

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: P895748

Luminaire Tested: **CLCS30S-PC-3000K-40%**

Issue Date: 11/14/2024

Test Information

Test Method: LM-79-08
Report Number: P895748
Test Lab: INNOVATION CENTER(G2)
Issue Date: 11/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: CLCS30S-PC-3000K-40%
Description: LUMARK LARGE LED CANOPY 16000LM, 120W, PC 80 CRI 3000K FIXTURE @
40% OUTPUT
Light Source: 3000K CCT,80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

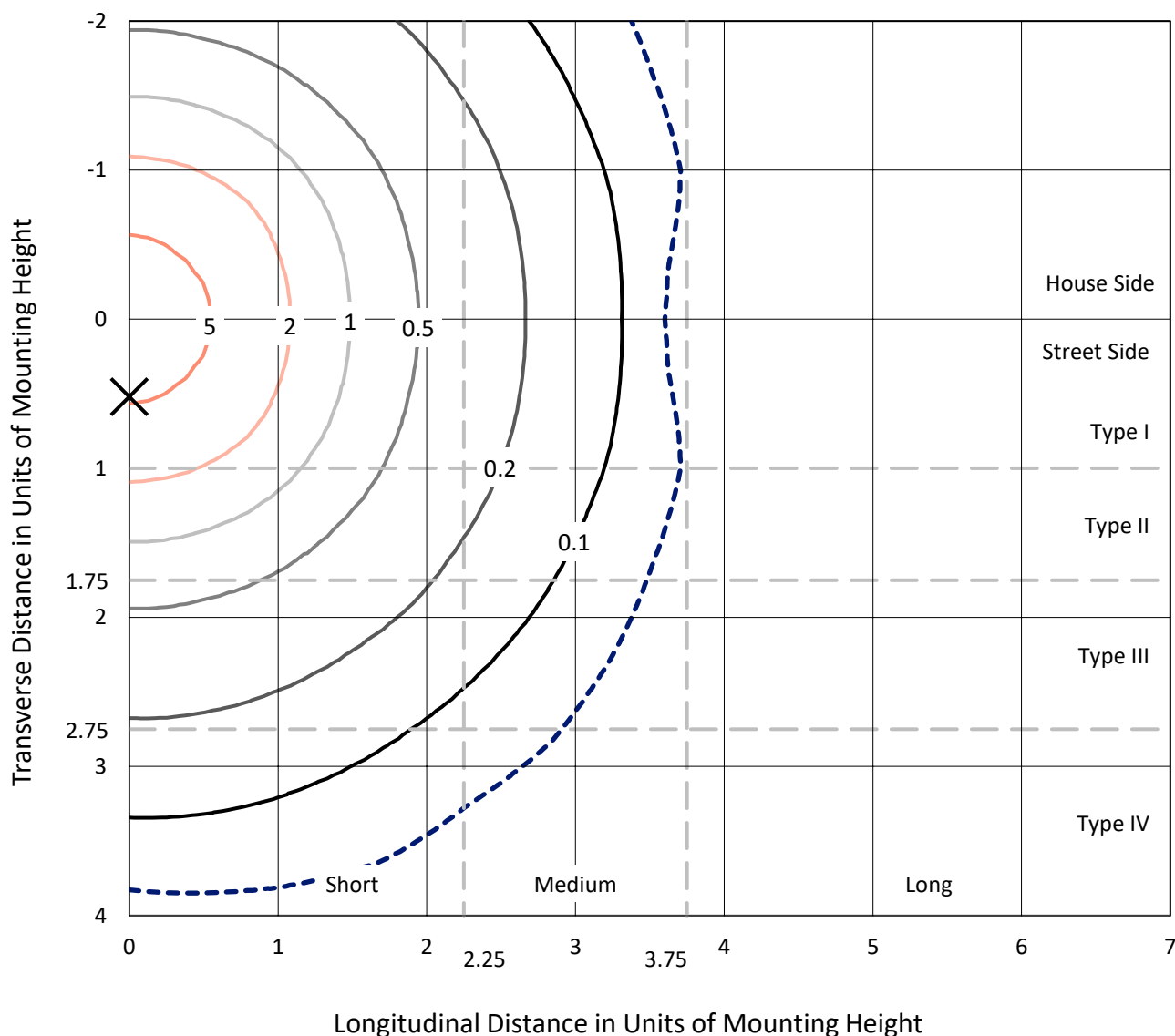
Lumens per Lamp: N/A
Luminaire Lumens: 7329.9 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 1' x H: 0.12')
IES Classification: Type V - Short
BUG Rating: B3 - U3 - G2

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

REPORT NUMBER: P895748
 CATALOG NUMBER: CLCS30S-PC-3000K-40%

Iso-Footcandle Lines of Horizontal Illumination

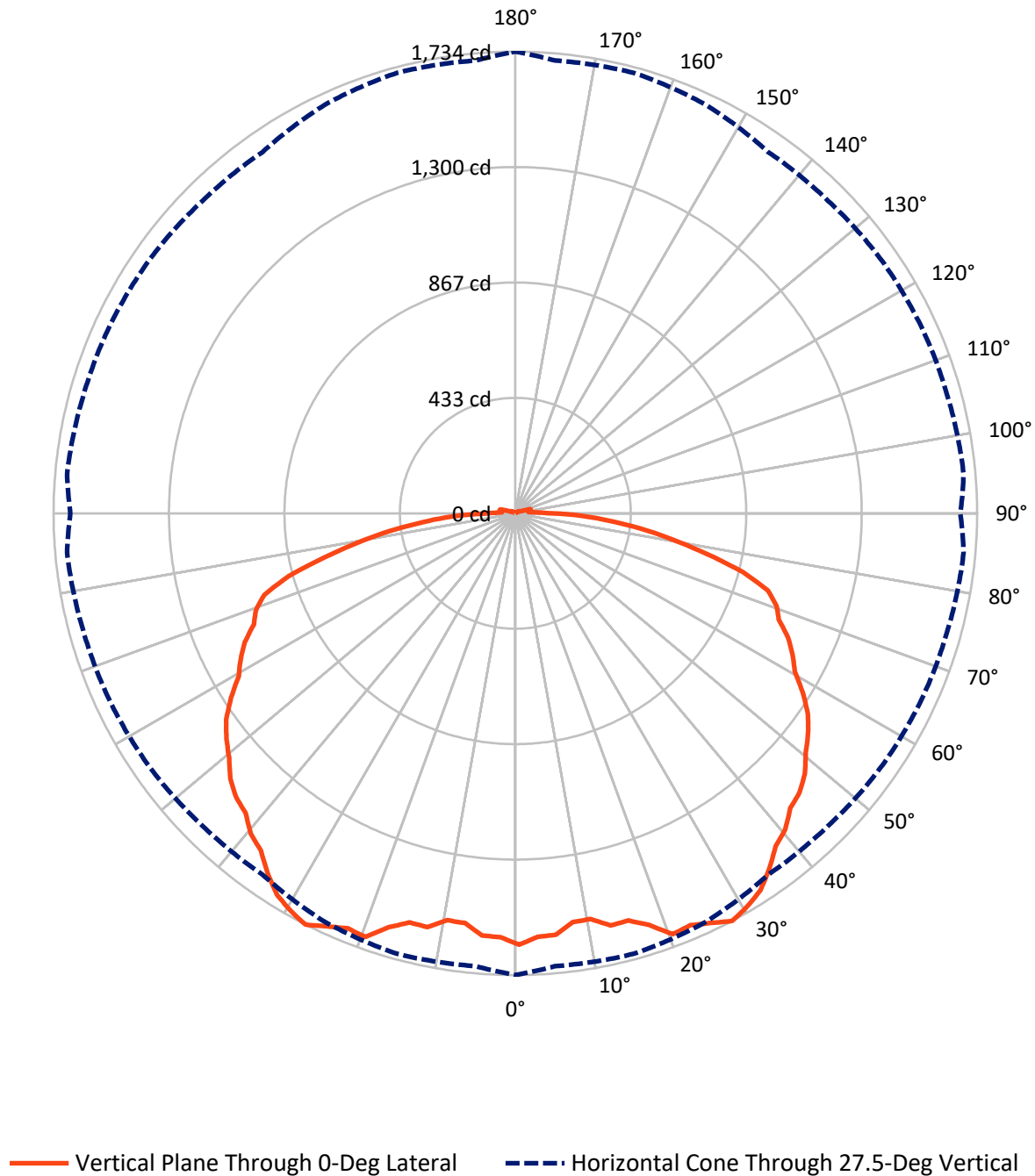
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.2 fc
 Type V - Short - N/A

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CATALOG NUMBER: CLCS30S-PC-3000K-40%

Luminous Intensity Polar Plot



REPORT NUMBER: P895748

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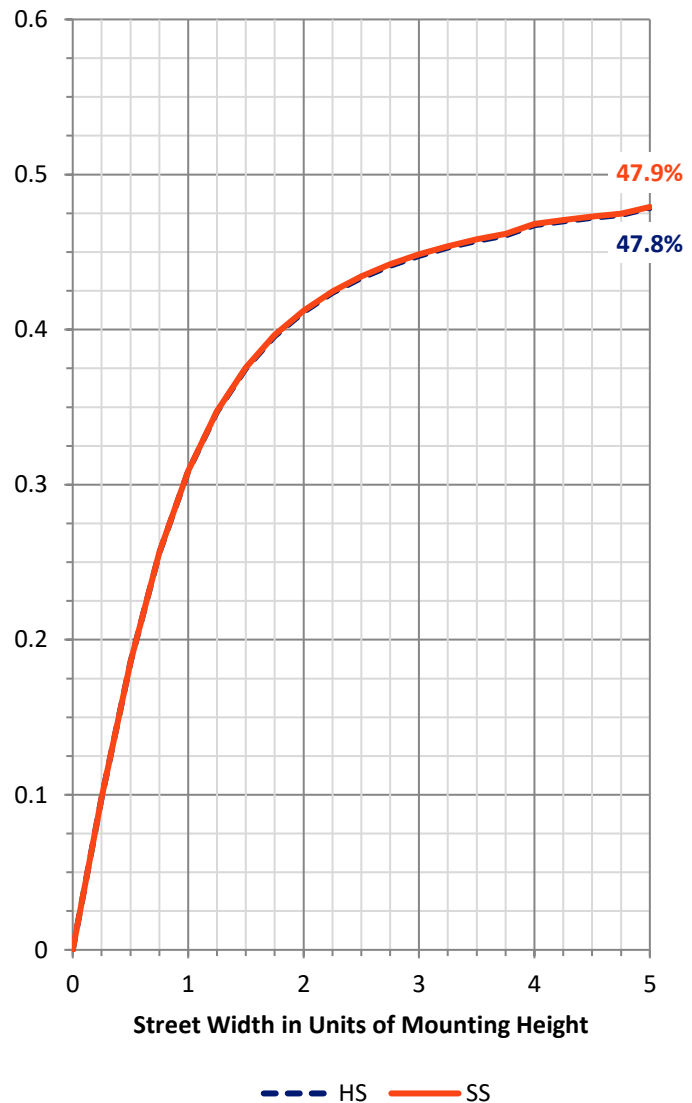
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3603.9	61.1	3665.0
	% Fixture	49.2	0.8	50.0
Street Side	Lumens	3603.9	61.1	3665.0
	% Fixture	49.2	0.8	50.0
Total	Lumens	7207.8	122.2	7329.9
	% Fixture	98.3	1.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.8	2.0
10°-20°	448.6	6.1
20°-30°	769.3	10.5
30°-40°	1010.9	13.8
40°-50°	1156.6	15.8
50°-60°	1209.6	16.5
60°-70°	1138.2	15.5
70°-80°	919.3	12.5
80°-90°	408.5	5.6
90°-100°	68.6	0.9
100°-110°	36.1	0.5
110°-120°	12.2	0.2
120°-130°	4.2	0.1
130°-140°	1.0	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°	7207.8	98.3
0°-180°	7329.9	100.0

Coefficient of Utilization



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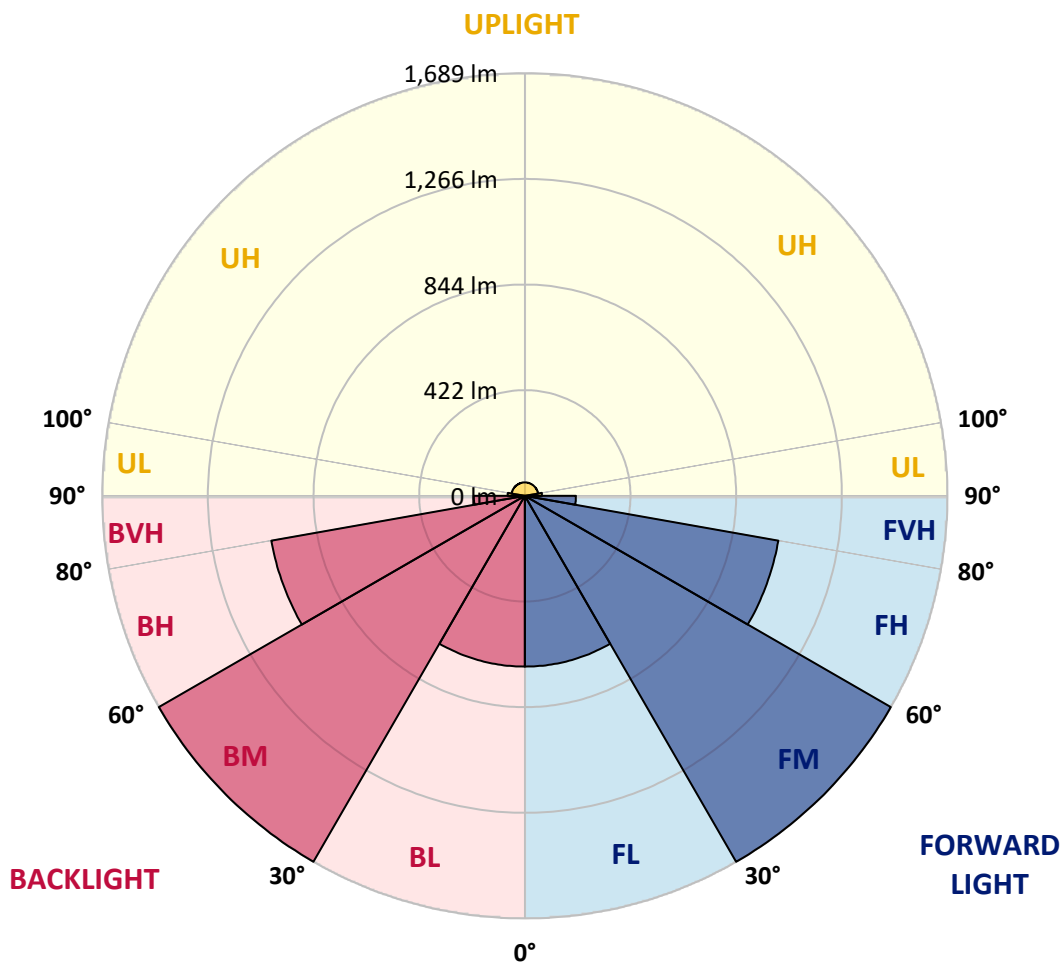
CATALOG NUMBER: CLCS30S-PC-3000K-40%

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	682.4	9.3			
FM	(30°-60°)	1688.6	23.0			
FH	(60°-80°)	1028.7	14.0			G1/1800
FVH	(80°-90°)	204.2	2.8			G2/225
BL	(0°-30°)	682.4	9.3	B2/1000		
BM	(30°-60°)	1688.6	23.0	B2/2500		
BH	(60°-80°)	1028.7	14.0	B3/2500		G1/1800
BVH	(80°-90°)	204.2	2.8			G2/225
UL	(90°-100°)	68.6	0.9		U3/500	
UH	(100°-180°)	53.5	0.7		U3/500	

BUG Rating: B3-U3-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7	1619.7
2.5°	1592.3	1595.4	1598.5	1587.5	1582.6	1584.8	1578.6	1583.5	1587.5	1585.3	1585.3
5°	1589.7	1591.9	1589.2	1566.3	1550.4	1537.6	1527.4	1531.4	1529.2	1535.4	1537.1
7.5°	1549.9	1557.5	1571.6	1552.6	1527.9	1511.1	1507.1	1501.4	1481.5	1474.5	1470.1
10°	1548.6	1553.0	1568.0	1542.0	1520.4	1519.1	1493.5	1478.0	1470.5	1462.1	1456.4
12.5°	1587.9	1583.1	1564.1	1572.9	1569.8	1535.4	1526.1	1501.4	1495.2	1492.1	1484.6
15°	1586.6	1602.9	1612.6	1591.4	1571.1	1586.1	1594.5	1573.3	1561.0	1539.4	1535.8
17.5°	1624.4	1640.8	1615.3	1628.4	1612.6	1618.4	1608.7	1600.7	1597.6	1593.2	1593.6
20°	1687.1	1669.9	1648.3	1637.2	1609.1	1617.0	1633.7	1628.4	1624.1	1632.4	1627.1
22.5°	1680.1	1673.0	1642.5	1657.1	1607.8	1620.1	1633.7	1651.8	1638.1	1624.1	1612.6
25°	1703.9	1685.4	1682.7	1673.9	1643.0	1639.4	1655.3	1652.7	1655.3	1670.3	1662.8
27.5°	1733.5	1706.5	1712.3	1692.4	1655.3	1659.8	1670.8	1677.0	1680.9	1688.9	1670.3
30°	1714.0	1696.4	1699.0	1677.8	1667.3	1700.8	1643.4	1687.6	1673.9	1671.2	1676.1
32.5°	1688.4	1670.8	1676.5	1643.9	1667.3	1668.1	1640.3	1657.1	1643.9	1658.0	1650.9
35°	1640.3	1604.2	1632.8	1600.3	1637.7	1622.8	1622.8	1606.9	1591.9	1597.6	1581.3
37.5°	1586.6	1551.7	1586.1	1557.9	1584.4	1579.1	1583.5	1553.9	1552.2	1553.9	1549.9
40°	1560.1	1527.9	1549.5	1545.1	1546.9	1554.4	1530.5	1532.7	1519.9	1523.9	1508.5
42.5°	1513.3	1489.0	1523.9	1524.3	1545.1	1546.9	1525.7	1511.1	1508.9	1480.2	1484.6
45°	1495.2	1467.4	1485.1	1500.1	1518.6	1552.6	1516.8	1506.3	1483.3	1459.9	1451.5
47.5°	1462.1	1453.3	1460.4	1484.6	1501.0	1522.1	1509.8	1468.7	1441.8	1435.6	1433.9
50°	1412.7	1410.5	1422.8	1433.0	1444.9	1484.2	1469.2	1440.5	1410.5	1400.3	1406.1
52.5°	1375.6	1370.4	1367.3	1414.9	1406.5	1415.3	1434.3	1406.1	1384.0	1348.3	1365.1
55°	1332.9	1337.7	1330.2	1370.9	1380.0	1391.5	1378.7	1362.0	1331.6	1302.9	1308.2
57.5°	1272.4	1288.3	1301.1	1302.9	1340.8	1355.4	1341.3	1307.3	1264.0	1267.6	1268.0
60°	1204.9	1229.2	1236.7	1252.6	1287.4	1283.5	1293.6	1243.7	1227.4	1229.6	1229.2
62.5°	1167.8	1174.9	1182.4	1202.7	1224.8	1222.5	1233.6	1206.2	1183.3	1178.4	1184.6
65°	1125.0	1137.4	1133.8	1149.3	1152.4	1156.3	1172.2	1174.4	1142.2	1121.1	1108.3
67.5°	1066.4	1082.3	1094.7	1097.7	1104.8	1111.9	1101.7	1118.9	1074.8	1059.3	1058.9
70°	1039.9	1049.2	1051.0	1045.7	1039.0	1059.8	1043.5	1047.4	1045.2	1033.7	1025.8
72.5°	990.9	1001.5	1007.3	987.4	977.2	982.1	991.4	983.4	994.0	975.9	964.9
75°	882.3	890.3	902.7	913.2	899.6	908.4	905.7	891.2	884.1	839.6	833.9
77.5°	734.1	740.3	767.3	784.0	789.8	790.2	769.5	756.2	741.7	714.3	711.6
80°	598.7	608.9	623.9	635.7	658.2	660.9	655.6	641.0	626.0	604.0	601.0
82.5°	477.8	480.5	503.4	513.1	515.8	525.0	518.9	511.8	488.0	470.7	461.9
85°	347.7	351.2	357.0	375.4	397.5	409.8	379.4	362.7	339.3	327.0	325.2
87.5°	245.3	242.7	245.7	252.8	264.3	268.3	250.6	234.7	231.2	223.2	221.9
90°	119.6	120.1	127.9	139.8	146.9	155.3	144.7	132.8	128.8	119.6	118.7
92.5°	67.1	67.1	66.6	71.9	75.5	77.2	75.9	71.5	66.2	62.2	61.4
95°	49.9	50.3	49.4	48.6	46.8	43.7	47.2	49.0	49.4	49.0	48.1
97.5°	49.9	49.4	47.2	41.9	34.9	31.3	36.2	45.5	50.3	53.0	52.1
100°	53.4	53.4	47.7	41.9	31.8	31.3	33.1	43.7	52.5	59.1	58.3
102.5°	60.0	59.6	52.1	45.9	32.2	21.6	35.3	50.8	58.7	66.2	65.8
105°	58.7	56.1	47.7	34.0	17.2	12.8	19.9	36.6	48.1	56.9	57.8
107.5°	37.5	37.1	28.7	16.8	12.8	12.4	13.7	19.0	27.8	33.1	33.5
110°	21.6	21.2	18.5	15.0	12.4	10.2	12.8	15.9	19.4	21.6	21.6



REPORT NUMBER: P895748
 CATALOG NUMBER: CLCS30S-PC-3000K-40%

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	20.7	20.3	17.7	13.7	9.7	6.6	10.2	15.0	18.5	20.7	20.7
115°	18.1	17.7	15.4	11.0	7.1	4.9	7.5	12.4	15.9	19.0	19.4
117.5°	16.3	15.4	11.9	7.9	4.9	3.5	5.3	8.8	13.7	16.3	16.8
120°	11.9	11.5	8.8	6.2	3.5	2.6	4.0	6.6	10.2	13.7	13.7
122.5°	9.3	8.8	7.1	4.4	2.2	1.8	2.6	5.3	7.9	10.6	10.6
125°	7.5	7.1	5.3	3.5	1.8	0.9	2.2	4.0	6.6	8.8	8.8
127.5°	5.7	5.7	4.4	2.6	1.3	0.4	1.3	3.1	5.3	6.6	6.6
130°	4.4	4.4	3.5	2.2	0.9	0.4	0.9	2.2	3.5	4.4	4.9
132.5°	4.0	4.0	3.1	1.3	0.4	0.4	0.4	1.8	3.1	4.0	4.0
135°	2.6	2.2	0.9	0.4	0.4	0.4	0.4	0.4	1.8	3.1	3.1
137.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4	0.4	0.4
140°	0.4	0.4	0.4	0.4	0.9	0.9	0.9	0.4	0.4	0.4	0.4
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

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2405-118-3

Test Date: 07/18/2024

Luminaire Tested: CLCS40S-5000K-HIGH

Data in this report applies to families of products including CLCS40S-5000K-HIGH

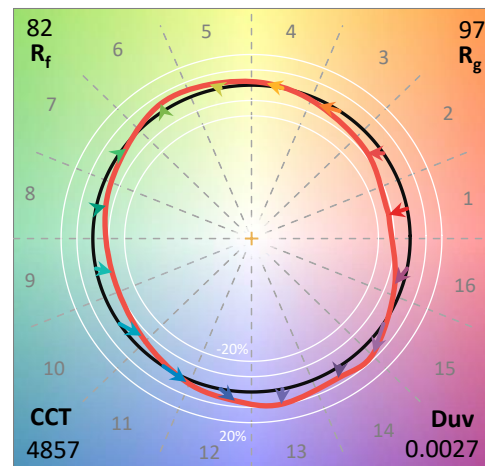
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2405-118-3
 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-5000K-HIGH**
 Description: 120W LUMARK AP CANOPY SELECTABLE FIXTURE HIGHEST OUTPUT @5000K

Spectral Parameters

CCT (K): 4857
 CIE u' : 0.2111
 CIE v' : 0.4898
 Duv: 0.0027
 CIE x: 0.3499
 CIE y: 0.3609
 CIE z: 0.2892
 Peak Wavelength (nm): 451
 Dominant Wavelength (nm): 572
 Purity: 13.28172
 R_f: 82.4
 R_g: 96.8

CRI (Ra): 81.9
 R1: 80.4
 R2: 86.0
 R3: 89.7
 R4: 82.2
 R5: 80.0
 R6: 80.1
 R7: 88.2
 R8: 68.4
 R9: 8.5
 R10: 66.0
 R11: 80.6
 R12: 52.5
 R13: 81.8
 R14: 94.3
 R15: 74.7



Test Conditions

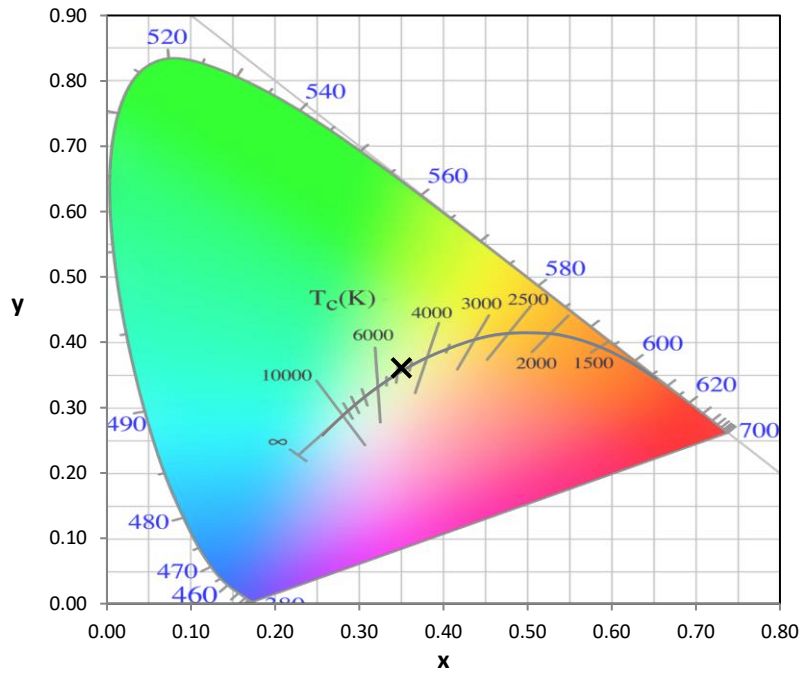
Stabilization Time: 72M
 Operation Time: 2H 12M
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2405-118-3

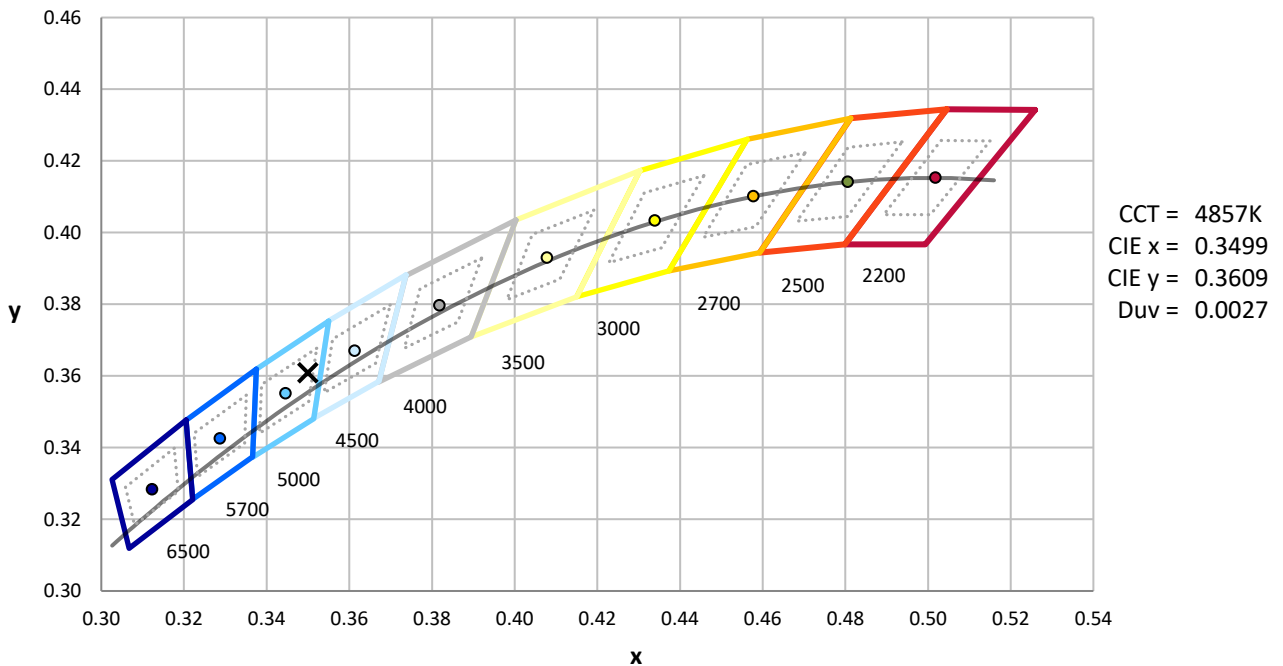
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



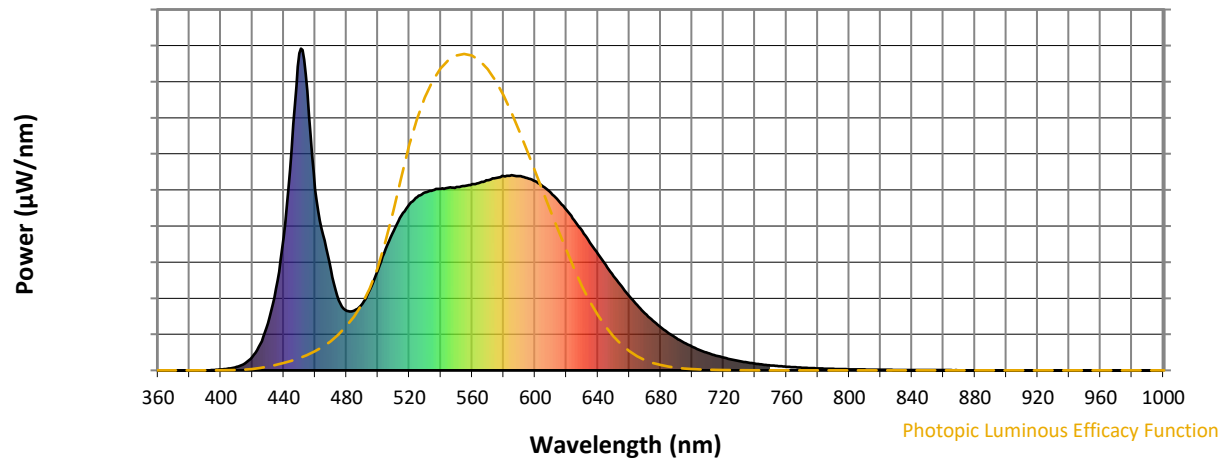
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

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Photopic Flux vs. Wavelength

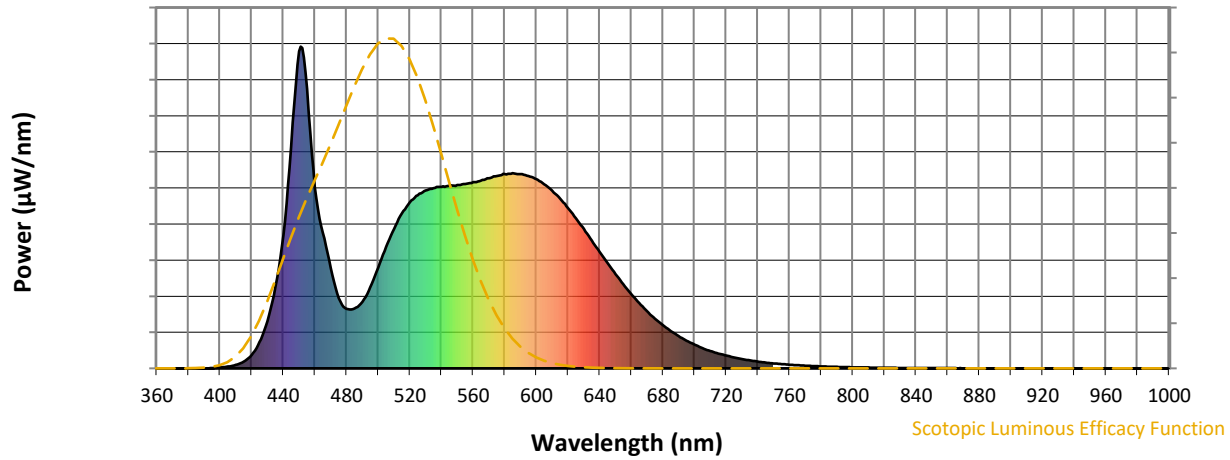


Photopic Lumens: NR

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	207	NR	620	498	NR	750	15	NR	880	0	NR
365	0	NR	495	252	NR	625	467	NR	755	13	NR	885	0	NR
370	0	NR	500	313	NR	630	433	NR	760	11	NR	890	0	NR
375	0	NR	505	378	NR	635	397	NR	765	10	NR	895	0	NR
380	0	NR	510	433	NR	640	362	NR	770	8	NR	900	0	NR
385	0	NR	515	481	NR	645	327	NR	775	7	NR	905	0	NR
390	0	NR	520	516	NR	650	293	NR	780	6	NR	910	0	NR
395	1	NR	525	538	NR	655	261	NR	785	5	NR	915	0	NR
400	3	NR	530	553	NR	660	231	NR	790	5	NR	920	0	NR
405	6	NR	535	560	NR	665	203	NR	795	4	NR	925	0	NR
410	11	NR	540	564	NR	670	177	NR	800	3	NR	930	0	NR
415	21	NR	545	568	NR	675	154	NR	805	3	NR	935	0	NR
420	42	NR	550	570	NR	680	134	NR	810	3	NR	940	0	NR
425	82	NR	555	573	NR	685	116	NR	815	2	NR	945	0	NR
430	146	NR	560	579	NR	690	100	NR	820	2	NR	950	0	NR
435	253	NR	565	584	NR	695	86	NR	825	2	NR	955	0	NR
440	414	NR	570	591	NR	700	73	NR	830	1	NR	960	0	NR
445	689	NR	575	598	NR	705	63	NR	835	1	NR	965	0	NR
450	986	NR	580	604	NR	710	54	NR	840	1	NR	970	0	NR
455	868	NR	585	607	NR	715	46	NR	845	1	NR	975	0	NR
460	563	NR	590	604	NR	720	40	NR	850	1	NR	980	0	NR
465	421	NR	595	598	NR	725	34	NR	855	1	NR	985	0	NR
470	311	NR	600	588	NR	730	29	NR	860	1	NR	990	0	NR
475	218	NR	605	572	NR	735	25	NR	865	1	NR	995	0	NR
480	185	NR	610	552	NR	740	21	NR	870	0	NR	1000	0	NR
485	186	NR	615	527	NR	745	18	NR	875	0	NR			

REPORT NUMBER: SP1-2405-118-3

Scotopic Flux vs. Wavelength



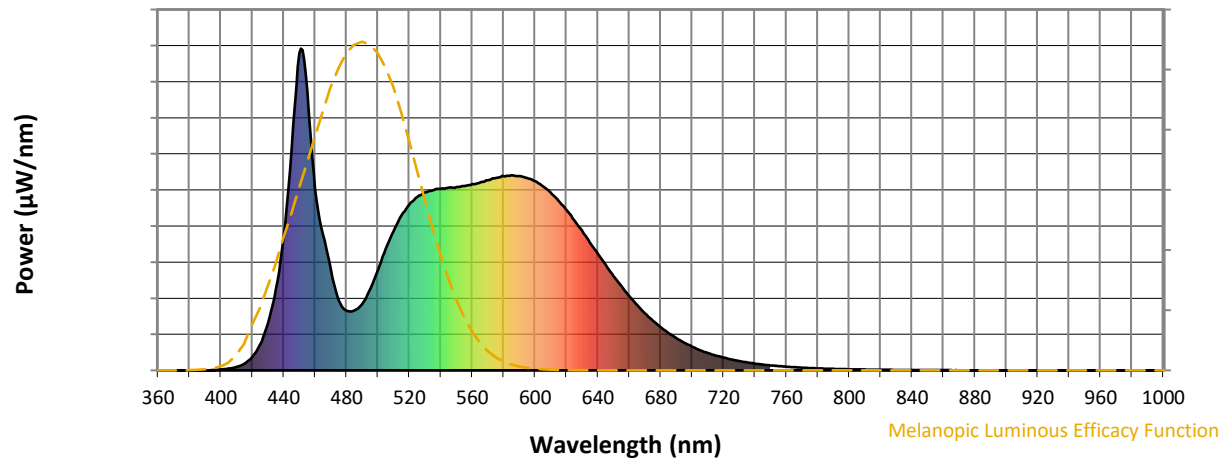
Scotopic Lumens: NR

S/P: 1.88

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	207	NR	620	498	NR	750	15	NR	880	0	NR
365	0	NR	495	252	NR	625	467	NR	755	13	NR	885	0	NR
370	0	NR	500	313	NR	630	433	NR	760	11	NR	890	0	NR
375	0	NR	505	378	NR	635	397	NR	765	10	NR	895	0	NR
380	0	NR	510	433	NR	640	362	NR	770	8	NR	900	0	NR
385	0	NR	515	481	NR	645	327	NR	775	7	NR	905	0	NR
390	0	NR	520	516	NR	650	293	NR	780	6	NR	910	0	NR
395	1	NR	525	538	NR	655	261	NR	785	5	NR	915	0	NR
400	3	NR	530	553	NR	660	231	NR	790	5	NR	920	0	NR
405	6	NR	535	560	NR	665	203	NR	795	4	NR	925	0	NR
410	11	NR	540	564	NR	670	177	NR	800	3	NR	930	0	NR
415	21	NR	545	568	NR	675	154	NR	805	3	NR	935	0	NR
420	42	NR	550	570	NR	680	134	NR	810	3	NR	940	0	NR
425	82	NR	555	573	NR	685	116	NR	815	2	NR	945	0	NR
430	146	NR	560	579	NR	690	100	NR	820	2	NR	950	0	NR
435	253	NR	565	584	NR	695	86	NR	825	2	NR	955	0	NR
440	414	NR	570	591	NR	700	73	NR	830	1	NR	960	0	NR
445	689	NR	575	598	NR	705	63	NR	835	1	NR	965	0	NR
450	986	NR	580	604	NR	710	54	NR	840	1	NR	970	0	NR
455	868	NR	585	607	NR	715	46	NR	845	1	NR	975	0	NR
460	563	NR	590	604	NR	720	40	NR	850	1	NR	980	0	NR
465	421	NR	595	598	NR	725	34	NR	855	1	NR	985	0	NR
470	311	NR	600	588	NR	730	29	NR	860	1	NR	990	0	NR
475	218	NR	605	572	NR	735	25	NR	865	1	NR	995	0	NR
480	185	NR	610	552	NR	740	21	NR	870	0	NR	1000	0	NR
485	186	NR	615	527	NR	745	18	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.92

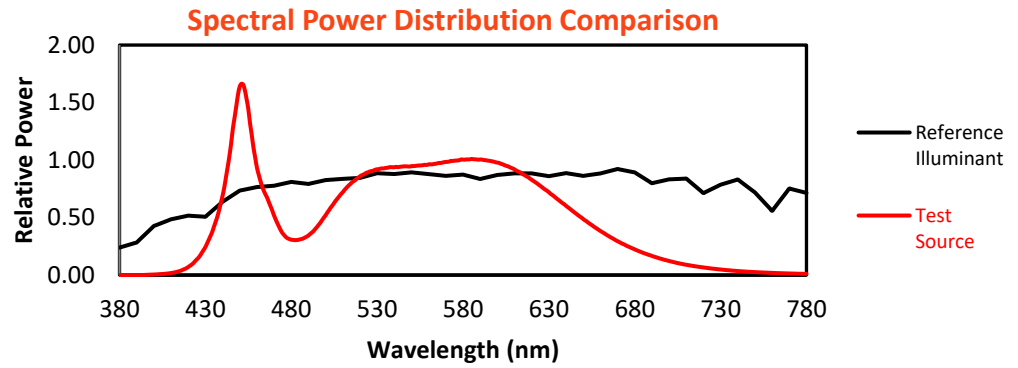
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	207	NR	620	498	NR	750	15	NR	880	0	NR
365	0	NR	495	252	NR	625	467	NR	755	13	NR	885	0	NR
370	0	NR	500	313	NR	630	433	NR	760	11	NR	890	0	NR
375	0	NR	505	378	NR	635	397	NR	765	10	NR	895	0	NR
380	0	NR	510	433	NR	640	362	NR	770	8	NR	900	0	NR
385	0	NR	515	481	NR	645	327	NR	775	7	NR	905	0	NR
390	0	NR	520	516	NR	650	293	NR	780	6	NR	910	0	NR
395	1	NR	525	538	NR	655	261	NR	785	5	NR	915	0	NR
400	3	NR	530	553	NR	660	231	NR	790	5	NR	920	0	NR
405	6	NR	535	560	NR	665	203	NR	795	4	NR	925	0	NR
410	11	NR	540	564	NR	670	177	NR	800	3	NR	930	0	NR
415	21	NR	545	568	NR	675	154	NR	805	3	NR	935	0	NR
420	42	NR	550	570	NR	680	134	NR	810	3	NR	940	0	NR
425	82	NR	555	573	NR	685	116	NR	815	2	NR	945	0	NR
430	146	NR	560	579	NR	690	100	NR	820	2	NR	950	0	NR
435	253	NR	565	584	NR	695	86	NR	825	2	NR	955	0	NR
440	414	NR	570	591	NR	700	73	NR	830	1	NR	960	0	NR
445	689	NR	575	598	NR	705	63	NR	835	1	NR	965	0	NR
450	986	NR	580	604	NR	710	54	NR	840	1	NR	970	0	NR
455	868	NR	585	607	NR	715	46	NR	845	1	NR	975	0	NR
460	563	NR	590	604	NR	720	40	NR	850	1	NR	980	0	NR
465	421	NR	595	598	NR	725	34	NR	855	1	NR	985	0	NR
470	311	NR	600	588	NR	730	29	NR	860	1	NR	990	0	NR
475	218	NR	605	572	NR	735	25	NR	865	1	NR	995	0	NR
480	185	NR	610	552	NR	740	21	NR	870	0	NR	1000	0	NR
485	186	NR	615	527	NR	745	18	NR	875	0	NR			

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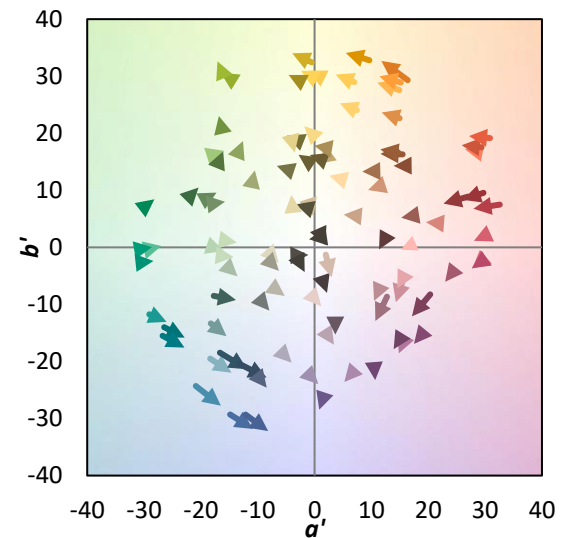
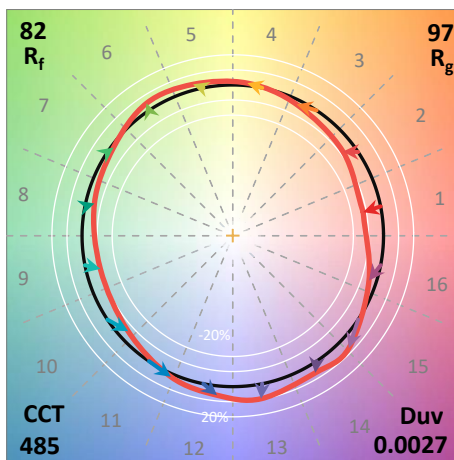
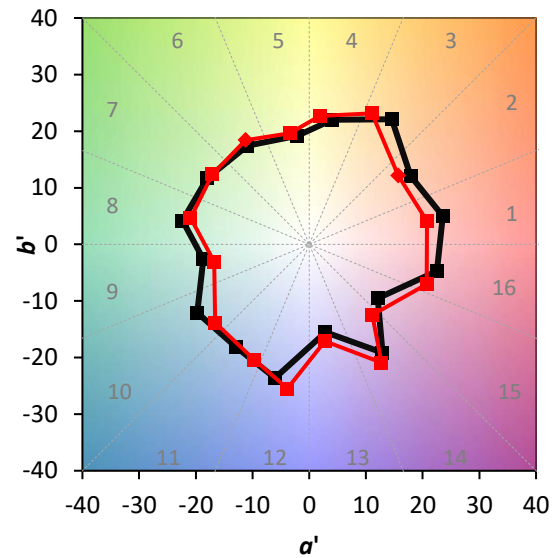
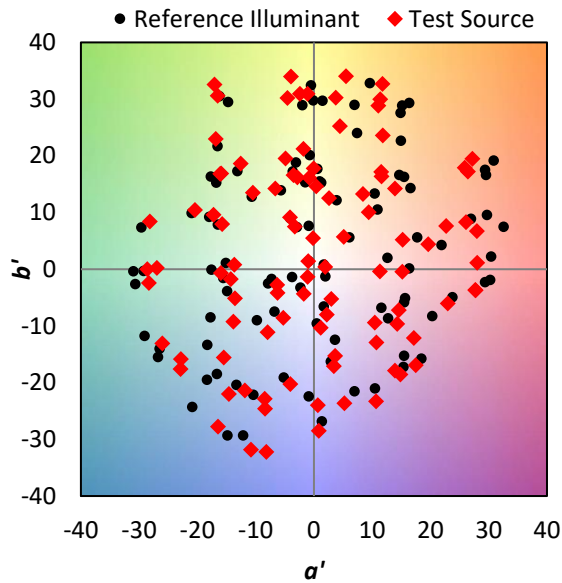
TM-30-18

Summary

$R_f = 82.4$
 $R_g = 96.8$
 $CIE R_a = 81.9$
 $R_9 = 8.5$

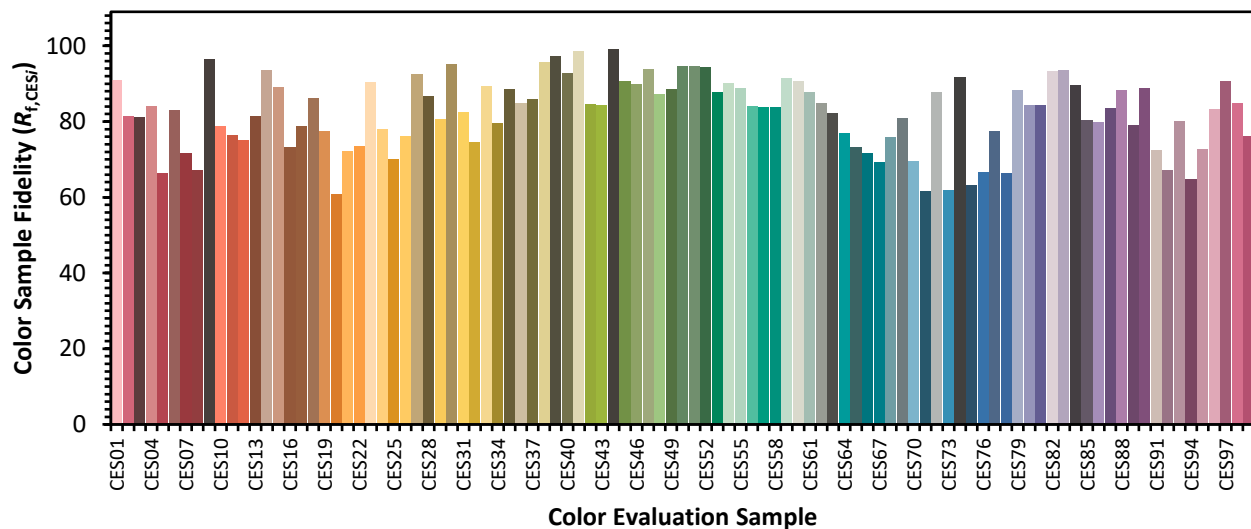


Color Vector Graphics

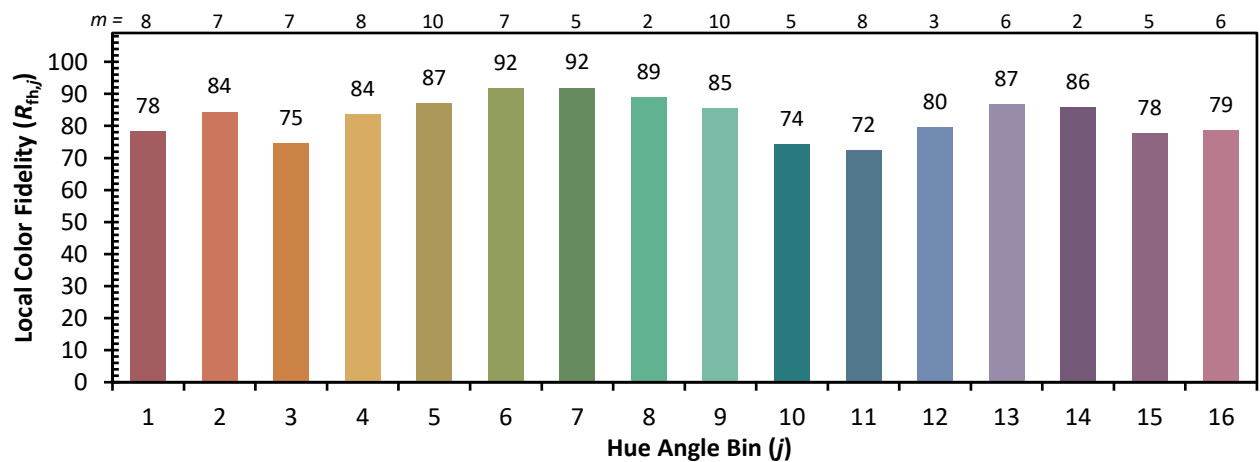
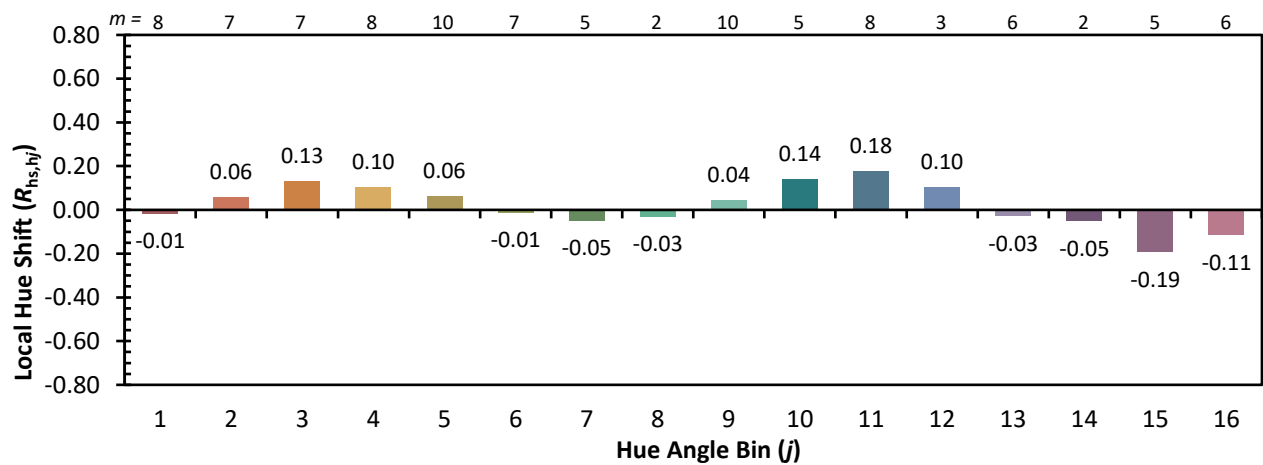
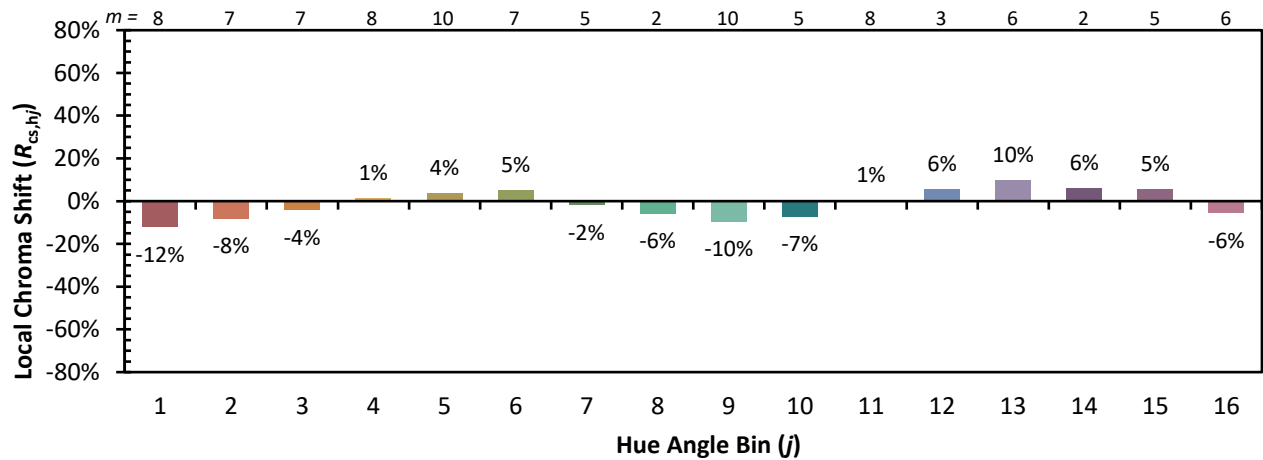


Individual Sample Fidelity Index ($R_{f,i}$)

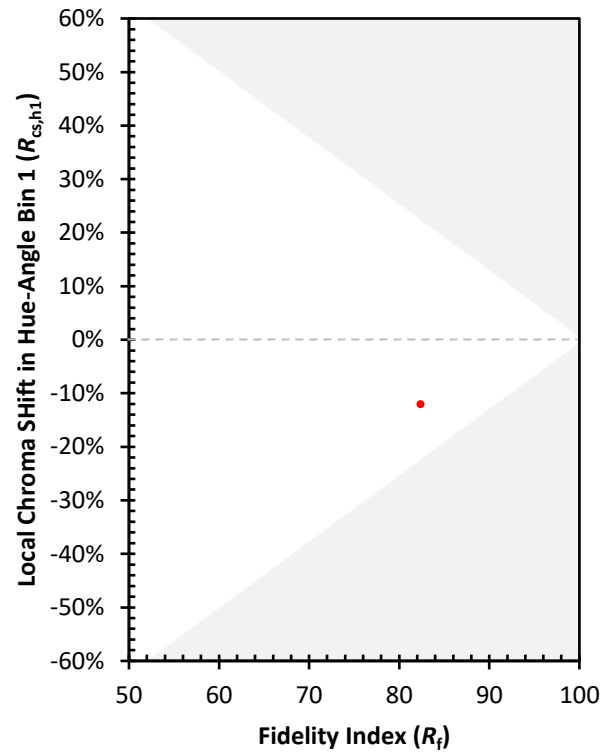
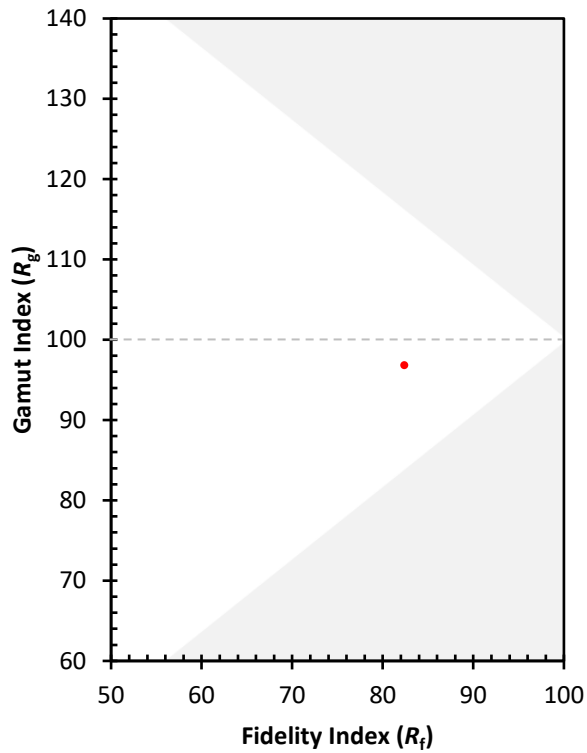
CES01 = 85	CES26 = 76	CES51 = 95	CES76 = 67
CES02 = 60	CES27 = 92	CES52 = 94	CES77 = 77
CES03 = 30	CES28 = 87	CES53 = 88	CES78 = 66
CES04 = 69	CES29 = 81	CES54 = 90	CES79 = 88
CES05 = 47	CES30 = 95	CES55 = 89	CES80 = 84
CES06 = 50	CES31 = 82	CES56 = 84	CES81 = 84
CES07 = 40	CES32 = 74	CES57 = 84	CES82 = 93
CES08 = 39	CES33 = 89	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 80	CES59 = 91	CES84 = 90
CES10 = 73	CES35 = 88	CES60 = 91	CES85 = 80
CES11 = 56	CES36 = 85	CES61 = 88	CES86 = 80
CES12 = 62	CES37 = 86	CES62 = 85	CES87 = 83
CES13 = 42	CES38 = 96	CES63 = 82	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 77	CES89 = 79
CES15 = 71	CES40 = 93	CES65 = 73	CES90 = 89
CES16 = 46	CES41 = 99	CES66 = 72	CES91 = 73
CES17 = 49	CES42 = 85	CES67 = 69	CES92 = 67
CES18 = 56	CES43 = 84	CES68 = 76	CES93 = 80
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 65
CES20 = 64	CES45 = 91	CES70 = 70	CES95 = 73
CES21 = 85	CES46 = 90	CES71 = 62	CES96 = 83
CES22 = 77	CES47 = 94	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 87	CES73 = 62	CES98 = 85
CES24 = 90	CES49 = 88	CES74 = 92	CES99 = 76
CES25 = 71	CES50 = 95	CES75 = 63	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)