

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: P895740

Luminaire Tested: **CLCS15S-PC-4000K-40%**

Issue Date: 11/14/2024

Test Information

Test Method: LM-79-08
Report Number: P895740
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: CLCS15S-PC-4000K-40%
Description: LUMARK SMALL LED CANOPY 8000LM, 60W, PC 80 CRI 4000K FIXTURE @ 40%
OUTPUT
Light Source: 4000K CCT,80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

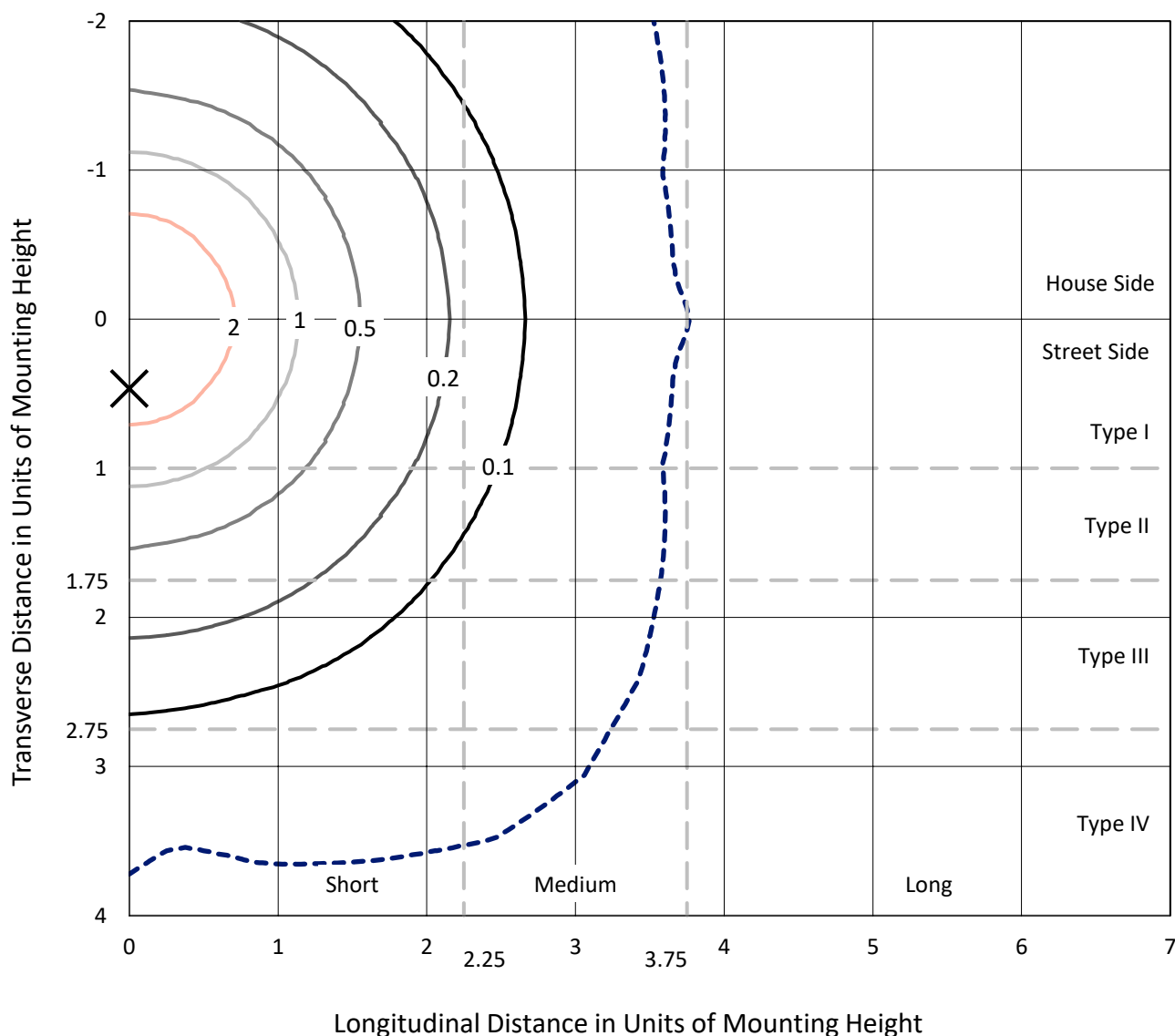
Lumens per Lamp: N/A
Luminaire Lumens: 3709.9 lumens
Efficiency: N/A
Efficacy: 153.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.8' x L: 0.8' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B2 - U2 - G1

Input Watts (W): 24.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.98
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: P895740
 CATALOG NUMBER: CLCS15S-PC-4000K-40%

Iso-Footcandle Lines of Horizontal Illumination

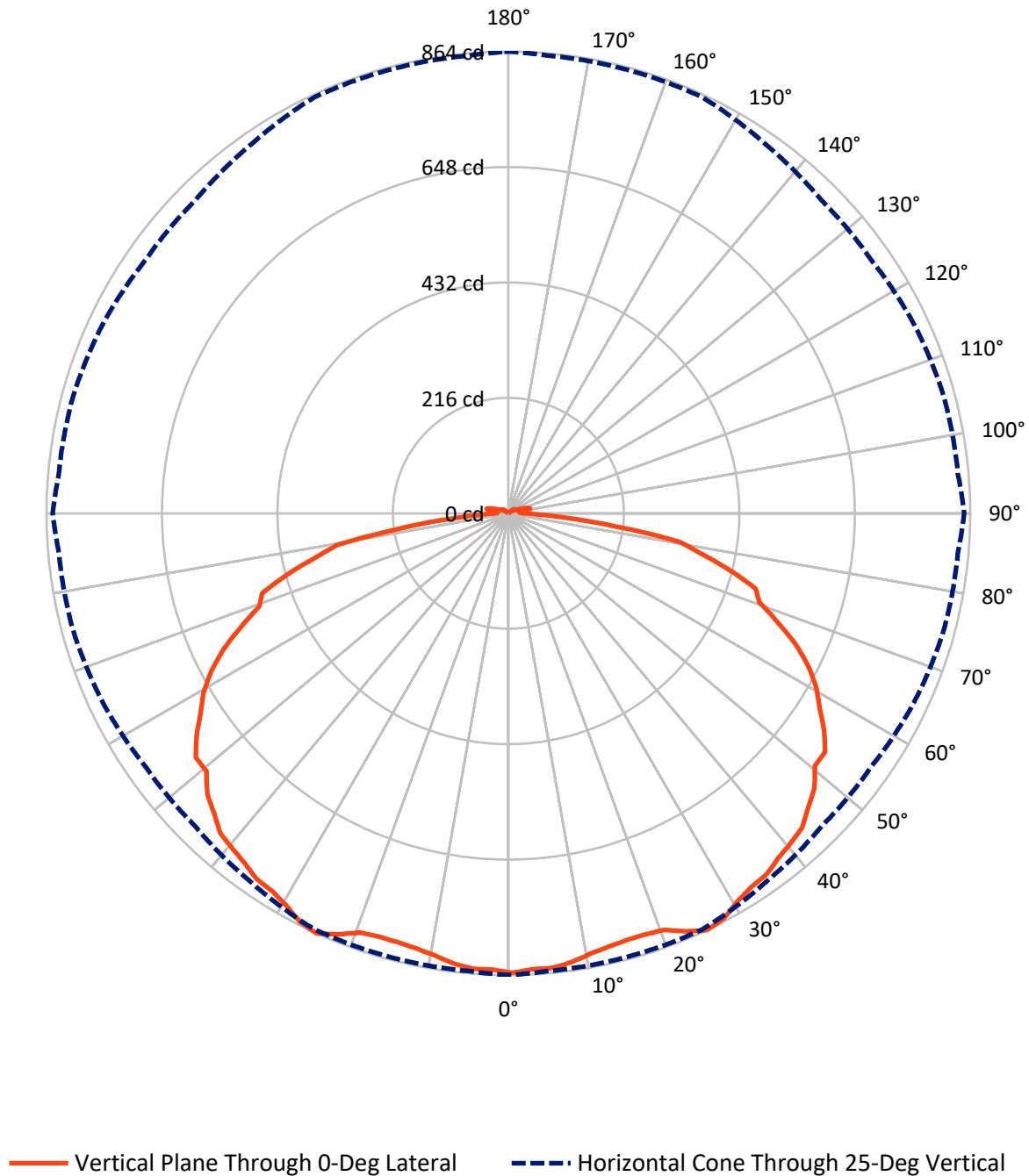
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - N/A

REPORT NUMBER: P895740
CATALOG NUMBER: CLCS15S-PC-4000K-40%

Luminous Intensity Polar Plot



REPORT NUMBER: P895740

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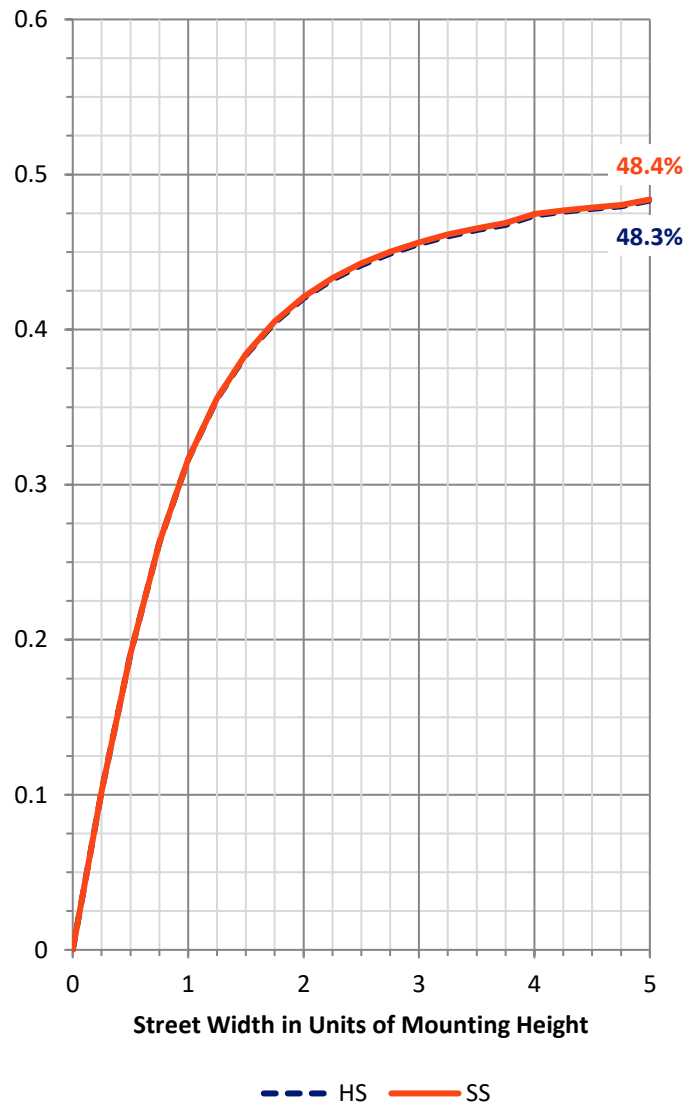
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1818.5	36.5	1854.9
	% Fixture	49.0	1.0	50.0
Street Side	Lumens	1818.5	36.5	1854.9
	% Fixture	49.0	1.0	50.0
Total	Lumens	3636.9	72.9	3709.9
	% Fixture	98.0	2.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	2.2
10°-20°	235.8	6.4
20°-30°	387.7	10.5
30°-40°	514.0	13.9
40°-50°	608.1	16.4
50°-60°	639.6	17.2
60°-70°	585.0	15.8
70°-80°	451.7	12.2
80°-90°	133.7	3.6
90°-100°	25.5	0.7
100°-110°	28.3	0.8
110°-120°	11.0	0.3
120°-130°	6.1	0.2
130°-140°	1.8	0.0
140°-150°	0.3	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3636.9	98.0
0°-180°	3709.9	100.0



REPORT NUMBER: P895740

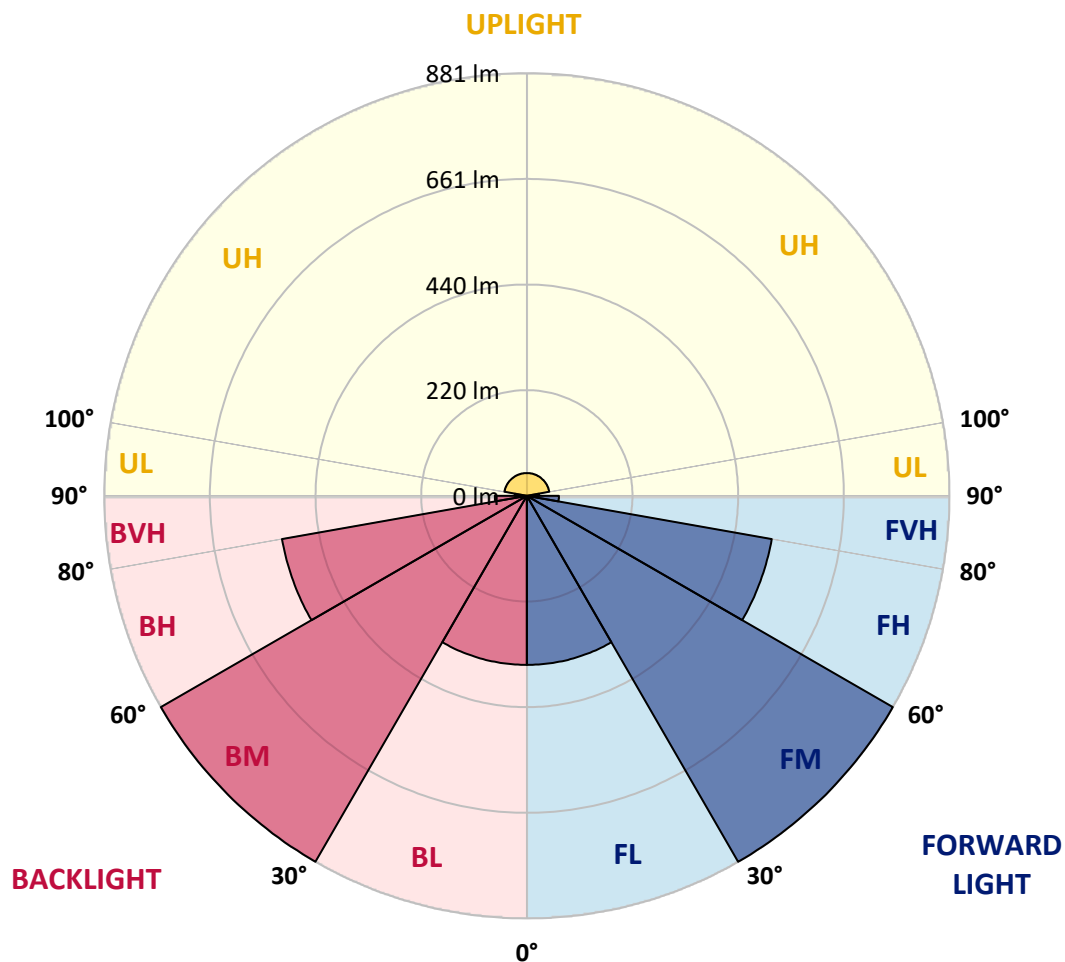
CATALOG NUMBER: CLCS15S-PC-4000K-40%

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	352.4	9.5			
FM	(30°-60°)	880.9	23.7			
FH	(60°-80°)	518.3	14.0			G0/660
FVH	(80°-90°)	66.8	1.8			G1/100
BL	(0°-30°)	352.4	9.5	B1/500		
BM	(30°-60°)	880.9	23.7	B1/1000		
BH	(60°-80°)	518.3	14.0	B2/1000		G0/660
BVH	(80°-90°)	66.8	1.8			G1/100
UL	(90°-100°)	25.5	0.7		U2/50	
UH	(100°-180°)	47.5	1.3		U2/50	

BUG Rating: B2-U2-G1

Type V Short





REPORT NUMBER: P895740

CATALOG NUMBER: CLCS15S-PC-4000K-40%

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5	859.5
2.5°	853.9	854.4	855.3	857.2	856.3	856.7	856.7	855.3	857.2	856.7	859.5
5°	854.4	854.4	854.4	856.7	856.7	857.2	858.1	858.1	859.0	859.5	861.4
7.5°	848.0	848.9	848.0	849.8	850.3	852.5	853.5	853.0	854.9	854.9	858.6
10°	838.2	838.7	838.7	840.5	842.4	845.2	845.2	844.7	845.6	845.2	848.0
12.5°	831.8	831.8	831.3	834.1	835.9	837.7	838.2	838.7	840.1	841.9	844.7
15°	828.5	828.5	828.1	831.8	831.3	831.3	833.2	834.9	834.9	836.3	840.5
17.5°	828.1	826.7	822.0	827.1	825.7	825.3	826.7	826.2	829.9	830.4	831.8
20°	831.8	829.9	829.5	830.9	825.3	823.9	825.3	824.3	826.7	827.6	832.2
22.5°	849.4	848.4	843.8	838.2	825.7	819.7	818.3	825.3	833.2	832.2	834.1
25°	863.7	859.5	859.0	858.6	841.0	828.1	827.6	836.8	842.9	843.8	852.1
27.5°	858.1	853.0	855.3	856.3	841.9	826.2	820.6	834.1	842.4	849.8	855.3
30°	842.9	839.1	841.5	843.3	834.9	821.1	812.8	823.9	838.2	849.8	847.5
32.5°	833.6	833.6	833.6	828.1	823.4	814.7	802.1	821.5	827.6	832.2	835.9
35°	830.4	829.9	829.9	823.9	813.7	807.2	807.2	811.9	817.5	819.7	828.5
37.5°	819.2	811.9	818.3	819.7	809.5	806.3	807.2	807.7	815.1	821.5	821.1
40°	811.9	803.0	800.3	803.0	804.9	804.9	801.7	804.0	810.9	814.2	810.0
42.5°	804.9	798.9	798.5	794.3	790.6	796.1	792.4	793.4	796.6	804.0	805.8
45°	785.5	784.6	784.1	783.7	773.9	793.4	790.6	785.5	792.9	792.4	805.8
47.5°	769.7	774.8	765.6	766.6	776.2	778.6	776.2	773.0	785.9	782.7	797.1
50°	742.5	742.5	747.6	754.5	766.6	763.3	763.8	771.6	769.3	774.4	789.6
52.5°	741.5	724.9	719.4	725.8	741.1	749.9	741.1	763.8	737.3	749.0	753.5
55°	716.1	696.2	699.5	703.2	714.3	715.7	737.8	724.4	715.7	727.2	734.2
57.5°	686.1	670.3	664.3	683.3	680.5	699.9	697.1	695.3	701.8	700.9	701.8
60°	661.5	647.2	632.8	649.5	666.2	659.6	671.3	679.1	671.7	673.5	669.9
62.5°	629.1	628.6	617.6	625.4	623.2	638.4	634.2	643.4	641.1	638.9	644.4
65°	589.9	586.6	584.7	593.0	594.9	594.9	590.8	600.5	598.6	597.2	603.7
67.5°	542.7	541.3	543.0	544.0	553.7	554.7	552.8	560.6	559.7	558.9	561.1
70°	497.3	489.4	479.7	506.1	517.2	520.0	513.0	508.0	504.2	499.1	501.9
72.5°	483.9	475.1	476.5	494.1	493.2	497.7	486.7	470.5	470.5	464.9	467.2
75°	429.3	410.4	435.8	456.6	471.9	463.0	468.1	450.6	428.9	427.0	433.4
77.5°	371.0	359.9	360.4	388.1	413.5	421.4	407.6	386.7	369.1	363.6	367.3
80°	325.2	313.2	289.1	279.4	285.4	298.9	287.7	276.2	282.2	289.1	296.1
82.5°	203.0	200.8	207.7	194.3	175.3	168.9	169.8	184.2	185.5	183.2	185.5
85°	110.5	106.8	105.1	100.9	96.2	94.4	92.0	93.9	95.7	91.1	92.5
87.5°	50.4	48.6	51.4	54.2	50.4	49.5	48.6	49.0	49.0	49.5	49.5
90°	26.8	27.3	27.7	27.3	27.3	26.8	26.3	25.9	25.9	26.8	26.8
92.5°	21.3	20.8	19.4	19.0	18.5	18.5	18.1	18.1	18.5	19.0	19.0
95°	20.4	20.4	19.0	18.1	17.6	16.7	17.1	18.1	19.0	19.9	19.9
97.5°	31.0	31.0	29.1	26.3	23.6	21.3	23.2	26.3	28.2	29.6	29.6
100°	39.8	39.8	37.0	31.9	26.8	24.5	26.3	31.5	35.6	37.5	38.0
102.5°	41.6	41.1	37.5	31.9	25.4	22.7	24.9	31.0	36.6	39.4	39.8
105°	36.6	36.1	33.3	27.3	20.8	17.1	20.8	26.8	32.4	35.2	35.6
107.5°	30.1	30.1	27.7	22.2	15.3	12.0	15.3	21.8	26.8	28.7	29.6
110°	22.7	22.2	20.4	16.2	11.1	8.3	10.6	16.2	19.9	21.8	22.2



REPORT NUMBER: P895740
 CATALOG NUMBER: CLCS15S-PC-4000K-40%

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	18.1	18.1	16.2	12.9	7.9	6.1	7.9	12.5	15.7	17.1	17.1
115°	15.3	15.3	13.9	10.1	6.5	5.1	6.5	10.1	13.4	14.3	14.3
117.5°	12.0	12.5	12.0	9.2	5.6	3.7	5.6	8.3	11.1	12.0	11.5
120°	9.7	10.1	11.1	8.7	5.1	3.3	5.1	8.3	10.1	9.7	9.7
122.5°	9.2	9.2	11.5	8.7	5.6	2.8	4.7	7.9	10.6	9.2	8.7
125°	12.9	12.9	11.1	7.0	3.3	2.3	2.8	6.1	10.1	11.5	11.5
127.5°	10.1	10.1	8.3	4.7	2.3	1.9	2.3	4.7	7.4	9.2	9.7
130°	7.9	7.4	5.6	3.3	1.9	1.4	1.9	3.3	4.7	6.1	6.5
132.5°	4.2	4.2	3.7	2.8	1.4	0.9	1.4	2.8	3.7	4.2	4.2
135°	3.3	3.3	2.8	2.3	1.4	0.5	1.4	2.3	2.8	3.3	3.3
137.5°	2.8	2.8	2.3	1.4	0.5	0.5	0.5	1.4	2.3	2.8	2.8
140°	1.9	1.9	1.9	0.9	0.5	0.5	0.5	0.9	1.4	1.9	1.9
142.5°	1.4	1.4	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.9	0.9
145°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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

Lumark

Report Number: SP1-2405-118-2

Test Date: 07/17/2024

Luminaire Tested: CLCS40S-4000K-HIGH

Data in this report applies to families of products including CLCS40S-4000K-HIGH

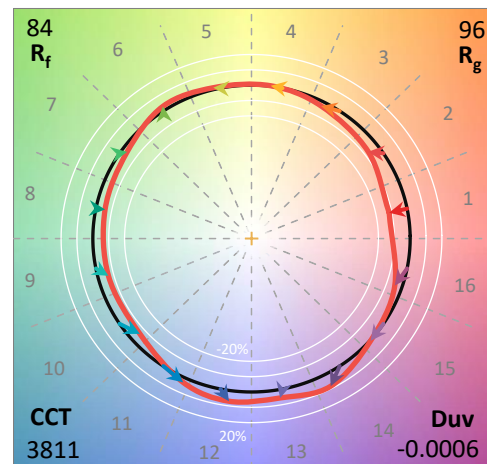
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2405-118-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 07/18/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **CLCS40S-4000K-HIGH**
 Description: 120W LUMARK AP CANOPY SELECTABLE FIXTURE HIGHEST OUTPUT @4000K

Spectral Parameters

CCT (K): 3811
 CIE u' : 0.2291
 CIE v' : 0.5044
 Duv: -0.0006
 CIE x: 0.3887
 CIE y: 0.3804
 CIE z: 0.2310
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 580
 Purity: 30.78715
 R_f: 83.8
 R_g: 96.1

CRI (Ra): 83.3
 R1: 82.1
 R2: 89.5
 R3: 94.6
 R4: 82.3
 R5: 81.8
 R6: 85.2
 R7: 85.9
 R8: 64.7
 R9: 10.7
 R10: 74.6
 R11: 81.3
 R12: 61.2
 R13: 84.0
 R14: 97.1
 R15: 75.9



Test Conditions

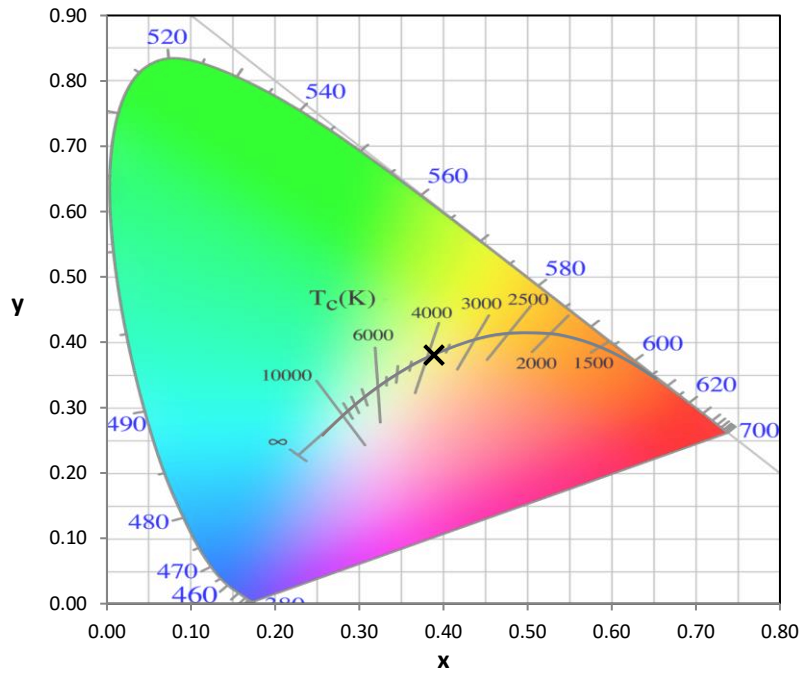
Stabilization Time: 27M
 Operation Time: 1H 27M
 Sphere Temperature (°C): 24.4

REPORT NUMBER: SP1-2405-118-2

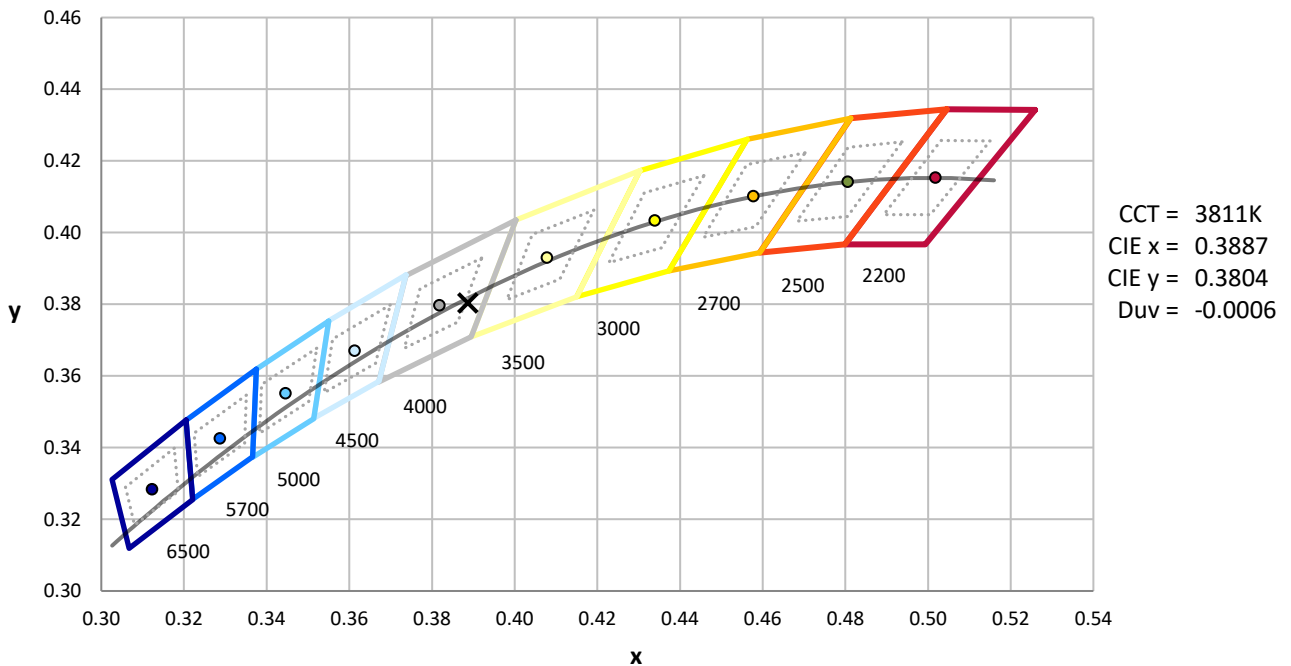
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



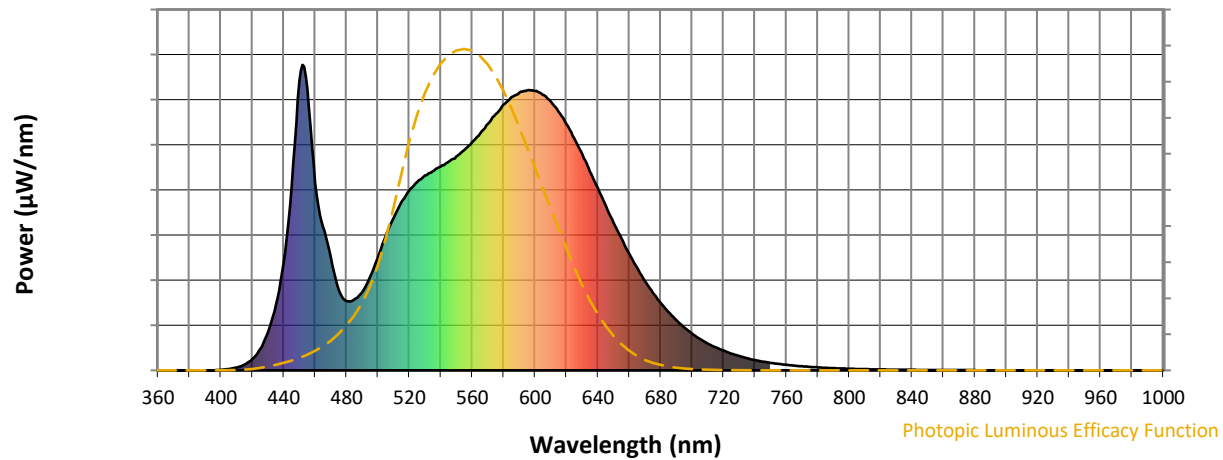
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

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Photopic Flux vs. Wavelength

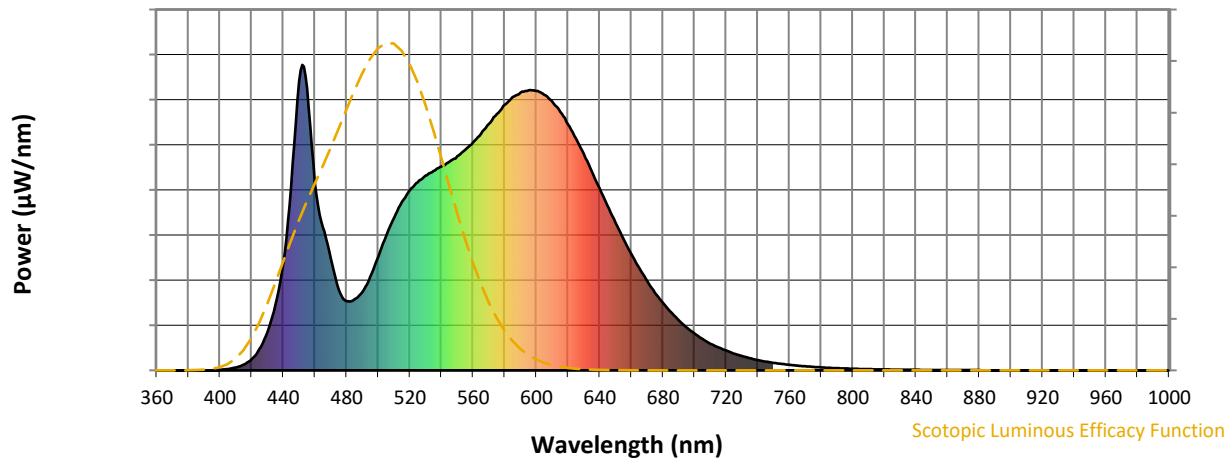


Photopic Lumens: NR

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	257	NR	620	806	NR	750	25	NR	880	1	NR
365	0	NR	495	306	NR	625	760	NR	755	21	NR	885	1	NR
370	0	NR	500	371	NR	630	709	NR	760	18	NR	890	0	NR
375	0	NR	505	440	NR	635	651	NR	765	15	NR	895	0	NR
380	0	NR	510	499	NR	640	596	NR	770	13	NR	900	0	NR
385	0	NR	515	551	NR	645	539	NR	775	11	NR	905	0	NR
390	0	NR	520	590	NR	650	483	NR	780	10	NR	910	0	NR
395	0	NR	525	616	NR	655	431	NR	785	8	NR	915	0	NR
400	2	NR	530	638	NR	660	381	NR	790	7	NR	920	0	NR
405	5	NR	535	653	NR	665	335	NR	795	6	NR	925	0	NR
410	9	NR	540	667	NR	670	292	NR	800	5	NR	930	0	NR
415	19	NR	545	683	NR	675	254	NR	805	5	NR	935	0	NR
420	37	NR	550	700	NR	680	221	NR	810	4	NR	940	0	NR
425	70	NR	555	722	NR	685	190	NR	815	3	NR	945	0	NR
430	124	NR	560	747	NR	690	165	NR	820	3	NR	950	0	NR
435	215	NR	565	775	NR	695	141	NR	825	3	NR	955	0	NR
440	352	NR	570	807	NR	700	120	NR	830	2	NR	960	0	NR
445	602	NR	575	839	NR	705	103	NR	835	2	NR	965	0	NR
450	946	NR	580	869	NR	710	88	NR	840	2	NR	970	0	NR
455	923	NR	585	895	NR	715	75	NR	845	1	NR	975	0	NR
460	615	NR	590	910	NR	720	65	NR	850	1	NR	980	0	NR
465	469	NR	595	917	NR	725	55	NR	855	1	NR	985	0	NR
470	366	NR	600	915	NR	730	47	NR	860	1	NR	990	0	NR
475	264	NR	605	902	NR	735	40	NR	865	1	NR	995	0	NR
480	226	NR	610	880	NR	740	34	NR	870	1	NR	1000	0	NR
485	232	NR	615	847	NR	745	29	NR	875	1	NR			

REPORT NUMBER: SP1-2405-118-2

Scotopic Flux vs. Wavelength



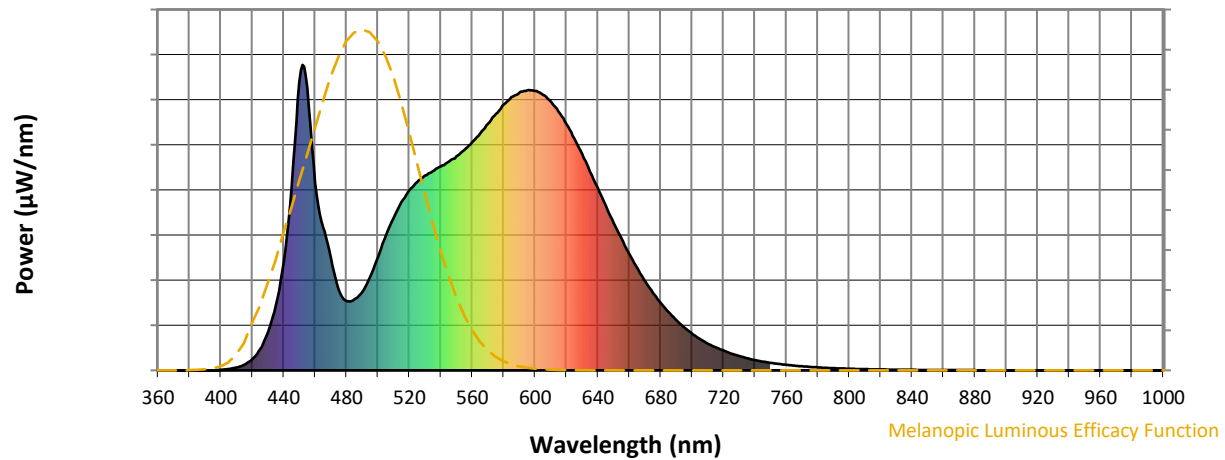
Scotopic Lumens: NR

S/P: 1.62

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	257	NR	620	806	NR	750	25	NR	880	1	NR
365	0	NR	495	306	NR	625	760	NR	755	21	NR	885	1	NR
370	0	NR	500	371	NR	630	709	NR	760	18	NR	890	0	NR
375	0	NR	505	440	NR	635	651	NR	765	15	NR	895	0	NR
380	0	NR	510	499	NR	640	596	NR	770	13	NR	900	0	NR
385	0	NR	515	551	NR	645	539	NR	775	11	NR	905	0	NR
390	0	NR	520	590	NR	650	483	NR	780	10	NR	910	0	NR
395	0	NR	525	616	NR	655	431	NR	785	8	NR	915	0	NR
400	2	NR	530	638	NR	660	381	NR	790	7	NR	920	0	NR
405	5	NR	535	653	NR	665	335	NR	795	6	NR	925	0	NR
410	9	NR	540	667	NR	670	292	NR	800	5	NR	930	0	NR
415	19	NR	545	683	NR	675	254	NR	805	5	NR	935	0	NR
420	37	NR	550	700	NR	680	221	NR	810	4	NR	940	0	NR
425	70	NR	555	722	NR	685	190	NR	815	3	NR	945	0	NR
430	124	NR	560	747	NR	690	165	NR	820	3	NR	950	0	NR
435	215	NR	565	775	NR	695	141	NR	825	3	NR	955	0	NR
440	352	NR	570	807	NR	700	120	NR	830	2	NR	960	0	NR
445	602	NR	575	839	NR	705	103	NR	835	2	NR	965	0	NR
450	946	NR	580	869	NR	710	88	NR	840	2	NR	970	0	NR
455	923	NR	585	895	NR	715	75	NR	845	1	NR	975	0	NR
460	615	NR	590	910	NR	720	65	NR	850	1	NR	980	0	NR
465	469	NR	595	917	NR	725	55	NR	855	1	NR	985	0	NR
470	366	NR	600	915	NR	730	47	NR	860	1	NR	990	0	NR
475	264	NR	605	902	NR	735	40	NR	865	1	NR	995	0	NR
480	226	NR	610	880	NR	740	34	NR	870	1	NR	1000	0	NR
485	232	NR	615	847	NR	745	29	NR	875	1	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 3.3

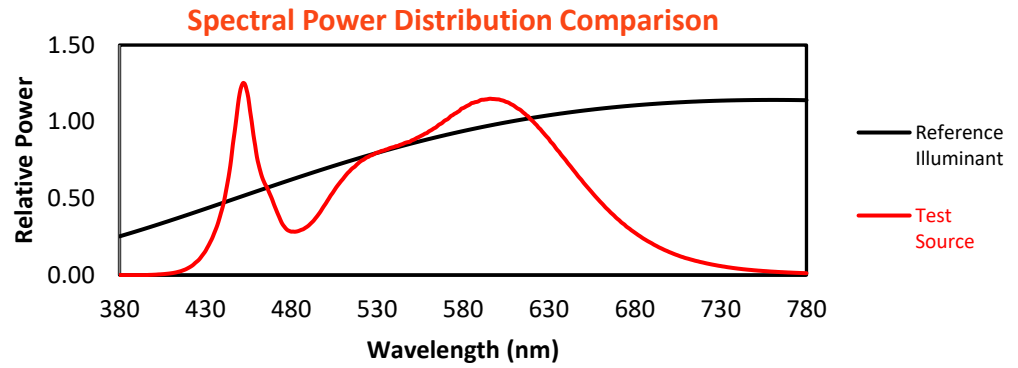
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	257	NR	620	806	NR	750	25	NR	880	1	NR
365	0	NR	495	306	NR	625	760	NR	755	21	NR	885	1	NR
370	0	NR	500	371	NR	630	709	NR	760	18	NR	890	0	NR
375	0	NR	505	440	NR	635	651	NR	765	15	NR	895	0	NR
380	0	NR	510	499	NR	640	596	NR	770	13	NR	900	0	NR
385	0	NR	515	551	NR	645	539	NR	775	11	NR	905	0	NR
390	0	NR	520	590	NR	650	483	NR	780	10	NR	910	0	NR
395	0	NR	525	616	NR	655	431	NR	785	8	NR	915	0	NR
400	2	NR	530	638	NR	660	381	NR	790	7	NR	920	0	NR
405	5	NR	535	653	NR	665	335	NR	795	6	NR	925	0	NR
410	9	NR	540	667	NR	670	292	NR	800	5	NR	930	0	NR
415	19	NR	545	683	NR	675	254	NR	805	5	NR	935	0	NR
420	37	NR	550	700	NR	680	221	NR	810	4	NR	940	0	NR
425	70	NR	555	722	NR	685	190	NR	815	3	NR	945	0	NR
430	124	NR	560	747	NR	690	165	NR	820	3	NR	950	0	NR
435	215	NR	565	775	NR	695	141	NR	825	3	NR	955	0	NR
440	352	NR	570	807	NR	700	120	NR	830	2	NR	960	0	NR
445	602	NR	575	839	NR	705	103	NR	835	2	NR	965	0	NR
450	946	NR	580	869	NR	710	88	NR	840	2	NR	970	0	NR
455	923	NR	585	895	NR	715	75	NR	845	1	NR	975	0	NR
460	615	NR	590	910	NR	720	65	NR	850	1	NR	980	0	NR
465	469	NR	595	917	NR	725	55	NR	855	1	NR	985	0	NR
470	366	NR	600	915	NR	730	47	NR	860	1	NR	990	0	NR
475	264	NR	605	902	NR	735	40	NR	865	1	NR	995	0	NR
480	226	NR	610	880	NR	740	34	NR	870	1	NR	1000	0	NR
485	232	NR	615	847	NR	745	29	NR	875	1	NR			

REPORT NUMBER: SP1-2405-118-2

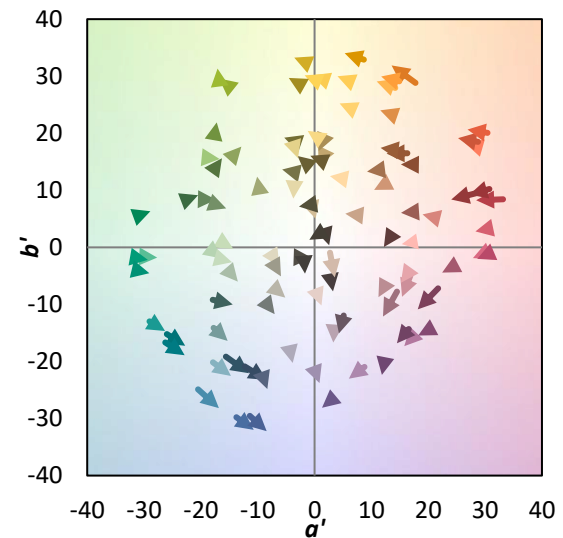
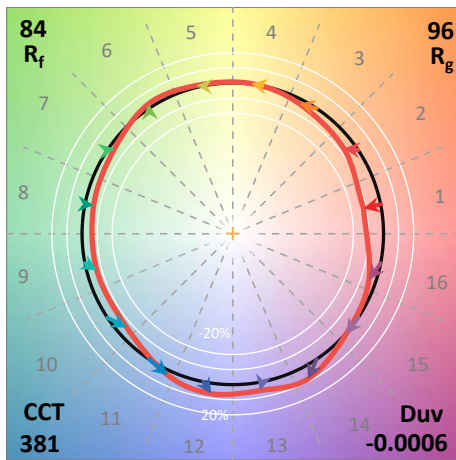
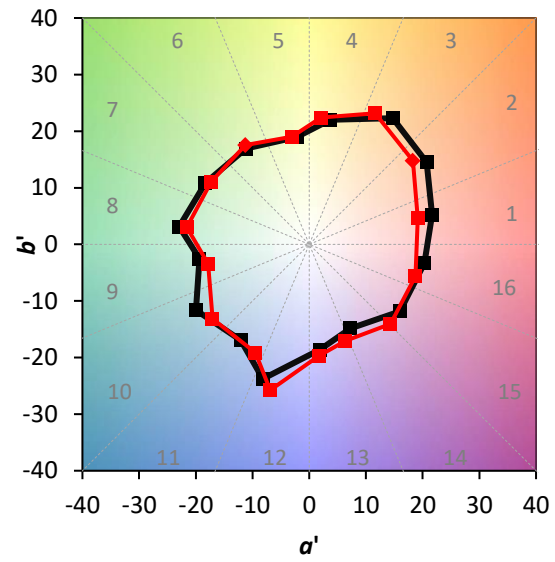
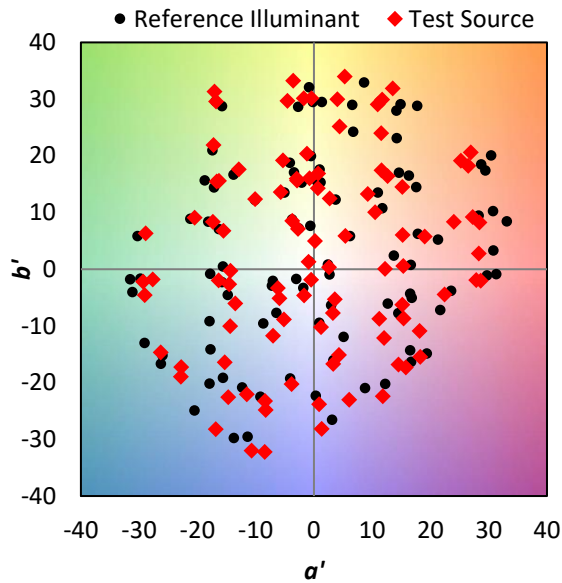
TM-30-18

Summary

$R_f = 83.8$
 $R_g = 96.1$
 $CIE R_a = 83.3$
 $R_g = 10.7$

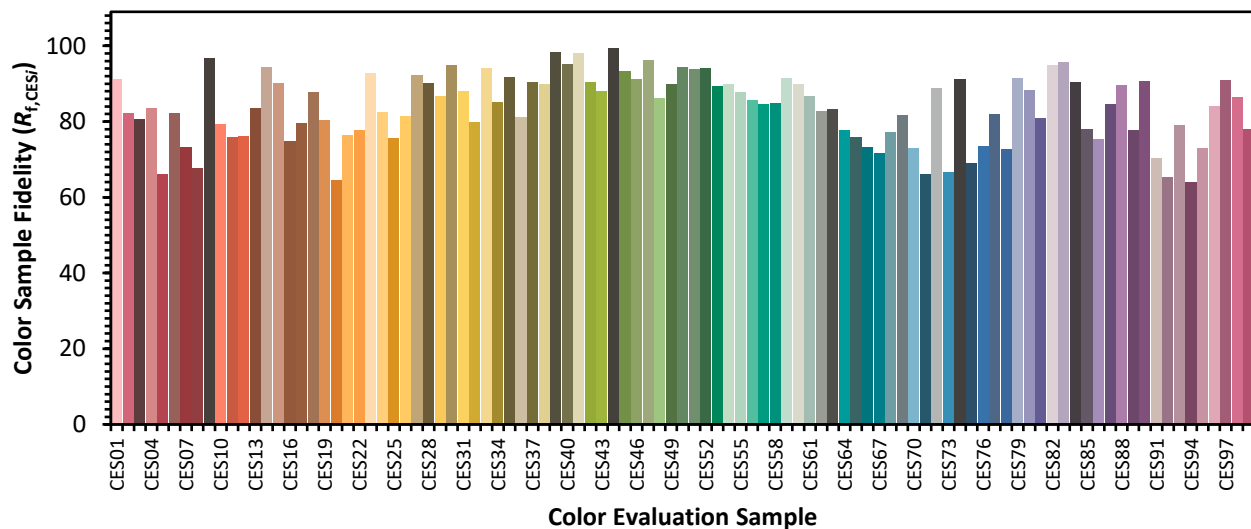


Color Vector Graphics

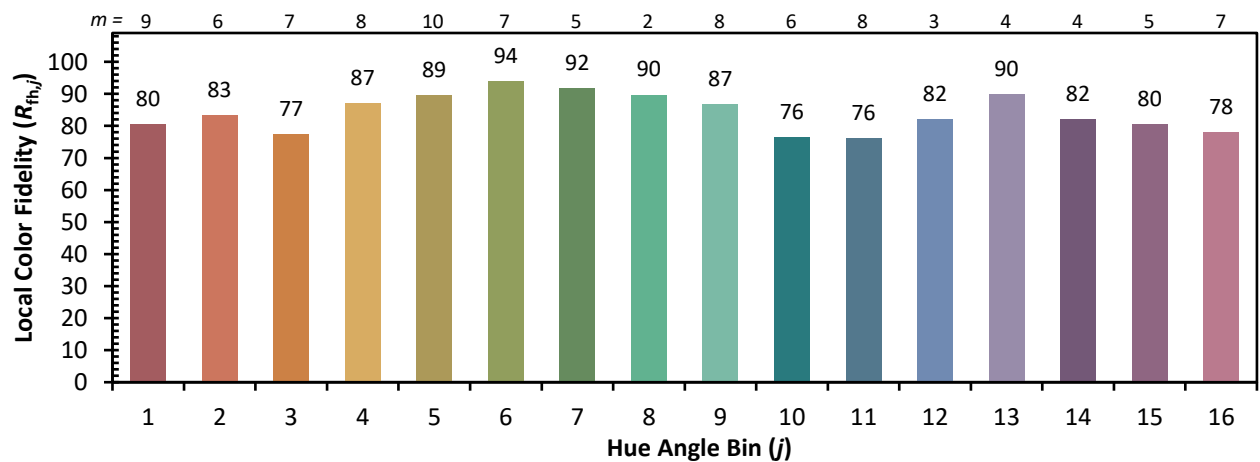
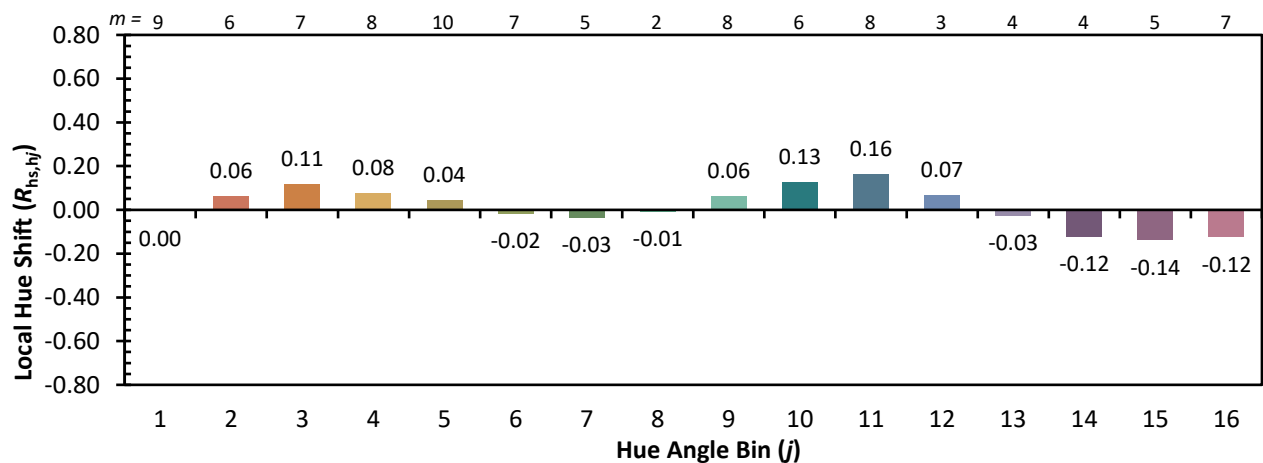
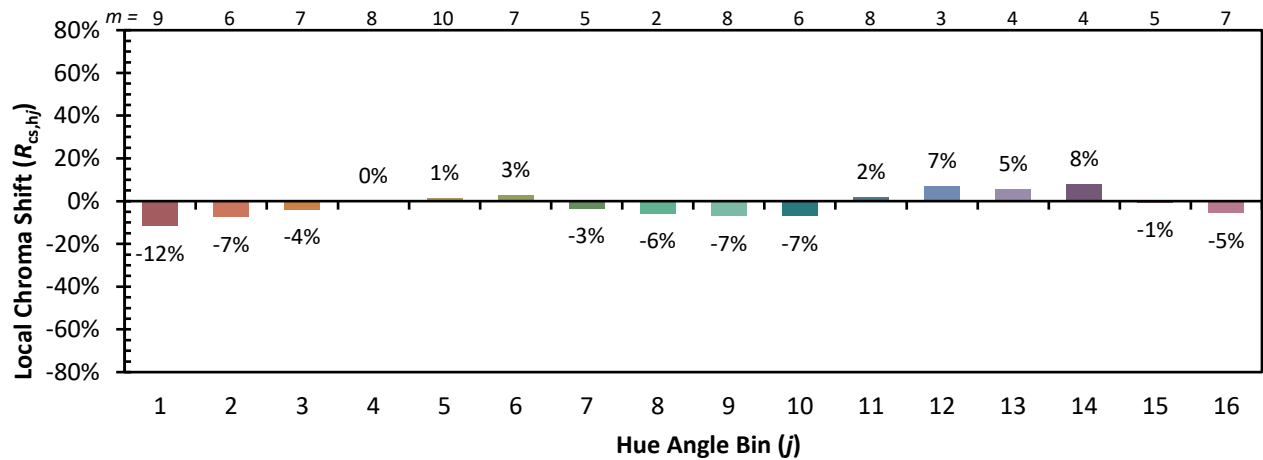


Individual Sample Fidelity Index ($R_{f,i}$)

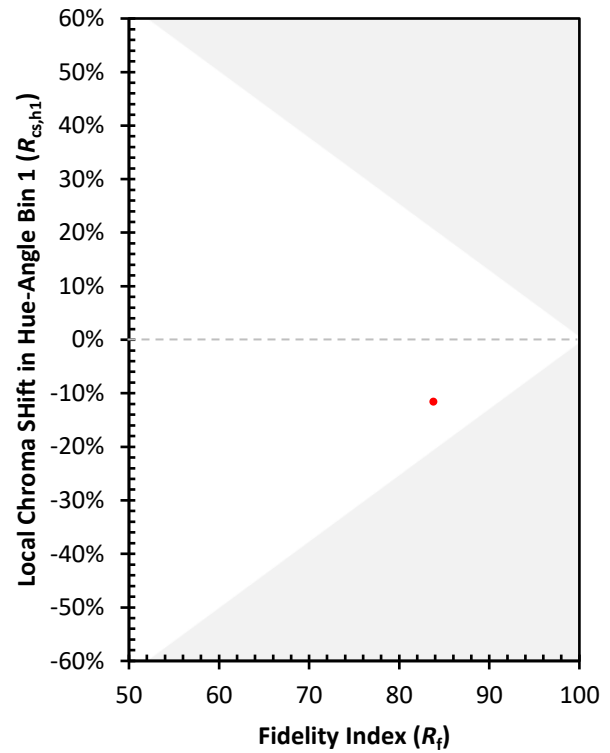
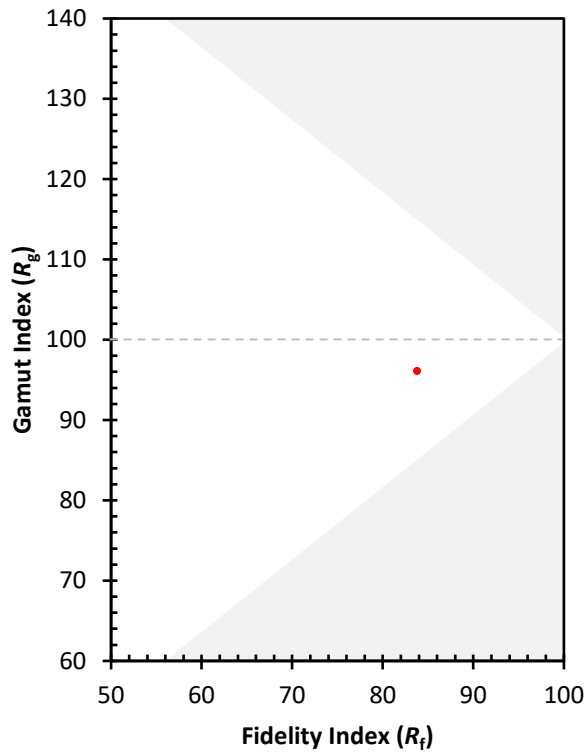
CES01 = 86	CES26 = 81	CES51 = 94	CES76 = 74
CES02 = 61	CES27 = 92	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 89	CES78 = 73
CES04 = 70	CES29 = 87	CES54 = 90	CES79 = 92
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 51	CES31 = 88	CES56 = 86	CES81 = 81
CES07 = 41	CES32 = 80	CES57 = 85	CES82 = 95
CES08 = 40	CES33 = 94	CES58 = 85	CES83 = 96
CES09 = 29	CES34 = 85	CES59 = 91	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 81	CES61 = 87	CES86 = 75
CES12 = 63	CES37 = 90	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 90	CES63 = 83	CES88 = 90
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 78
CES15 = 71	CES40 = 95	CES65 = 76	CES90 = 91
CES16 = 47	CES41 = 98	CES66 = 73	CES91 = 70
CES17 = 49	CES42 = 91	CES67 = 72	CES92 = 65
CES18 = 56	CES43 = 88	CES68 = 77	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 64
CES20 = 65	CES45 = 93	CES70 = 73	CES95 = 73
CES21 = 86	CES46 = 91	CES71 = 66	CES96 = 84
CES22 = 78	CES47 = 96	CES72 = 89	CES97 = 91
CES23 = 91	CES48 = 86	CES73 = 67	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 91	CES99 = 78
CES25 = 71	CES50 = 94	CES75 = 69	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)