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: P895756

Luminaire Tested: **CLCS30S-PC-5000K-40%**

Issue Date: 11/14/2024

Test Information

Test Method:	LM-79-08
Report Number:	P895756
Test Lab:	INNOVATION CENTER(G2)
Issue Date:	11/14/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	CLCS30S-PC-5000K-40%
Description:	LUMARK LARGE LED CANOPY 16000LM, 120W, PC 80 CRI 5000K FIXTURE @ 40% OUTPUT
Light Source:	5000K CCT,80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7779.6 lumens
Efficiency:	N/A
Efficacy:	152.5 lumens/watt
Luminous Opening:	Rectangular w/ Sides (W: 1' x L: 1' x H: 0.12')
IES Classification:	Type V - Short
BUG Rating:	B3 - U3 - G2
Input Watts (W):	51
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

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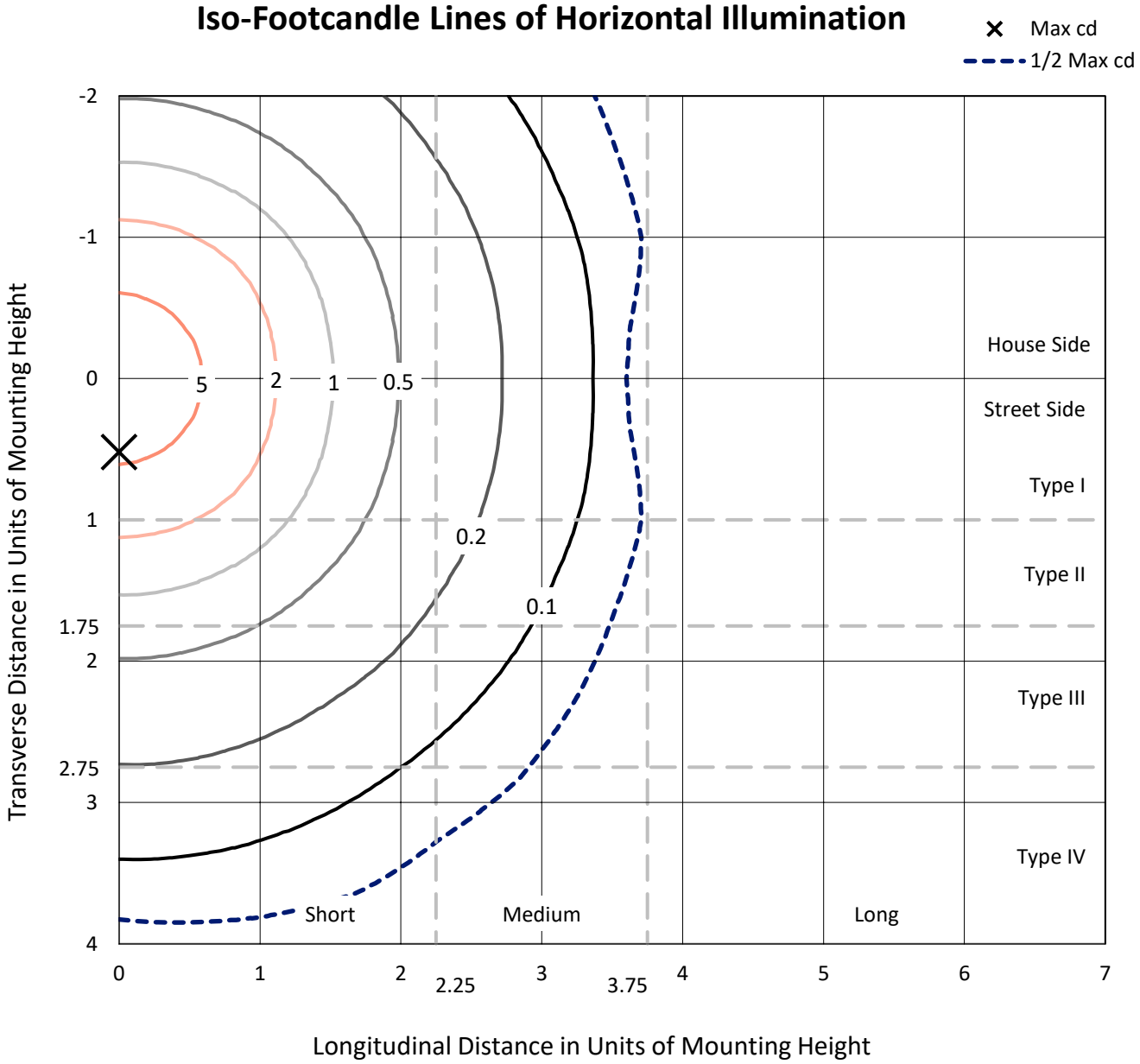
Scaled Data Report

REPORT NUMBER: P895756
CATALOG NUMBER: CLCS30S-PC-5000K-40%

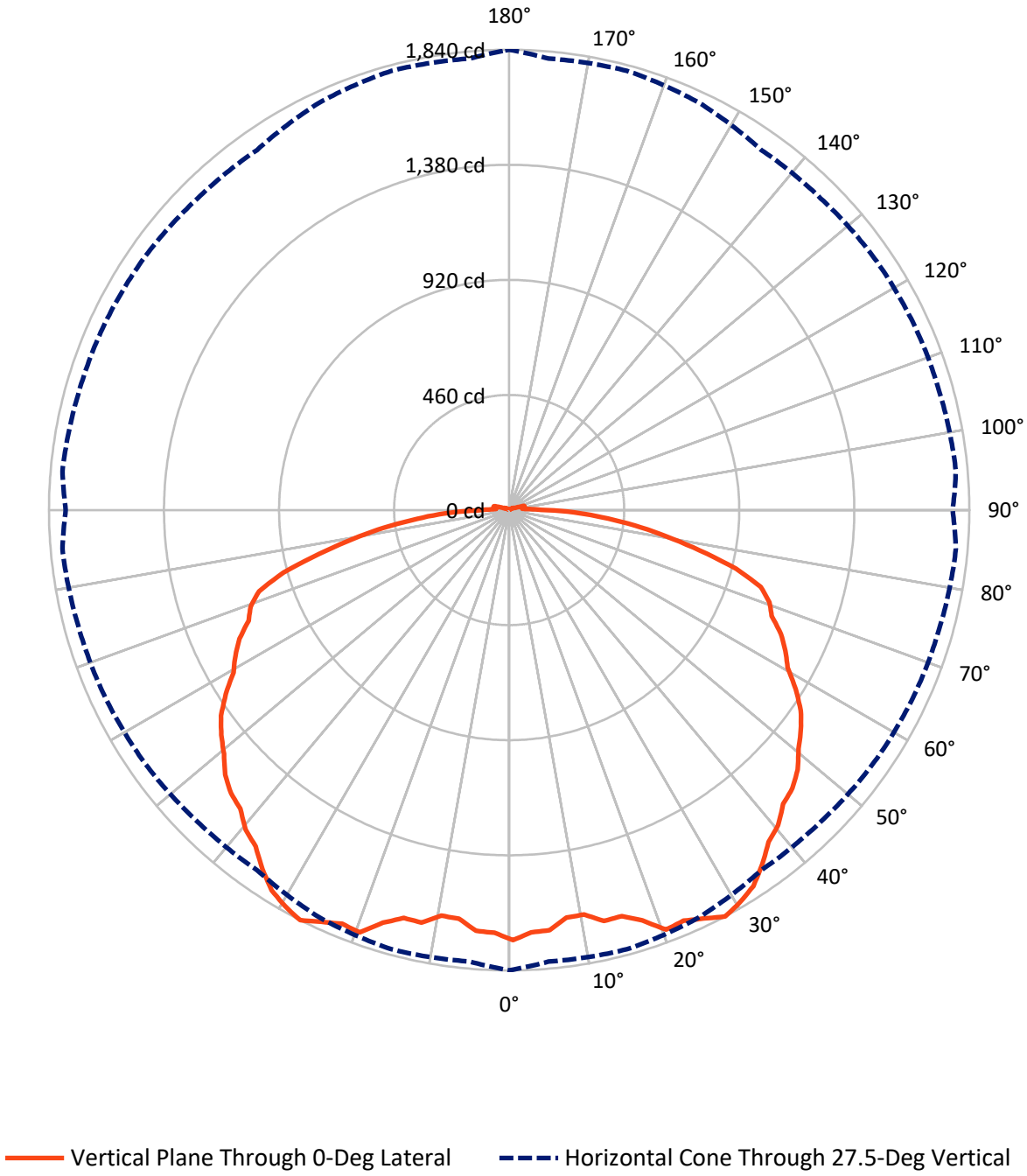
Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 7.6 fc
Type V - Short - N/A

REPORT NUMBER: P895756
CATALOG NUMBER: CLCS30S-PC-5000K-40%

Luminous Intensity Polar Plot



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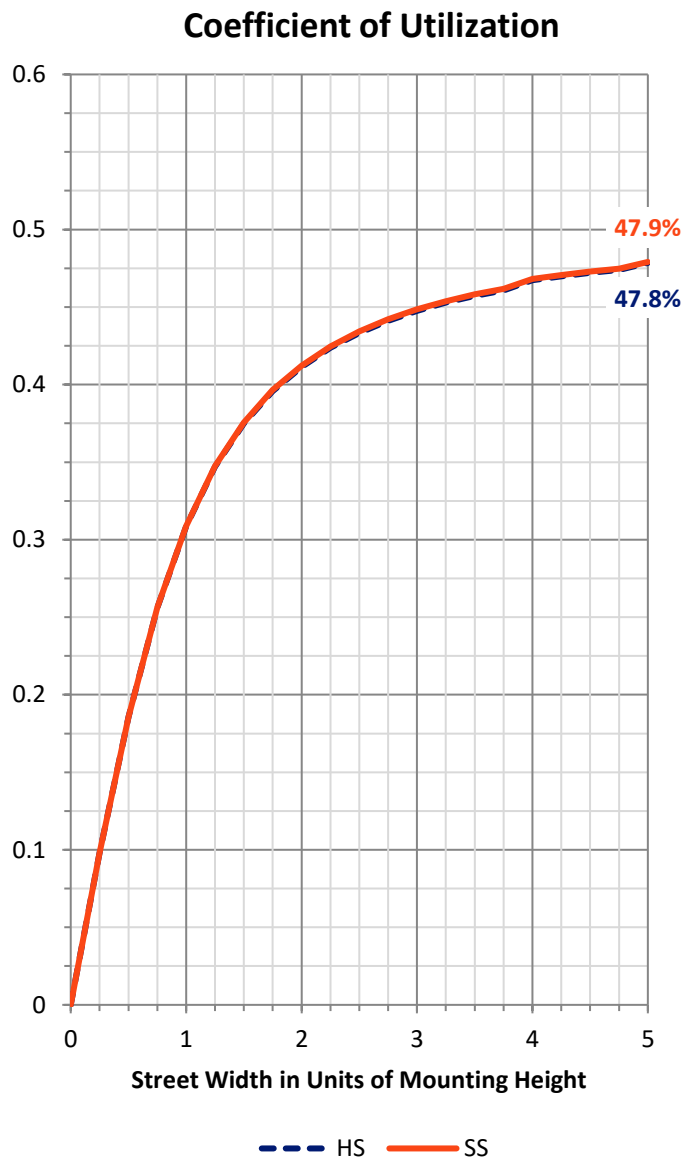
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3825.0	64.8	3889.8
	% Fixture	49.2	0.8	50.0
Street Side	Lumens	3825.0	64.8	3889.8
	% Fixture	49.2	0.8	50.0
Total	Lumens	7650.0	129.7	7779.6
	% Fixture	98.3	1.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.8	2.0
10°-20°	476.2	6.1
20°-30°	816.5	10.5
30°-40°	1072.9	13.8
40°-50°	1227.6	15.8
50°-60°	1283.9	16.5
60°-70°	1208.0	15.5
70°-80°	975.7	12.5
80°-90°	433.5	5.6
90°-100°	72.8	0.9
100°-110°	38.3	0.5
110°-120°	12.9	0.2
120°-130°	4.4	0.1
130°-140°	1.1	0.0
140°-150°	0.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	7650.0	98.3
0°-180°	7779.6	100.0



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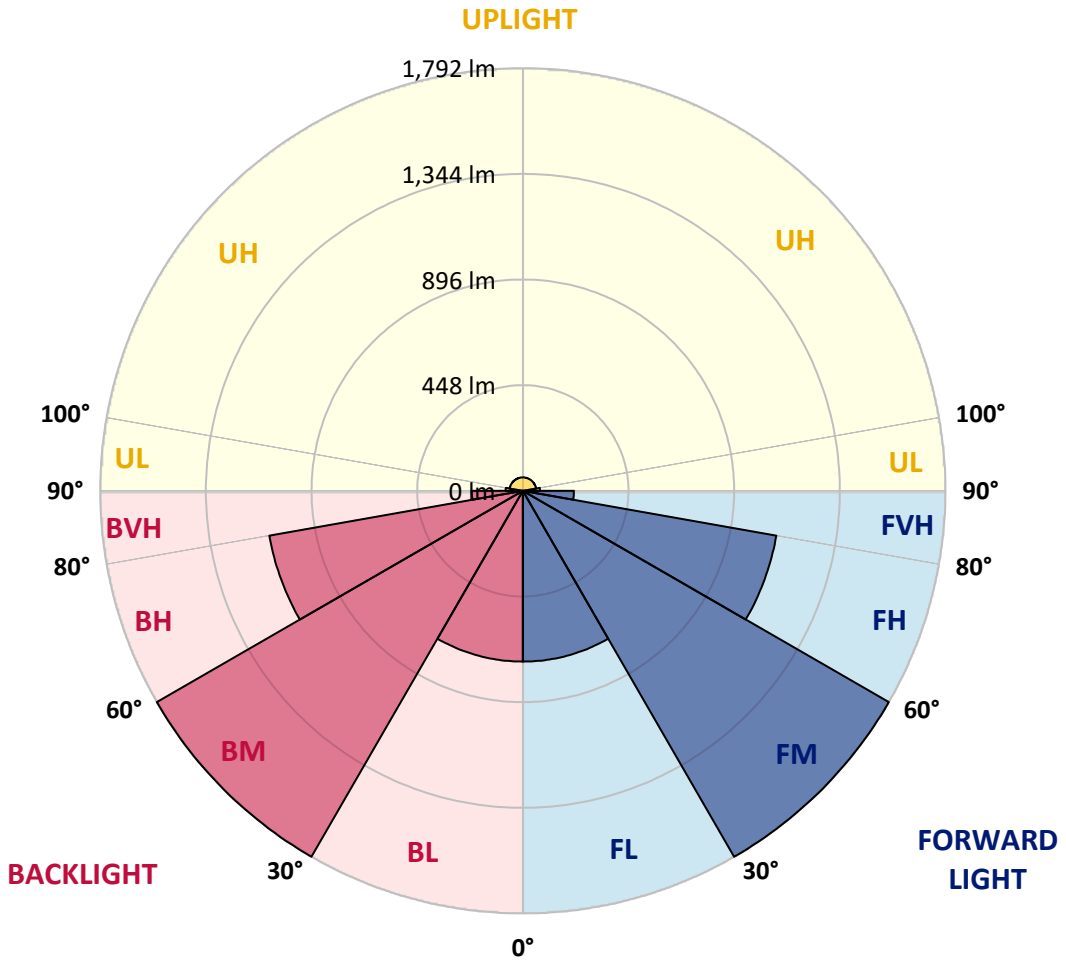
CATALOG NUMBER: CLCS30S-PC-5000K-40%

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	724.2	9.3			
FM	(30°-60°)	1792.2	23.0			
FH	(60°-80°)	1091.8	14.0			G1/1800
FVH	(80°-90°)	216.8	2.8			G2/225
BL	(0°-30°)	724.2	9.3	B2/1000		
BM	(30°-60°)	1792.2	23.0	B2/2500		
BH	(60°-80°)	1091.8	14.0	B3/2500		G1/1800
BVH	(80°-90°)	216.8	2.8			G2/225
UL	(90°-100°)	72.8	0.9		U3/500	
UH	(100°-180°)	56.8	0.7		U3/500	

BUG Rating: B3-U3-G2
Type V Short



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Scaled Data Report

REPORT NUMBER: P895756
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	*1719.0*	1719.0	1719.0	1719.0	1719.0	1719.0	1719.0	1719.0	1719.0	1719.0	1719.0
2.5°	*1690.0*	1693.2	1696.6	1684.8	1679.6	1682.0	1675.5	1680.6	1684.8	1682.5	1682.5
5°	*1687.1*	1689.5	1686.7	1662.3	1645.5	1631.9	1621.2	1625.3	1623.0	1629.6	1631.4
7.5°	*1645.0*	1653.0	1668.0	1647.8	1621.6	1603.9	1599.6	1593.5	1572.4	1564.9	1560.3
10°	*1643.6*	1648.3	1664.2	1636.6	1613.7	1612.3	1585.1	1568.7	1560.7	1551.9	1545.8
12.5°	*1685.3*	1680.2	1660.0	1669.4	1666.1	1629.6	1619.8	1593.5	1586.9	1583.7	1575.7
15°	*1683.9*	1701.2	1711.5	1689.1	1667.5	1683.4	1692.3	1669.8	1656.7	1633.7	1630.0
17.5°	*1724.1*	1741.5	1714.3	1728.4	1711.5	1717.6	1707.3	1698.9	1695.6	1690.9	1691.4
20°	*1790.6*	1772.4	1749.5	1737.7	1707.7	1716.2	1734.0	1728.4	1723.7	1732.5	1727.0
22.5°	*1783.2*	1775.7	1743.4	1758.8	1706.4	1719.5	1734.0	1753.2	1738.6	1723.7	1711.5
25°	*1808.4*	1788.8	1785.9	1776.6	1743.8	1740.0	1757.0	1754.1	1757.0	1772.9	1764.9
27.5°	*1839.8*	*1811.3*	*1817.4*	*1796.3*	*1757.0*	*1761.6*	*1773.3*	*1779.9*	*1784.1*	*1792.5*	*1772.9*
30°	*1819.2*	1800.4	1803.3	1780.8	1769.5	1805.2	1744.3	1791.1	1776.6	1773.8	1778.9
32.5°	*1792.0*	1773.3	1779.5	1744.8	1769.5	1770.5	1741.1	1758.8	1744.8	1759.7	1752.3
35°	*1741.1*	1702.6	1733.0	1698.4	1738.2	1722.3	1722.3	1705.4	1689.5	1695.6	1678.2
37.5°	*1683.9*	1646.9	1683.4	1653.4	1681.6	1675.9	1680.6	1649.2	1647.3	1649.2	1645.0
40°	*1655.8*	1621.6	1644.6	1639.8	1641.7	1649.7	1624.4	1626.8	1613.2	1617.4	1601.0
42.5°	*1606.2*	1580.4	1617.4	1617.8	1639.8	1641.7	1619.3	1603.9	1601.4	1571.0	1575.7
45°	*1586.9*	1557.4	1576.2	1592.1	1611.8	1647.8	1609.9	1598.7	1574.3	1549.5	1540.6
47.5°	*1551.9*	1542.4	1549.9	1575.7	1593.0	1615.5	1602.4	1558.9	1530.3	1523.7	1521.9
50°	*1499.4*	1497.0	1510.1	1521.0	1533.5	1575.3	1559.4	1528.9	1497.0	1486.3	1492.4
52.5°	*1460.1*	1454.4	1451.1	1501.7	1492.8	1502.2	1522.4	1492.4	1469.0	1431.0	1448.8
55°	*1414.7*	1419.7	1411.8	1454.9	1464.7	1476.9	1463.3	1445.6	1413.2	1382.7	1388.4
57.5°	*1350.5*	1367.3	1380.9	1382.7	1423.1	1438.5	1423.5	1387.5	1341.6	1345.4	1345.8
60°	*1278.8*	1304.6	1312.5	1329.4	1366.4	1362.2	1372.9	1320.0	1302.7	1305.0	1304.6
62.5°	*1239.5*	1247.0	1255.0	1276.5	1299.9	1297.5	1309.3	1280.2	1255.9	1250.7	1257.3
65°	*1194.1*	1207.1	1203.4	1219.8	1223.2	1227.3	1244.2	1246.6	1212.3	1189.8	1176.2
67.5°	*1131.8*	1148.7	1161.7	1165.1	1172.5	1180.0	1169.2	1187.5	1140.7	1124.3	1123.9
70°	*1103.7*	1113.5	1115.4	1109.8	1102.8	1124.8	1107.4	1111.7	1109.4	1097.1	1088.7
72.5°	*1051.7*	1063.0	1069.0	1048.0	1037.2	1042.4	1052.2	1043.8	1055.0	1035.8	1024.1
75°	*936.5*	945.0	958.1	969.3	954.8	964.2	961.3	945.9	938.4	891.1	885.0
77.5°	*779.2*	785.7	814.3	832.1	838.2	838.7	816.6	802.6	787.1	758.2	755.3
80°	*635.4*	646.2	662.1	674.8	698.7	701.5	695.8	680.4	664.4	641.0	637.8
82.5°	*507.2*	509.9	534.3	544.5	547.4	557.2	550.7	543.2	517.9	499.7	490.2
85°	*369.0*	372.7	378.9	398.5	421.9	435.0	402.7	385.0	360.1	347.0	345.1
87.5°	*260.3*	257.6	260.8	268.3	280.5	284.7	266.0	249.1	245.4	236.9	235.5
90°	*126.9*	127.4	135.8	148.4	155.9	164.9	153.6	141.0	136.7	126.9	126.0
92.5°	*71.1*	71.1	70.7	76.3	80.1	82.0	80.6	75.9	70.2	66.1	65.1
95°	*52.9*	53.4	52.5	51.5	49.7	46.3	50.1	52.0	52.5	52.0	51.1
97.5°	*52.9*	52.5	50.1	44.5	37.0	33.2	38.4	48.2	53.4	56.2	55.2
100°	*56.6*	56.6	50.6	44.5	33.7	33.2	35.2	46.3	55.7	62.7	61.8
102.5°	*63.6*	63.2	55.2	48.7	34.1	22.9	37.5	53.8	62.3	70.2	69.8
105°	*62.3*	59.5	50.6	36.1	18.2	13.6	21.1	38.9	51.1	60.4	61.3
107.5°	*39.8*	39.3	30.4	17.8	13.6	13.1	14.5	20.2	29.5	35.2	35.6
110°	*22.9*	22.5	19.7	15.9	13.1	10.7	13.6	16.8	20.6	22.9	22.9

REPORT NUMBER: P895756
CATALOG NUMBER: CLCS30S-PC-5000K-40%

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	*22.0*	21.6	18.7	14.5	10.3	7.0	10.7	15.9	19.7	22.0	22.0
115°	*19.2*	18.7	16.4	11.8	7.5	5.2	8.0	13.1	16.8	20.2	20.6
117.5°	*17.3*	16.4	12.7	8.4	5.2	3.7	5.6	9.3	14.5	17.3	17.8
120°	*12.7*	12.2	9.3	6.6	3.7	2.8	4.3	7.0	10.7	14.5	14.5
122.5°	*9.8*	9.3	7.5	4.7	2.3	1.8	2.8	5.6	8.4	11.2	11.2
125°	*8.0*	7.5	5.6	3.7	1.8	0.9	2.3	4.3	7.0	9.3	9.3
127.5°	*6.1*	6.1	4.7	2.8	1.4	0.5	1.4	3.2	5.6	7.0	7.0
130°	*4.7*	4.7	3.7	2.3	0.9	0.5	0.9	2.3	3.7	4.7	5.2
132.5°	*4.3*	4.3	3.2	1.4	0.5	0.5	0.5	1.8	3.2	4.3	4.3
135°	*2.8*	2.3	0.9	0.5	0.5	0.5	0.5	0.5	1.8	3.2	3.2
137.5°	*0.5*	0.5	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5
140°	*0.5*	0.5	0.5	0.5	0.9	0.9	0.9	0.5	0.5	0.5	0.5
142.5°	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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

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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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

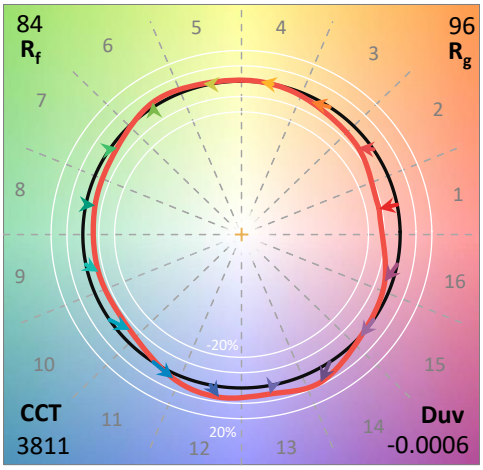
Test Information

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	CRI (Ra):		83.3			
CIE u':	0.2291	R1:		82.1	R9:		10.7
CIE v':	0.5044	R2:		89.5	R10:		74.6
Duv:	-0.0006	R3:		94.6	R11:		81.3
CIE x:	0.3887	R4:		82.3	R12:		61.2
CIE y:	0.3804	R5:		81.8	R13:		84.0
CIE z:	0.2310	R6:		85.2	R14:		97.1
Peak Wavelength (nm):	452	R7:		85.9	R15:		75.9
Dominant Wavelength (nm):	580	R8:		64.7			
Purity:	30.78715						

Rf:	83.8
Rg:	96.1



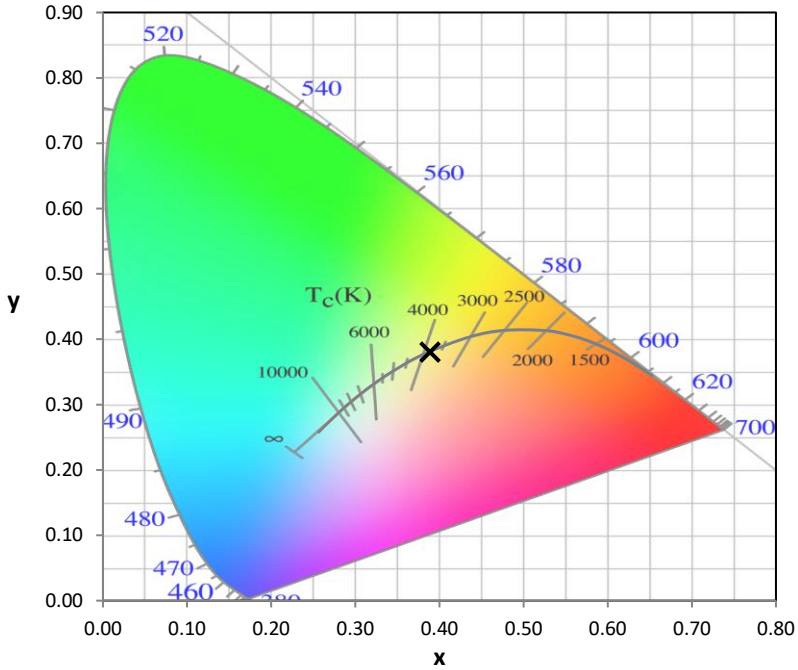
Test Conditions

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

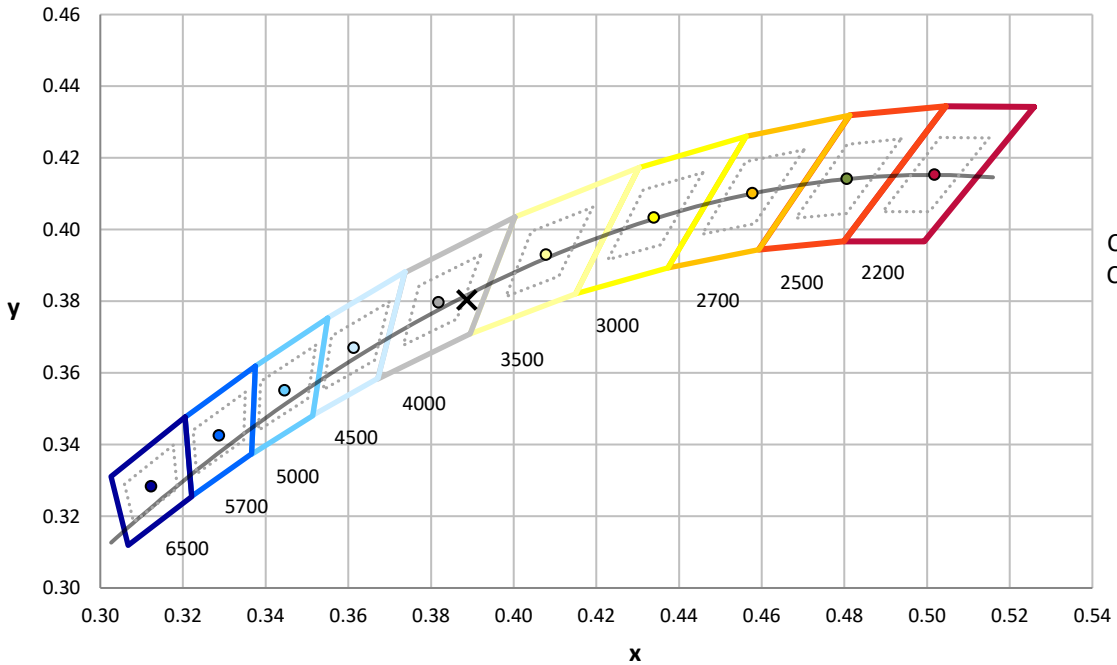
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2405-118-2

CIE 1931 Chromaticity Diagram



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

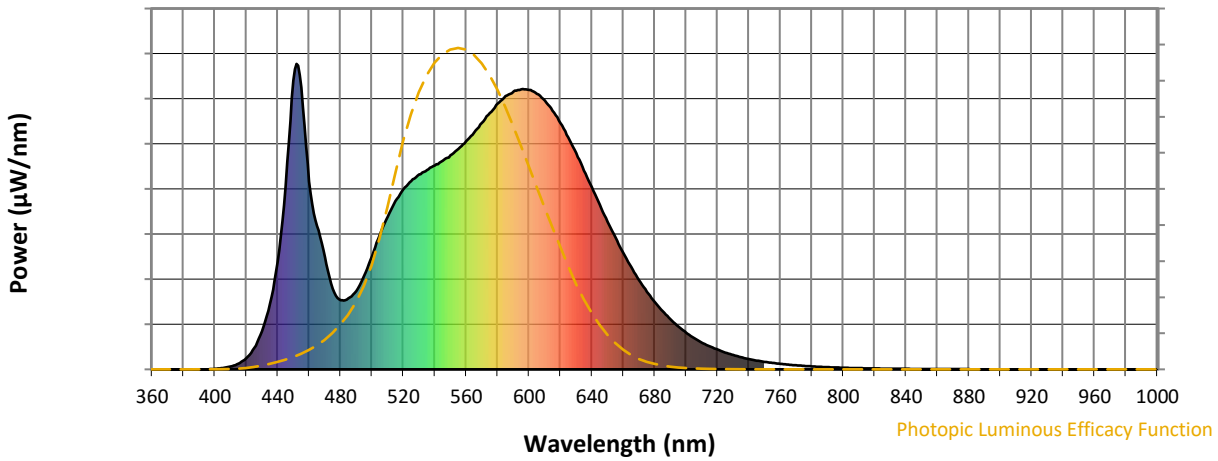


CCT = 3811K
CIE x = 0.3887
CIE y = 0.3804
Duv = -0.0006

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2405-118-2

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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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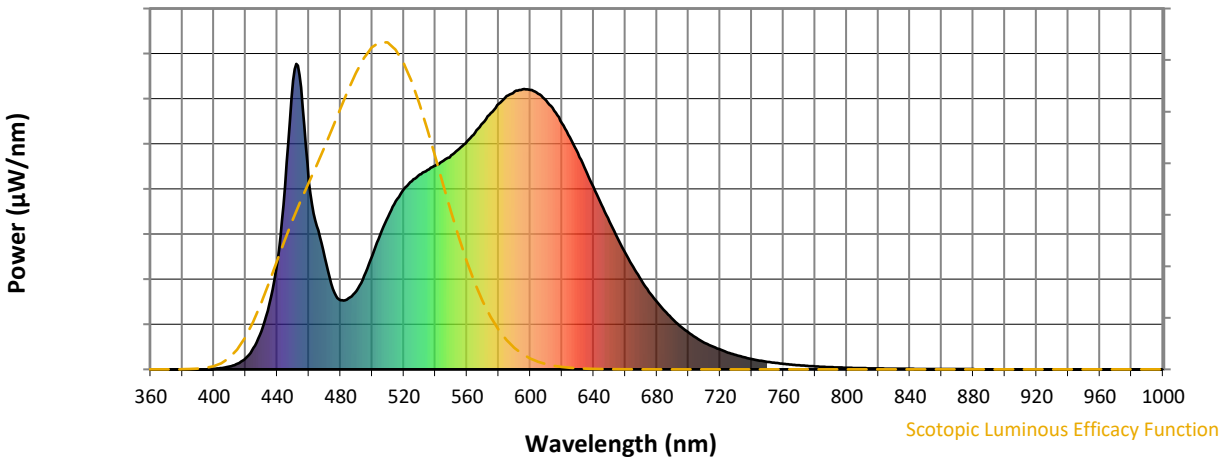
Scotopic Flux vs. Wavelength



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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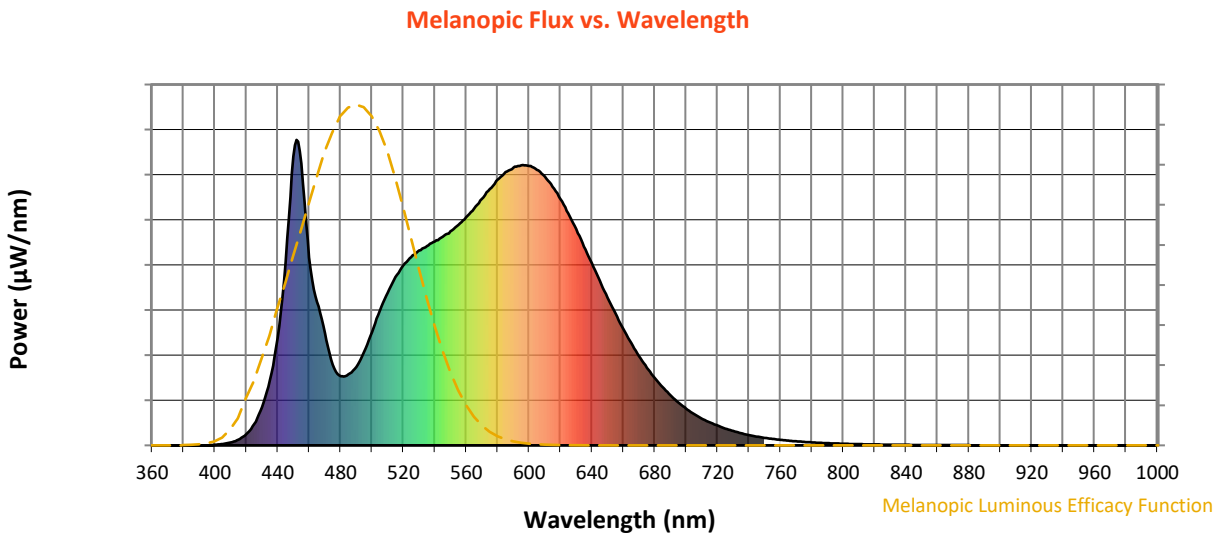

Melanopic Lumens: NR **M/P: 3.3**

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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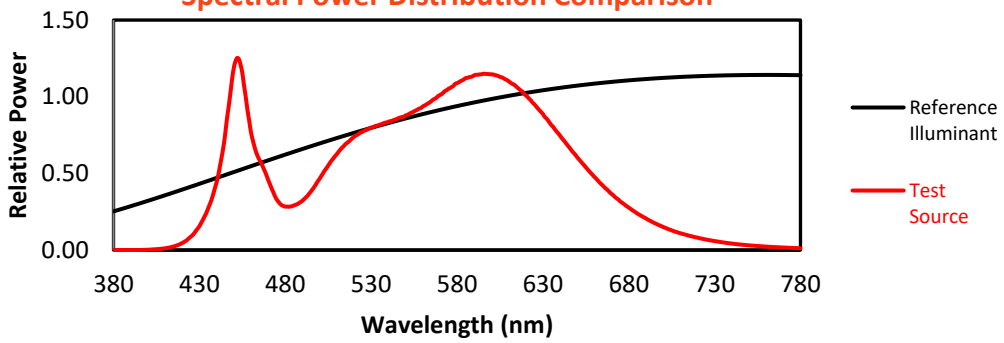
TM-30-18

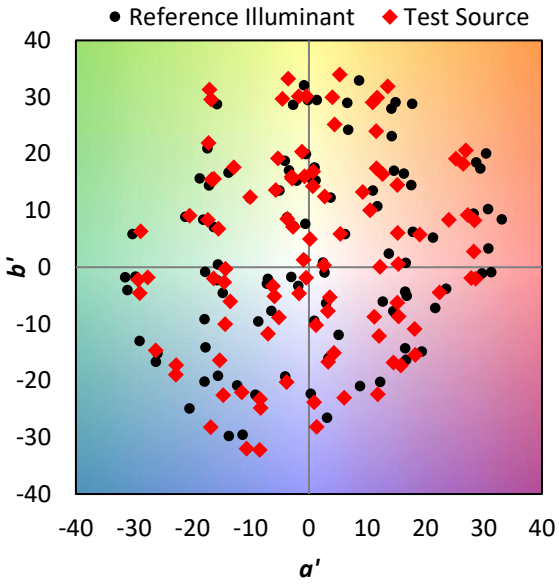
Summary

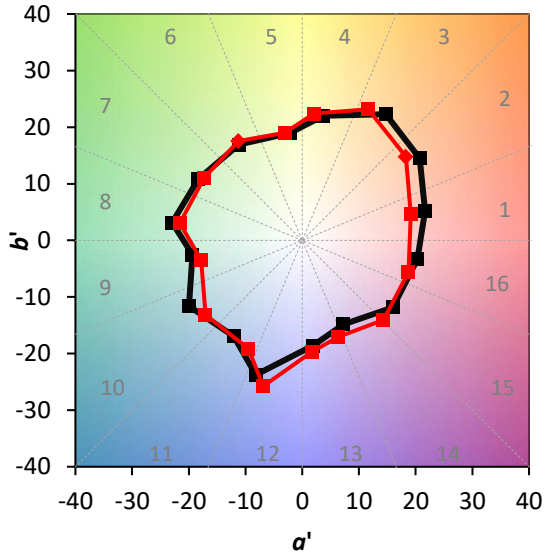
R_f = 83.8
R_g = 96.1
CIE R_a = 83.3
R_9 = 10.7

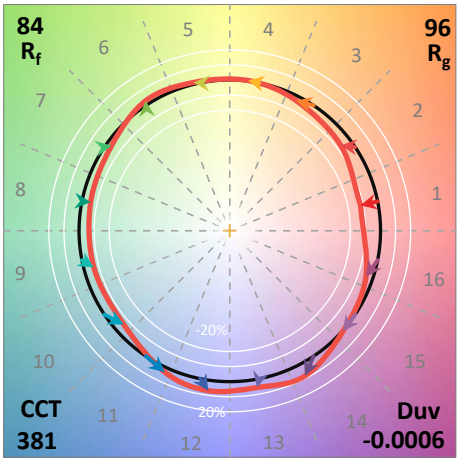
Spectral Power Distribution Comparison

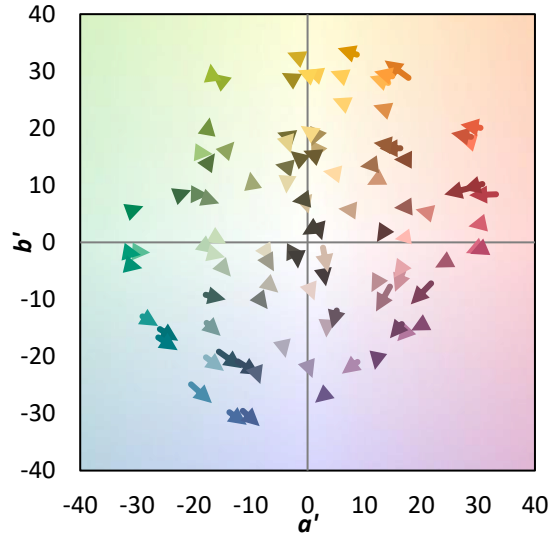


Color Vector Graphics



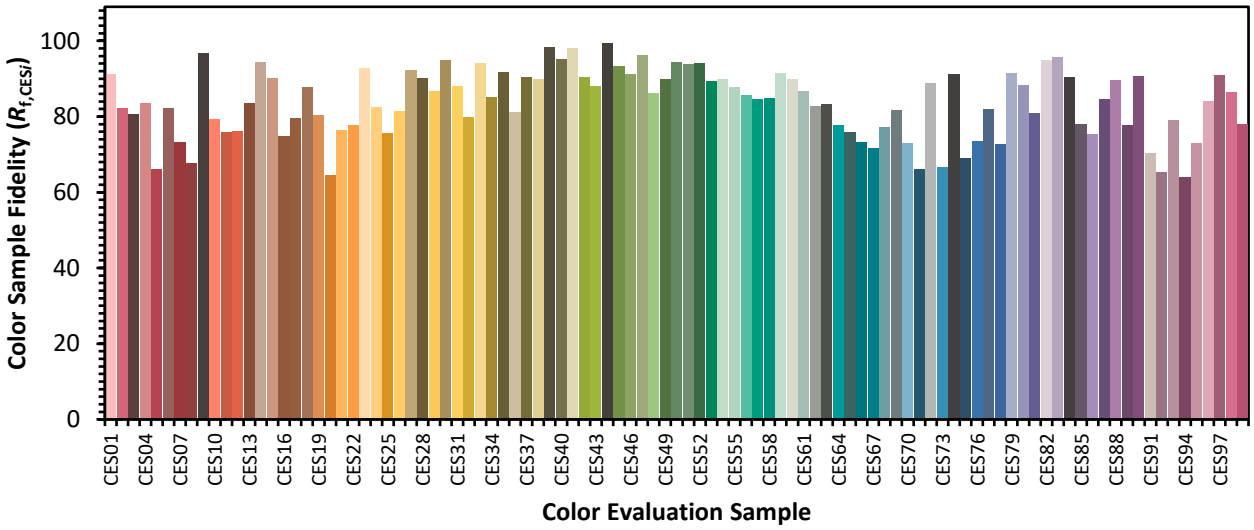




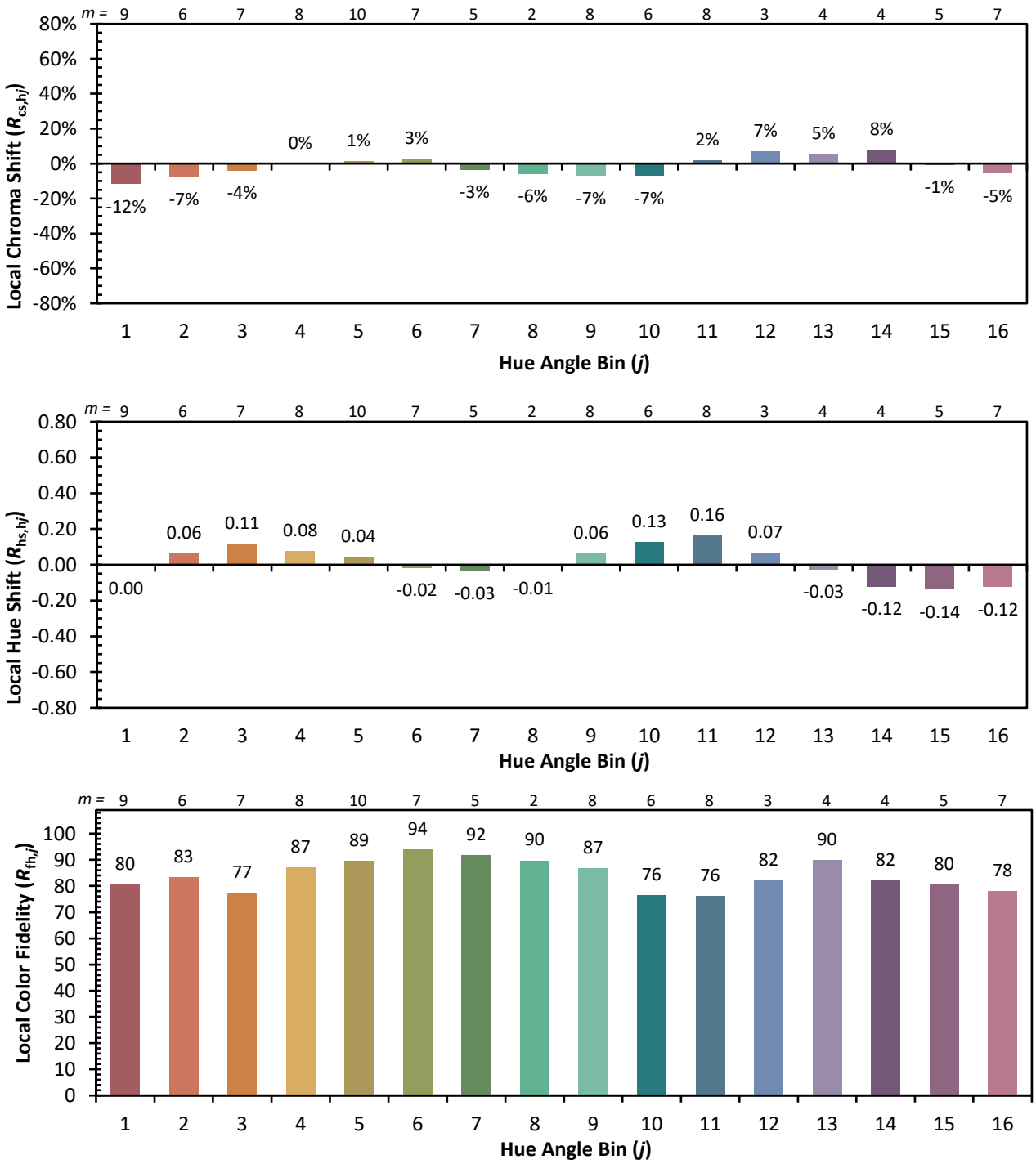


Individual Sample Fidelity Index ($R_{f,i}$)

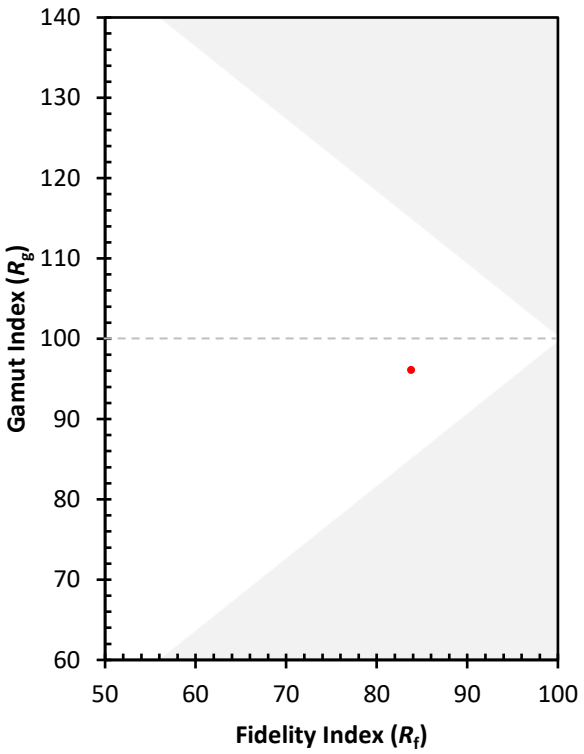
CES01 = 86	CES26 = 81	CES51 = 94	CES76 = 74
CES02 = 61	CES27 = 92	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 89	CES78 = 73
CES04 = 70	CES29 = 87	CES54 = 90	CES79 = 92
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 51	CES31 = 88	CES56 = 86	CES81 = 81
CES07 = 41	CES32 = 80	CES57 = 85	CES82 = 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	

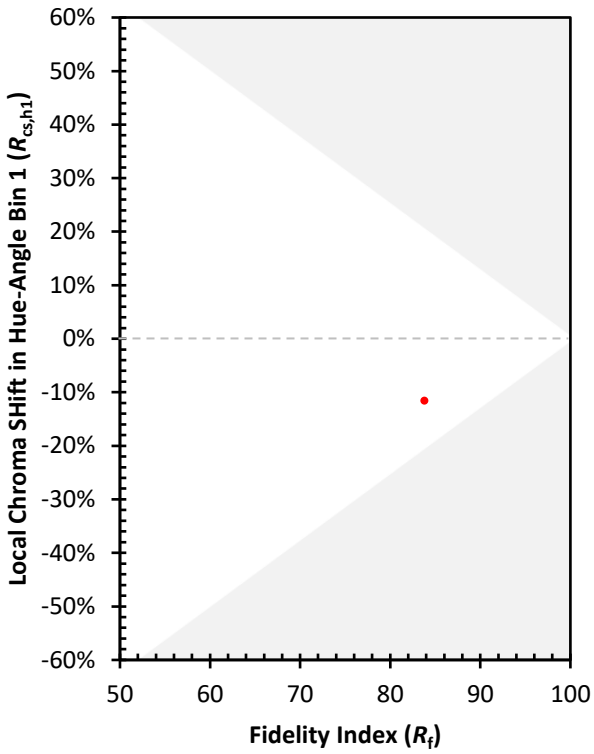


Color Rendition by Hue-Angle Bin



Measure Comparisons





(END OF REPORT)