4	3544.2	4967.9	5402.3	5306.3	4058.9	2392.9	884.6	203.6
75°	127.6	207.9	901.8	2209.4	2959.2	2956.4	2860.3	2149.2	1284.6	433.0	162.0
77.5°	103.2	146.2	354.1	606.5	933.4	1155.6	1137.0	761.3	384.2	126.2	100.4
80°	67.4	68.8	94.6	166.3	256.6	283.9	322.6	232.3	111.8	60.2	41.6
82.5°	30.1	33.0	43.0	54.5	54.5	50.2	44.4	33.0	24.4	20.1	10.0
85°	7.2	10.0	7.2	8.6	7.2	5.7	5.7	2.9	0.0	0.0	0.0
87.5°	1.4	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°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.5°	11.5	11.5	11.5	10.0	10.0	10.0	8.6	8.6	8.6	7.2	7.2
5°	14.3	12.9	11.5	11.5	10.0	10.0	8.6	7.2	7.2	7.2	5.7
7.5°	15.8	14.3	12.9	11.5	10.0	8.6	8.6	7.2	5.7	5.7	5.7
10°	18.6	17.2	14.3	11.5	10.0	8.6	7.2	7.2	5.7	4.3	4.3
12.5°	21.5	18.6	15.8	12.9	10.0	8.6	7.2	7.2	5.7	4.3	2.9
15°	24.4	21.5	17.2	12.9	10.0	8.6	7.2	7.2	4.3	2.9	1.4
17.5°	27.2	22.9	17.2	14.3	10.0	8.6	7.2	5.7	2.9	1.4	0.0
20°	28.7	24.4	18.6	14.3	10.0	8.6	7.2	4.3	1.4	0.0	0.0
22.5°	31.5	27.2	20.1	14.3	10.0	7.2	4.3	1.4	0.0	0.0	0.0
25°	37.3	28.7	20.1	14.3	10.0	7.2	2.9	0.0	0.0	0.0	0.0
27.5°	41.6	31.5	20.1	14.3	10.0	5.7	1.4	0.0	0.0	0.0	0.0
30°	48.7	34.4	21.5	14.3	10.0	4.3	1.4	0.0	0.0	0.0	0.0
32.5°	60.2	37.3	21.5	14.3	8.6	4.3	0.0	0.0	0.0	0.0	0.0
35°	73.1	43.0	21.5	14.3	8.6	4.3	0.0	0.0	0.0	0.0	0.0
37.5°	74.6	45.9	21.5	14.3	8.6	2.9	0.0	0.0	0.0	0.0	0.0
40°	77.4	43.0	22.9	14.3	8.6	2.9	0.0	0.0	0.0	0.0	0.0
42.5°	88.9	40.1	24.4	14.3	8.6	2.9	0.0	0.0	0.0	0.0	0.0
45°	131.9	41.6	24.4	15.8	8.6	4.3	0.0	0.0	0.0	0.0	0.0
47.5°	229.4	43.0	22.9	15.8	8.6	4.3	0.0	0.0	0.0	0.0	0.0
50°	293.9	50.2	22.9	17.2	10.0	2.9	0.0	0.0	0.0	0.0	0.0
52.5°	312.6	58.8	22.9	18.6	12.9	1.4	0.0	0.0	0.0	0.0	0.0
55°	304.0	68.8	24.4	20.1	15.8	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	281.0	74.6	25.8	21.5	17.2	0.0	0.0	0.0	0.0	0.0	0.0
59°	256.6	78.9	30.1	22.9	17.2	0.0	0.0	0.0	0.0	0.0	0.0
60°	236.6	83.2	31.5	24.4	17.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	190.7	88.9	34.4	28.7	14.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	166.3	93.2	35.8	31.5	12.9	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	152.0	96.1	38.7	33.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	140.5	94.6	41.6	31.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	127.6	90.3	50.2	28.7	8.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	114.7	81.7	54.5	25.8	5.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	83.2	68.8	50.2	22.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.8	37.3	35.8	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.2	8.6	7.2	4.3	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°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.5°	7.2	7.2	7.2	7.2	8.6	8.6	11.5	14.3	17.2	18.6	18.6
5°	5.7	5.7	5.7	5.7	5.7	7.2	8.6	11.5	15.8	17.2	17.2
7.5°	4.3	4.3	4.3	4.3	4.3	4.3	7.2	10.0	14.3	15.8	17.2
10°	4.3	2.9	2.9	1.4	1.4	2.9	4.3	8.6	12.9	14.3	15.8
12.5°	2.9	1.4	1.4	0.0	0.0	1.4	2.9	7.2	11.5	12.9	14.3
15°	1.4	0.0	0.0	0.0	0.0	0.0	1.4	5.7	10.0	11.5	14.3
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	8.6	11.5	12.9
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	7.2	10.0	11.5
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.7	8.6	10.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	5.7	7.2
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.3	5.7
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.3	5.7
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9	4.3
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9	4.3
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9	2.9
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
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°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2.5°	20.1	20.1	18.6	17.2	17.2	17.2	18.6	20.1	20.1	20.1
5°	18.6	18.6	17.2	17.2	17.2	17.2	18.6	21.5	22.9	22.9
7.5°	18.6	18.6	17.2	17.2	17.2	17.2	18.6	21.5	22.9	24.4
10°	17.2	17.2	17.2	17.2	15.8	17.2	18.6	21.5	25.8	25.8
12.5°	17.2	17.2	17.2	17.2	15.8	17.2	20.1	22.9	27.2	28.7
15°	17.2	17.2	17.2	15.8	15.8	17.2	20.1	24.4	28.7	31.5
17.5°	15.8	17.2	17.2	15.8	15.8	17.2	20.1	24.4	31.5	35.8
20°	14.3	15.8	17.2	15.8	15.8	15.8	20.1	24.4	33.0	38.7
22.5°	12.9	14.3	15.8	15.8	14.3	15.8	20.1	25.8	35.8	43.0
25°	11.5	12.9	12.9	14.3	14.3	15.8	20.1	25.8	37.3	48.7
27.5°	8.6	10.0	11.5	12.9	12.9	15.8	20.1	27.2	40.1	60.2
30°	7.2	8.6	10.0	11.5	12.9	15.8	20.1	27.2	43.0	76.0
32.5°	7.2	8.6	10.0	11.5	12.9	14.3	20.1	28.7	47.3	94.6
35°	5.7	7.2	8.6	11.5	11.5	14.3	20.1	28.7	51.6	123.3
37.5°	5.7	7.2	8.6	11.5	11.5	14.3	20.1	28.7	63.1	137.6
40°	4.3	5.7	7.2	11.5	11.5	14.3	21.5	30.1	64.5	139.1
42.5°	4.3	5.7	7.2	10.0	11.5	14.3	21.5	30.1	60.2	143.4
45°	4.3	5.7	7.2	11.5	12.9	15.8	21.5	31.5	58.8	163.4
47.5°	4.3	5.7	7.2	11.5	14.3	15.8	21.5	31.5	60.2	233.7
50°	4.3	5.7	7.2	11.5	15.8	15.8	21.5	31.5	66.0	375.6
52.5°	2.9	4.3	5.7	10.0	12.9	17.2	22.9	30.1	70.3	501.8
55°	2.9	2.9	4.3	8.6	11.5	18.6	24.4	30.1	81.7	533.4
57.5°	2.9	2.9	4.3	7.2	10.0	20.1	25.8	30.1	94.6	517.6
59°	2.9	2.9	2.9	7.2	8.6	20.1	25.8	31.5	96.1	490.3
60°	2.9	2.9	2.9	5.7	8.6	20.1	27.2	33.0	97.5	458.8
62.5°	1.4	1.4	1.4	5.7	7.2	20.1	30.1	40.1	100.4	354.1
65°	2.9	2.9	1.4	4.3	7.2	17.2	34.4	43.0	101.8	275.3
67.5°	2.9	2.9	2.9	5.7	7.2	17.2	35.8	44.4	101.8	217.9
70°	2.9	2.9	2.9	5.7	8.6	17.2	35.8	45.9	100.4	177.8
72.5°	2.9	2.9	2.9	5.7	8.6	15.8	33.0	47.3	96.1	150.5
75°	2.9	2.9	2.9	4.3	7.2	14.3	31.5	51.6	87.5	127.6
77.5°	2.9	2.9	2.9	2.9	5.7	11.5	28.7	57.3	77.4	103.2
80°	4.3	2.9	2.9	2.9	4.3	10.0	27.2	55.9	64.5	67.4
82.5°	4.3	2.9	2.9	1.4	2.9	7.2	21.5	43.0	33.0	30.1
85°	2.9	2.9	2.9	1.4	1.4	4.3	10.0	12.9	10.0	7.2
87.5°	2.9	2.9	2.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: SP1-2407-184-2

Test Date: 10/09/2024

Luminaire Tested: GSS-SB1A-722-U-5WQ

Data in this report applies to families of products including GSS-SB1A-722-U-5WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-2
 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-722-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI
 2200K CCT 26 LEDS

Spectral Parameters

CCT (K):	2160	CRI (Ra):	71.9		
CIE u':	0.2927	R1:	68.7	R9:	-17.8
CIE v':	0.5388	R2:	82.6	R10:	60.5
Duv:	0.0015	R3:	95.5	R11:	60.2
CIE x:	0.5130	R4:	66.4	R12:	48.2
CIE y:	0.4197	R5:	65.4	R13:	70.7
CIE z:	0.0674	R6:	75.9	R14:	96.8
Peak Wavelength (nm):	609	R7:	77.2	R15:	61.8
Dominant Wavelength (nm):	587	R8:	43.5		
Purity:	79.96089				
Rf:	70.6				
Rg:	97.6				



Test Conditions

Stabilization Time: 21M
 Operation Time: 1H 21M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-2

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: SP1-2407-184-2

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-2

Scotopic Flux vs. Wavelength

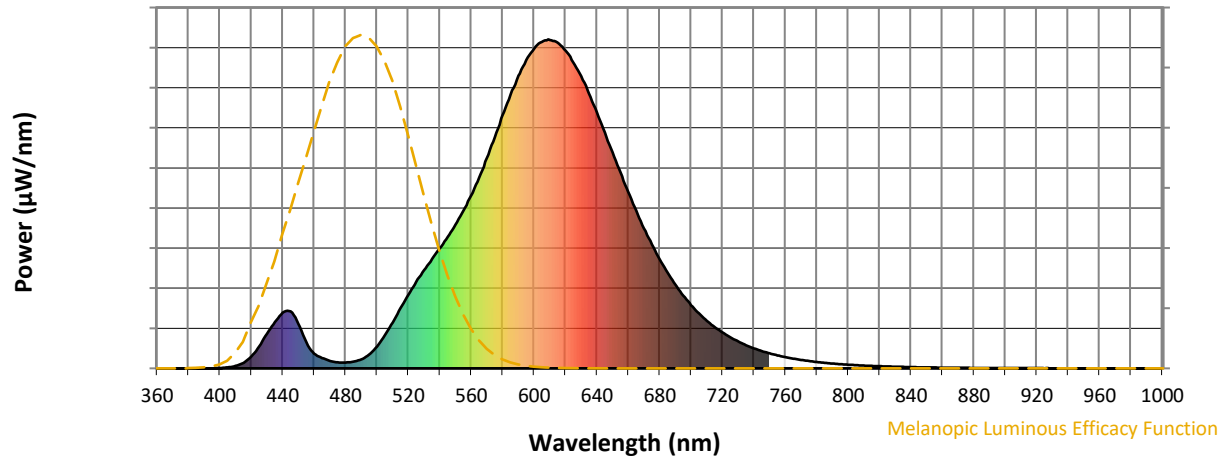


Scotopic Lumens: NR

S/P: 0.8

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-2

Melanopic Flux vs. Wavelength

Melanopic Lumens: NR
M/P: 1.21

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	27	NR	620	966	NR	750	46	NR	880	1	NR
365	0	NR	495	42	NR	625	930	NR	755	39	NR	885	1	NR
370	0	NR	500	67	NR	630	888	NR	760	34	NR	890	1	NR
375	0	NR	505	101	NR	635	835	NR	765	30	NR	895	1	NR
380	0	NR	510	139	NR	640	778	NR	770	26	NR	900	1	NR
385	0	NR	515	183	NR	645	717	NR	775	22	NR	905	1	NR
390	0	NR	520	224	NR	650	656	NR	780	19	NR	910	1	NR
395	0	NR	525	262	NR	655	595	NR	785	17	NR	915	1	NR
400	1	NR	530	299	NR	660	536	NR	790	15	NR	920	1	NR
405	3	NR	535	332	NR	665	480	NR	795	13	NR	925	1	NR
410	7	NR	540	365	NR	670	425	NR	800	11	NR	930	1	NR
415	17	NR	545	400	NR	675	376	NR	805	10	NR	935	0	NR
420	36	NR	550	437	NR	680	332	NR	810	8	NR	940	0	NR
425	67	NR	555	479	NR	685	291	NR	815	8	NR	945	0	NR
430	105	NR	560	525	NR	690	255	NR	820	7	NR	950	0	NR
435	141	NR	565	579	NR	695	221	NR	825	6	NR	955	0	NR
440	169	NR	570	639	NR	700	192	NR	830	5	NR	960	0	NR
445	173	NR	575	703	NR	705	167	NR	835	4	NR	965	0	NR
450	136	NR	580	769	NR	710	144	NR	840	4	NR	970	0	NR
455	80	NR	585	832	NR	715	125	NR	845	3	NR	975	0	NR
460	45	NR	590	890	NR	720	109	NR	850	3	NR	980	0	NR
465	32	NR	595	937	NR	725	94	NR	855	3	NR	985	0	NR
470	23	NR	600	972	NR	730	81	NR	860	2	NR	990	0	NR
475	18	NR	605	992	NR	735	70	NR	865	2	NR	995	0	NR
480	18	NR	610	998	NR	740	61	NR	870	2	NR	1000	0	NR
485	20	NR	615	990	NR	745	53	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-2

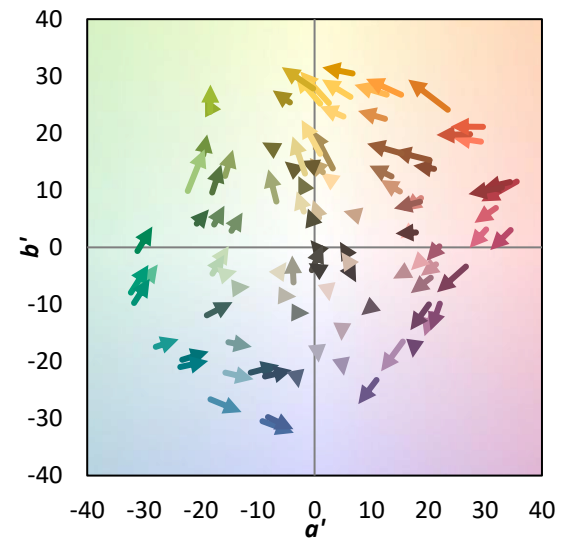
TM-30-18

Summary

$R_f = 70.6$
 $R_g = 97.6$
 $CIE\ R_a = 71.9$
 $R_g = -17.8$



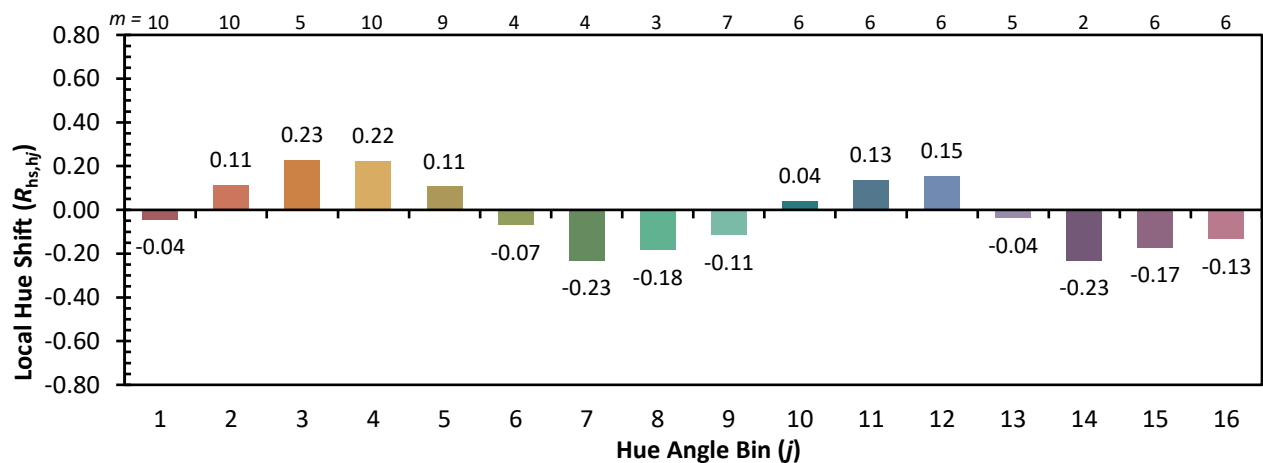
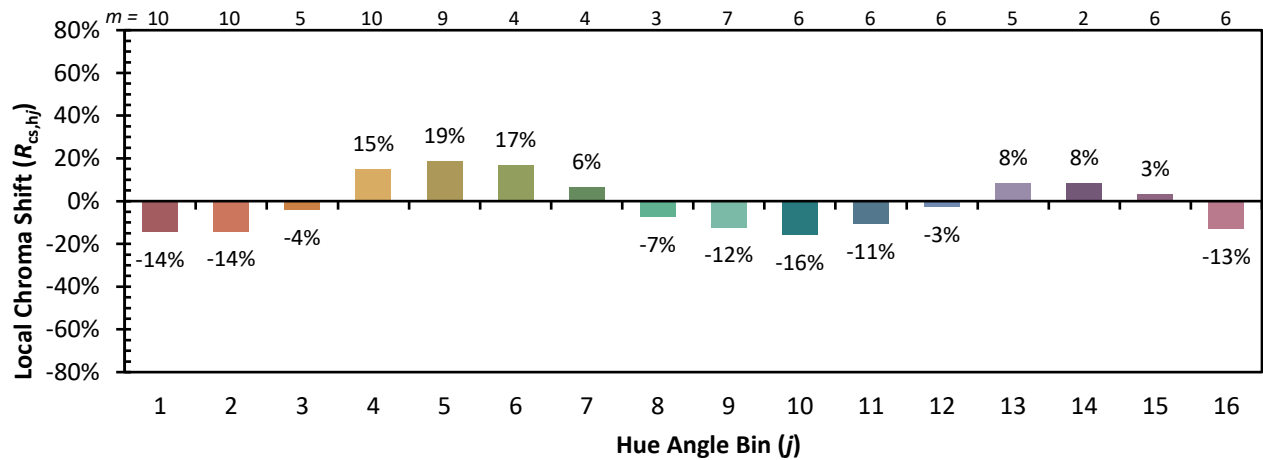
Color Vector Graphics



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

CES01 = 87	CES26 = 60	CES51 = 74	CES76 = 58
CES02 = 65	CES27 = 77	CES52 = 77	CES77 = 82
CES03 = 32	CES28 = 85	CES53 = 65	CES78 = 65
CES04 = 72	CES29 = 50	CES54 = 77	CES79 = 86
CES05 = 52	CES30 = 49	CES55 = 74	CES80 = 85
CES06 = 53	CES31 = 55	CES56 = 64	CES81 = 61
CES07 = 44	CES32 = 55	CES57 = 60	CES82 = 93
CES08 = 43	CES33 = 55	CES58 = 64	CES83 = 83
CES09 = 29	CES34 = 75	CES59 = 84	CES84 = 93
CES10 = 79	CES35 = 88	CES60 = 89	CES85 = 81
CES11 = 62	CES36 = 78	CES61 = 84	CES86 = 55
CES12 = 68	CES37 = 82	CES62 = 68	CES87 = 79
CES13 = 45	CES38 = 54	CES63 = 68	CES88 = 72
CES14 = 75	CES39 = 90	CES64 = 69	CES89 = 62
CES15 = 72	CES40 = 86	CES65 = 66	CES90 = 67
CES16 = 49	CES41 = 75	CES66 = 64	CES91 = 89
CES17 = 51	CES42 = 83	CES67 = 63	CES92 = 67
CES18 = 57	CES43 = 68	CES68 = 71	CES93 = 78
CES19 = 74	CES44 = 98	CES69 = 81	CES94 = 52
CES20 = 68	CES45 = 76	CES70 = 65	CES95 = 76
CES21 = 89	CES46 = 68	CES71 = 64	CES96 = 78
CES22 = 81	CES47 = 60	CES72 = 88	CES97 = 76
CES23 = 92	CES48 = 47	CES73 = 59	CES98 = 71
CES24 = 92	CES49 = 65	CES74 = 85	CES99 = 65
CES25 = 74	CES50 = 74	CES75 = 66	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)