

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: INVUE

Report Number: P472191

Luminaire Tested: **CCP-VA-3-835-U-T4W**

Issue Date: 01/27/2021

Test Information

Test Method: LM-79-08
Report Number: P472191
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-VA-3-835-U-T4W
Description: INVUE CLEARCURVE POLE MOUNT Wave Stream LUMINAIRE WITH T4W
DISTRIBUTION LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4822 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

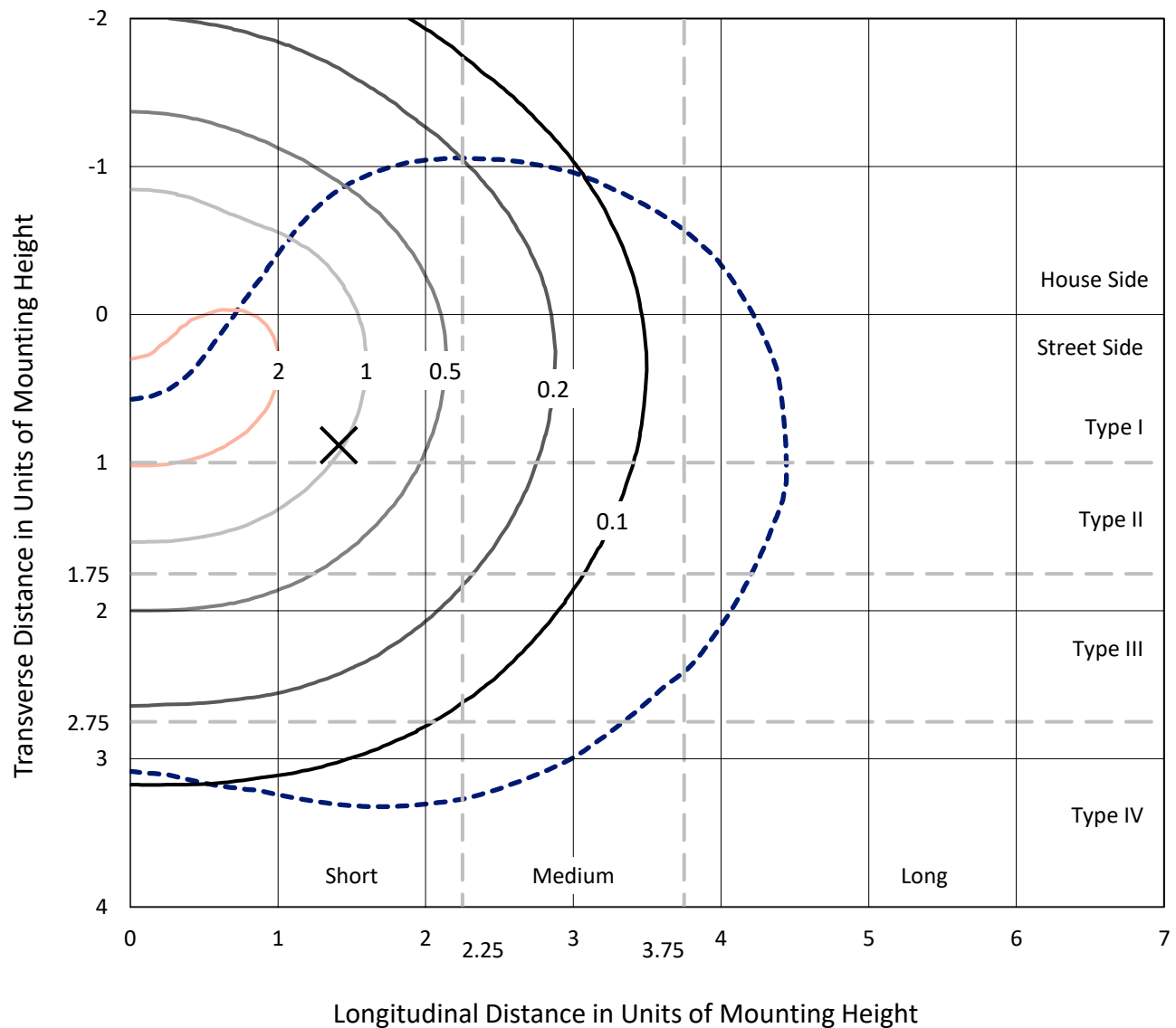
Input Watts (W): 46.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

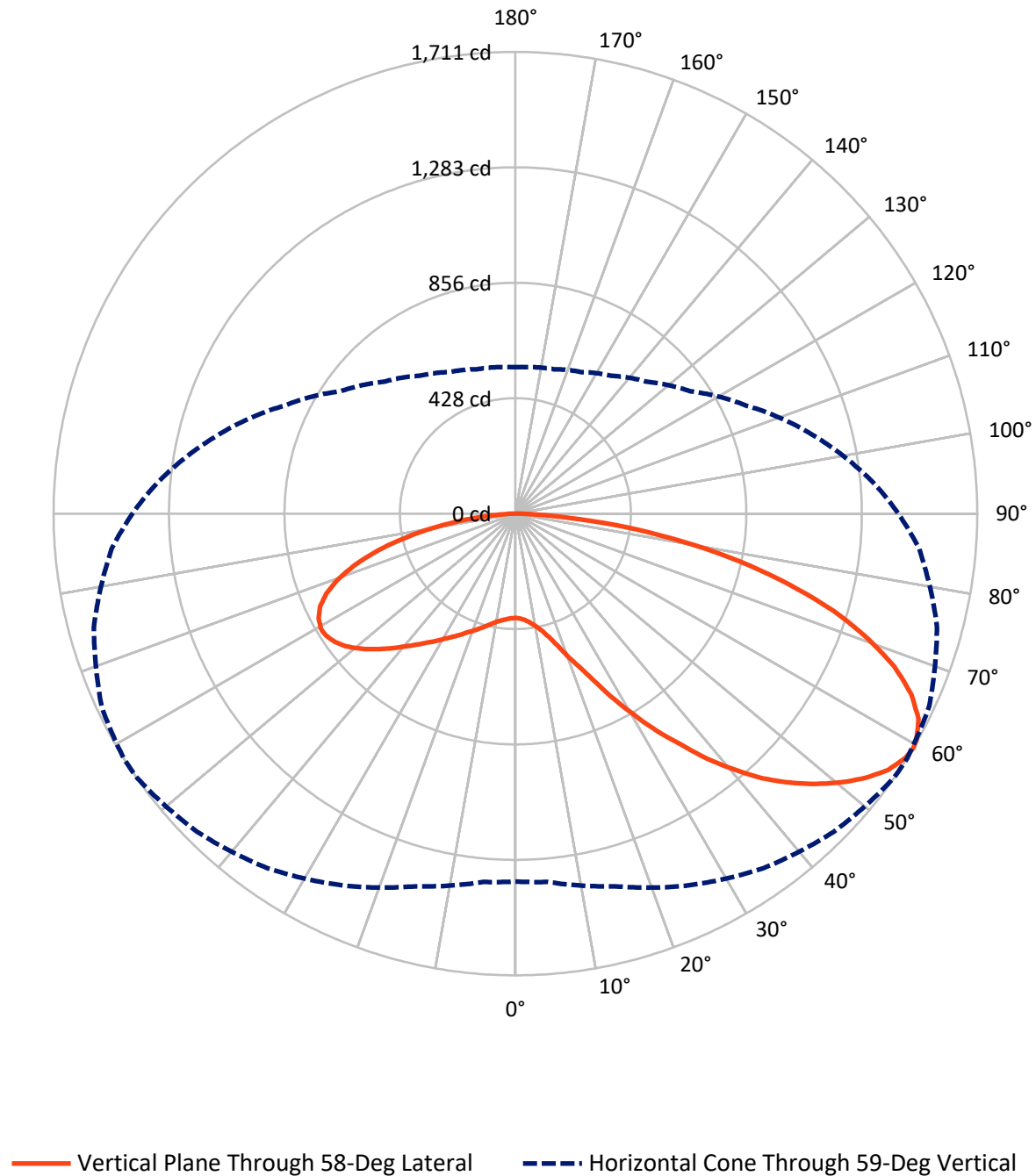
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1719.7	0.0	1719.7
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	3102.3	0.0	3102.3
	% Fixture	64.3	0.0	64.3
Total	Lumens	4822.0	0.0	4822.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.4	0.8
10°-20°	130.8	2.7
20°-30°	276.1	5.7
30°-40°	508.1	10.5
40°-50°	791.9	16.4
50°-60°	1040.6	21.6
60°-70°	1090.4	22.6
70°-80°	756.0	15.7
80°-90°	189.8	3.9
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°	4822.0	100.0
0°-180°	4822.0	100.0

Coefficient of Utilization



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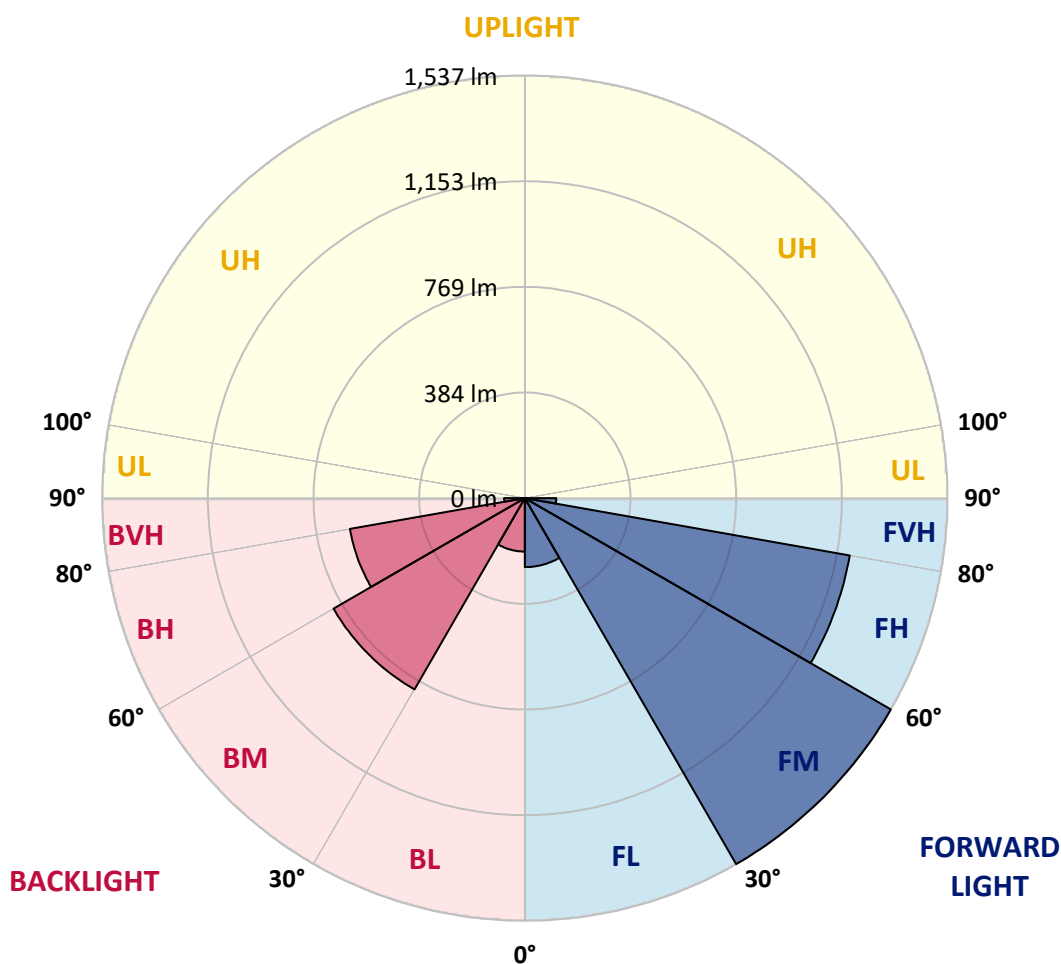
CATALOG NUMBER: CCP-VA-3-835-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	250.9	5.2			
FM	(30°-60°)	1537.2	31.9			
FH	(60°-80°)	1200.2	24.9			G1/1800
FVH	(80°-90°)	114.1	2.4			G2/225
BL	(0°-30°)	194.4	4.0	B1/500		
BM	(30°-60°)	803.4	16.7	B1/1000		
BH	(60°-80°)	646.2	13.4	B2/1000		G2/1000
BVH	(80°-90°)	75.8	1.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6
2.5°	392.0	392.0	392.0	390.9	390.9	390.9	389.8	389.8	389.8	388.7	387.6
5°	400.7	400.7	399.6	400.7	399.6	398.5	397.4	397.4	397.4	396.3	395.2
7.5°	412.6	413.7	412.6	413.7	412.6	411.5	409.4	409.4	408.3	406.1	403.9
10°	431.1	431.1	431.1	430.0	428.9	427.8	426.7	425.6	424.6	421.3	418.0
12.5°	453.9	453.9	453.9	451.7	451.7	449.5	448.5	447.4	445.2	440.8	436.5
15°	482.1	481.0	484.3	484.3	483.2	483.2	479.9	477.8	475.6	469.1	459.3
17.5°	520.1	519.0	522.3	524.5	524.5	525.5	520.1	517.9	510.3	501.7	488.6
20°	571.2	569.0	572.2	574.4	572.2	574.4	569.0	570.1	559.2	544.0	523.4
22.5°	626.5	626.5	629.8	629.8	630.9	633.0	626.5	623.3	614.6	592.9	566.8
25°	694.9	700.4	700.4	700.4	704.7	705.8	699.3	693.8	681.9	652.6	616.8
27.5°	778.5	777.5	776.4	782.9	782.9	785.1	780.7	778.5	764.4	728.6	674.3
30°	867.6	861.1	865.4	867.6	871.9	875.2	870.8	864.3	847.0	807.9	740.5
32.5°	949.0	953.4	959.9	962.1	968.6	969.7	958.8	958.8	941.4	891.5	822.0
35°	1041.3	1041.3	1058.7	1066.3	1066.3	1072.8	1056.5	1047.8	1035.9	983.8	895.8
37.5°	1121.7	1123.8	1138.0	1155.3	1157.5	1167.3	1155.3	1152.1	1130.4	1077.2	979.4
40°	1196.6	1198.8	1216.1	1236.8	1248.7	1263.9	1252.0	1246.5	1223.7	1162.9	1063.0
42.5°	1255.2	1259.6	1281.3	1311.7	1331.2	1349.7	1344.3	1341.0	1309.5	1245.5	1140.1
45°	1299.7	1307.3	1337.8	1373.6	1400.7	1427.9	1429.0	1422.4	1393.1	1321.5	1215.1
47.5°	1335.6	1344.3	1377.9	1423.5	1464.8	1498.5	1505.0	1497.4	1470.2	1395.3	1282.4
50°	1364.9	1369.2	1407.2	1465.9	1516.9	1559.3	1572.3	1565.8	1541.9	1457.2	1341.0
52.5°	1380.1	1386.6	1430.0	1497.4	1559.3	1610.3	1629.8	1626.6	1598.4	1513.7	1393.1
55°	1387.7	1394.2	1445.2	1522.3	1591.8	1651.6	1675.4	1676.5	1649.4	1564.7	1442.0
57.5°	1379.0	1387.7	1443.1	1528.9	1606.0	1670.0	1706.9	1705.9	1684.1	1603.8	1483.3
59°	1363.8	1370.3	1430.0	1520.2	1603.8	1667.8	1710.2	1711.3	1691.7	1616.8	1501.7
60°	1346.4	1354.0	1414.8	1509.3	1595.1	1660.2	1704.8	1706.9	1690.6	1620.1	1509.3
62.5°	1286.7	1296.5	1363.8	1464.8	1558.2	1620.1	1673.3	1676.5	1667.8	1611.4	1514.7
65°	1203.1	1211.8	1284.5	1392.0	1489.8	1553.8	1603.8	1611.4	1610.3	1572.3	1493.0
67.5°	1101.0	1102.1	1170.5	1287.8	1389.9	1452.9	1500.6	1513.7	1523.4	1498.5	1429.0
70°	978.3	977.3	1043.5	1159.7	1261.7	1328.0	1375.8	1384.4	1409.4	1389.9	1333.4
72.5°	826.3	839.4	901.2	999.0	1100.0	1173.8	1216.1	1232.4	1246.5	1250.9	1204.2
75°	683.0	697.1	746.0	837.2	924.0	992.5	1038.1	1045.7	1071.7	1078.2	1034.8
77.5°	546.2	547.3	583.1	655.8	735.1	791.6	828.5	848.0	862.2	875.2	829.6
80°	383.3	388.7	413.7	465.8	527.7	587.4	617.8	630.9	640.6	649.3	634.1
82.5°	240.0	242.1	258.4	289.9	332.3	365.9	397.4	408.3	410.4	430.0	427.8
85°	114.0	115.1	126.0	141.2	159.6	186.8	198.7	198.7	213.9	228.0	228.0
87.5°	15.2	15.2	18.5	20.6	26.1	33.7	46.7	47.8	56.5	63.0	68.4
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: P472191

CATALOG NUMBER: CCP-VA-3-835-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6	386.6
2.5°	387.6	387.6	387.6	387.6	387.6	386.6	387.6	387.6	387.6	387.6	387.6
5°	395.2	394.2	393.1	392.0	392.0	390.9	390.9	390.9	390.9	390.9	390.9
7.5°	402.8	401.8	400.7	398.5	397.4	396.3	396.3	395.2	395.2	395.2	395.2
10°	415.9	414.8	410.4	407.2	405.0	403.9	402.8	401.8	400.7	400.7	400.7
12.5°	433.2	431.1	423.5	419.1	415.9	413.7	411.5	410.4	409.4	408.3	408.3
15°	455.0	449.5	439.8	433.2	428.9	425.6	422.4	420.2	419.1	418.0	418.0
17.5°	481.0	474.5	461.5	449.5	441.9	436.5	432.2	428.9	427.8	427.8	427.8
20°	513.6	502.7	484.3	468.0	456.1	448.5	441.9	438.7	437.6	436.5	435.4
22.5°	551.6	537.5	510.3	485.4	470.2	459.3	451.7	447.4	444.1	443.0	443.0
25°	595.0	574.4	538.6	508.2	487.5	472.3	462.6	457.1	451.7	449.5	449.5
27.5°	647.2	620.0	572.2	532.1	503.8	485.4	474.5	466.9	461.5	457.1	455.0
30°	703.6	673.2	609.2	558.1	522.3	501.7	488.6	479.9	472.3	464.7	463.7
32.5°	775.3	731.9	653.7	587.4	544.0	517.9	502.7	491.9	482.1	474.5	472.3
35°	848.0	795.9	700.4	617.8	564.6	533.1	514.7	502.7	493.0	484.3	483.2
37.5°	923.0	867.6	751.4	653.7	588.5	550.5	527.7	514.7	502.7	494.1	493.0
40°	1001.1	936.0	803.5	690.6	613.5	567.9	541.8	525.5	512.5	504.9	503.8
42.5°	1075.0	1004.4	860.0	734.0	642.8	586.4	555.9	538.6	522.3	514.7	513.6
45°	1145.6	1069.5	916.4	774.2	672.1	605.9	570.1	549.4	532.1	524.5	523.4
47.5°	1209.6	1133.6	968.6	817.6	702.5	627.6	585.3	560.3	540.7	533.1	533.1
50°	1267.2	1187.9	1019.6	857.8	730.8	649.3	598.3	570.1	550.5	542.9	541.8
52.5°	1321.5	1235.7	1064.1	892.6	757.9	668.9	611.3	577.7	557.0	548.3	547.3
55°	1364.9	1279.1	1101.0	920.8	776.4	681.9	620.0	582.0	559.2	551.6	550.5
57.5°	1402.9	1314.9	1127.1	940.3	788.3	689.5	624.4	582.0	558.1	549.4	548.3
59°	1419.2	1330.2	1135.8	945.8	790.5	690.6	623.3	578.8	553.8	545.1	542.9
60°	1427.9	1336.7	1139.0	946.8	789.4	688.4	622.2	575.5	549.4	539.7	539.7
62.5°	1436.6	1342.1	1134.7	938.2	777.5	676.5	611.3	562.5	533.1	522.3	522.3
65°	1418.1	1322.5	1109.7	914.3	753.6	655.8	590.7	540.7	508.2	497.3	497.3
67.5°	1363.8	1274.8	1064.1	869.8	714.5	620.0	557.0	506.0	475.6	463.7	460.4
70°	1271.5	1196.6	992.5	805.7	661.3	574.4	514.7	465.8	434.3	422.4	418.0
72.5°	1147.7	1073.9	896.9	727.5	590.7	514.7	462.6	415.9	381.1	369.2	370.3
75°	977.3	925.1	773.1	628.7	509.3	438.7	395.2	356.2	326.8	317.1	318.2
77.5°	792.7	749.2	626.5	512.5	415.9	361.6	324.7	293.2	273.6	268.2	264.9
80°	607.0	564.6	470.2	382.2	316.0	278.0	253.0	231.3	216.1	208.5	210.7
82.5°	407.2	381.1	311.6	253.0	215.0	187.8	179.2	165.0	159.6	155.3	158.5
85°	219.3	196.5	162.9	135.7	118.4	110.8	112.9	111.8	107.5	106.4	109.7
87.5°	71.7	61.9	47.8	40.2	41.3	36.9	36.9	34.7	31.5	30.4	32.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

INVUE

Report Number: SP1-2005-785-22

Luminaire Tested: WIS-VA-3-835-U-T4FT

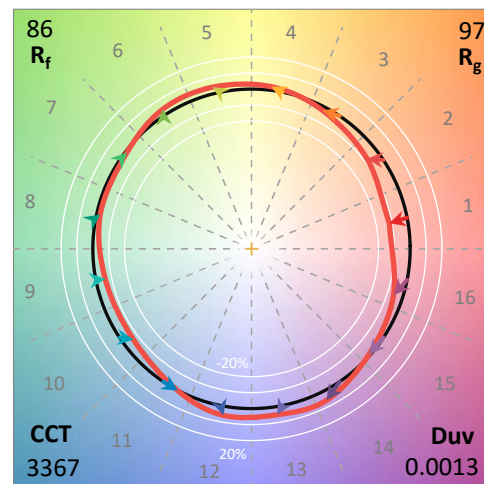
Test Date: 09/08/2020

Test Information

Test Method: LM-79-08
 Report Number: SP1-2005-785-22
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1
 Measurement Geometry: 4π
 Issue Date: 09/08/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: INVUE
 Catalog Number: **WIS-VA-3-835-U-T4FT**
 Description: INVUE WALL PACK VA

Spectral Parameters

CCT (K):	3367	CRI (Ra):	83.4		
CIE u':	0.2385	R1:	81.2	R9:	7.1
CIE v':	0.5156	R2:	89.8	R10:	77.4
Duv:	0.0013	R3:	97.0	R11:	83.4
CIE x:	0.4144	R4:	83.1	R12:	73.6
CIE y:	0.3981	R5:	82.1	R13:	83.1
CIE z:	0.1876	R6:	87.8	R14:	98.6
Peak Wavelength (nm):	601	R7:	84.7		
Dominant Wavelength (nm):	580	R8:	61.6		
Purity:	44.1				
Rf:	85.9				
Rg:	96.9				



Test Conditions

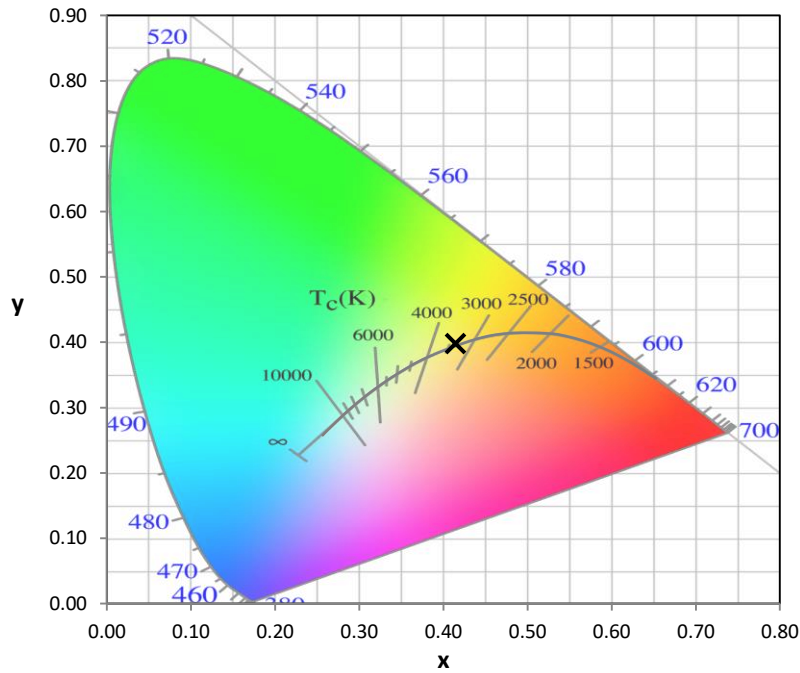
Stabilization Time: 67M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.0/46%
 Sphere Temperature (°C): 24.0

REPORT NUMBER: SP1-2005-785-22

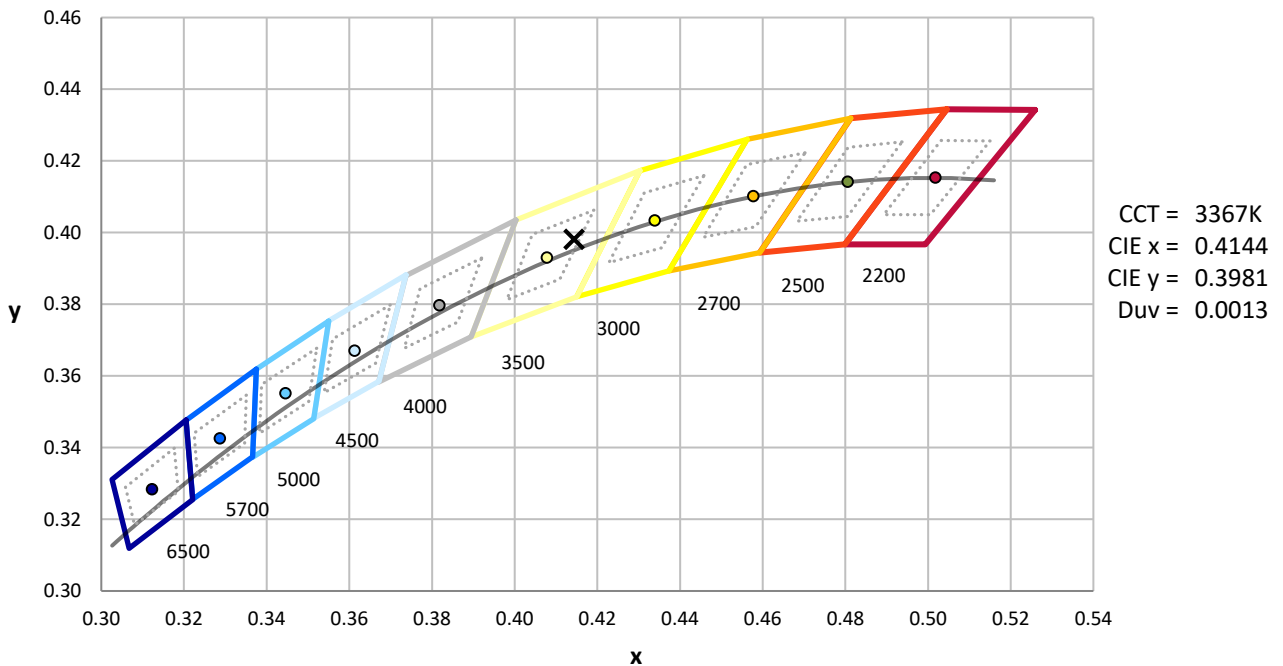
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	7/29/2020	1/29/2021
Power Meter	IN0071	12/3/2020	12/3/2020
AC Power Source	IN0063	12/3/2020	12/3/2020
DC Power Source	IN0208	12/3/2020	12/3/2020
Sphere Thermometer	IN0085	12/3/2020	12/3/2020
Room Thermometer	IN0046	12/3/2020	12/3/2020

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CIE 1931 Chromaticity Diagram



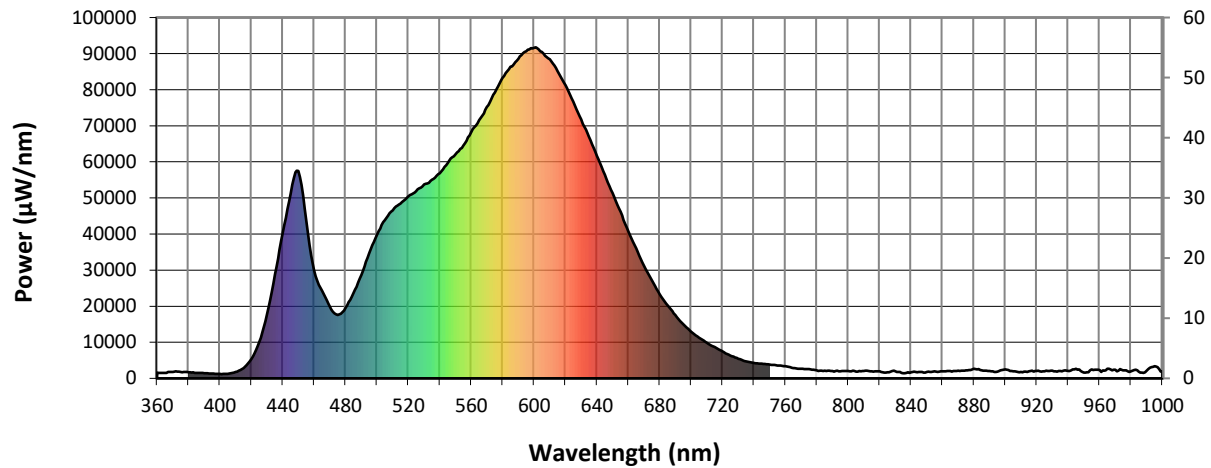
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

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Photopic Flux vs. Wavelength

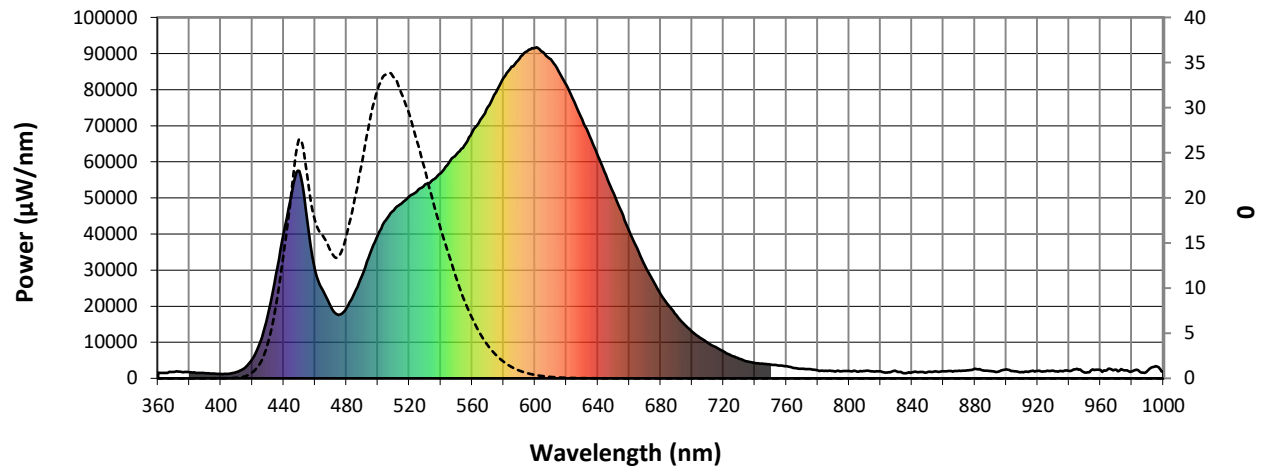


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λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1643	0.0	490	28622	4.1	620	81207	21.1	750	3846	0.0	880	2622	0.0
365	1520	0.0	495	34557	6.3	625	76716	16.9	755	3519	0.0	885	2243	0.0
370	1802	0.0	500	39800	8.8	630	71708	13.0	760	3368	0.0	890	2081	0.0
375	1769	0.0	505	43851	12.3	635	66921	10.1	765	2855	0.0	895	1881	0.0
380	1679	0.0	510	46532	16.0	640	61633	7.4	770	2693	0.0	900	2480	0.0
385	1485	0.0	515	48456	20.1	645	56361	5.4	775	2536	0.0	905	1958	0.0
390	1455	0.0	520	50477	24.5	650	51385	3.8	780	2227	0.0	910	1735	0.0
395	1324	0.0	525	51864	27.8	655	46205	2.7	785	2107	0.0	915	1963	0.0
400	1202	0.0	530	53736	31.6	660	40823	1.7	790	2005	0.0	920	2064	0.0
405	1271	0.0	535	55031	34.1	665	35968	1.1	795	1994	0.0	925	1969	0.0
410	1753	0.0	540	56881	37.1	670	31229	0.7	800	2045	0.0	930	2173	0.0
415	2819	0.0	545	59674	39.7	675	27129	0.5	805	1910	0.0	935	2053	0.0
420	5364	0.0	550	62076	42.2	680	23366	0.3	810	2060	0.0	940	2078	0.0
425	10089	0.1	555	64554	44.1	685	20236	0.2	815	1930	0.0	945	2656	0.0
430	17744	0.1	560	68182	46.3	690	17552	0.1	820	1947	0.0	950	1571	0.0
435	28789	0.3	565	71544	47.6	695	14991	0.1	825	1656	0.0	955	2480	0.0
440	40235	0.6	570	75176	48.9	700	12957	0.0	830	1993	0.0	960	2276	0.0
445	51214	1.1	575	79236	49.3	705	11301	0.0	835	1455	0.0	965	2688	0.0
450	57466	1.5	580	83316	49.5	710	9834	0.0	840	1654	0.0	970	2355	0.0
455	43576	1.5	585	86387	48.0	715	8691	0.0	845	1789	0.0	975	2216	0.0
460	29961	1.2	590	88571	45.8	720	7415	0.0	850	1806	0.0	980	1965	0.0
465	24272	1.3	595	90667	43.0	725	6340	0.0	855	1940	0.0	985	1873	0.0
470	19791	1.2	600	91594	39.5	730	5448	0.0	860	1986	0.0	990	2127	0.0
475	17585	1.4	605	90498	35.0	735	4721	0.0	865	2055	0.0	995	3367	0.0
480	19565	1.9	610	88416	30.4	740	4296	0.0	870	2122	0.0	1000	1864	0.0
485	23624	2.8	615	85127	25.7	745	4067	0.0	875	2183	0.0			

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Scotopic Flux vs. Wavelength



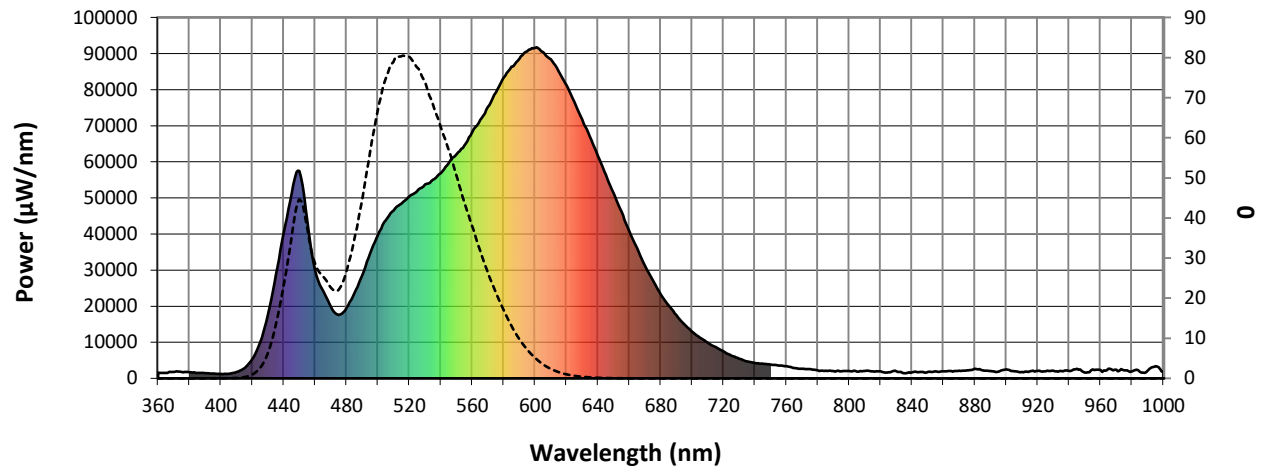
Scotopic Lumens: 2745.1

S/P: 0.57

λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1643	0.0	490	28622	44.1	620	81207	1.0	750	3846	0.0	880	2622	0.0
365	1520	0.0	495	34557	55.9	625	76716	0.6	755	3519	0.0	885	2243	0.0
370	1802	0.0	500	39800	66.6	630	71708	0.4	760	3368	0.0	890	2081	0.0
375	1769	0.0	505	43851	74.5	635	66921	0.3	765	2855	0.0	895	1881	0.0
380	1679	0.0	510	46532	78.9	640	61633	0.2	770	2693	0.0	900	2480	0.0
385	1485	0.0	515	48456	80.3	645	56361	0.1	775	2536	0.0	905	1958	0.0
390	1455	0.0	520	50477	80.2	650	51385	0.1	780	2227	0.0	910	1735	0.0
395	1324	0.0	525	51864	77.6	655	46205	0.0	785	2107	0.0	915	1963	0.0
400	1202	0.0	530	53736	74.1	660	40823	0.0	790	2005	0.0	920	2064	0.0
405	1271	0.0	535	55031	68.6	665	35968	0.0	795	1994	0.0	925	1969	0.0
410	1753	0.1	540	56881	62.9	670	31229	0.0	800	2045	0.0	930	2173	0.0
415	2819	0.3	545	59674	57.2	675	27129	0.0	805	1910	0.0	935	2053	0.0
420	5364	0.9	550	62076	50.8	680	23366	0.0	810	2060	0.0	940	2078	0.0
425	10089	2.5	555	64554	44.1	685	20236	0.0	815	1930	0.0	945	2656	0.0
430	17744	6.0	560	68182	38.1	690	17552	0.0	820	1947	0.0	950	1571	0.0
435	28789	12.9	565	71544	32.1	695	14991	0.0	825	1656	0.0	955	2480	0.0
440	40235	22.5	570	75176	26.5	700	12957	0.0	830	1993	0.0	960	2276	0.0
445	51214	34.3	575	79236	21.6	705	11301	0.0	835	1455	0.0	965	2688	0.0
450	57466	44.5	580	83316	17.2	710	9834	0.0	840	1654	0.0	970	2355	0.0
455	43576	38.1	585	86387	13.2	715	8691	0.0	845	1789	0.0	975	2216	0.0
460	29961	28.9	590	88571	9.9	720	7415	0.0	850	1806	0.0	980	1965	0.0
465	24272	25.6	595	90667	7.2	725	6340	0.0	855	1940	0.0	985	1873	0.0
470	19791	22.8	600	91594	5.2	730	5448	0.0	860	1986	0.0	990	2127	0.0
475	17585	22.0	605	90498	3.6	735	4721	0.0	865	2055	0.0	995	3367	0.0
480	19565	26.4	610	88416	2.4	740	4296	0.0	870	2122	0.0	1000	1864	0.0
485	23624	34.2	615	85127	1.6	745	4067	0.0	875	2183	0.0			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: 7094.9
S/P: 1.48

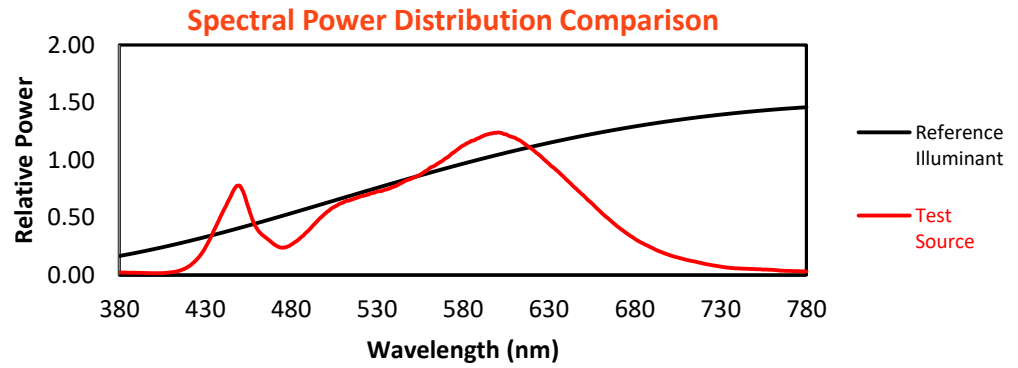
λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1643	0.0	490	28622	23.8	620	81207	0.1	750	3846	0.0	880	2622	0.0
365	1520	0.0	495	34557	28.5	625	76716	0.0	755	3519	0.0	885	2243	0.0
370	1802	0.0	500	39800	32.0	630	71708	0.0	760	3368	0.0	890	2081	0.0
375	1769	0.0	505	43851	33.7	635	66921	0.0	765	2855	0.0	895	1881	0.0
380	1679	0.0	510	46532	33.4	640	61633	0.0	770	2693	0.0	900	2480	0.0
385	1485	0.0	515	48456	31.7	645	56361	0.0	775	2536	0.0	905	1958	0.0
390	1455	0.0	520	50477	29.4	650	51385	0.0	780	2227	0.0	910	1735	0.0
395	1324	0.0	525	51864	26.3	655	46205	0.0	785	2107	0.0	915	1963	0.0
400	1202	0.0	530	53736	23.2	660	40823	0.0	790	2005	0.0	920	2064	0.0
405	1271	0.0	535	55031	19.8	665	35968	0.0	795	1994	0.0	925	1969	0.0
410	1753	0.1	540	56881	16.6	670	31229	0.0	800	2045	0.0	930	2173	0.0
415	2819	0.2	545	59674	13.9	675	27129	0.0	805	1910	0.0	935	2053	0.0
420	5364	0.6	550	62076	11.1	680	23366	0.0	810	2060	0.0	940	2078	0.0
425	10089	1.6	555	64554	8.7	685	20236	0.0	815	1930	0.0	945	2656	0.0
430	17744	3.7	560	68182	6.7	690	17552	0.0	820	1947	0.0	950	1571	0.0
435	28789	7.7	565	71544	5.0	695	14991	0.0	825	1656	0.0	955	2480	0.0
440	40235	13.4	570	75176	3.7	700	12957	0.0	830	1993	0.0	960	2276	0.0
445	51214	20.2	575	79236	2.6	705	11301	0.0	835	1455	0.0	965	2688	0.0
450	57466	26.5	580	83316	1.9	710	9834	0.0	840	1654	0.0	970	2355	0.0
455	43576	22.8	585	86387	1.3	715	8691	0.0	845	1789	0.0	975	2216	0.0
460	29961	17.7	590	88571	0.9	720	7415	0.0	850	1806	0.0	980	1965	0.0
465	24272	15.9	595	90667	0.6	725	6340	0.0	855	1940	0.0	985	1873	0.0
470	19791	14.2	600	91594	0.4	730	5448	0.0	860	1986	0.0	990	2127	0.0
475	17585	13.4	605	90498	0.2	735	4721	0.0	865	2055	0.0	995	3367	0.0
480	19565	15.7	610	88416	0.2	740	4296	0.0	870	2122	0.0	1000	1864	0.0
485	23624	19.5	615	85127	0.1	745	4067	0.0	875	2183	0.0			

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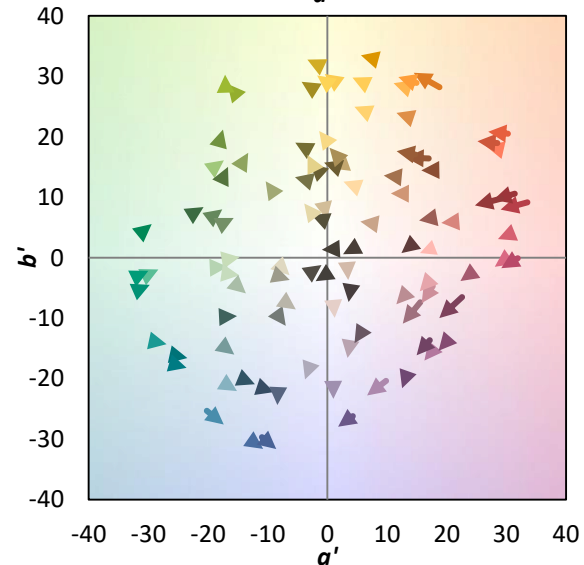
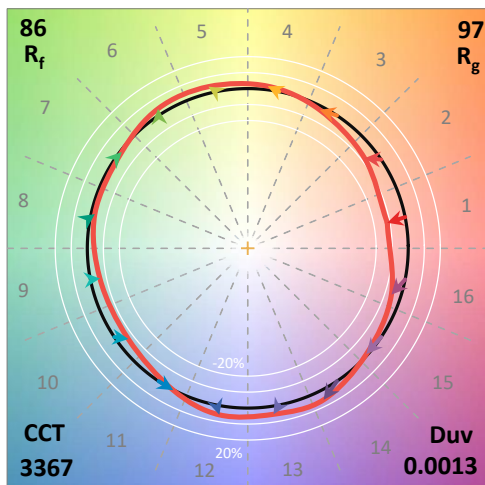
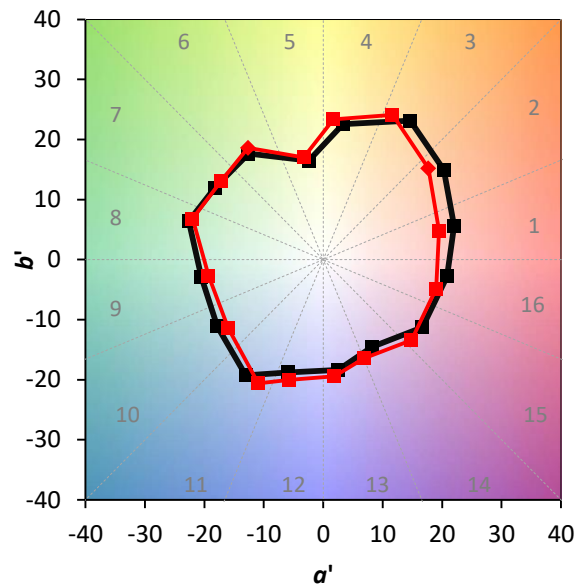
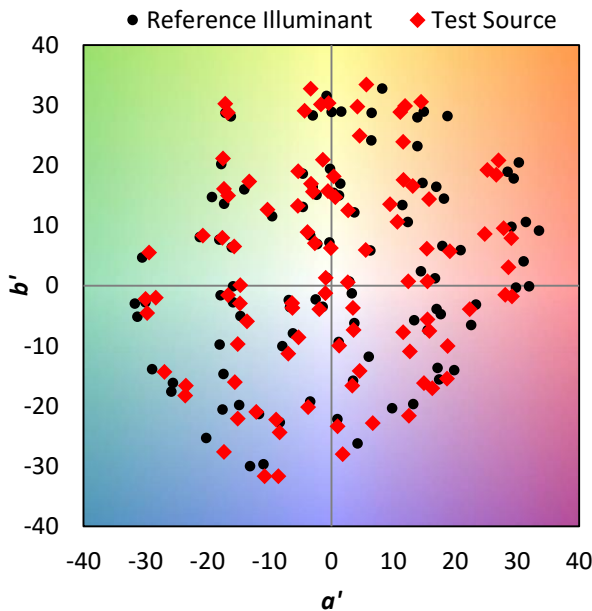
TM-30-18

Summary

$R_f = 85.9$
 $R_g = 96.9$
 CIE $R_a = 83.4$
 $R_9 = 7.1$

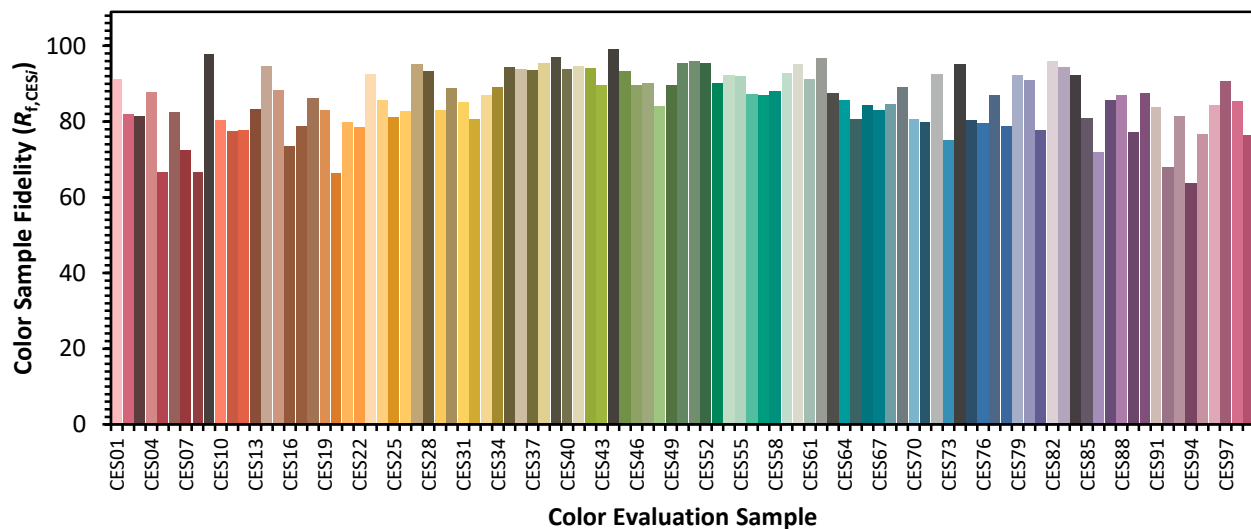


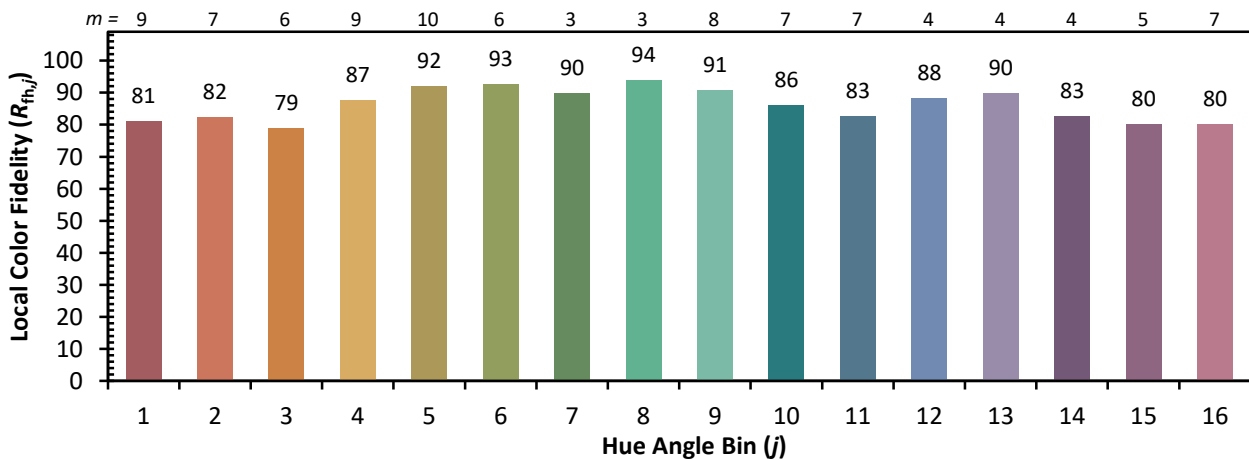
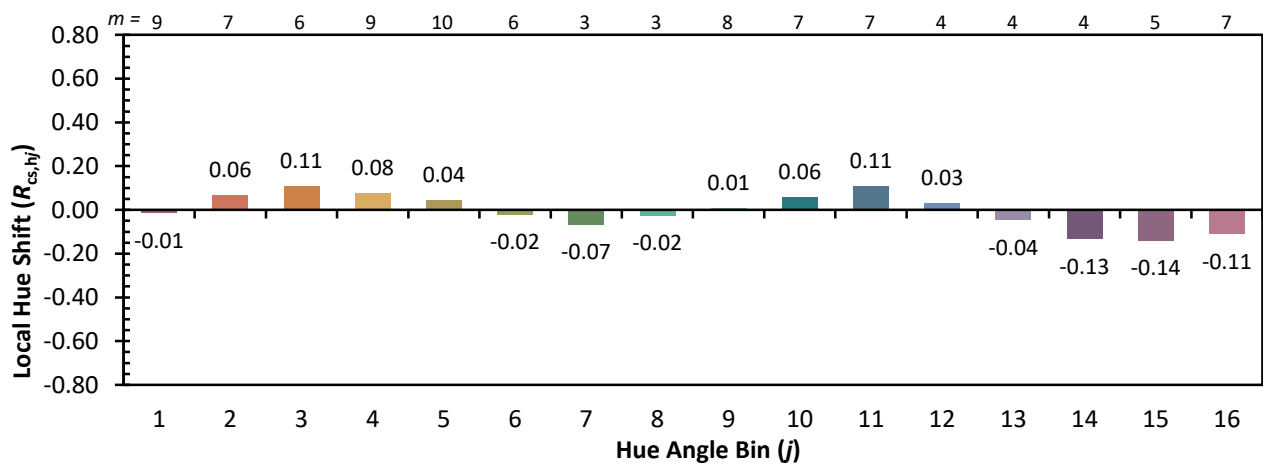
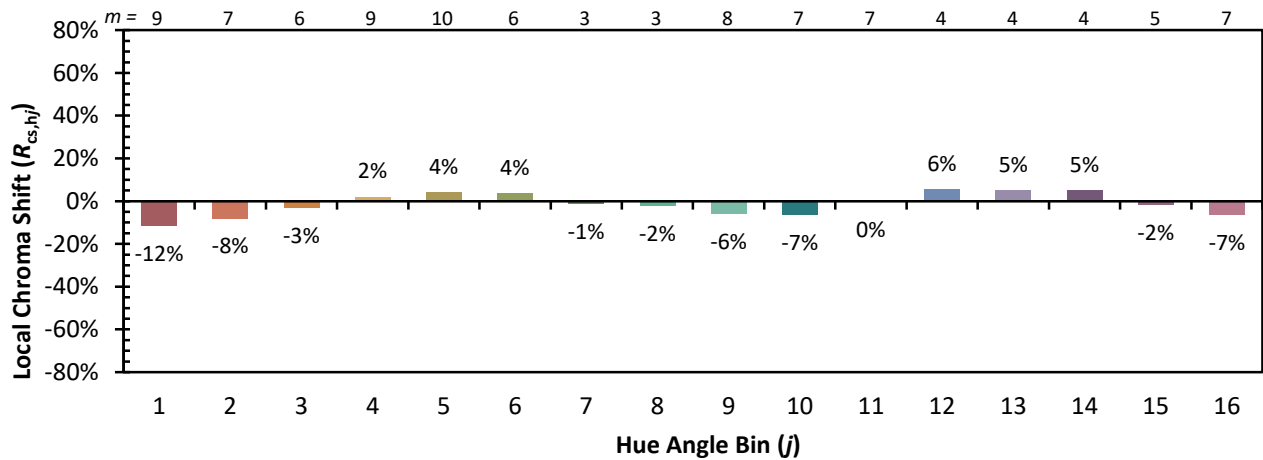
Color Vector Graphics



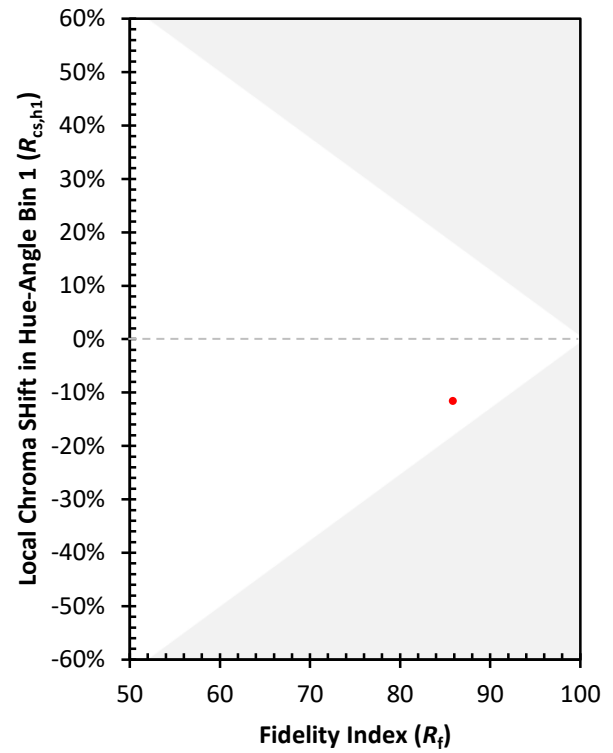
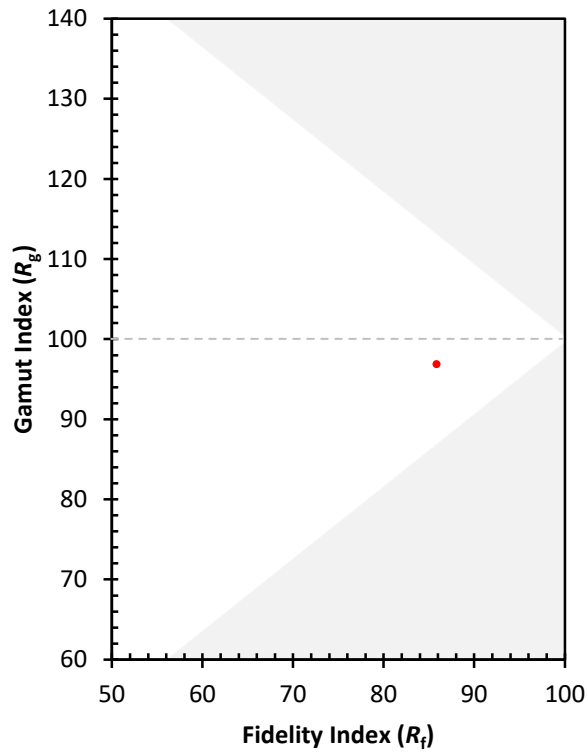
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 83	CES51 = 96	CES76 = 80
CES02 = 62	CES27 = 95	CES52 = 96	CES77 = 87
CES03 = 31	CES28 = 93	CES53 = 90	CES78 = 79
CES04 = 70	CES29 = 83	CES54 = 92	CES79 = 92
CES05 = 49	CES30 = 89	CES55 = 92	CES80 = 91
CES06 = 51	CES31 = 85	CES56 = 87	CES81 = 78
CES07 = 41	CES32 = 81	CES57 = 87	CES82 = 96
CES08 = 40	CES33 = 87	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 89	CES59 = 93	CES84 = 92
CES10 = 75	CES35 = 94	CES60 = 95	CES85 = 81
CES11 = 58	CES36 = 94	CES61 = 91	CES86 = 72
CES12 = 64	CES37 = 94	CES62 = 97	CES87 = 86
CES13 = 43	CES38 = 95	CES63 = 88	CES88 = 87
CES14 = 74	CES39 = 97	CES64 = 86	CES89 = 77
CES15 = 71	CES40 = 94	CES65 = 81	CES90 = 87
CES16 = 47	CES41 = 95	CES66 = 84	CES91 = 84
CES17 = 50	CES42 = 94	CES67 = 83	CES92 = 68
CES18 = 56	CES43 = 90	CES68 = 85	CES93 = 81
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 64
CES20 = 66	CES45 = 93	CES70 = 81	CES95 = 77
CES21 = 86	CES46 = 90	CES71 = 80	CES96 = 84
CES22 = 78	CES47 = 90	CES72 = 93	CES97 = 91
CES23 = 92	CES48 = 84	CES73 = 75	CES98 = 86
CES24 = 91	CES49 = 90	CES74 = 95	CES99 = 76
CES25 = 72	CES50 = 95	CES75 = 80	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)