

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: P1067116

Luminaire Tested: **NAV-SA4D-830-U-T3BC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1067116
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA4D-830-U-T3BC
Description: Navion AREA AND ROADWAY LUMINAIRE 1200mA 4xLight Square PACKAGE
80CRI 3000K FIXTURE w/ TYPE III ANGLED BACKLIGHT CONTROL
Light Source: (56) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20135 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G4

Input Watts (W): 218.9
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

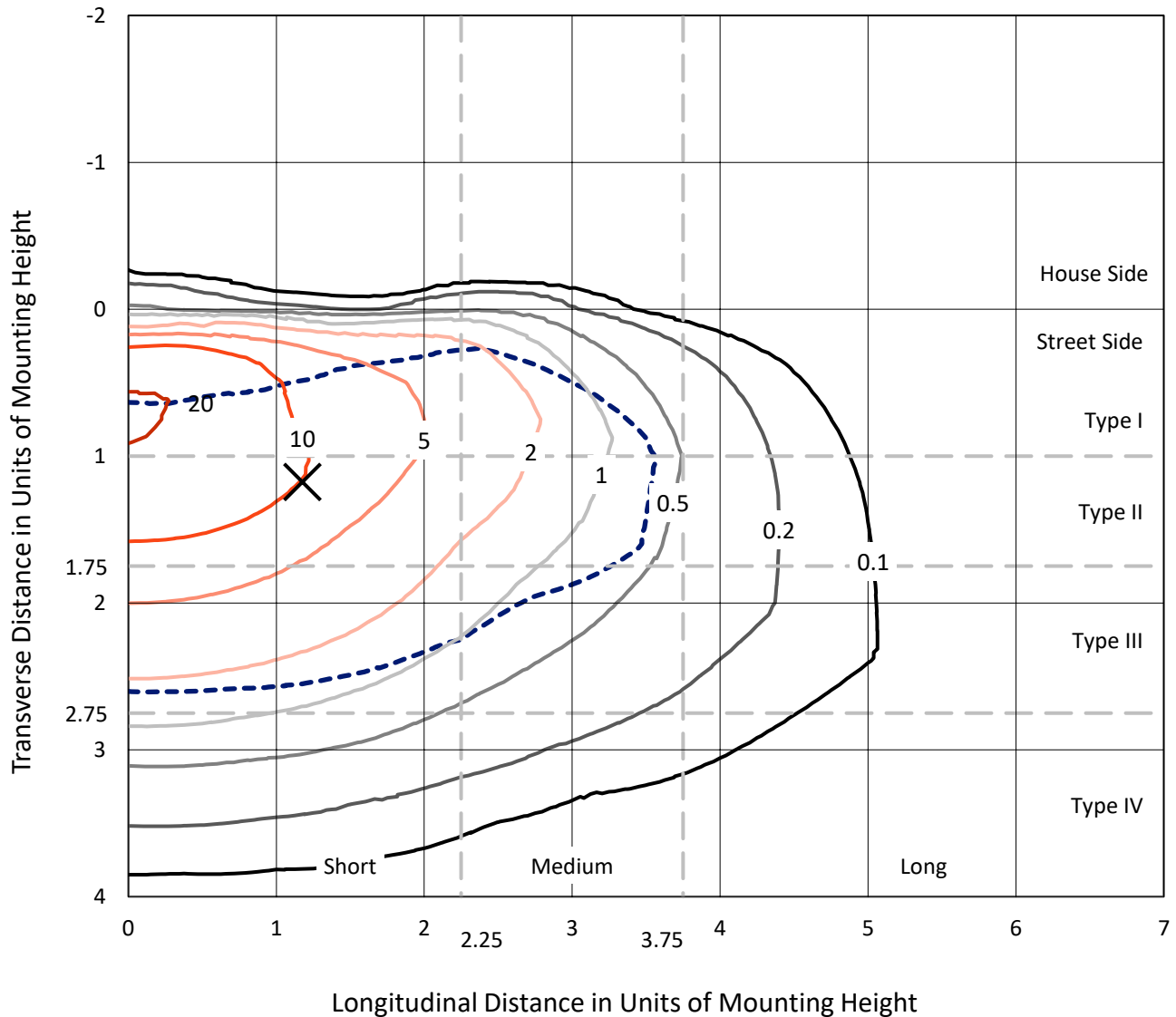


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Iso-Footcandle Lines of Horizontal Illumination

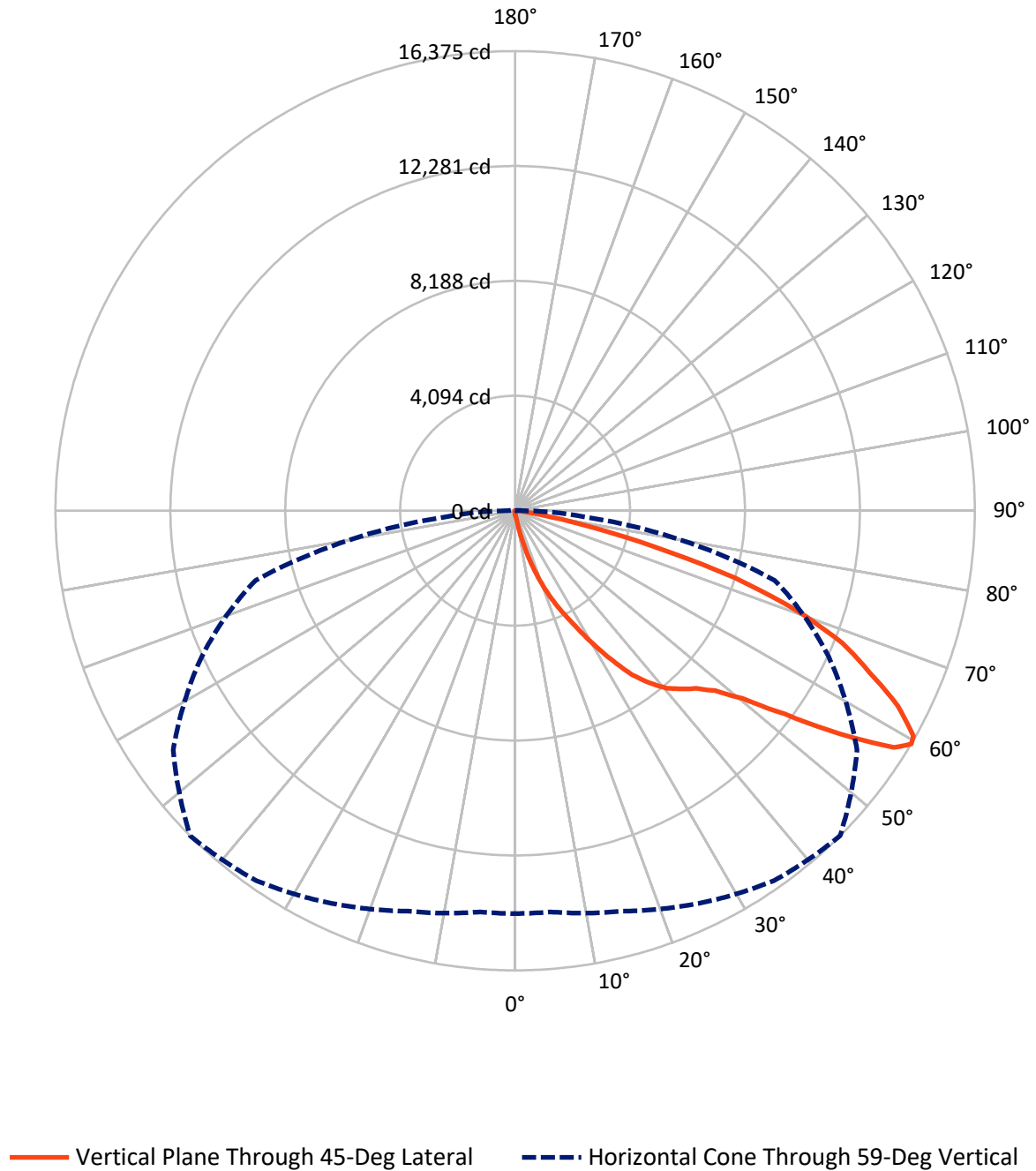
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 22 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	71.5	0.0	71.5
	% Fixture	0.4	0.0	0.4
Street Side	Lumens	20063.5	0.0	20063.5
	% Fixture	99.6	0.0	99.6
Total	Lumens	20135.0	0.0	20135.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.7	0.1
10°-20°	222.5	1.1
20°-30°	799.7	4.0
30°-40°	1858.2	9.2
40°-50°	3167.1	15.7
50°-60°	5218.6	25.9
60°-70°	6033.8	30.0
70°-80°	2592.3	12.9
80°-90°	224.0	1.1
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°	20135.0	100.0
0°-180°	20135.0	100.0



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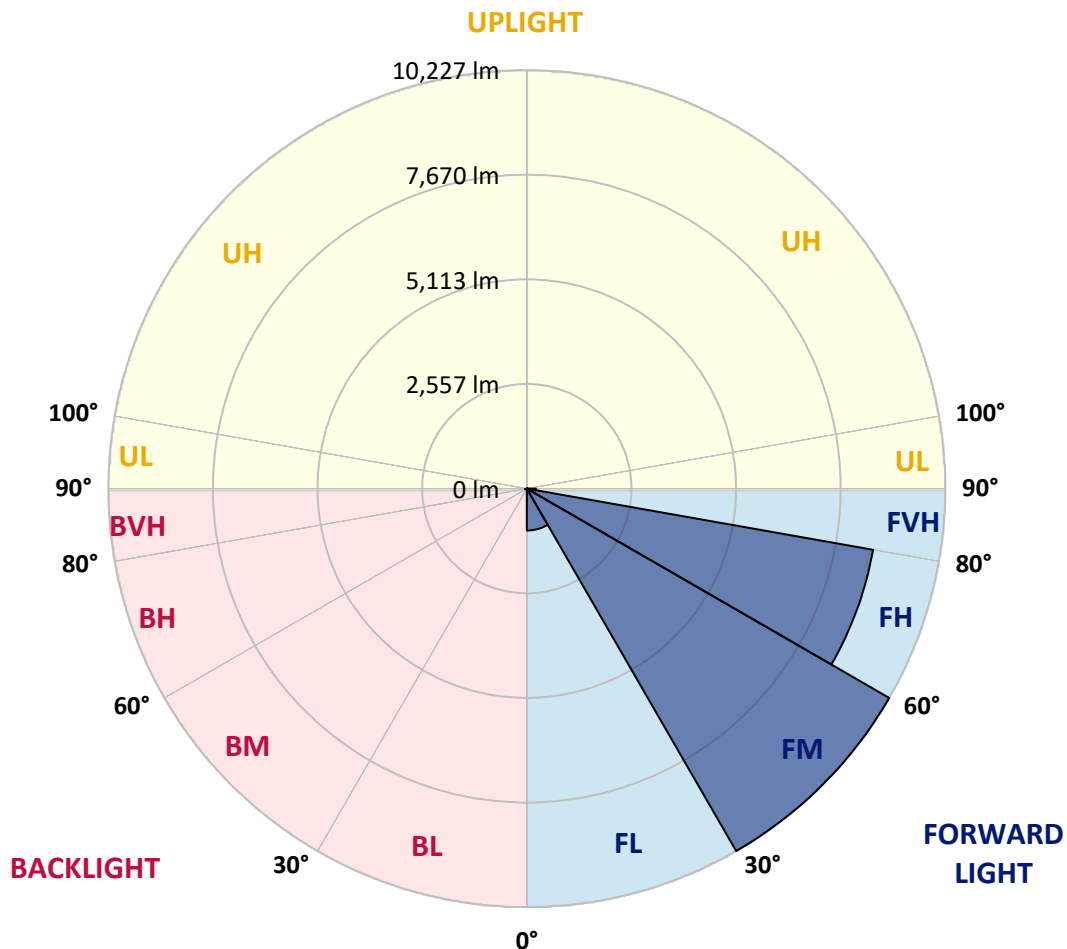
CATALOG NUMBER: NAV-SA4D-830-U-T3BC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1023.3	5.1			
FM	(30°-60°)	10226.6	50.8			
FH	(60°-80°)	8592.5	42.7			G4/12000
FVH	(80°-90°)	221.1	1.1			G2/225
BL	(0°-30°)	17.6	0.1	B0/110		
BM	(30°-60°)	17.3	0.1	B0/220		
BH	(60°-80°)	33.6	0.2	B0/110		G0/110
BVH	(80°-90°)	2.9	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-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3
2.5°	165.2	165.2	161.1	155.7	154.3	150.3	150.3	146.2	140.8	136.7	131.3
5°	239.6	238.3	227.5	213.9	196.3	185.5	185.5	170.6	157.1	144.9	134.0
7.5°	524.0	511.8	472.5	407.5	322.2	265.4	261.3	212.6	180.1	155.7	135.4
10°	1202.2	1160.3	1104.8	949.1	701.3	490.1	480.6	310.0	215.3	167.9	138.1
12.5°	1969.9	2003.7	1892.7	1647.7	1357.9	1010.0	942.3	522.6	284.3	184.1	140.8
15°	2668.5	2660.4	2598.1	2397.7	2063.3	1600.3	1558.3	908.5	407.5	209.9	143.5
17.5°	3191.1	3181.6	3122.1	2993.4	2736.2	2273.2	2236.6	1448.7	639.0	246.4	146.2
20°	3742.1	3730.0	3646.0	3543.1	3318.4	2924.4	2881.1	2052.5	1000.5	306.0	146.2
22.5°	4402.8	4379.8	4290.5	4115.8	3878.9	3536.3	3497.1	2669.9	1448.7	403.5	153.0
25°	5201.6	5162.4	5039.2	4882.1	4596.4	4141.5	4099.6	3357.6	1988.9	551.0	159.8
27.5°	6112.8	6119.6	5953.0	5687.7	5304.5	4840.1	4761.6	3973.6	2548.0	762.2	167.9
30°	7194.5	7126.8	6892.6	6583.9	6211.6	5620.0	5544.2	4587.0	3176.2	1073.6	181.4
32.5°	8207.2	8134.1	7818.7	7430.1	7030.7	6406.6	6344.3	5276.1	3747.6	1441.9	205.8
35°	9076.4	9025.0	8583.6	8109.8	7755.0	7197.2	7178.3	6045.1	4419.1	1838.6	232.9
37.5°	9841.4	9748.0	9180.7	8689.2	8329.1	7829.5	7788.9	6749.1	5066.2	2298.9	273.5
40°	10494.0	10442.5	9750.7	9104.9	8812.4	8365.7	8314.2	7366.5	5735.1	2833.7	323.6
42.5°	11192.6	11124.9	10453.3	9729.0	9190.2	8712.2	8678.4	7875.5	6330.8	3421.3	398.0
45°	11981.9	11856.0	11267.0	10617.2	9798.1	9071.0	9033.1	8329.1	6941.4	4052.2	488.8
47.5°	12825.3	12715.7	12239.1	11782.9	10840.6	9662.7	9581.4	8715.0	7547.9	4780.6	603.8
50°	13683.7	13686.4	13329.0	13109.7	12114.6	10623.9	10508.8	9282.2	8185.6	5560.4	774.4
52.5°	14682.9	14708.6	14703.2	14540.7	13769.0	12195.8	12041.4	10143.3	8926.2	6470.2	1010.0
55°	15101.2	15147.3	15446.5	15806.6	15596.7	14188.7	14023.5	11628.5	9907.7	7484.3	1359.3
57.5°	14758.7	14810.1	15223.1	15854.0	16336.0	15933.9	15914.9	13561.9	11200.7	8713.6	1930.6
59°	14351.2	14344.4	14768.2	15437.0	16086.9	16348.2	16375.2	14869.7	12327.1	9576.0	2423.5
60°	14080.4	14085.8	14367.4	15053.8	15744.3	16197.9	16303.5	15640.1	12985.1	10196.1	2845.9
62.5°	13035.2	13097.5	13320.9	13958.5	14613.8	15120.2	15300.2	16326.5	14868.4	11661.0	4314.8
65°	11899.3	11903.3	12221.5	12767.1	13395.3	13751.4	13865.1	15258.3	16126.1	13153.0	6241.4
67.5°	9872.5	9955.1	10316.6	11200.7	12030.6	12481.5	12568.1	13281.6	15604.9	14125.1	7206.7
70°	6908.9	7017.2	7533.0	8679.8	9915.8	10656.4	10651.0	11040.9	13733.8	13691.8	6110.1
72.5°	3449.7	3636.5	4057.6	5285.6	6783.0	7945.9	8191.0	8881.5	11032.8	11372.6	4558.5
75°	1524.5	1535.3	1774.9	2393.7	3371.2	4848.3	5067.6	7049.7	8464.5	7904.0	3292.6
77.5°	886.8	894.9	938.2	1075.0	1366.1	2376.1	2622.5	4623.5	5981.5	4593.7	2147.3
80°	322.2	330.3	329.0	407.5	598.4	935.5	1042.5	2240.7	3989.9	2419.4	1125.1
82.5°	197.7	197.7	190.9	192.3	218.0	358.8	392.6	954.5	1942.8	1191.4	322.2
85°	97.5	102.9	109.7	123.2	146.2	177.4	188.2	273.5	653.9	288.4	77.2
87.5°	58.2	59.6	65.0	78.5	97.5	127.3	135.4	185.5	234.2	193.6	19.0
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°	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3	127.3
2.5°	128.6	127.3	120.5	115.1	109.7	104.2	100.2	96.1	96.1	97.5	96.1
5°	128.6	123.2	112.4	102.9	94.8	88.0	81.2	75.8	74.5	74.5	75.8
7.5°	127.3	120.5	105.6	93.4	82.6	73.1	66.3	59.6	58.2	59.6	58.2
10°	125.9	117.8	100.2	85.3	70.4	60.9	51.4	44.7	44.7	44.7	46.0
12.5°	125.9	113.7	94.8	77.2	60.9	50.1	40.6	33.8	32.5	32.5	32.5
15°	124.6	111.0	89.4	67.7	51.4	37.9	29.8	23.0	23.0	23.0	23.0
17.5°	121.8	107.0	82.6	59.6	40.6	28.4	20.3	13.5	13.5	16.2	16.2
20°	119.1	102.9	74.5	48.7	33.8	21.7	13.5	8.1	8.1	12.2	13.5
22.5°	120.5	102.9	69.0	43.3	27.1	16.2	10.8	6.8	5.4	9.5	12.2
25°	121.8	100.2	62.3	37.9	20.3	12.2	8.1	2.7	1.4	2.7	4.1
27.5°	121.8	97.5	54.2	29.8	14.9	9.5	4.1	0.0	0.0	0.0	0.0
30°	120.5	93.4	47.4	24.4	10.8	5.4	1.4	0.0	0.0	0.0	0.0
32.5°	119.1	89.4	43.3	19.0	9.5	2.7	0.0	0.0	0.0	0.0	0.0
35°	120.5	83.9	37.9	14.9	5.4	0.0	0.0	0.0	0.0	0.0	2.7
37.5°	124.6	78.5	32.5	12.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0
40°	130.0	74.5	27.1	9.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	140.8	74.5	24.4	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	154.3	74.5	20.3	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	171.9	75.8	17.6	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	193.6	78.5	16.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	209.9	75.8	14.9	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	238.3	73.1	13.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	276.2	69.0	13.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59°	314.1	63.6	13.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	357.4	60.9	12.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	590.3	54.2	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1140.0	51.4	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	1842.6	51.4	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1937.4	51.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1288.9	42.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	690.5	37.9	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	372.3	35.2	5.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	163.8	25.7	6.8	4.1	2.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	65.0	17.6	8.1	6.8	5.4	2.7	0.0	0.0	0.0	0.0	0.0
85°	31.1	13.5	10.8	9.5	6.8	4.1	0.0	0.0	0.0	0.0	0.0
87.5°	14.9	13.5	12.2	10.8	9.5	6.8	1.4	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

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

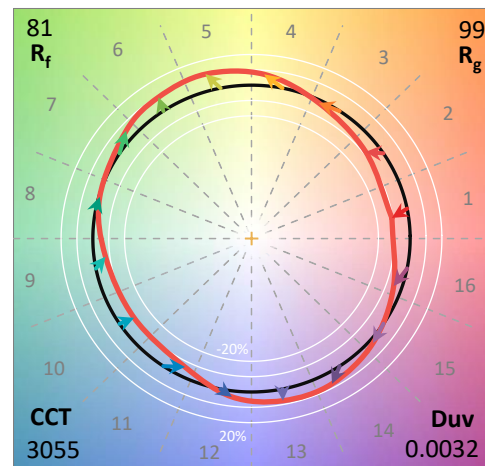
Test Information

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

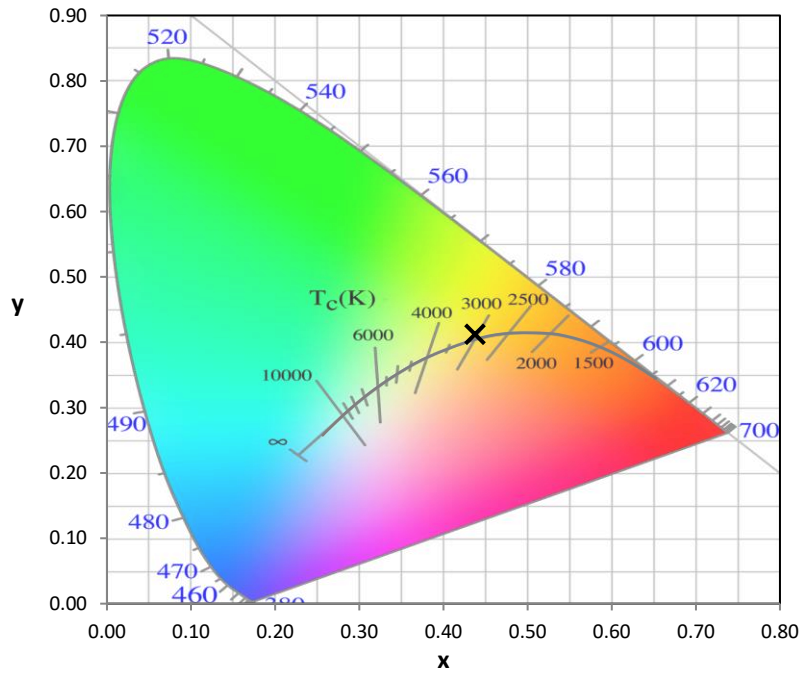
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

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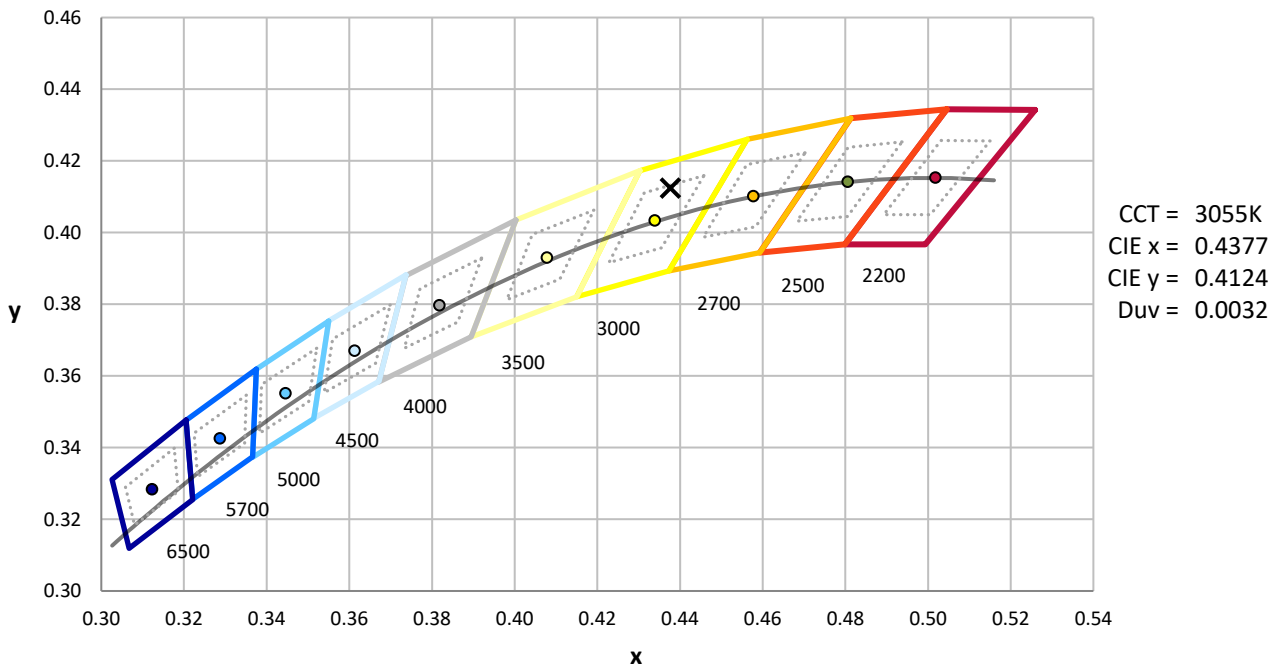
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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 3000K 4-step quadrangle

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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	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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Scotopic Flux vs. Wavelength



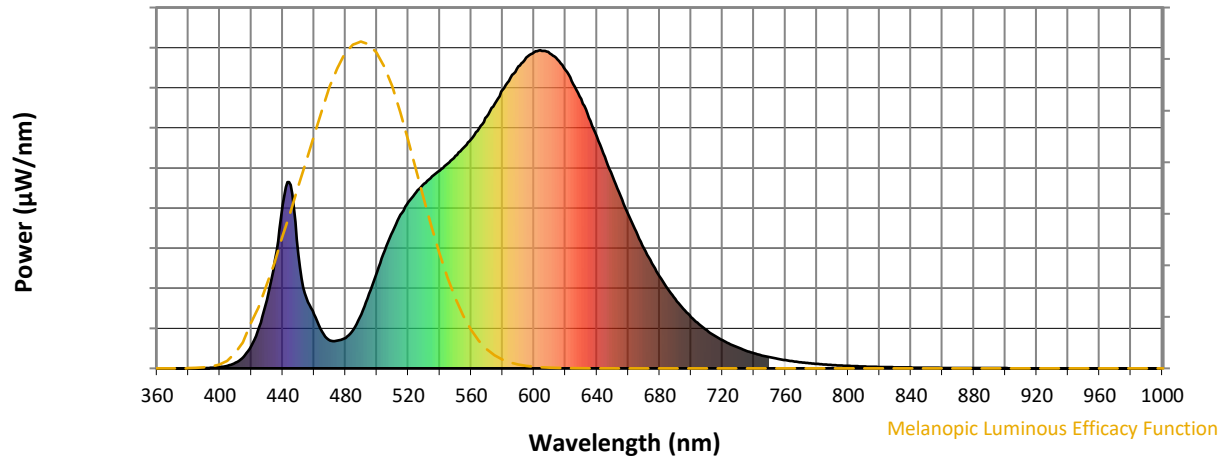
Scotopic Lumens: NR

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

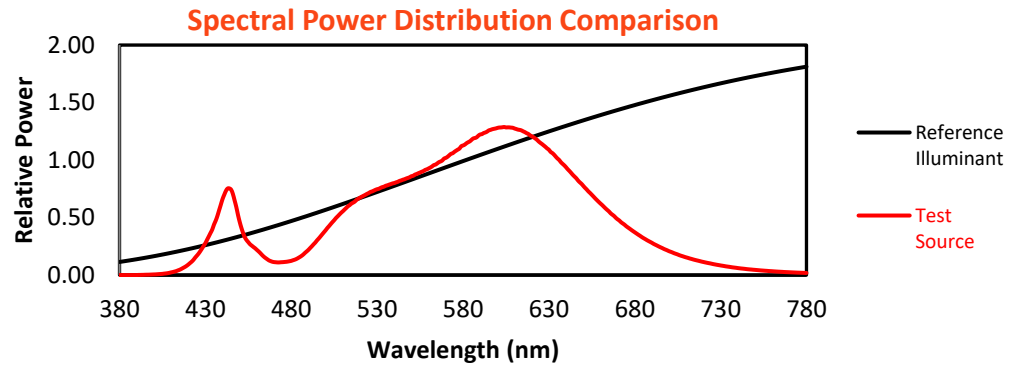
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	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			

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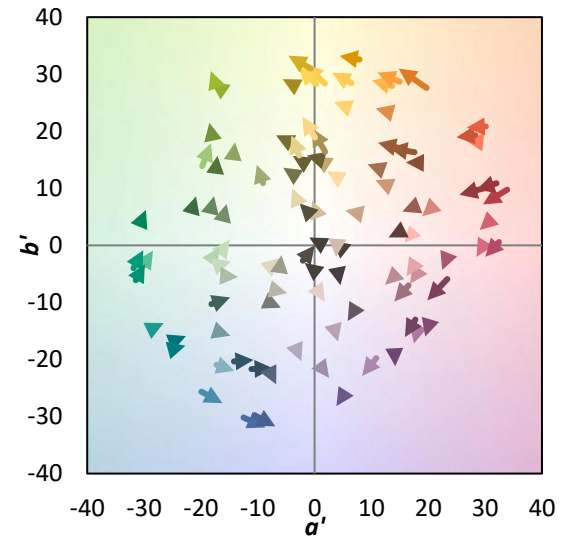
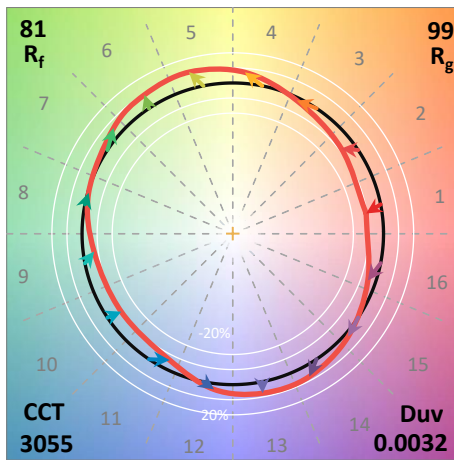
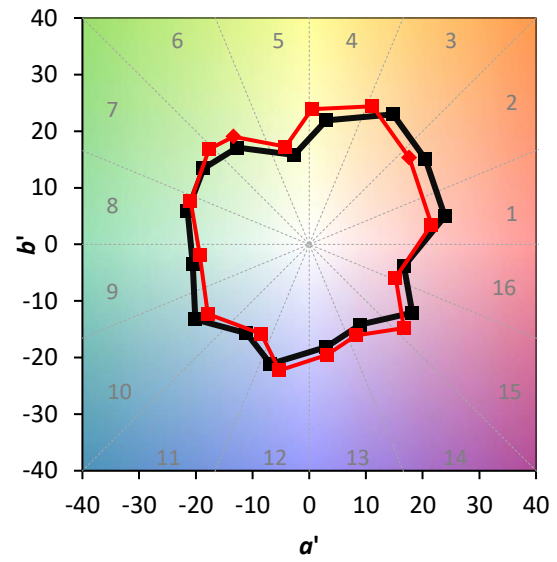
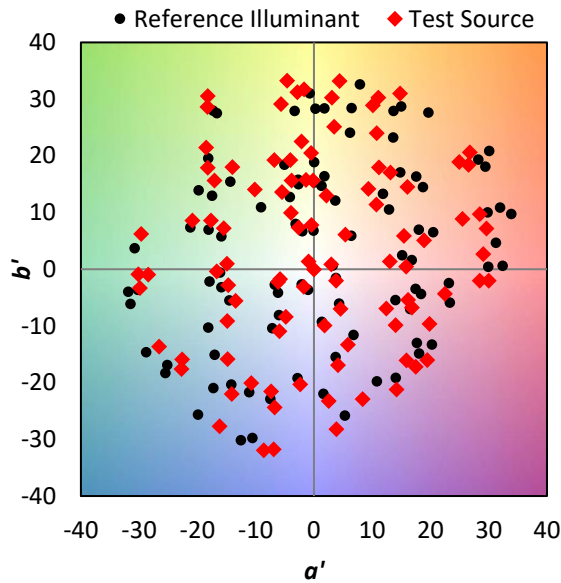
TM-30-18

Summary

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

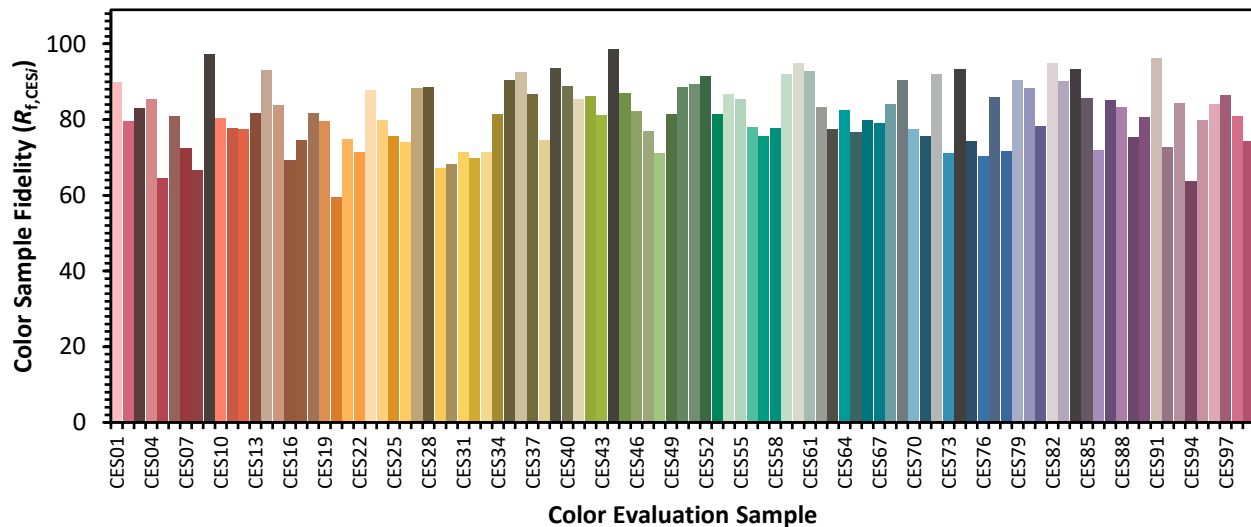


Color Vector Graphics

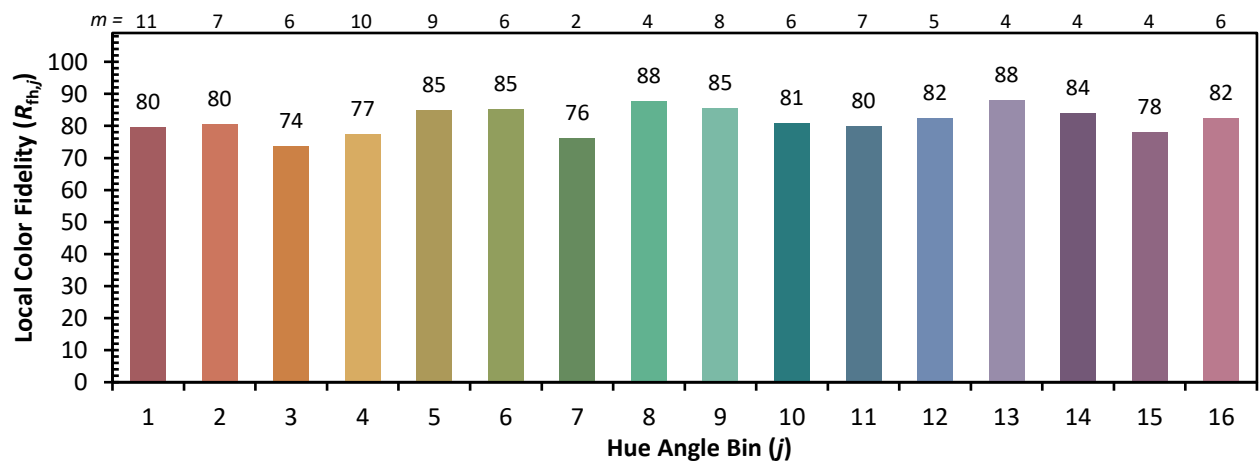
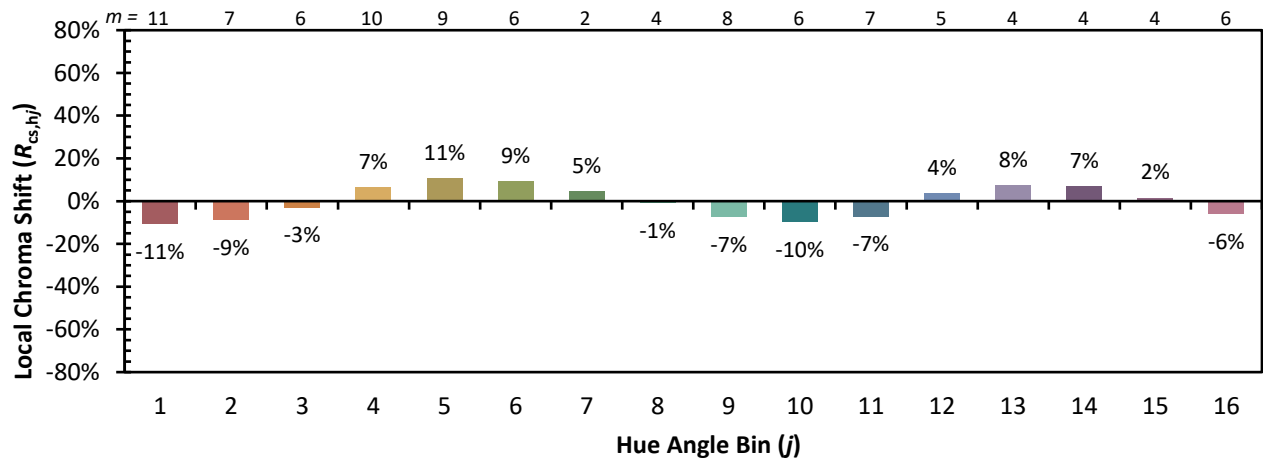


Individual Sample Fidelity Index ($R_{f,i}$)

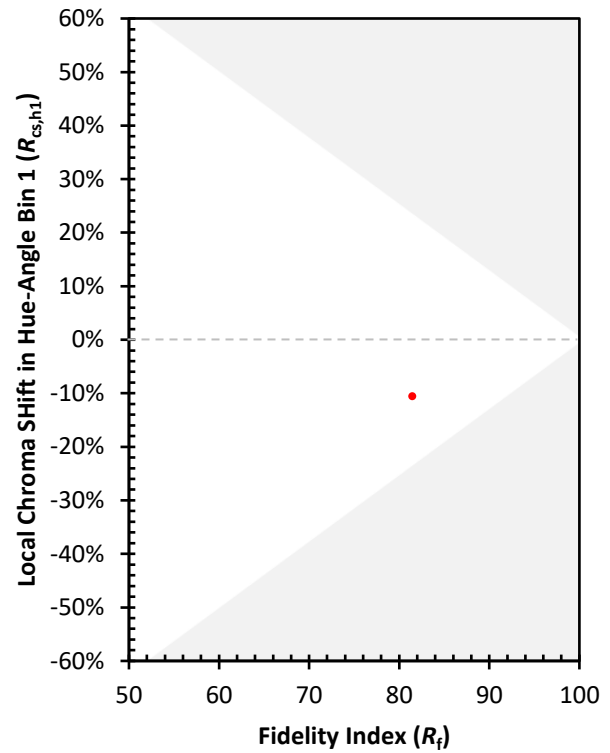
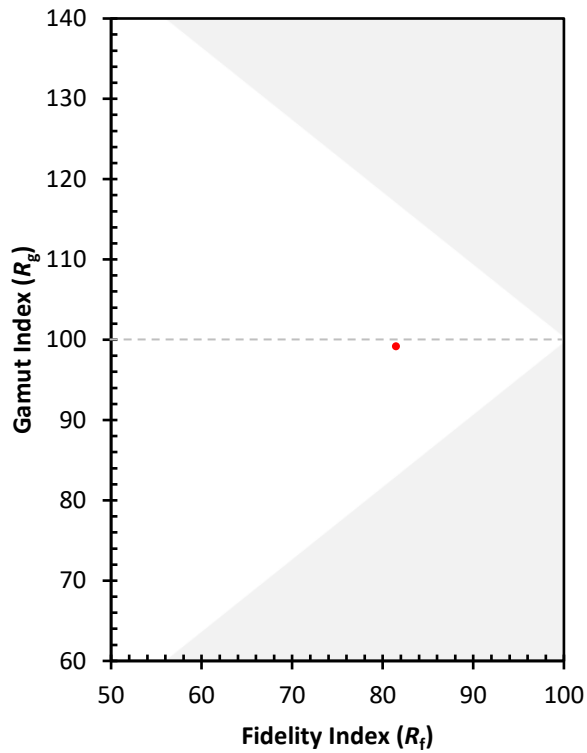
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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