

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: P895734

Luminaire Tested: **CLCS15S-PC-3000K-80%**

Issue Date: 11/14/2024

Test Information

Test Method: LM-79-08
Report Number: P895734
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: CLCS15S-PC-3000K-80%
Description: LUMARK SMALL LED CANOPY 8000LM, 60W, PC 80 CRI 3000K FIXTURE @ 80%
OUTPUT
Light Source: 3000K CCT,80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6289.7 lumens
Efficiency: N/A
Efficacy: 128.1 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 - U3 - G2

Input Watts (W): 49.1
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

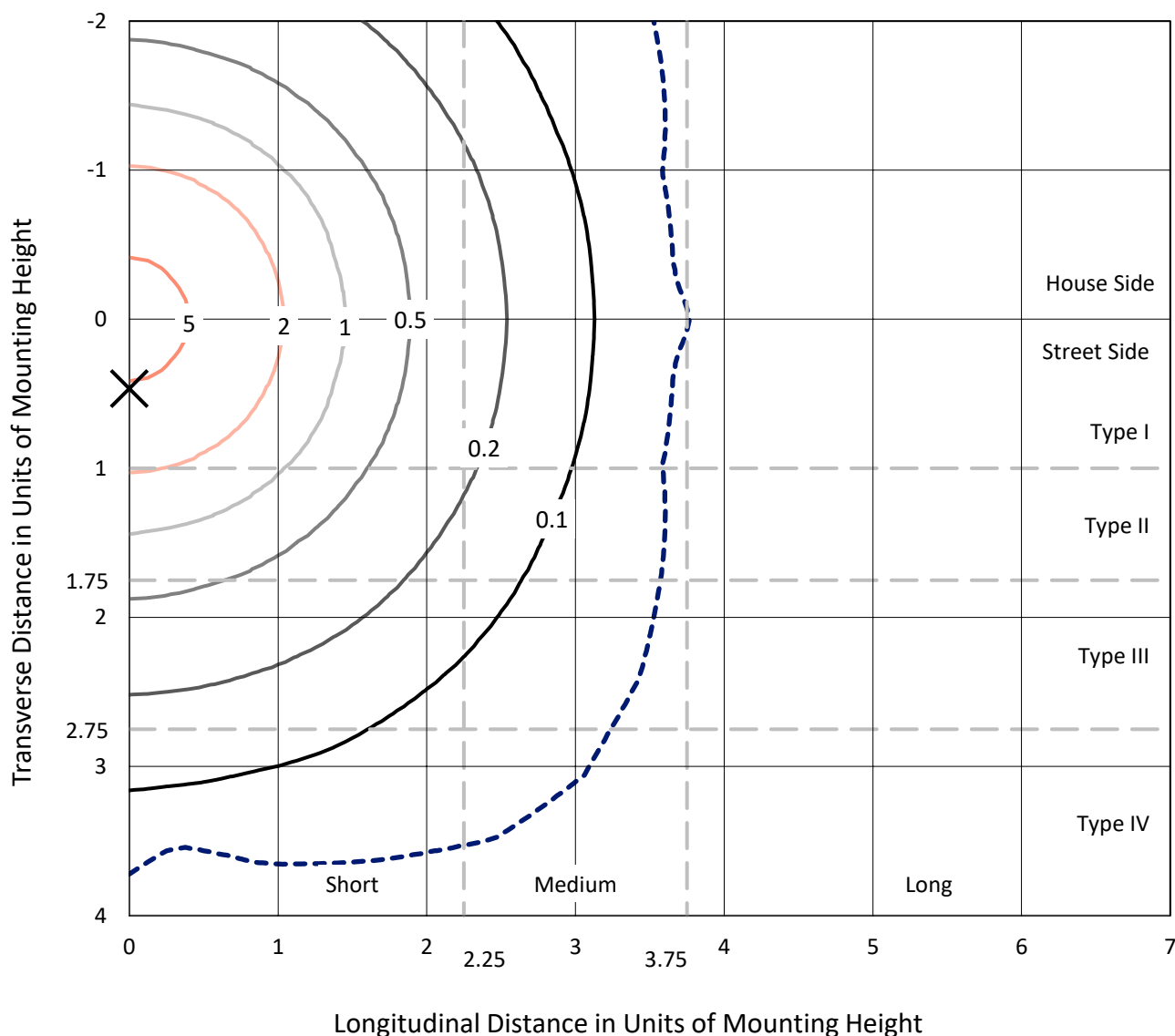
REPORT NUMBER: P895734

CATALOG NUMBER: CLCS15S-PC-3000K-80%

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

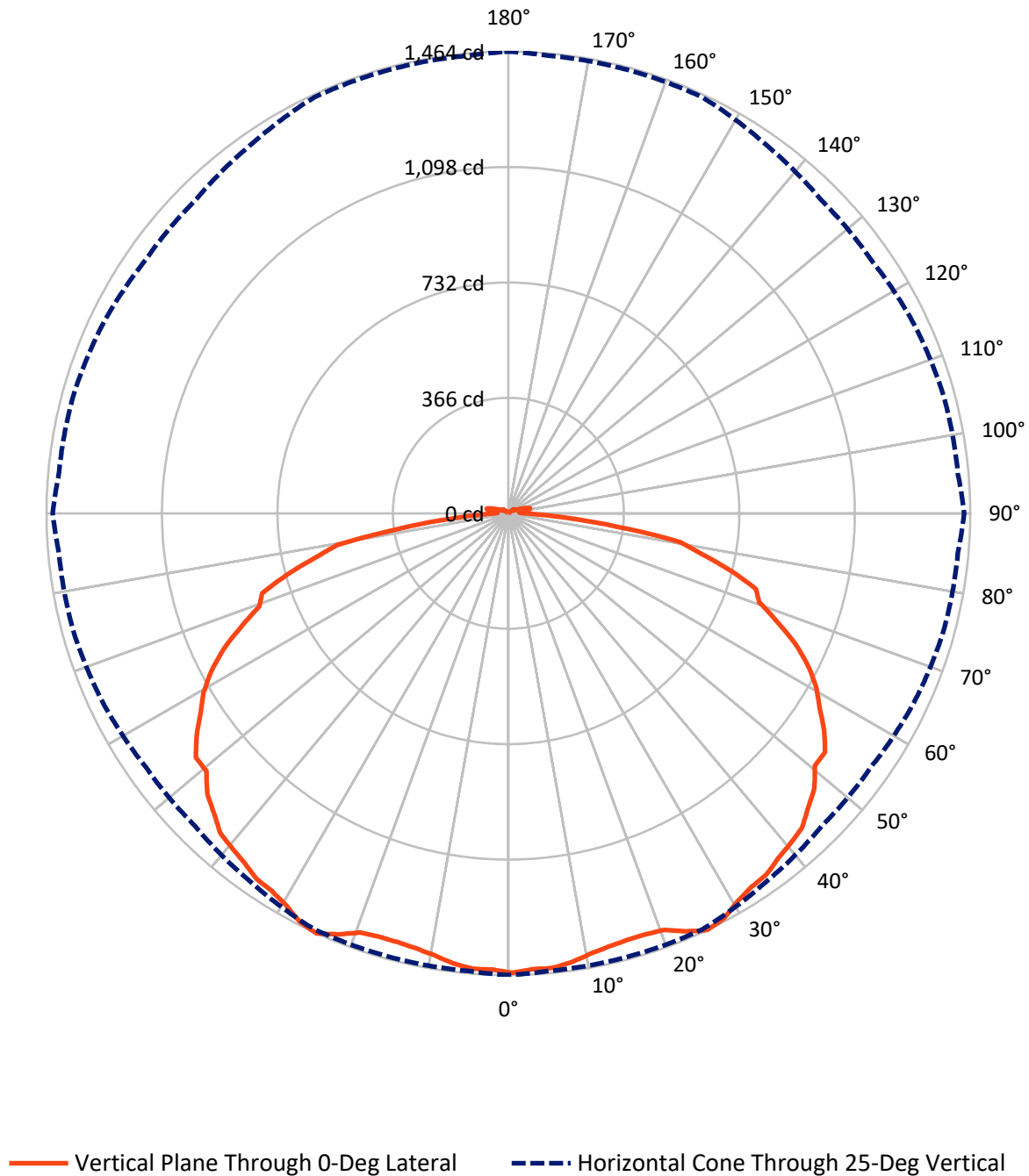


Based on 15 foot mounting height. Maximum calculated value = 6.5 fc

Type V - Short - N/A

REPORT NUMBER: P895734
CATALOG NUMBER: CLCS15S-PC-3000K-80%

Luminous Intensity Polar Plot



REPORT NUMBER: P895734

CATALOG NUMBER: CLCS15S-PC-3000K-80%

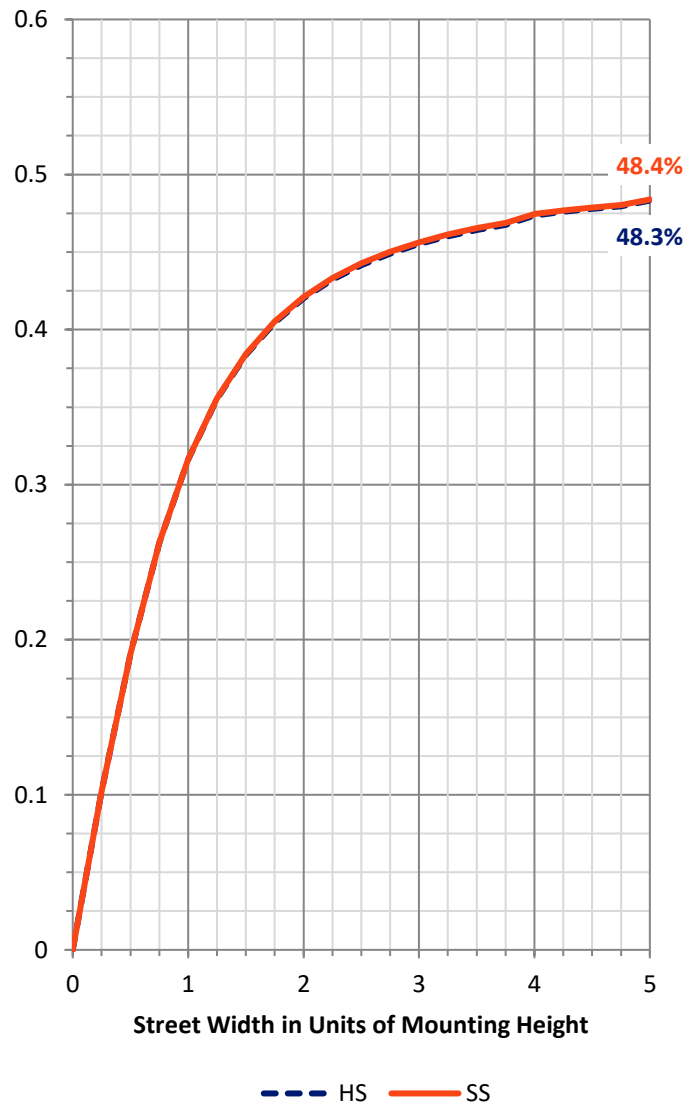
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3083.0	61.8	3144.9
	% Fixture	49.0	1.0	50.0
Street Side	Lumens	3083.0	61.8	3144.9
	% Fixture	49.0	1.0	50.0
Total	Lumens	6166.1	123.6	6289.7
	% Fixture	98.0	2.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.9	2.2
10°-20°	399.8	6.4
20°-30°	657.4	10.5
30°-40°	871.5	13.9
40°-50°	1030.9	16.4
50°-60°	1084.4	17.2
60°-70°	991.8	15.8
70°-80°	765.8	12.2
80°-90°	226.6	3.6
90°-100°	43.2	0.7
100°-110°	47.9	0.8
110°-120°	18.7	0.3
120°-130°	10.3	0.2
130°-140°	3.0	0.0
140°-150°	0.5	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6166.1	98.0
0°-180°	6289.7	100.0



REPORT NUMBER: P895734

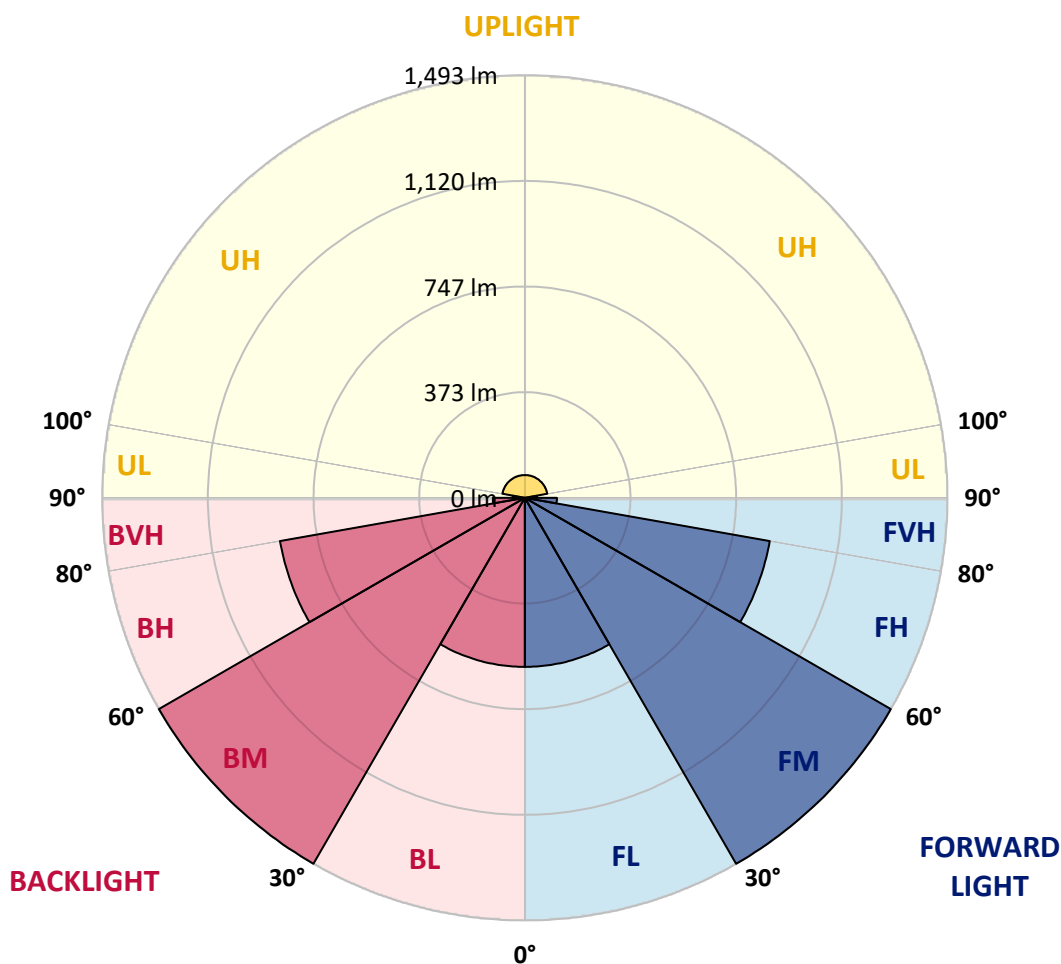
CATALOG NUMBER: CLCS15S-PC-3000K-80%

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	597.5	9.5			
FM	(30°-60°)	1493.4	23.7			
FH	(60°-80°)	878.8	14.0			G1/1800
FVH	(80°-90°)	113.3	1.8			G2/225
BL	(0°-30°)	597.5	9.5	B2/1000		
BM	(30°-60°)	1493.4	23.7	B2/2500		
BH	(60°-80°)	878.8	14.0	B2/1000		G1/1800
BVH	(80°-90°)	113.3	1.8			G2/225
UL	(90°-100°)	43.2	0.7		U2/50	
UH	(100°-180°)	80.4	1.3		U3/500	

BUG Rating: B2-U3-G2

Type V Short





REPORT NUMBER: P895734

CATALOG NUMBER: CLCS15S-PC-3000K-80%

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2	1457.2
2.5°	1447.8	1448.6	1450.2	1453.3	1451.7	1452.5	1452.5	1450.2	1453.3	1452.5	1457.2
5°	1448.6	1448.6	1448.6	1452.5	1452.5	1453.3	1454.9	1454.9	1456.4	1457.2	1460.4
7.5°	1437.6	1439.2	1437.6	1440.7	1441.5	1445.5	1447.0	1446.2	1449.4	1449.4	1455.7
10°	1421.1	1421.9	1421.9	1425.0	1428.2	1432.9	1432.9	1432.1	1433.7	1432.9	1437.6
12.5°	1410.1	1410.1	1409.3	1414.0	1417.2	1420.3	1421.1	1421.9	1424.3	1427.4	1432.1
15°	1404.7	1404.7	1403.9	1410.1	1409.3	1409.3	1412.5	1415.6	1415.6	1418.0	1425.0
17.5°	1403.9	1401.6	1393.7	1402.4	1400.0	1399.2	1401.6	1400.8	1407.1	1407.8	1410.1
20°	1410.1	1407.1	1406.3	1408.6	1399.2	1396.9	1399.2	1397.7	1401.6	1403.2	1410.9
22.5°	1440.0	1438.4	1430.5	1421.1	1400.0	1389.8	1387.5	1399.2	1412.5	1410.9	1414.0
25°	1464.3	1457.2	1456.4	1455.7	1425.8	1403.9	1403.2	1418.8	1429.0	1430.5	1444.7
27.5°	1454.9	1446.2	1450.2	1451.7	1427.4	1400.8	1391.4	1414.0	1428.2	1440.7	1450.2
30°	1429.0	1422.7	1426.6	1429.8	1415.6	1392.2	1378.0	1396.9	1421.1	1440.7	1436.8
32.5°	1413.3	1413.3	1413.3	1403.9	1396.1	1381.2	1360.0	1392.9	1403.2	1410.9	1417.2
35°	1407.8	1407.1	1407.1	1396.9	1379.6	1368.6	1368.6	1376.5	1385.9	1389.8	1404.7
37.5°	1389.0	1376.5	1387.5	1389.8	1372.5	1367.0	1368.6	1369.4	1382.0	1392.9	1392.2
40°	1376.5	1361.5	1356.8	1361.5	1364.7	1364.7	1359.2	1363.1	1374.9	1380.4	1373.3
42.5°	1364.7	1354.5	1353.7	1346.6	1340.3	1349.8	1343.5	1345.1	1350.5	1363.1	1366.3
45°	1331.7	1330.1	1329.3	1328.6	1312.2	1345.1	1340.3	1331.7	1344.3	1343.5	1366.3
47.5°	1305.1	1313.7	1298.0	1299.6	1316.1	1319.9	1316.1	1310.6	1332.5	1327.0	1351.3
50°	1258.8	1258.8	1267.4	1279.2	1299.6	1294.1	1294.9	1308.3	1304.3	1313.0	1338.8
52.5°	1257.2	1228.9	1219.6	1230.5	1256.4	1271.3	1256.4	1294.9	1250.1	1269.8	1277.6
55°	1214.1	1180.4	1185.9	1192.1	1211.0	1213.3	1250.9	1228.2	1213.3	1232.9	1244.7
57.5°	1163.1	1136.4	1126.3	1158.4	1153.7	1186.7	1181.9	1178.8	1189.8	1188.2	1189.8
60°	1121.6	1097.2	1072.9	1101.2	1129.4	1118.4	1138.0	1151.3	1138.8	1141.9	1135.6
62.5°	1066.6	1065.8	1047.0	1060.3	1056.4	1082.3	1075.3	1091.0	1087.0	1083.1	1092.5
65°	1000.0	994.5	991.3	1005.5	1008.6	1008.6	1001.6	1018.0	1014.9	1012.5	1023.5
67.5°	920.0	917.6	920.8	922.4	938.8	940.4	937.3	950.6	949.0	947.5	951.4
70°	843.1	829.8	813.3	858.1	876.8	881.5	869.7	861.2	854.9	846.3	851.0
72.5°	820.4	805.5	807.8	837.7	836.1	843.9	825.1	797.6	797.6	788.2	792.1
75°	727.8	695.6	738.8	774.1	800.0	785.0	793.7	763.9	727.0	723.9	734.9
77.5°	629.0	610.2	610.9	658.1	701.1	714.5	690.9	655.7	625.9	616.4	622.7
80°	551.4	531.0	490.2	473.7	483.9	506.6	487.9	468.2	478.4	490.2	501.9
82.5°	344.3	340.4	352.1	329.4	297.3	286.3	287.9	312.2	314.6	310.6	314.6
85°	187.5	181.2	178.0	171.0	163.1	160.0	156.0	159.2	162.3	154.5	156.8
87.5°	85.5	82.3	87.1	91.8	85.5	83.9	82.3	83.1	83.1	83.9	83.9
90°	45.4	46.2	47.0	46.2	46.2	45.4	44.8	44.0	44.0	45.4	45.4
92.5°	36.1	35.3	33.0	32.2	31.4	31.4	30.6	30.6	31.4	32.2	32.2
95°	34.5	34.5	32.2	30.6	29.8	28.3	29.1	30.6	32.2	33.8	33.8
97.5°	52.5	52.5	49.4	44.8	40.0	36.1	39.3	44.8	47.8	50.2	50.2
100°	67.4	67.4	62.7	54.1	45.4	41.6	44.8	53.3	60.4	63.5	64.3
102.5°	70.6	69.8	63.5	54.1	43.2	38.5	42.4	52.5	61.9	66.6	67.4
105°	61.9	61.1	56.4	46.2	35.3	29.1	35.3	45.4	54.9	59.6	60.4
107.5°	50.9	50.9	47.0	37.7	25.9	20.4	25.9	36.9	45.4	48.6	50.2
110°	38.5	37.7	34.5	27.5	18.8	14.1	18.1	27.5	33.8	36.9	37.7



REPORT NUMBER: P895734
 CATALOG NUMBER: CLCS15S-PC-3000K-80%

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	30.6	30.6	27.5	22.0	13.3	10.2	13.3	21.2	26.7	29.1	29.1
115°	25.9	25.9	23.6	17.3	11.0	8.6	11.0	17.3	22.8	24.3	24.3
117.5°	20.4	21.2	20.4	15.7	9.4	6.3	9.4	14.1	18.8	20.4	19.6
120°	16.5	17.3	18.8	14.9	8.6	5.5	8.6	14.1	17.3	16.5	16.5
122.5°	15.7	15.7	19.6	14.9	9.4	4.7	7.9	13.3	18.1	15.7	14.9
125°	22.0	22.0	18.8	11.8	5.5	3.9	4.7	10.2	17.3	19.6	19.6
127.5°	17.3	17.3	14.1	7.9	3.9	3.1	3.9	7.9	12.6	15.7	16.5
130°	13.3	12.6	9.4	5.5	3.1	2.4	3.1	5.5	7.9	10.2	11.0
132.5°	7.1	7.1	6.3	4.7	2.4	1.6	2.4	4.7	6.3	7.1	7.1
135°	5.5	5.5	4.7	3.9	2.4	0.8	2.4	3.9	4.7	5.5	5.5
137.5°	4.7	4.7	3.9	2.4	0.8	0.8	0.8	2.4	3.9	4.7	4.7
140°	3.1	3.1	3.1	1.6	0.8	0.8	0.8	1.6	2.4	3.1	3.1
142.5°	2.4	2.4	1.6	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6
145°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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: SP1-2405-118-1

Test Date: 07/17/2024

Luminaire Tested: CLCS40S-3000K-HIGH

Data in this report applies to families of products including CLCS40S-3000K-HIGH

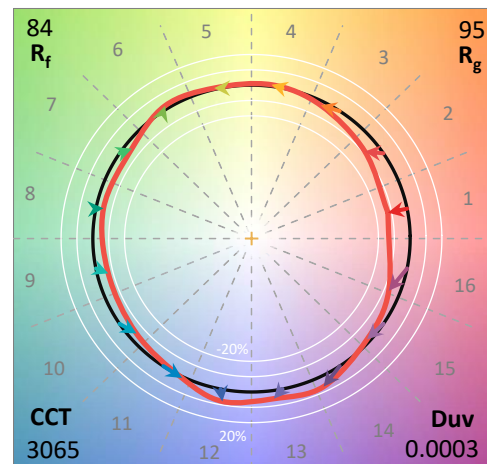
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2405-118-1
 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-3000K-HIGH**
 Description: 120W LUMARK AP CANOPY SELECTABLE FIXTURE HIGHEST OUTPUT @3000K

Spectral Parameters

CCT (K): 3065
 CIE u' : 0.2482
 CIE v' : 0.5205
 Duv: 0.0003
 CIE x: 0.4328
 CIE y: 0.4033
 CIE z: 0.1639
 Peak Wavelength (nm): 601
 Dominant Wavelength (nm): 582
 Purity: 50.97738
 R_f: 83.6
 R_g: 95.1

CRI (Ra): 80.9
 R1: 78.9
 R2: 89.8
 R3: 96.2
 R4: 78.4
 R5: 79.1
 R6: 87.3
 R7: 81.8
 R8: 56.0
 R9: -0.8
 R10: 76.7
 R11: 77.3
 R12: 67.5
 R13: 81.4
 R14: 98.5
 R15: 71.1



Test Conditions

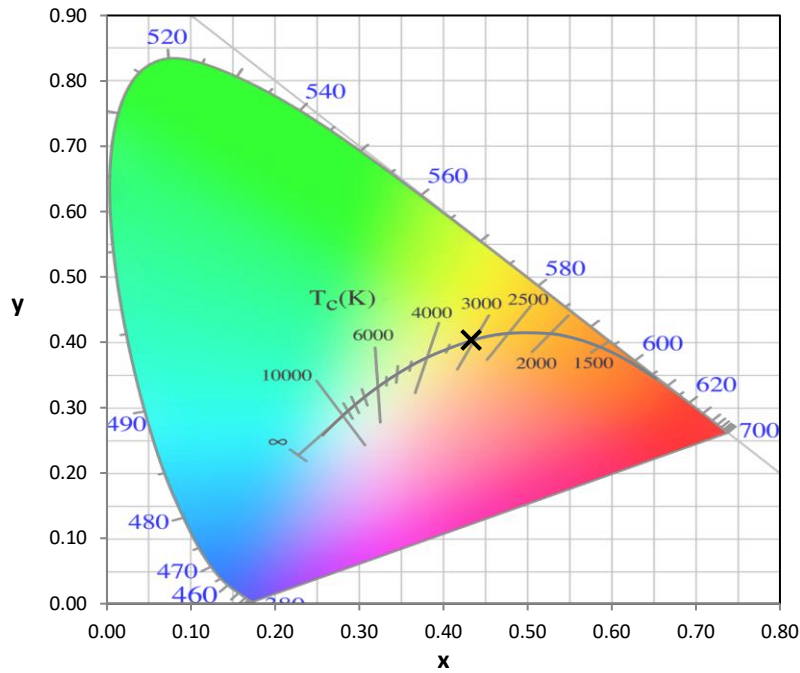
Stabilization Time: 60M
 Operation Time: 1H 60M
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2405-118-1

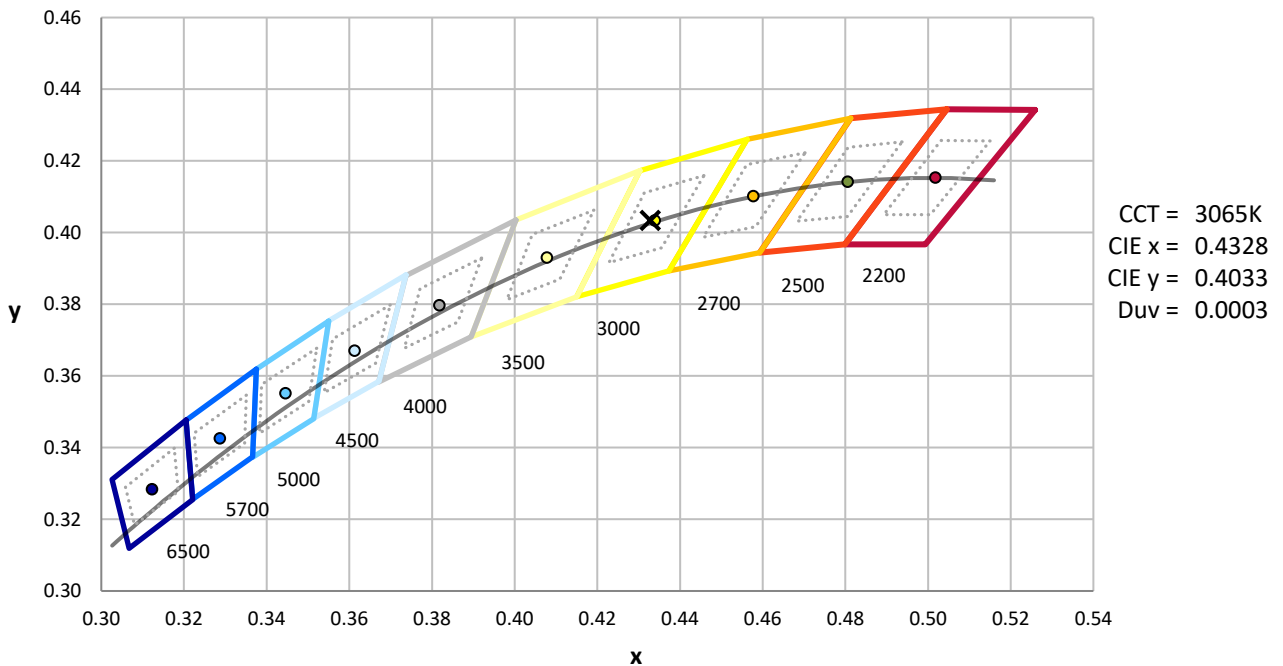
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2405-118-1

CIE 1931 Chromaticity Diagram



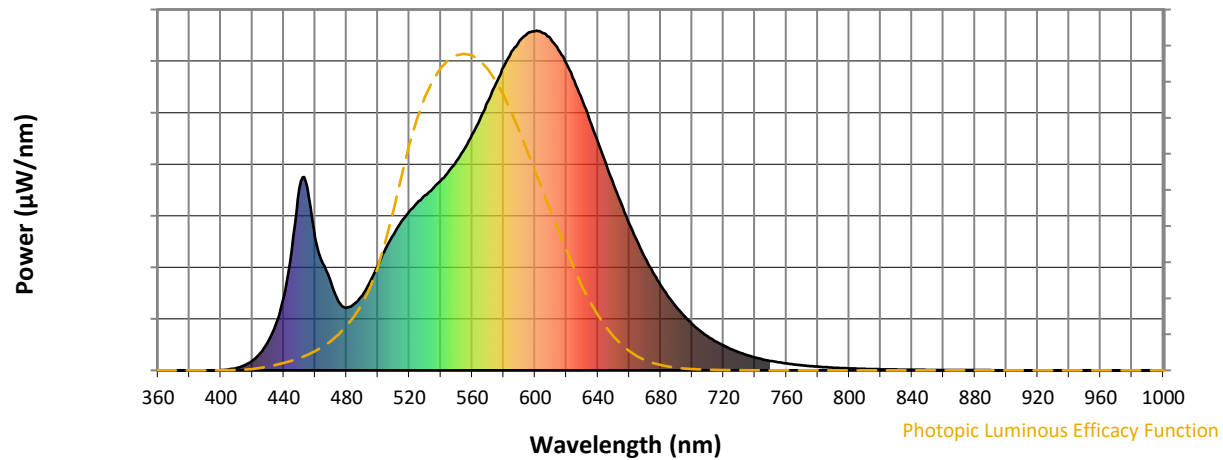
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2405-118-1

Photopic Flux vs. Wavelength

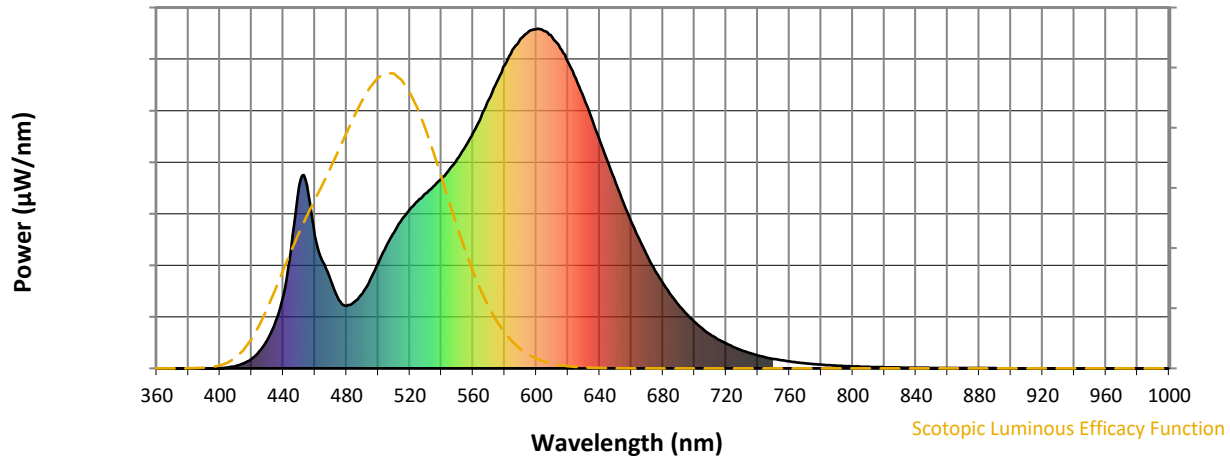


Photopic Lumens: NR

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	221	NR	620	902	NR	750	28	NR	880	1	NR
365	0	NR	495	261	NR	625	853	NR	755	24	NR	885	1	NR
370	0	NR	500	309	NR	630	796	NR	760	20	NR	890	1	NR
375	0	NR	505	359	NR	635	735	NR	765	17	NR	895	0	NR
380	0	NR	510	401	NR	640	673	NR	770	15	NR	900	0	NR
385	0	NR	515	438	NR	645	609	NR	775	13	NR	905	0	NR
390	0	NR	520	469	NR	650	547	NR	780	11	NR	910	0	NR
395	0	NR	525	493	NR	655	489	NR	785	9	NR	915	0	NR
400	1	NR	530	515	NR	660	432	NR	790	8	NR	920	0	NR
405	3	NR	535	536	NR	665	381	NR	795	7	NR	925	0	NR
410	7	NR	540	558	NR	670	331	NR	800	6	NR	930	0	NR
415	15	NR	545	586	NR	675	288	NR	805	5	NR	935	0	NR
420	28	NR	550	616	NR	680	251	NR	810	4	NR	940	0	NR
425	51	NR	555	652	NR	685	216	NR	815	4	NR	945	0	NR
430	84	NR	560	694	NR	690	187	NR	820	3	NR	950	0	NR
435	136	NR	565	740	NR	695	160	NR	825	3	NR	955	0	NR
440	215	NR	570	791	NR	700	137	NR	830	2	NR	960	0	NR
445	352	NR	575	843	NR	705	117	NR	835	2	NR	965	0	NR
450	536	NR	580	893	NR	710	100	NR	840	2	NR	970	0	NR
455	538	NR	585	938	NR	715	85	NR	845	2	NR	975	0	NR
460	391	NR	590	970	NR	720	73	NR	850	1	NR	980	0	NR
465	313	NR	595	991	NR	725	62	NR	855	1	NR	985	0	NR
470	259	NR	600	998	NR	730	53	NR	860	1	NR	990	0	NR
475	202	NR	605	993	NR	735	45	NR	865	1	NR	995	0	NR
480	184	NR	610	975	NR	740	38	NR	870	1	NR	1000	0	NR
485	196	NR	615	943	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2405-118-1

Scotopic Flux vs. Wavelength

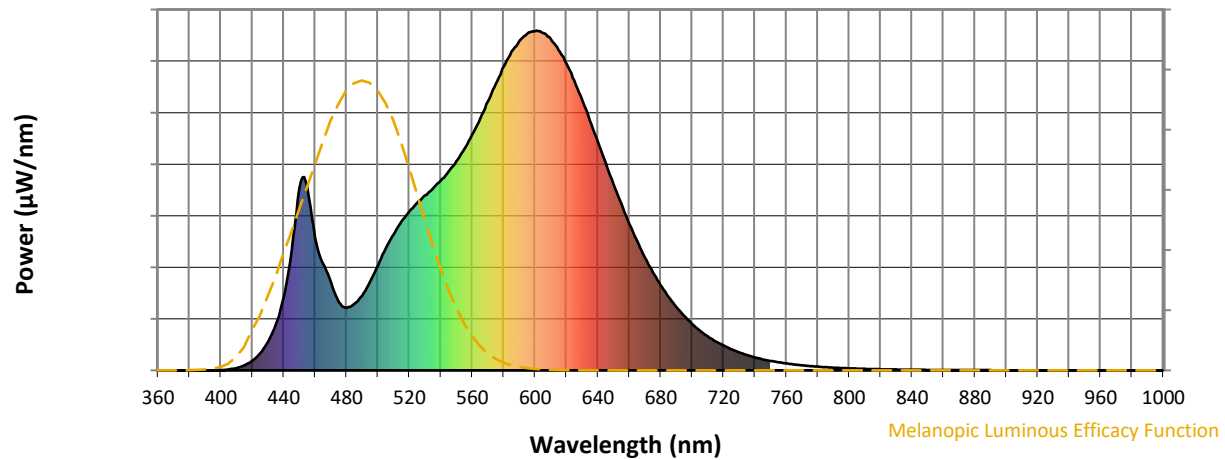


Scotopic Lumens: NR

S/P: 1.35

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	221	NR	620	902	NR	750	28	NR	880	1	NR
365	0	NR	495	261	NR	625	853	NR	755	24	NR	885	1	NR
370	0	NR	500	309	NR	630	796	NR	760	20	NR	890	1	NR
375	0	NR	505	359	NR	635	735	NR	765	17	NR	895	0	NR
380	0	NR	510	401	NR	640	673	NR	770	15	NR	900	0	NR
385	0	NR	515	438	NR	645	609	NR	775	13	NR	905	0	NR
390	0	NR	520	469	NR	650	547	NR	780	11	NR	910	0	NR
395	0	NR	525	493	NR	655	489	NR	785	9	NR	915	0	NR
400	1	NR	530	515	NR	660	432	NR	790	8	NR	920	0	NR
405	3	NR	535	536	NR	665	381	NR	795	7	NR	925	0	NR
410	7	NR	540	558	NR	670	331	NR	800	6	NR	930	0	NR
415	15	NR	545	586	NR	675	288	NR	805	5	NR	935	0	NR
420	28	NR	550	616	NR	680	251	NR	810	4	NR	940	0	NR
425	51	NR	555	652	NR	685	216	NR	815	4	NR	945	0	NR
430	84	NR	560	694	NR	690	187	NR	820	3	NR	950	0	NR
435	136	NR	565	740	NR	695	160	NR	825	3	NR	955	0	NR
440	215	NR	570	791	NR	700	137	NR	830	2	NR	960	0	NR
445	352	NR	575	843	NR	705	117	NR	835	2	NR	965	0	NR
450	536	NR	580	893	NR	710	100	NR	840	2	NR	970	0	NR
455	538	NR	585	938	NR	715	85	NR	845	2	NR	975	0	NR
460	391	NR	590	970	NR	720	73	NR	850	1	NR	980	0	NR
465	313	NR	595	991	NR	725	62	NR	855	1	NR	985	0	NR
470	259	NR	600	998	NR	730	53	NR	860	1	NR	990	0	NR
475	202	NR	605	993	NR	735	45	NR	865	1	NR	995	0	NR
480	184	NR	610	975	NR	740	38	NR	870	1	NR	1000	0	NR
485	196	NR	615	943	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2405-118-1

Melanopic Flux vs. Wavelength

Melanopic Lumens: NR
M/P: 2.61

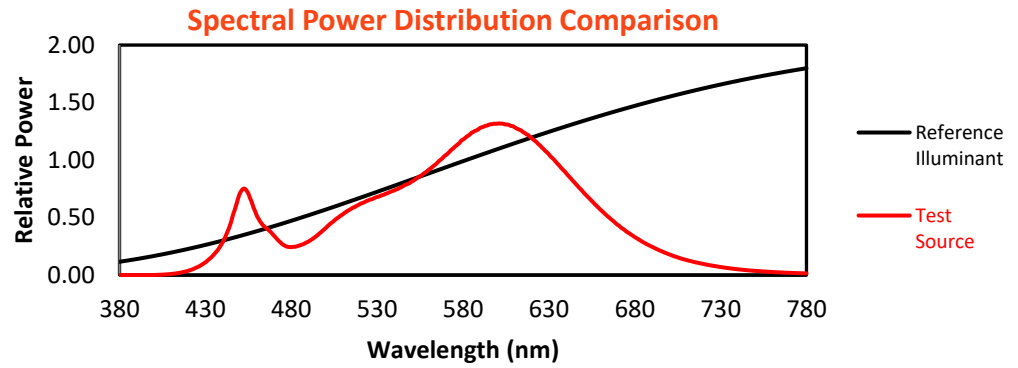
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	221	NR	620	902	NR	750	28	NR	880	1	NR
365	0	NR	495	261	NR	625	853	NR	755	24	NR	885	1	NR
370	0	NR	500	309	NR	630	796	NR	760	20	NR	890	1	NR
375	0	NR	505	359	NR	635	735	NR	765	17	NR	895	0	NR
380	0	NR	510	401	NR	640	673	NR	770	15	NR	900	0	NR
385	0	NR	515	438	NR	645	609	NR	775	13	NR	905	0	NR
390	0	NR	520	469	NR	650	547	NR	780	11	NR	910	0	NR
395	0	NR	525	493	NR	655	489	NR	785	9	NR	915	0	NR
400	1	NR	530	515	NR	660	432	NR	790	8	NR	920	0	NR
405	3	NR	535	536	NR	665	381	NR	795	7	NR	925	0	NR
410	7	NR	540	558	NR	670	331	NR	800	6	NR	930	0	NR
415	15	NR	545	586	NR	675	288	NR	805	5	NR	935	0	NR
420	28	NR	550	616	NR	680	251	NR	810	4	NR	940	0	NR
425	51	NR	555	652	NR	685	216	NR	815	4	NR	945	0	NR
430	84	NR	560	694	NR	690	187	NR	820	3	NR	950	0	NR
435	136	NR	565	740	NR	695	160	NR	825	3	NR	955	0	NR
440	215	NR	570	791	NR	700	137	NR	830	2	NR	960	0	NR
445	352	NR	575	843	NR	705	117	NR	835	2	NR	965	0	NR
450	536	NR	580	893	NR	710	100	NR	840	2	NR	970	0	NR
455	538	NR	585	938	NR	715	85	NR	845	2	NR	975	0	NR
460	391	NR	590	970	NR	720	73	NR	850	1	NR	980	0	NR
465	313	NR	595	991	NR	725	62	NR	855	1	NR	985	0	NR
470	259	NR	600	998	NR	730	53	NR	860	1	NR	990	0	NR
475	202	NR	605	993	NR	735	45	NR	865	1	NR	995	0	NR
480	184	NR	610	975	NR	740	38	NR	870	1	NR	1000	0	NR
485	196	NR	615	943	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2405-118-1

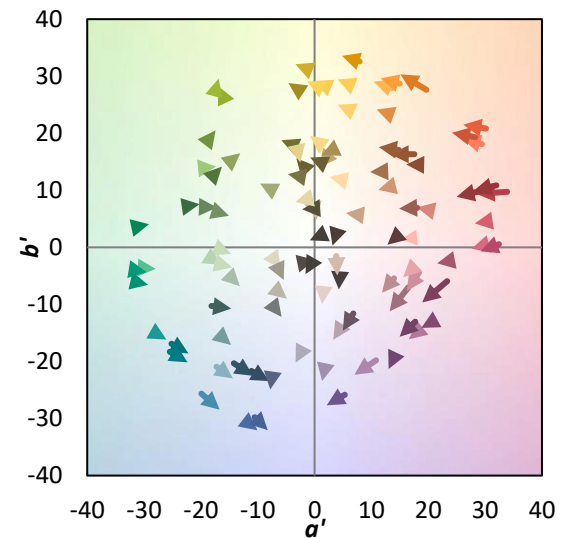
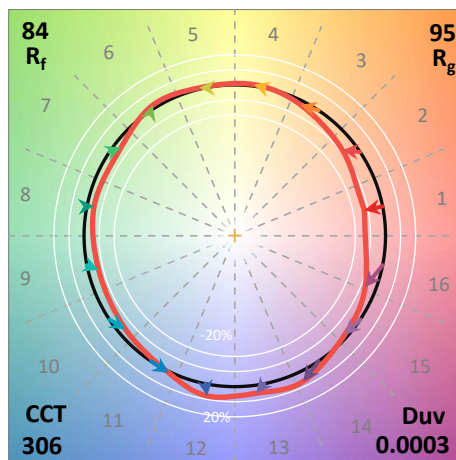
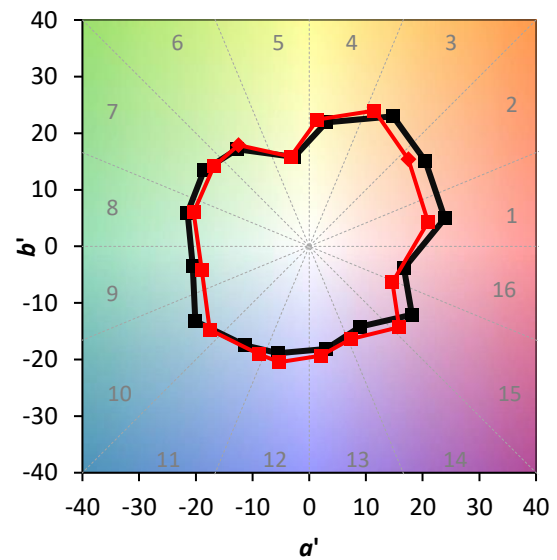
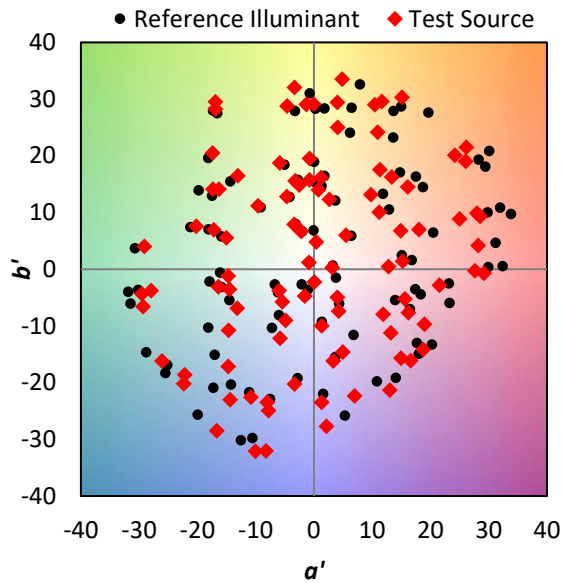
TM-30-18

Summary

$R_f = 83.6$
 $R_g = 95.1$
 $CIE R_a = 80.9$
 $R_g = -0.8$

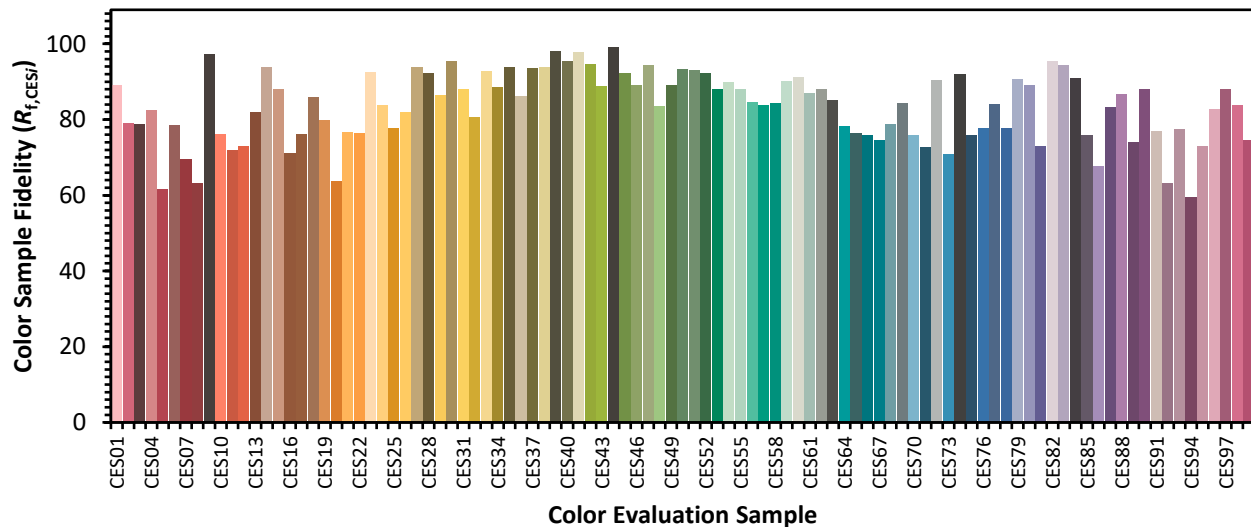


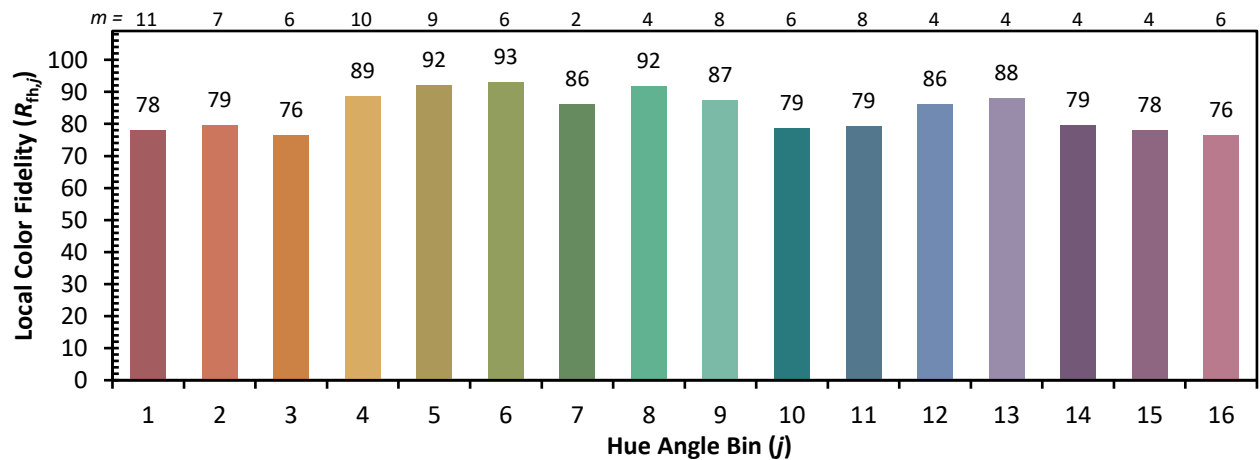
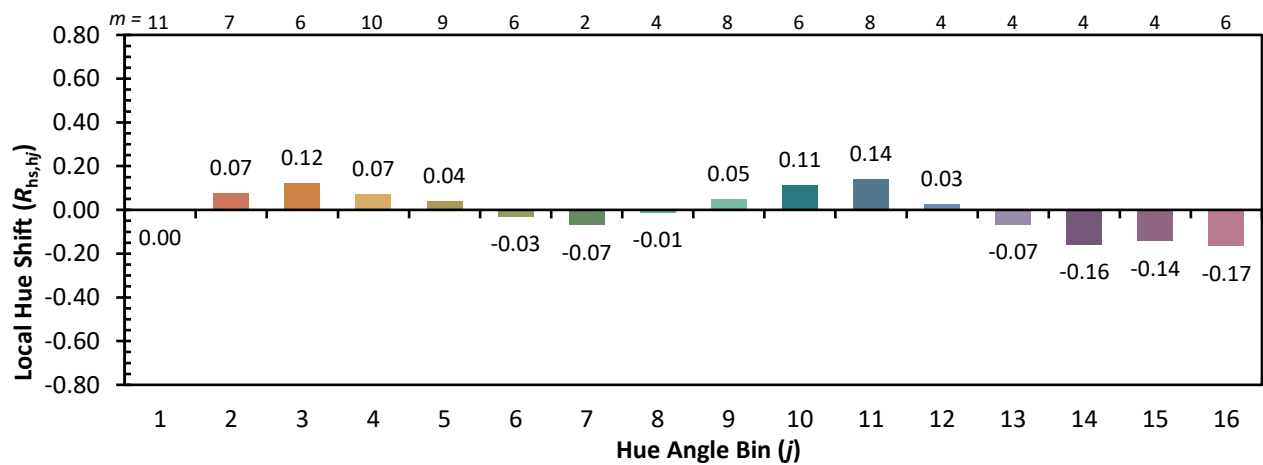
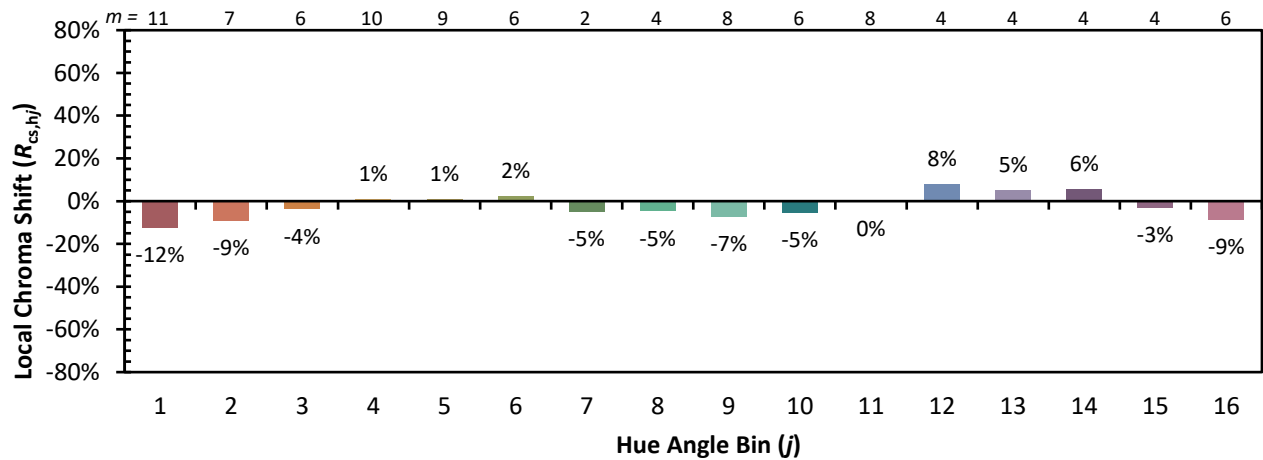
Color Vector Graphics



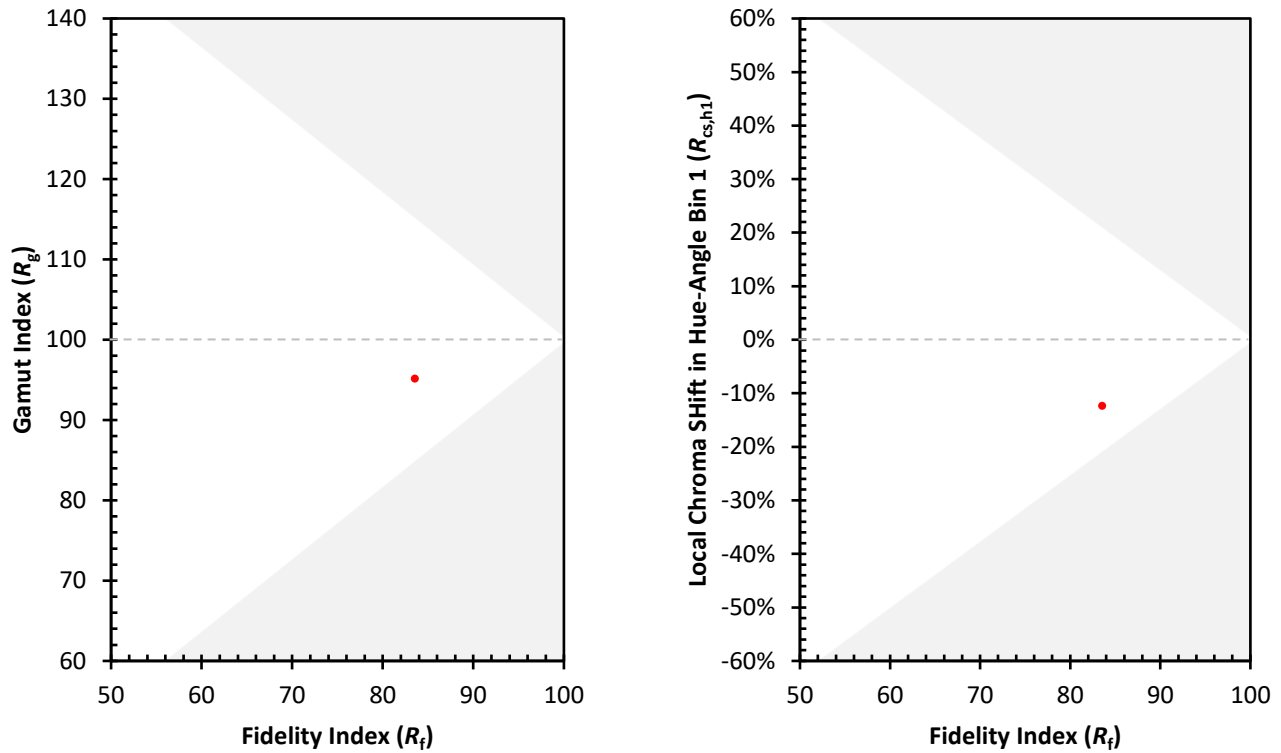
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 82	CES51 = 93	CES76 = 78
CES02 = 63	CES27 = 94	CES52 = 92	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 78
CES04 = 70	CES29 = 86	CES54 = 90	CES79 = 91
CES05 = 49	CES30 = 96	CES55 = 88	CES80 = 89
CES06 = 51	CES31 = 88	CES56 = 85	CES81 = 73
CES07 = 42	CES32 = 81	CES57 = 84	CES82 = 95
CES08 = 41	CES33 = 93	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 89	CES59 = 90	CES84 = 91
CES10 = 76	CES35 = 94	CES60 = 91	CES85 = 76
CES11 = 59	CES36 = 86	CES61 = 87	CES86 = 68
CES12 = 65	CES37 = 94	CES62 = 88	CES87 = 83
CES13 = 43	CES38 = 94	CES63 = 85	CES88 = 87
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 74
CES15 = 71	CES40 = 96	CES65 = 76	CES90 = 88
CES16 = 47	CES41 = 98	CES66 = 76	CES91 = 77
CES17 = 50	CES42 = 95	CES67 = 74	CES92 = 63
CES18 = 56	CES43 = 89	CES68 = 79	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 84	CES94 = 60
CES20 = 66	CES45 = 92	CES70 = 76	CES95 = 73
CES21 = 87	CES46 = 89	CES71 = 73	CES96 = 83
CES22 = 79	CES47 = 94	CES72 = 90	CES97 = 88
CES23 = 92	CES48 = 84	CES73 = 71	CES98 = 84
CES24 = 91	CES49 = 89	CES74 = 92	CES99 = 75
CES25 = 72	CES50 = 93	CES75 = 76	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)