

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: P1067597

Luminaire Tested: **NAV-SA5A-830-U-T4BC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1067597
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA5A-830-U-T4BC
Description: Navion AREA AND ROADWAY LUMINAIRE 615mA 5xLight Square PACKAGE
80CRI 3000K FIXTURE w/ TYPE IV ANGLED BACKLIGHT CONTROL
Light Source: (70) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14076.6 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G3

Input Watts (W): 137.4
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

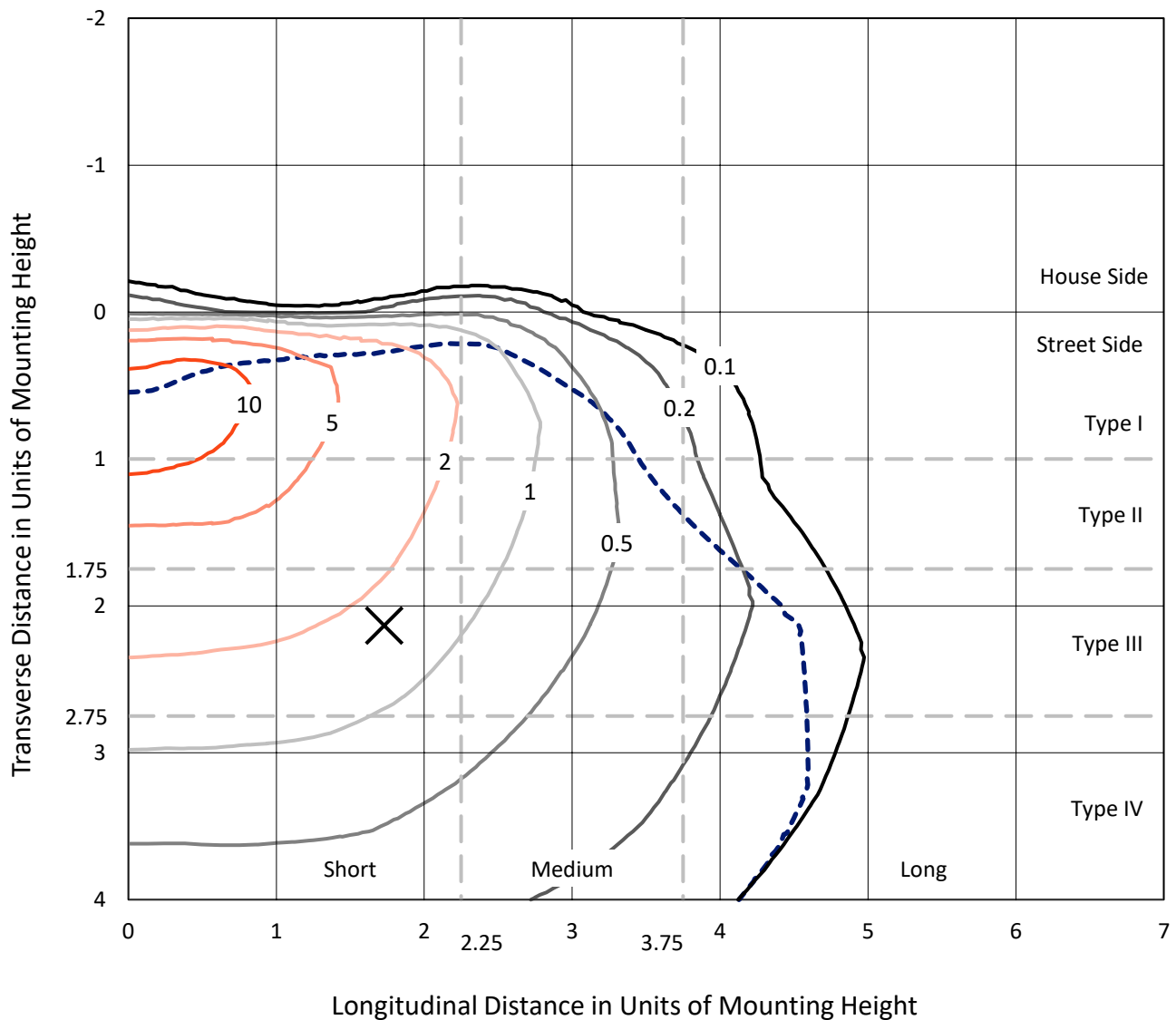


REPORT NUMBER: P1067597

CATALOG NUMBER: NAV-SA5A-830-U-T4BC

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

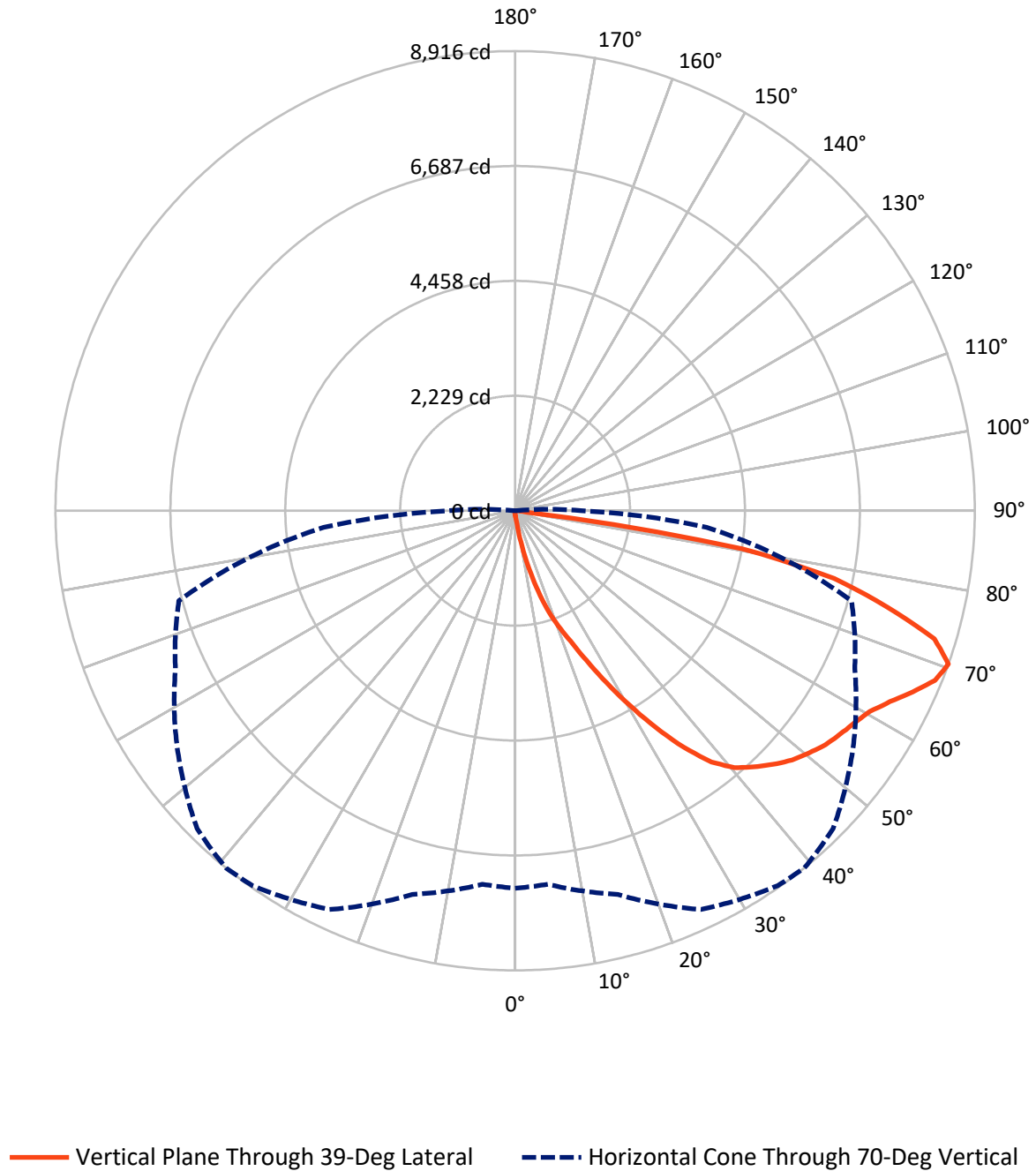


Based on 15 foot mounting height. Maximum calculated value = 15.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P1067597

CATALOG NUMBER: NAV-SA5A-830-U-T4BC

Luminous Intensity Polar Plot



REPORT NUMBER: P1067597

CATALOG NUMBER: NAV-SA5A-830-U-T4BC

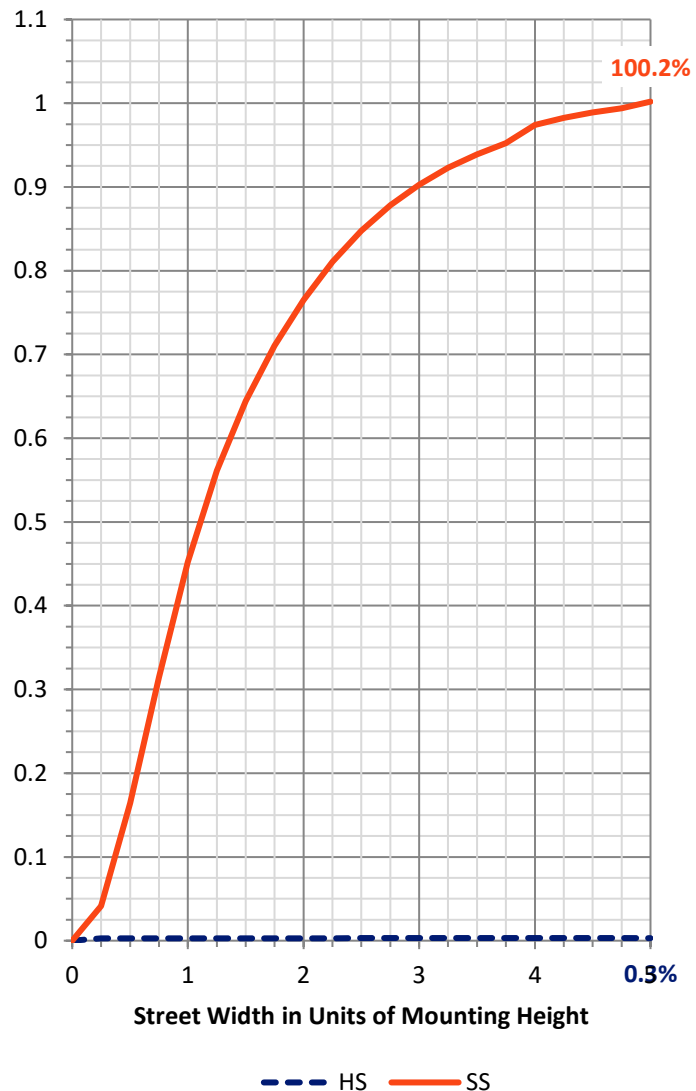
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	43.3	0.0	43.3
	% Fixture	0.3	0.0	0.3
Street Side	Lumens	14033.3	0.0	14033.3
	% Fixture	99.7	0.0	99.7
Total	Lumens	14076.6	0.0	14076.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.8	0.1
10°-20°	173.1	1.2
20°-30°	587.3	4.2
30°-40°	1380.2	9.8
40°-50°	2241.1	15.9
50°-60°	2839.9	20.2
60°-70°	3607.5	25.6
70°-80°	2931.1	20.8
80°-90°	301.8	2.1
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°	14076.6	100.0
0°-180°	14076.6	100.0



REPORT NUMBER: P1067597

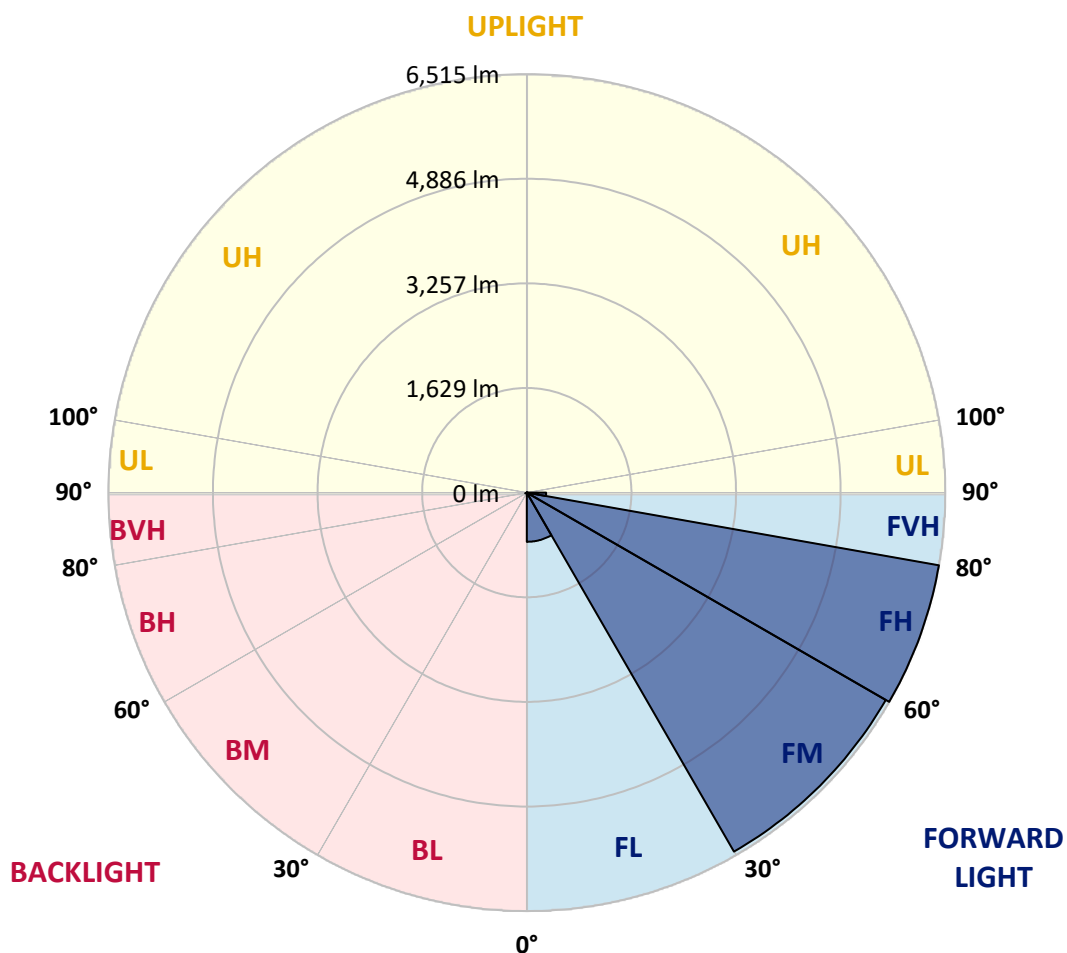
CATALOG NUMBER: NAV-SA5A-830-U-T4BC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	765.7	5.4			
FM	(30°-60°)	6452.9	45.8			
FH	(60°-80°)	6514.7	46.3			G3/7500
FVH	(80°-90°)	300.0	2.1			G3/500
BL	(0°-30°)	9.4	0.1	B0/110		
BM	(30°-60°)	8.3	0.1	B0/220		
BH	(60°-80°)	23.8	0.2	B0/110		G0/110
BVH	(80°-90°)	1.8	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 IV Short



REPORT NUMBER: P1067597

CATALOG NUMBER: NAV-SA5A-830-U-T4BC

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
2.5°	99.4	99.4	99.4	95.5	95.5	91.7	91.7	87.9	84.1	84.1	80.3
5°	187.3	191.1	179.6	156.7	141.4	133.8	126.1	107.0	95.5	87.9	80.3
7.5°	512.1	496.8	473.9	397.5	305.7	259.9	221.7	156.7	114.7	91.7	80.3
10°	1077.7	1035.7	970.7	867.5	687.9	615.3	477.7	286.6	160.5	103.2	80.3
12.5°	1582.2	1589.9	1509.6	1410.2	1192.4	1070.1	882.8	538.9	252.2	122.3	80.3
15°	1964.4	1956.7	1926.2	1845.9	1651.0	1532.5	1364.4	905.8	424.2	152.9	84.1
17.5°	2266.3	2235.7	2224.3	2189.9	2063.8	1998.8	1815.3	1333.8	672.6	206.4	87.9
20°	2568.2	2560.6	2549.1	2510.9	2426.8	2381.0	2239.6	1765.7	1001.3	294.3	95.5
22.5°	3007.7	2965.7	2973.3	2889.3	2820.5	2740.2	2625.6	2224.3	1379.7	420.4	107.0
25°	3523.7	3519.8	3458.7	3420.5	3305.8	3217.9	3065.1	2667.6	1800.1	607.7	118.5
27.5°	4131.3	4089.3	4062.5	3997.6	3879.1	3779.7	3569.5	3107.1	2254.8	817.9	133.8
30°	4765.7	4765.7	4716.1	4616.7	4502.0	4379.7	4165.7	3569.5	2705.8	1085.4	152.9
32.5°	5507.2	5522.5	5400.2	5251.1	5102.1	5018.0	4739.0	4093.1	3137.7	1391.1	175.8
35°	6225.7	6206.6	6004.0	5839.7	5728.8	5637.1	5400.2	4666.4	3626.9	1746.5	206.4
37.5°	6913.6	6863.9	6527.6	6294.5	6244.8	6183.6	5946.7	5239.6	4112.2	2140.2	244.6
40°	7406.6	7330.2	6982.4	6661.3	6588.7	6554.3	6370.9	5759.4	4624.3	2579.7	294.3
42.5°	7620.6	7532.7	7291.9	7032.1	6871.5	6791.3	6630.8	6183.6	5136.5	3068.9	366.9
45°	7662.6	7593.9	7421.9	7360.7	7142.9	7020.6	6802.7	6485.5	5614.2	3554.2	466.3
47.5°	7509.8	7479.2	7376.0	7506.0	7395.1	7227.0	6963.3	6711.0	6038.4	4142.8	603.8
50°	7135.2	7112.3	7162.0	7502.1	7578.6	7387.5	7139.1	6886.8	6405.3	4750.5	798.7
52.5°	6630.8	6626.9	6860.1	7402.8	7658.8	7540.3	7311.0	7062.6	6695.7	5339.0	1073.9
55°	6080.4	6145.4	6554.3	7311.0	7704.7	7651.2	7479.2	7219.3	6955.6	5885.5	1517.2
57.5°	6034.6	6007.8	6401.5	7272.8	7731.4	7762.0	7647.4	7383.7	7177.3	6332.7	2109.6
60°	6493.2	6432.0	6581.1	7353.1	7849.9	7903.4	7815.5	7509.8	7398.9	6684.3	2889.3
62.5°	7024.4	6967.1	7043.5	7662.6	8083.0	8159.5	8048.6	7639.7	7578.6	6928.9	3726.2
65°	7448.6	7402.8	7548.0	8125.1	8407.9	8472.9	8396.4	7880.5	7658.8	7127.6	4406.5
67.5°	7517.4	7460.1	7762.0	8434.6	8736.6	8782.4	8721.3	8113.6	7632.1	7142.9	4563.2
70°	7322.5	7272.8	7704.7	8534.0	8878.0	8916.2	8721.3	8002.8	7269.0	6753.1	3730.0
72.5°	6722.5	6760.7	7318.7	8293.2	8683.1	8507.3	8094.5	7444.8	6798.9	5725.0	2617.9
75°	5790.0	5832.0	6573.4	7632.1	7662.6	7448.6	7227.0	6848.6	6084.3	3772.1	1815.3
77.5°	4116.0	3967.0	5075.3	6302.1	6191.3	6328.8	6348.0	5698.3	5094.4	1964.4	1215.3
80°	405.1	344.0	638.2	1807.7	3993.7	4463.8	4647.3	4391.2	3756.8	879.0	638.2
82.5°	87.9	87.9	95.5	103.2	160.5	240.8	1104.5	2705.8	2426.8	447.1	206.4
85°	49.7	49.7	61.1	72.6	95.5	107.0	126.1	168.2	653.5	160.5	38.2
87.5°	38.2	42.0	49.7	61.1	80.3	87.9	107.0	133.8	164.3	149.0	11.5
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: P1067597

CATALOG NUMBER: NAV-SA5A-830-U-T4BC

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
2.5°	80.3	76.4	72.6	68.8	65.0	65.0	61.1	61.1	61.1	61.1	61.1
5°	76.4	72.6	68.8	61.1	57.3	53.5	49.7	49.7	49.7	49.7	49.7
7.5°	76.4	72.6	65.0	57.3	49.7	45.9	42.0	38.2	38.2	42.0	42.0
10°	76.4	68.8	57.3	49.7	42.0	38.2	34.4	30.6	30.6	30.6	30.6
12.5°	72.6	65.0	53.5	45.9	38.2	30.6	22.9	19.1	19.1	19.1	19.1
15°	68.8	61.1	49.7	38.2	26.8	19.1	15.3	11.5	11.5	11.5	11.5
17.5°	68.8	57.3	45.9	34.4	19.1	11.5	7.6	3.8	3.8	3.8	7.6
20°	68.8	57.3	42.0	26.8	11.5	7.6	7.6	3.8	0.0	3.8	3.8
22.5°	68.8	53.5	34.4	19.1	11.5	7.6	3.8	0.0	0.0	0.0	0.0
25°	72.6	53.5	30.6	15.3	7.6	3.8	0.0	0.0	0.0	0.0	0.0
27.5°	72.6	49.7	26.8	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0
30°	76.4	49.7	22.9	7.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	76.4	45.9	15.3	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	76.4	42.0	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	76.4	38.2	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	80.3	34.4	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	84.1	30.6	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	87.9	26.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	99.4	26.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	114.7	26.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	137.6	26.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	179.6	22.9	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	259.9	22.9	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	435.7	22.9	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	764.4	22.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1291.8	22.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	1685.4	26.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1280.3	22.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	611.5	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	271.3	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	118.5	11.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	45.9	7.6	3.8	3.8	3.8	3.8	0.0	0.0	0.0	0.0	0.0
82.5°	19.1	7.6	3.8	3.8	3.8	3.8	3.8	0.0	0.0	0.0	0.0
85°	11.5	7.6	7.6	7.6	3.8	3.8	3.8	0.0	0.0	0.0	0.0
87.5°	7.6	7.6	7.6	7.6	7.6	3.8	3.8	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

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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

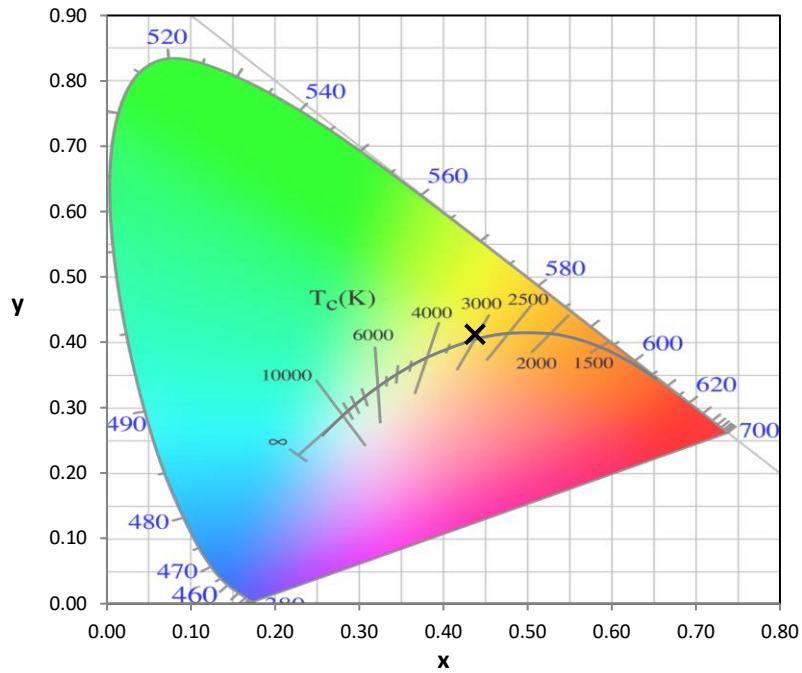
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

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

REPORT NUMBER: SP1-2407-184-9

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

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



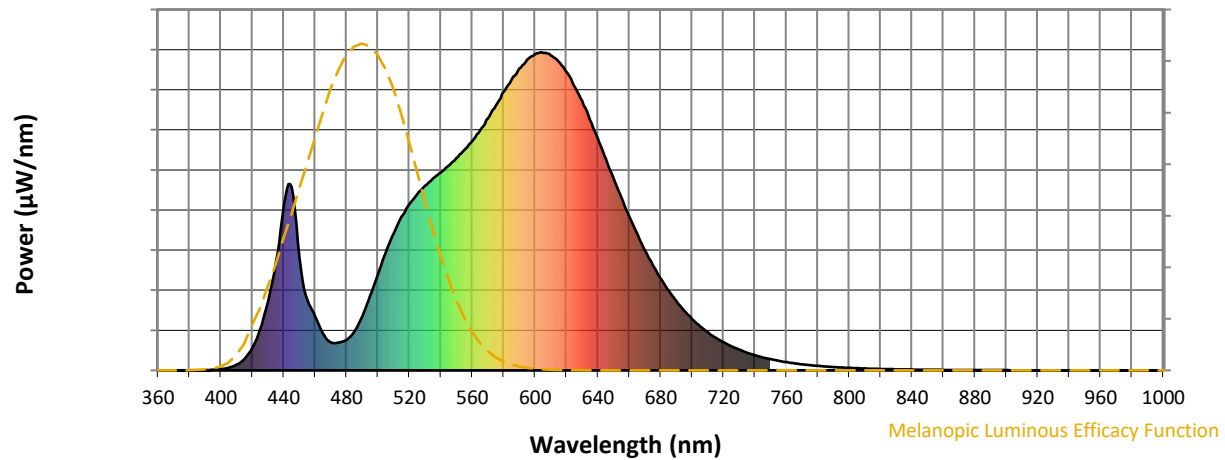
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2407-184-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.33

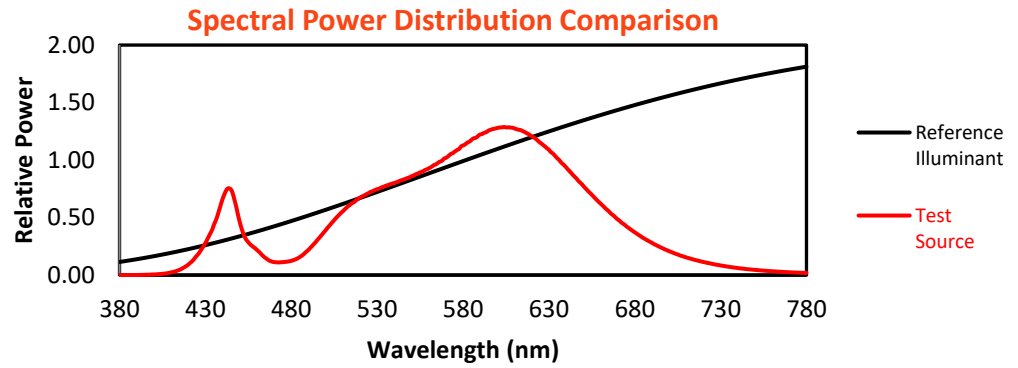
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	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

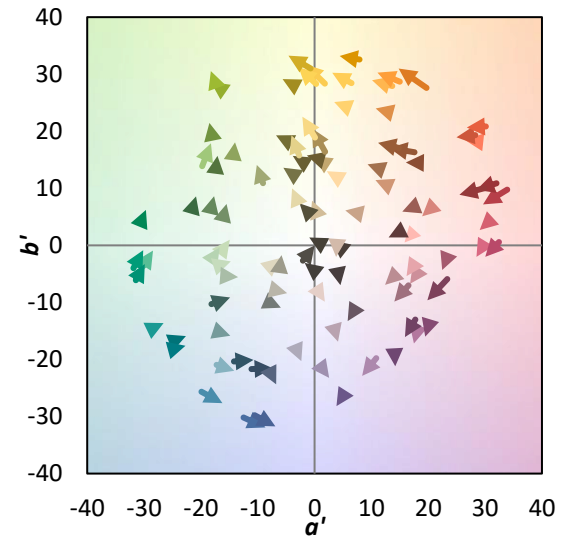
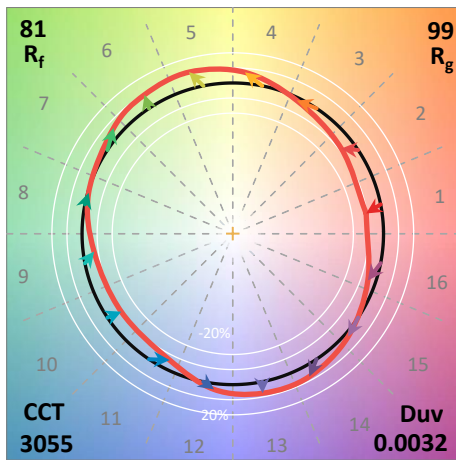
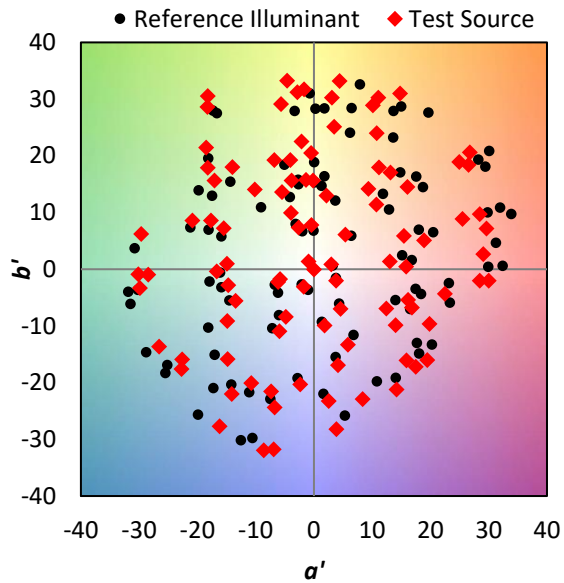
TM-30-18

Summary

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



Color Vector Graphics

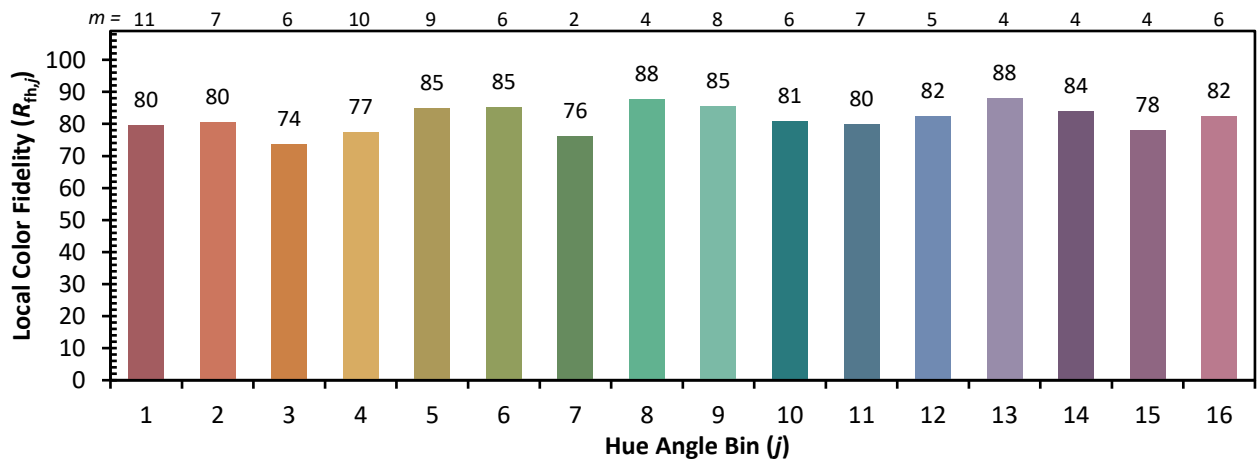
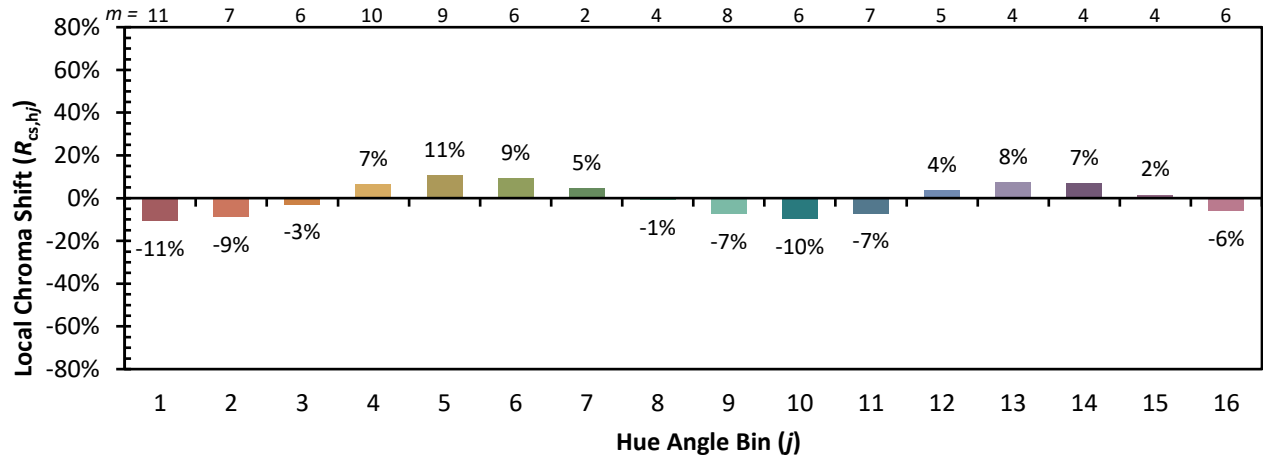


Individual Sample Fidelity Index ($R_{f,i}$)

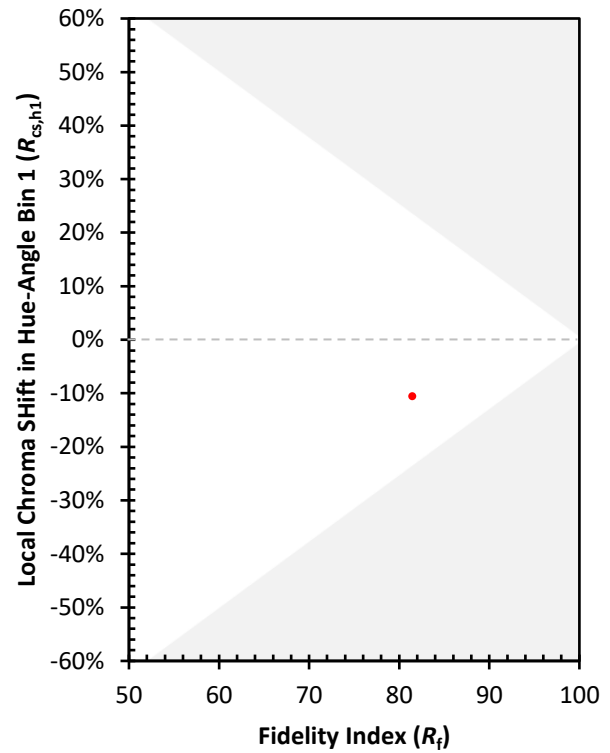
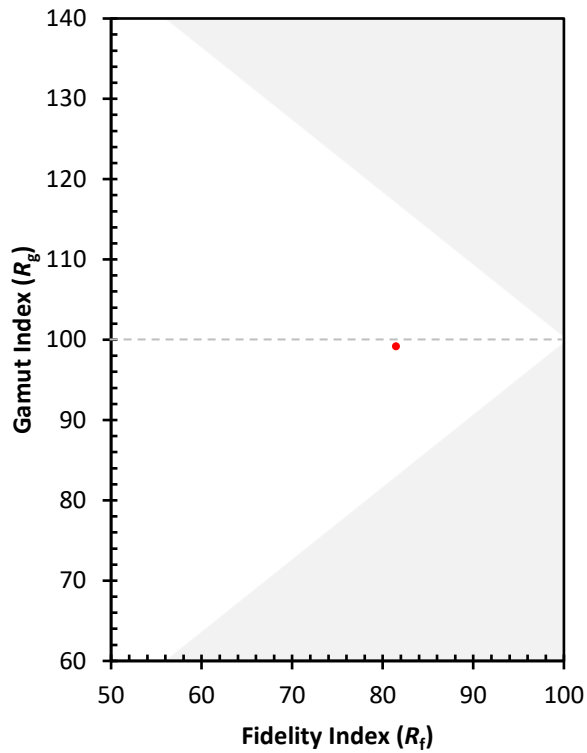
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)