

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: P1067427

Luminaire Tested: **NAV-SA4C-722-U-T4BC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1067427
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA4C-722-U-T4BC
Description: Navion AREA AND ROADWAY LUMINAIRE 1050mA 4xLight Square PACKAGE
70CRI 2200K FIXTURE w/ TYPE IV ANGLED BACKLIGHT CONTROL
Light Source: (56) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16123.8 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G3

Input Watts (W): 190.4
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

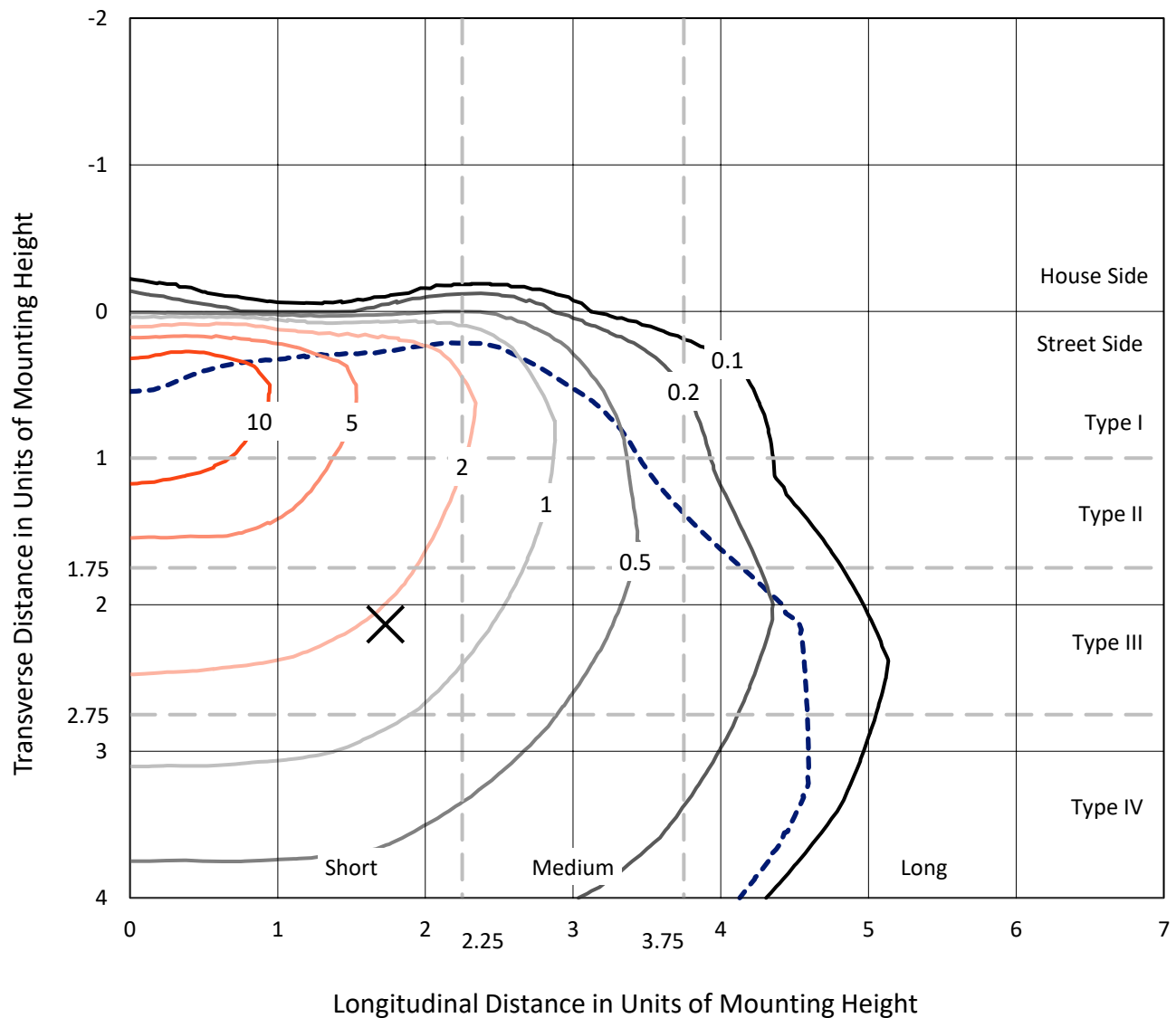


REPORT NUMBER: P1067427

CATALOG NUMBER: NAV-SA4C-722-U-T4BC

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

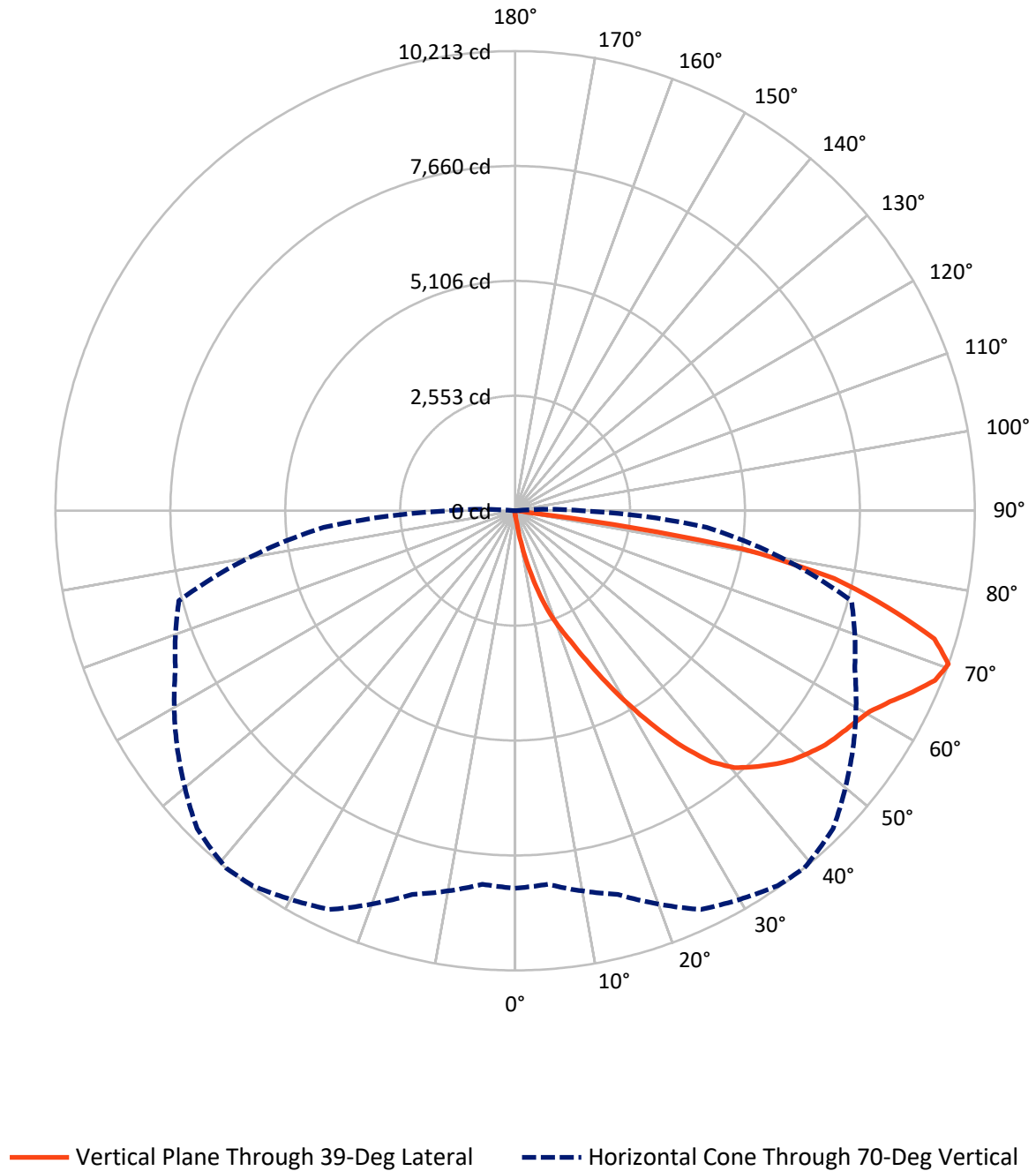


Based on 15 foot mounting height. Maximum calculated value = 17.6 fc
 Type IV - Short - N/A

REPORT NUMBER: P1067427

CATALOG NUMBER: NAV-SA4C-722-U-T4BC

Luminous Intensity Polar Plot



REPORT NUMBER: P1067427

CATALOG NUMBER: NAV-SA4C-722-U-T4BC

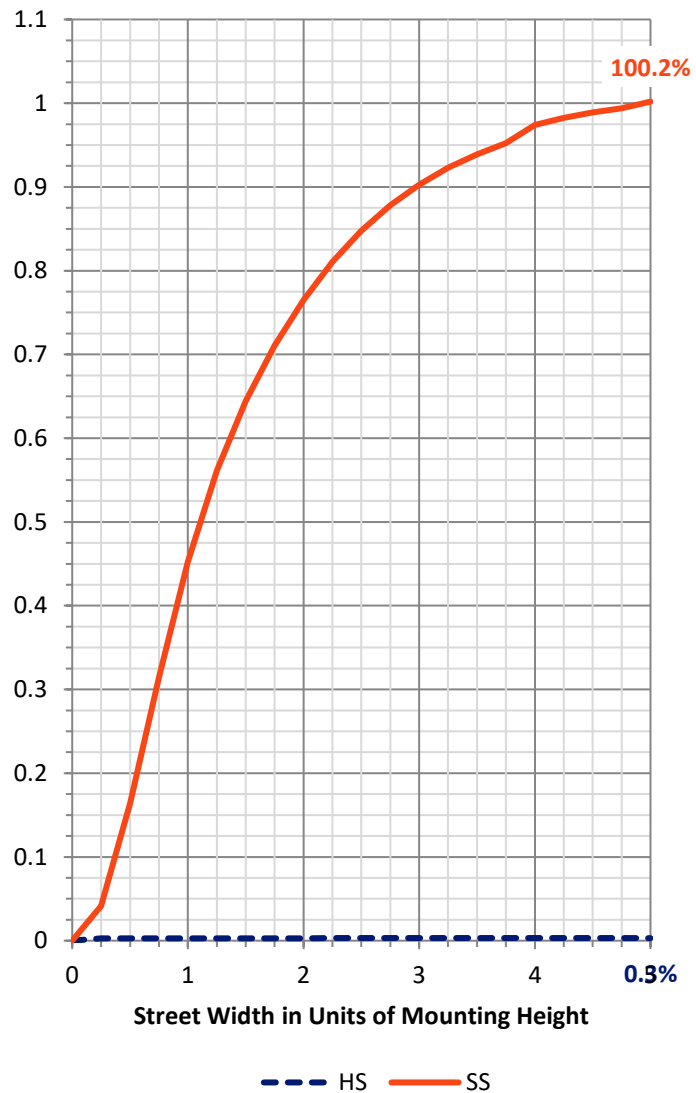
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	49.7	0.0	49.7
	% Fixture	0.3	0.0	0.3
Street Side	Lumens	16074.1	0.0	16074.1
	% Fixture	99.7	0.0	99.7
Total	Lumens	16123.8	0.0	16123.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.0	0.1
10°-20°	198.2	1.2
20°-30°	672.7	4.2
30°-40°	1580.9	9.8
40°-50°	2567.0	15.9
50°-60°	3252.9	20.2
60°-70°	4132.1	25.6
70°-80°	3357.3	20.8
80°-90°	345.7	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°	16123.8	100.0
0°-180°	16123.8	100.0



REPORT NUMBER: P1067427

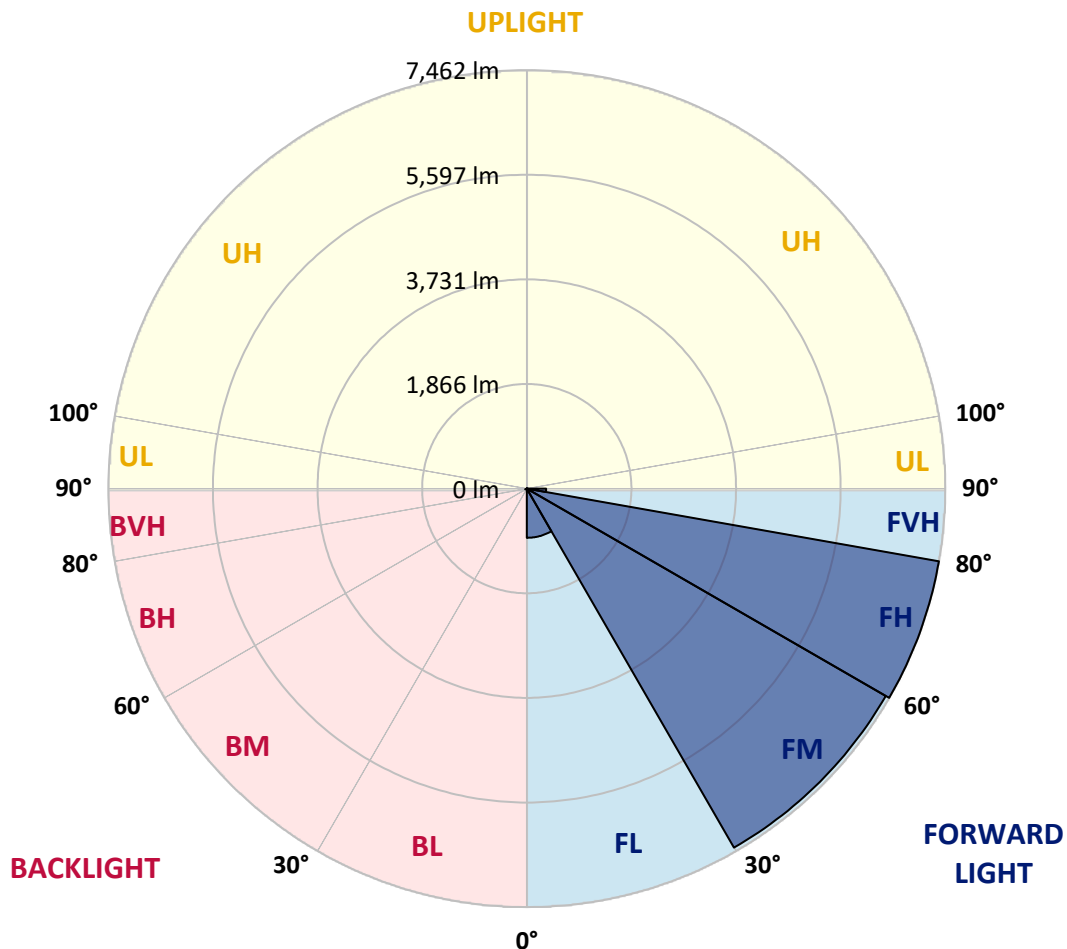
CATALOG NUMBER: NAV-SA4C-722-U-T4BC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	877.1	5.4			
FM	(30°-60°)	7391.3	45.8			
FH	(60°-80°)	7462.1	46.3			G3/7500
FVH	(80°-90°)	343.6	2.1			G3/500
BL	(0°-30°)	10.7	0.1	B0/110		
BM	(30°-60°)	9.5	0.1	B0/220		
BH	(60°-80°)	27.3	0.2	B0/110		G0/110
BVH	(80°-90°)	2.1	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: P1067427

CATALOG NUMBER: NAV-SA4C-722-U-T4BC

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
2.5°	113.8	113.8	113.8	109.4	109.4	105.1	105.1	100.7	96.3	96.3	91.9
5°	214.5	218.9	205.7	179.5	162.0	153.2	144.5	122.6	109.4	100.7	91.9
7.5°	586.6	569.1	542.8	455.3	350.2	297.7	253.9	179.5	131.3	105.1	91.9
10°	1234.5	1186.3	1111.9	993.7	788.0	704.8	547.2	328.3	183.9	118.2	91.9
12.5°	1812.3	1821.1	1729.1	1615.3	1365.8	1225.7	1011.2	617.2	288.9	140.1	91.9
15°	2250.1	2241.3	2206.3	2114.4	1891.1	1755.4	1562.8	1037.5	485.9	175.1	96.3
17.5°	2595.9	2560.9	2547.7	2508.3	2363.9	2289.5	2079.3	1527.8	770.4	236.4	100.7
20°	2941.7	2933.0	2919.8	2876.1	2779.7	2727.2	2565.2	2022.4	1146.9	337.1	109.4
22.5°	3445.1	3397.0	3405.7	3309.4	3230.6	3138.7	3007.4	2547.7	1580.3	481.5	122.6
25°	4036.1	4031.7	3961.7	3917.9	3786.6	3685.9	3510.8	3055.5	2061.8	696.0	135.7
27.5°	4732.1	4684.0	4653.3	4578.9	4443.2	4329.4	4088.6	3559.0	2582.8	936.8	153.2
30°	5458.8	5458.8	5401.9	5288.1	5156.8	5016.7	4771.5	4088.6	3099.3	1243.2	175.1
32.5°	6308.1	6325.6	6185.5	6014.8	5844.0	5747.7	5428.2	4688.4	3594.0	1593.4	201.4
35°	7131.0	7109.1	6877.1	6688.9	6562.0	6456.9	6185.5	5345.0	4154.3	2000.5	236.4
37.5°	7919.0	7862.1	7476.9	7209.8	7152.9	7082.9	6811.5	6001.6	4710.2	2451.4	280.2
40°	8483.7	8396.1	7997.8	7630.1	7546.9	7507.5	7297.4	6597.0	5296.8	2954.8	337.1
42.5°	8728.8	8628.2	8352.4	8054.7	7870.8	7778.9	7595.1	7082.9	5883.4	3515.2	420.2
45°	8777.0	8698.2	8501.2	8431.2	8181.6	8041.6	7792.0	7428.7	6430.6	4071.1	534.1
47.5°	8601.9	8566.9	8448.7	8597.5	8470.6	8278.0	7975.9	7687.0	6916.5	4745.3	691.7
50°	8172.9	8146.6	8203.5	8593.1	8680.7	8461.8	8177.3	7888.4	7336.8	5441.3	914.9
52.5°	7595.1	7590.7	7857.7	8479.3	8772.6	8636.9	8374.3	8089.7	7669.5	6115.4	1230.1
55°	6964.7	7039.1	7507.5	8374.3	8825.2	8763.9	8566.9	8269.2	7967.1	6741.4	1737.9
57.5°	6912.2	6881.5	7332.4	8330.5	8855.8	8890.8	8759.5	8457.4	8221.0	7253.6	2416.4
60°	7437.5	7367.4	7538.1	8422.4	8991.5	9052.8	8952.1	8601.9	8474.9	7656.3	3309.4
62.5°	8045.9	7980.3	8067.8	8777.0	9258.5	9346.1	9219.1	8750.7	8680.7	7936.5	4268.1
65°	8531.9	8479.3	8645.7	9306.7	9630.6	9705.0	9617.5	9026.5	8772.6	8164.1	5047.3
67.5°	8610.6	8545.0	8890.8	9661.3	10007.1	10059.6	9989.6	9293.5	8742.0	8181.6	5226.8
70°	8387.4	8330.5	8825.2	9775.1	10169.1	10212.8	9989.6	9166.6	8326.1	7735.1	4272.5
72.5°	7700.1	7743.9	8383.0	9499.3	9945.8	9744.4	9271.7	8527.5	7787.7	6557.6	2998.6
75°	6632.0	6680.1	7529.4	8742.0	8777.0	8531.9	8278.0	7844.6	6969.1	4320.6	2079.3
77.5°	4714.6	4543.9	5813.4	7218.6	7091.6	7249.2	7271.1	6526.9	5835.3	2250.1	1392.1
80°	464.0	394.0	731.1	2070.6	4574.5	5113.0	5323.1	5029.8	4303.1	1006.8	731.1
82.5°	100.7	100.7	109.4	118.2	183.9	275.8	1265.1	3099.3	2779.7	512.2	236.4
85°	56.9	56.9	70.0	83.2	109.4	122.6	144.5	192.6	748.6	183.9	43.8
87.5°	43.8	48.2	56.9	70.0	91.9	100.7	122.6	153.2	188.2	170.7	13.1
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: P1067427

CATALOG NUMBER: NAV-SA4C-722-U-T4BC

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
2.5°	91.9	87.6	83.2	78.8	74.4	74.4	70.0	70.0	70.0	70.0	70.0
5°	87.6	83.2	78.8	70.0	65.7	61.3	56.9	56.9	56.9	56.9	56.9
7.5°	87.6	83.2	74.4	65.7	56.9	52.5	48.2	43.8	43.8	48.2	48.2
10°	87.6	78.8	65.7	56.9	48.2	43.8	39.4	35.0	35.0	35.0	35.0
12.5°	83.2	74.4	61.3	52.5	43.8	35.0	26.3	21.9	21.9	21.9	21.9
15°	78.8	70.0	56.9	43.8	30.6	21.9	17.5	13.1	13.1	13.1	13.1
17.5°	78.8	65.7	52.5	39.4	21.9	13.1	8.8	4.4	4.4	4.4	8.8
20°	78.8	65.7	48.2	30.6	13.1	8.8	8.8	4.4	0.0	4.4	4.4
22.5°	78.8	61.3	39.4	21.9	13.1	8.8	4.4	0.0	0.0	0.0	0.0
25°	83.2	61.3	35.0	17.5	8.8	4.4	0.0	0.0	0.0	0.0	0.0
27.5°	83.2	56.9	30.6	13.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0
30°	87.6	56.9	26.3	8.8	4.4	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	87.6	52.5	17.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	87.6	48.2	13.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	87.6	43.8	13.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	91.9	39.4	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	96.3	35.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	100.7	30.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	113.8	30.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	131.3	30.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	157.6	30.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	205.7	26.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	297.7	26.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	499.0	26.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	875.5	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1479.6	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	1930.5	30.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1466.5	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	700.4	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	310.8	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	135.7	13.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	52.5	8.8	4.4	4.4	4.4	4.4	0.0	0.0	0.0	0.0	0.0
82.5°	21.9	8.8	4.4	4.4	4.4	4.4	4.4	0.0	0.0	0.0	0.0
85°	13.1	8.8	8.8	8.8	4.4	4.4	4.4	0.0	0.0	0.0	0.0
87.5°	8.8	8.8	8.8	8.8	8.8	4.4	4.4	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

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: SP1-2407-184-2

Test Date: 10/09/2024

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

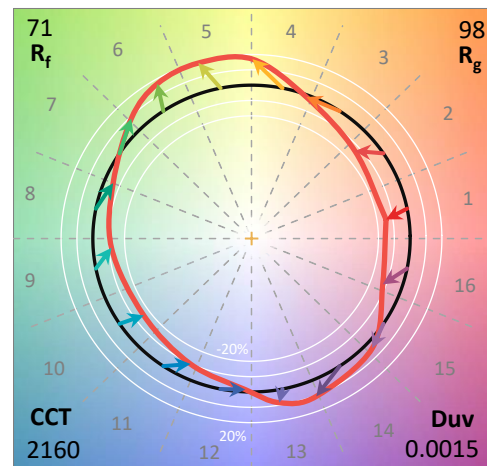
Data in this report applies to families of products including GSS-SB1A-722-U-5WQ

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

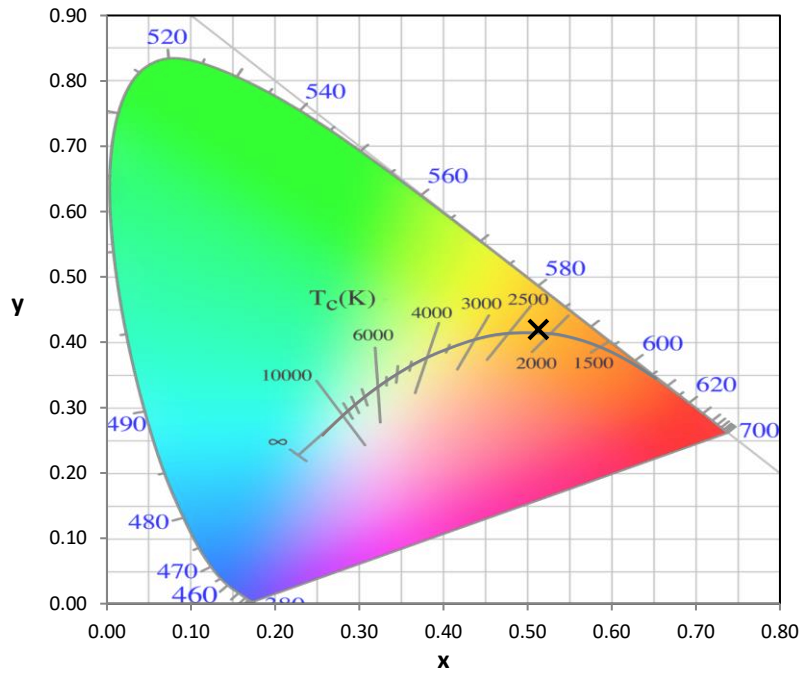
Stabilization Time: 21M
 Operation Time: 1H 21M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-2

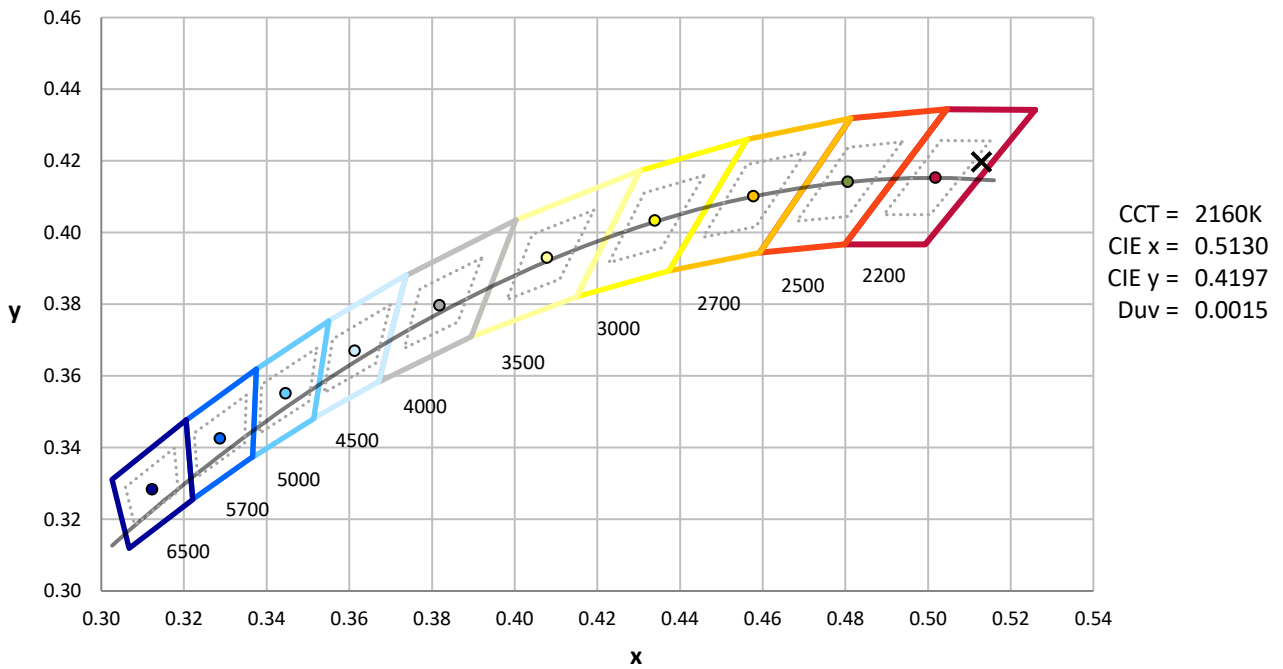
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-2

CIE 1931 Chromaticity Diagram



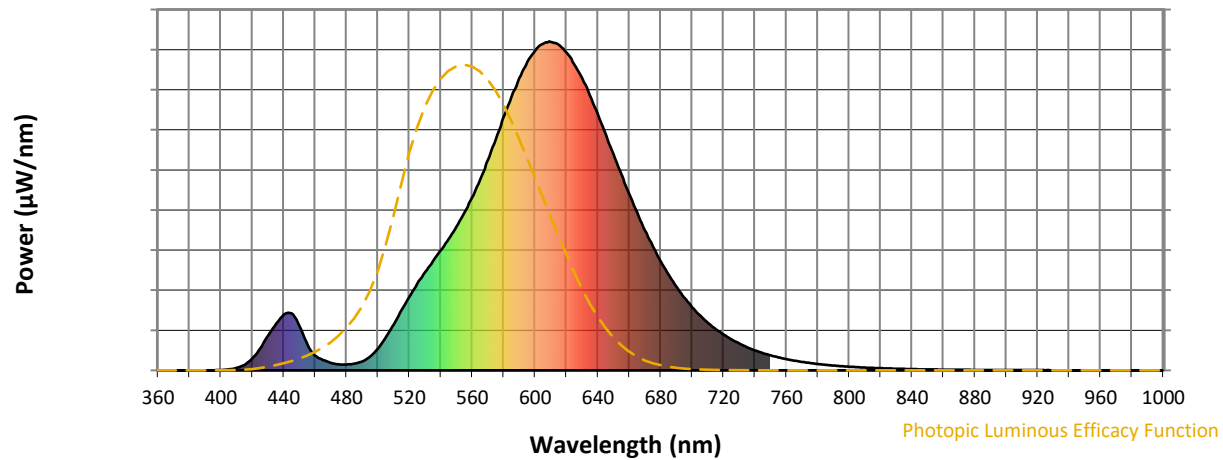
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2200K 7-step quadrangle

REPORT NUMBER: SP1-2407-184-2

Photopic Flux vs. Wavelength

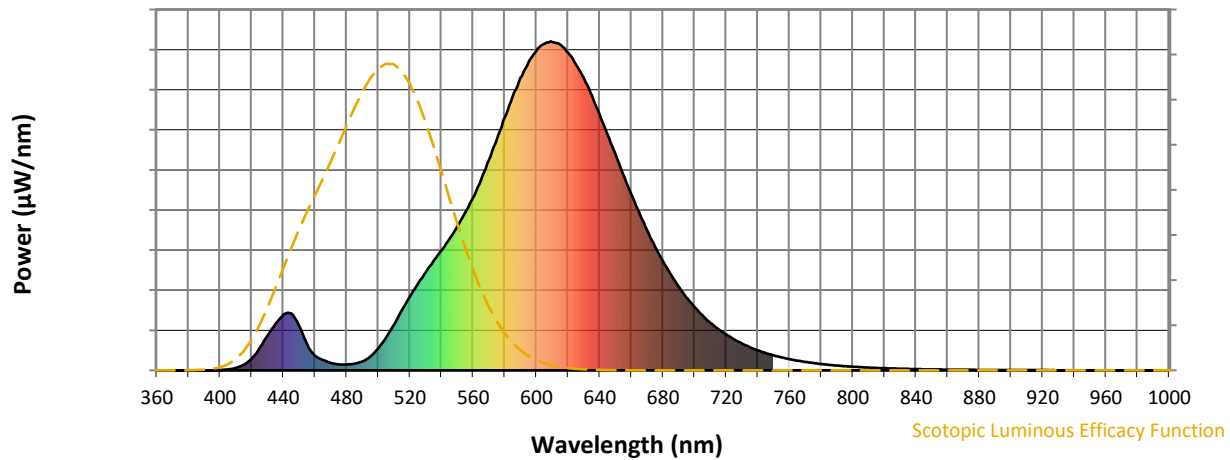


Photopic Lumens: NR

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



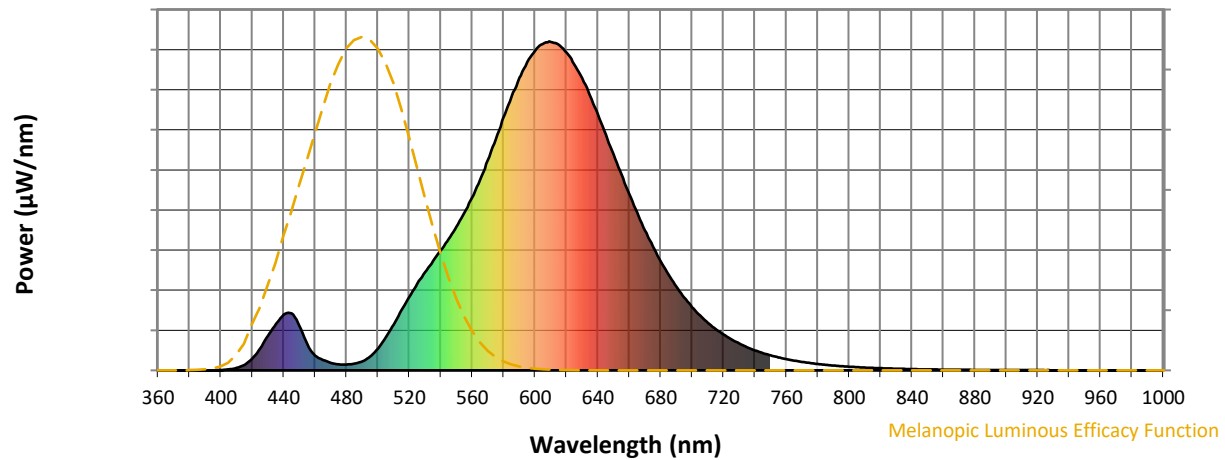
Scotopic Lumens: NR

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

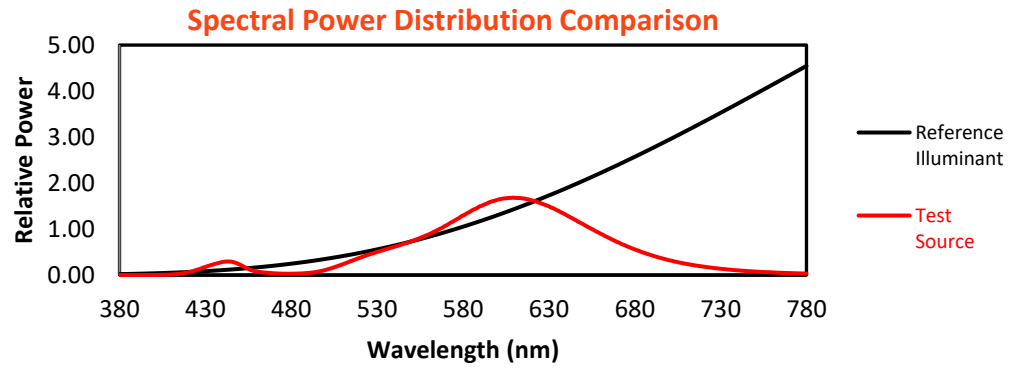
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	27	NR	620	966	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

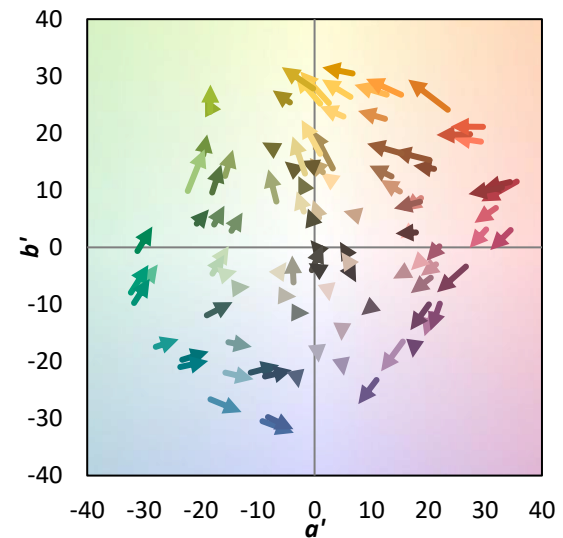
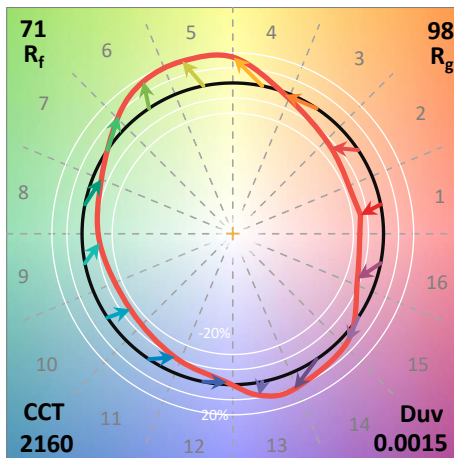
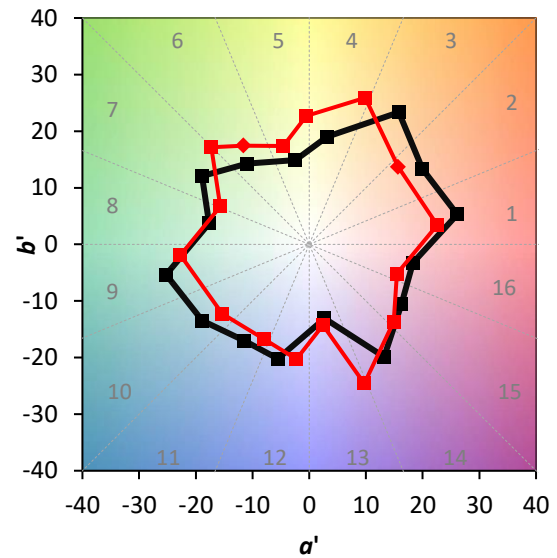
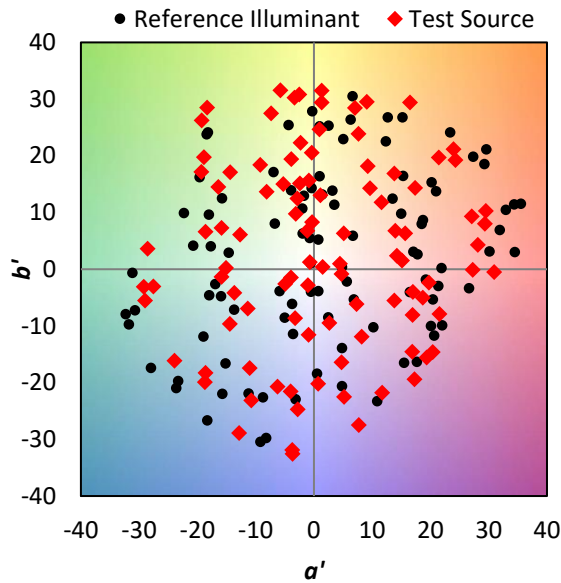
TM-30-18

Summary

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

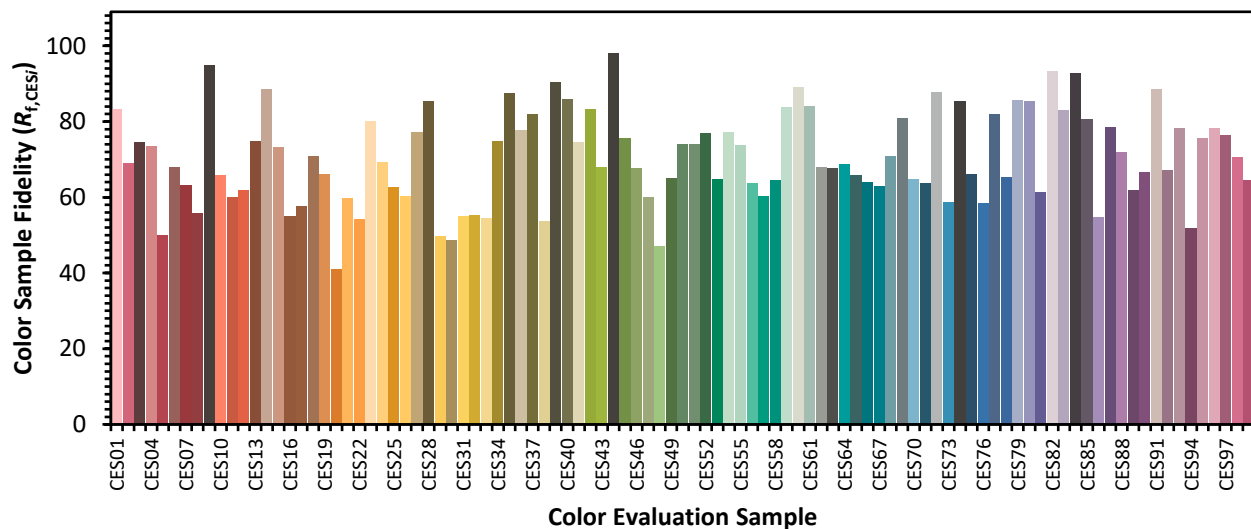


Color Vector Graphics

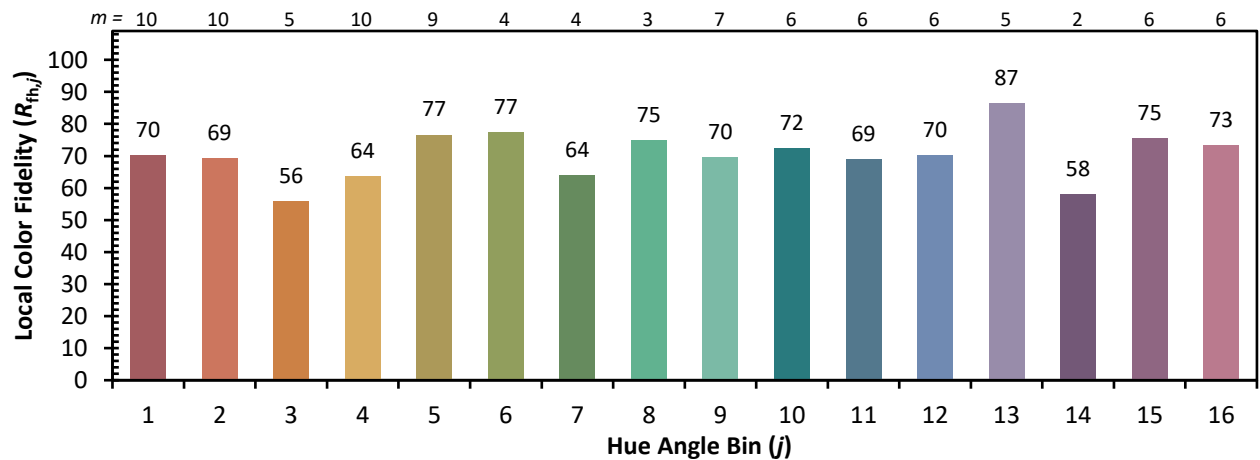
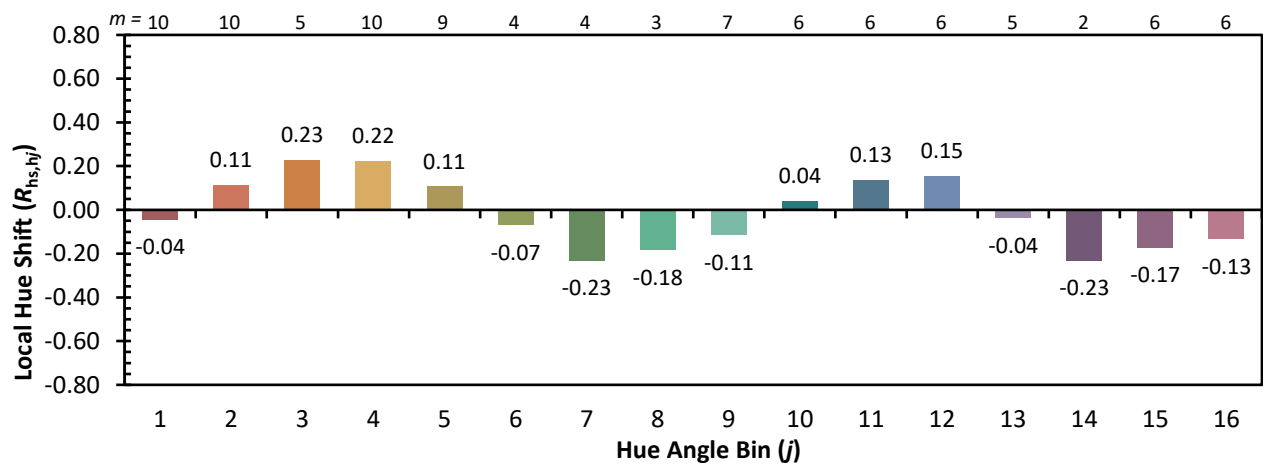
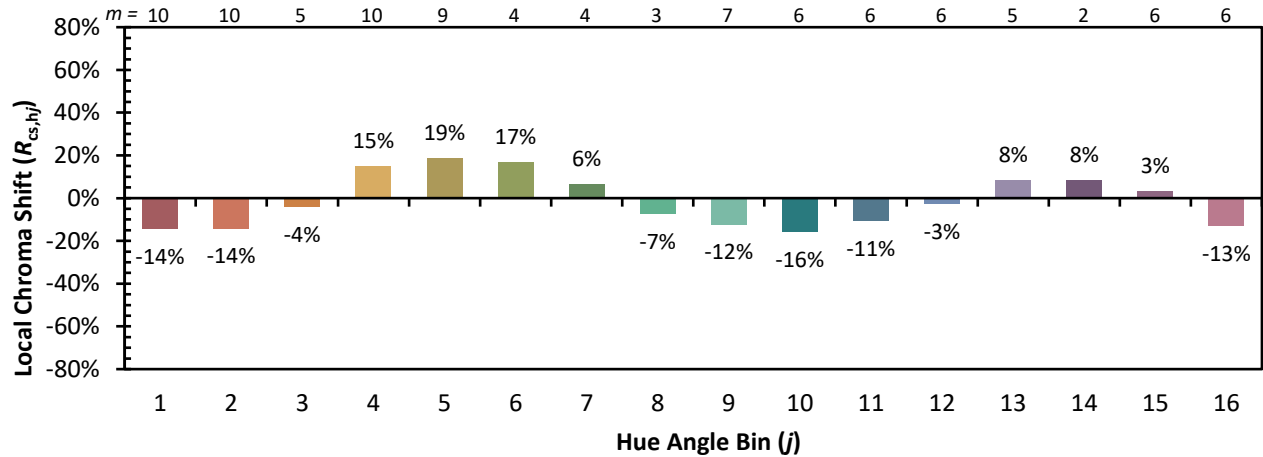


Individual Sample Fidelity Index ($R_{f,i}$)

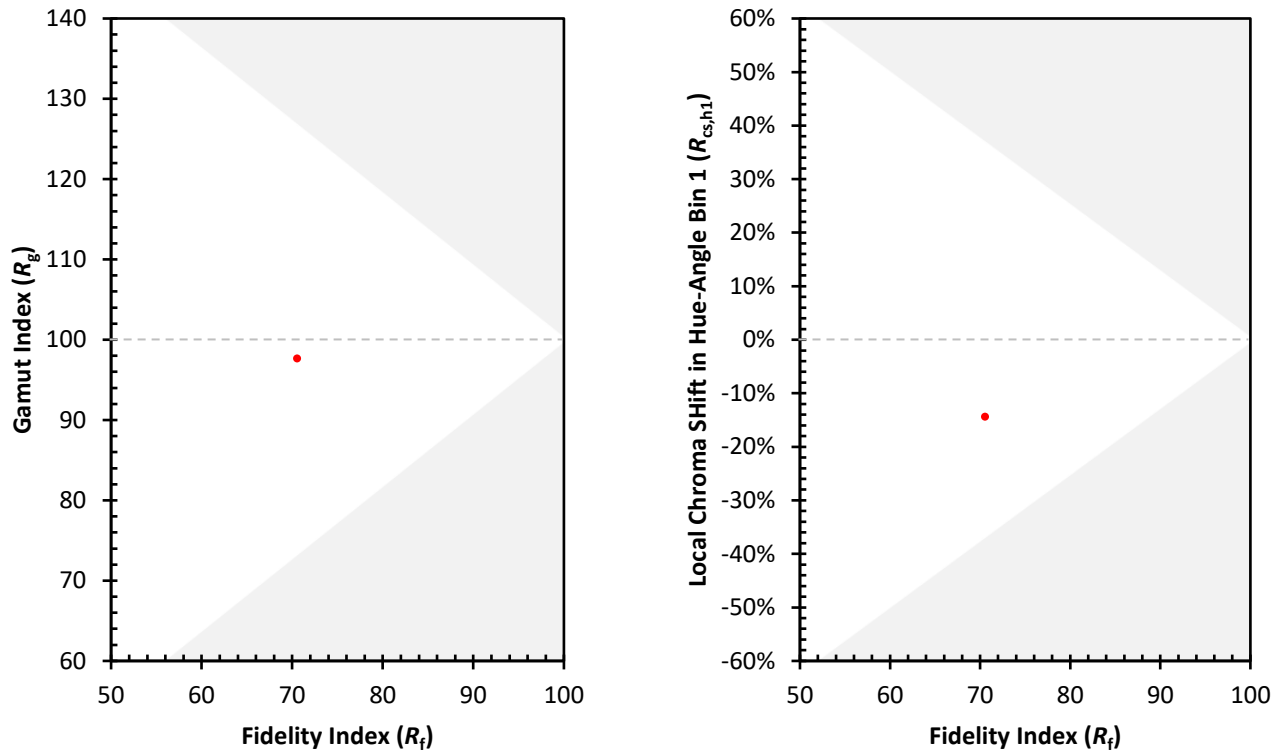
CES01 = 87	CES26 = 60	CES51 = 74	CES76 = 58
CES02 = 65	CES27 = 77	CES52 = 77	CES77 = 82
CES03 = 32	CES28 = 85	CES53 = 65	CES78 = 65
CES04 = 72	CES29 = 50	CES54 = 77	CES79 = 86
CES05 = 52	CES30 = 49	CES55 = 74	CES80 = 85
CES06 = 53	CES31 = 55	CES56 = 64	CES81 = 61
CES07 = 44	CES32 = 55	CES57 = 60	CES82 = 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)