

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: P472272

Luminaire Tested: **CCP-VA-4-735-U-T4FT**

Issue Date: 01/27/2021



Test Information

Test Method: LM-79-08
Report Number: P472272
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-VA-4-735-U-T4FT
Description: INVUE CLEARCURVE POLE MOUNT Wave Stream LUMINAIRE WITH T4FT
DISTRIBUTION LENS
Light Source: 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6263.1 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

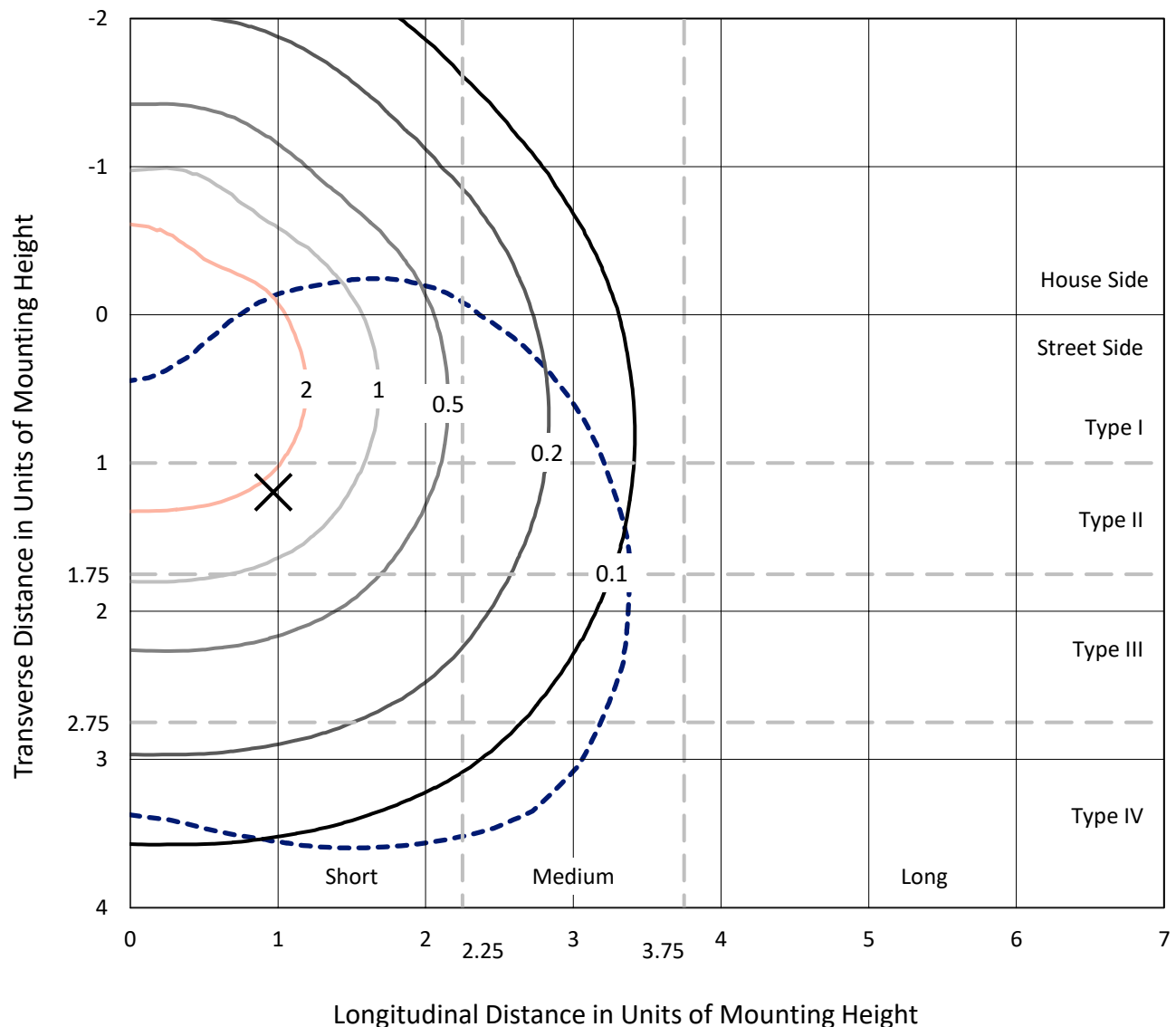
Input Watts (W): 64.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

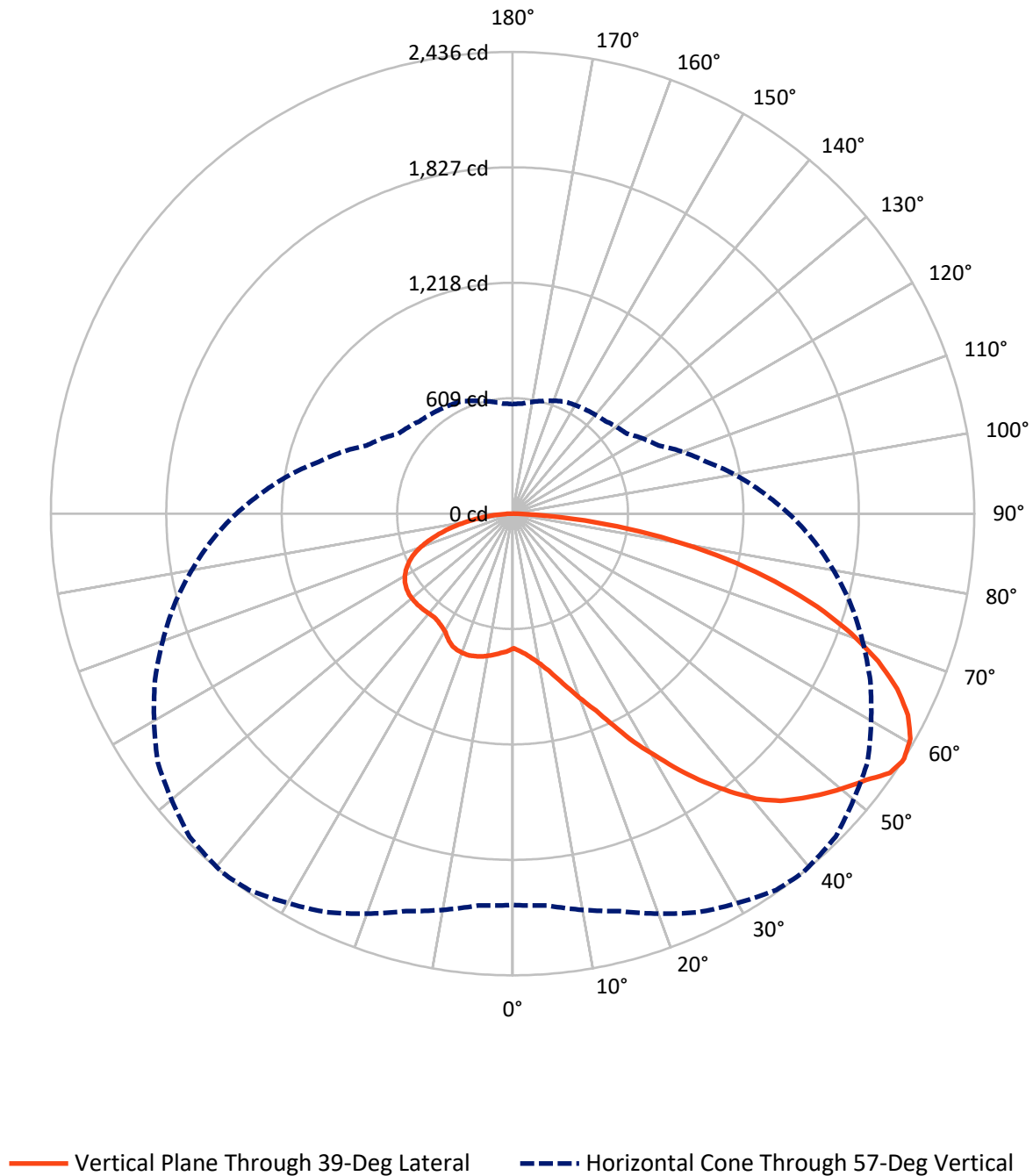
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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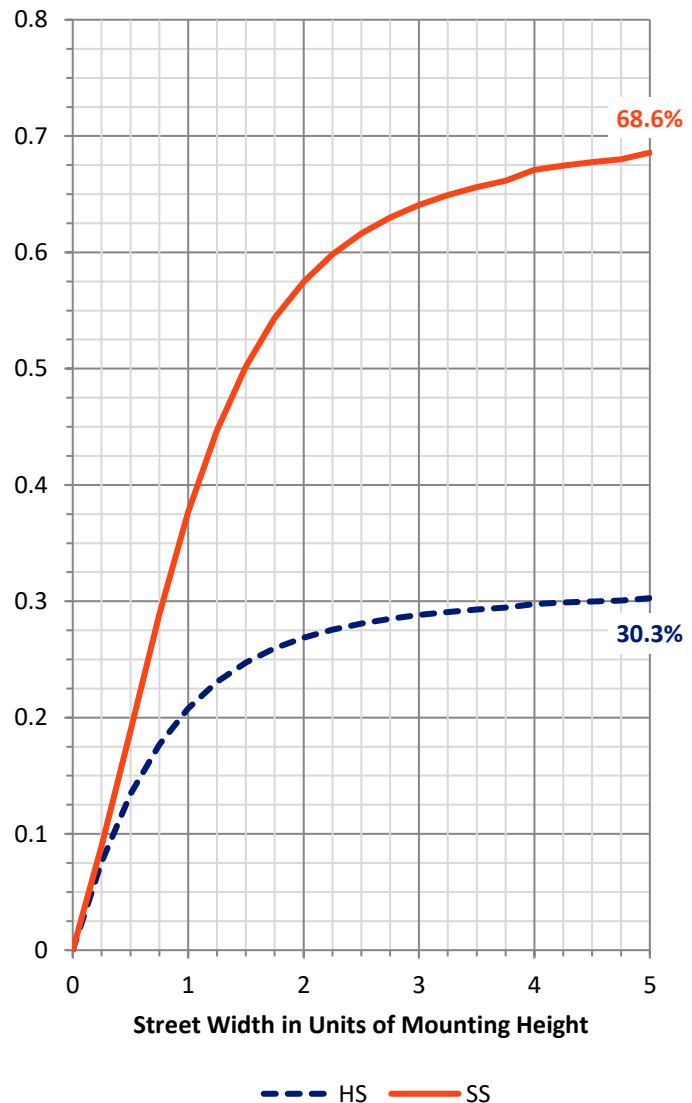
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1921.8	0.0	1921.8
	% Fixture	30.7	0.0	30.7
Street Side	Lumens	4341.4	0.0	4341.4
	% Fixture	69.3	0.0	69.3
Total	Lumens	6263.1	0.0	6263.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	1.1
10°-20°	239.8	3.8
20°-30°	463.3	7.4
30°-40°	749.4	12.0
40°-50°	1052.8	16.8
50°-60°	1300.5	20.8
60°-70°	1292.6	20.6
70°-80°	874.6	14.0
80°-90°	218.3	3.5
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°	6263.1	100.0
0°-180°	6263.1	100.0



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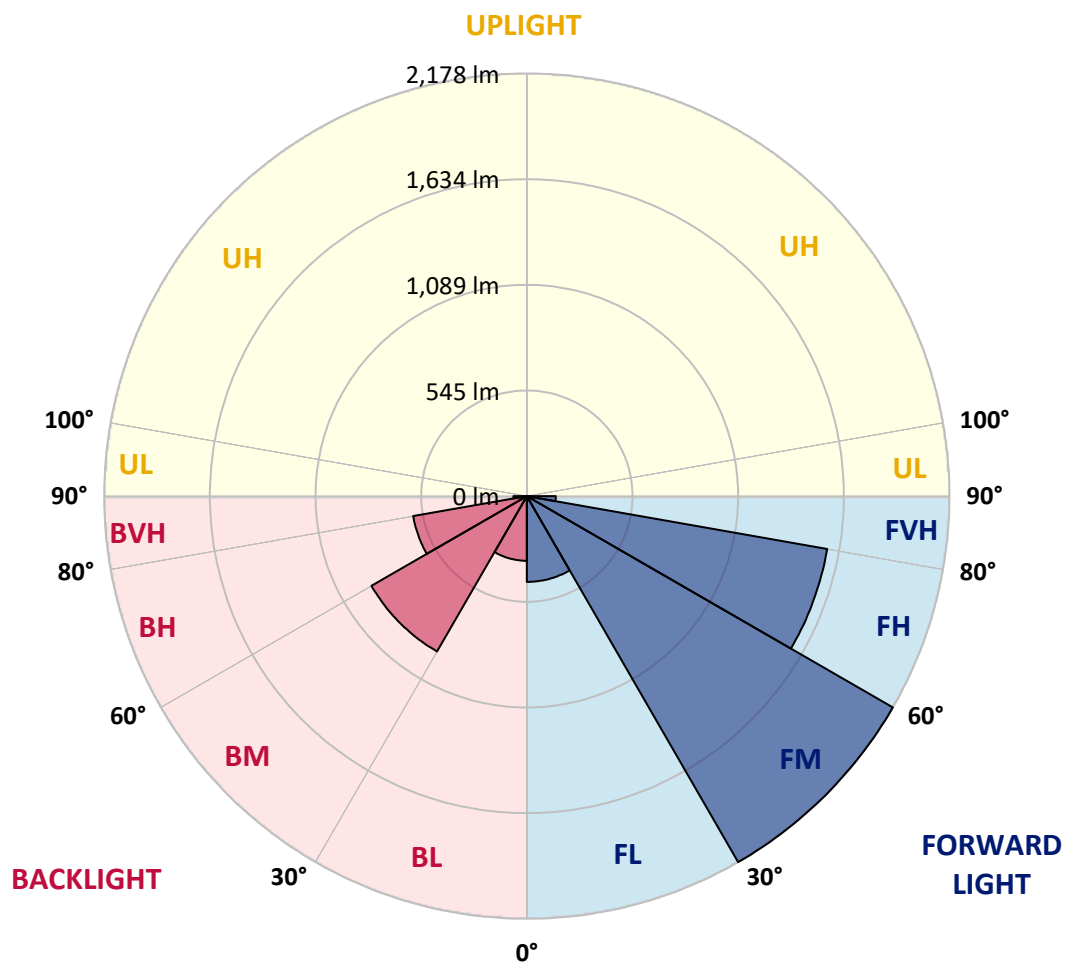
CATALOG NUMBER: CCP-VA-4-735-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	441.9	7.1			
FM	(30°-60°)	2178.0	34.8			
FH	(60°-80°)	1572.1	25.1			G1/1800
FVH	(80°-90°)	149.4	2.4			G2/225
BL	(0°-30°)	333.1	5.3	B1/500		
BM	(30°-60°)	924.6	14.8	B1/1000		
BH	(60°-80°)	595.1	9.5	B2/1000		G2/1000
BVH	(80°-90°)	68.9	1.1			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°	39°	45°	55°	65°	75°	85°
0°	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2
2.5°	731.3	730.4	729.4	729.4	727.5	725.6	724.6	722.7	723.6	725.6	726.5
5°	752.4	750.5	750.5	748.6	745.7	745.7	742.8	739.0	738.0	737.1	737.1
7.5°	785.1	782.2	783.2	780.3	777.4	773.6	768.8	764.0	762.0	755.3	749.6
10°	822.5	821.5	818.7	813.9	811.0	807.1	802.3	793.7	787.0	779.3	774.5
12.5°	866.6	864.7	865.7	861.8	857.1	850.3	842.7	834.0	821.5	807.1	797.5
15°	924.2	920.4	920.4	919.4	909.8	907.9	900.2	881.0	863.8	844.6	822.5
17.5°	994.3	993.3	989.5	985.7	979.9	973.2	965.5	944.4	918.5	888.7	859.0
20°	1069.2	1067.2	1070.1	1064.4	1052.8	1050.0	1037.5	1013.5	981.8	947.3	902.2
22.5°	1150.7	1152.7	1152.7	1150.7	1141.1	1129.6	1119.1	1087.4	1050.9	1008.7	955.9
25°	1249.6	1250.5	1256.3	1262.1	1256.3	1238.1	1223.7	1174.7	1125.8	1072.0	1009.6
27.5°	1360.9	1354.2	1370.5	1381.1	1370.5	1365.7	1334.0	1280.3	1213.1	1145.9	1068.2
30°	1468.4	1468.4	1481.8	1497.2	1490.5	1479.0	1453.1	1383.9	1307.2	1221.8	1127.7
32.5°	1568.2	1579.7	1585.5	1621.0	1617.2	1611.4	1581.7	1490.5	1394.5	1297.6	1185.3
35°	1686.3	1682.4	1706.4	1728.5	1745.8	1738.1	1716.0	1623.9	1498.2	1377.2	1248.6
37.5°	1775.5	1783.2	1804.3	1843.7	1856.1	1860.0	1832.1	1737.1	1594.1	1462.6	1318.7
40°	1843.7	1849.4	1889.7	1939.6	1965.6	1979.0	1951.2	1836.0	1684.3	1530.8	1373.4
42.5°	1898.4	1902.2	1944.4	2015.5	2058.6	2072.1	2047.1	1925.2	1761.1	1585.5	1418.5
45°	1934.8	1941.6	1991.5	2064.4	2131.6	2141.2	2128.7	2003.9	1829.3	1637.3	1451.1
47.5°	1966.5	1974.2	2029.9	2122.0	2196.9	2209.3	2197.8	2073.0	1894.5	1684.3	1479.0
50°	2008.7	2017.4	2073.0	2175.7	2258.3	2272.7	2268.8	2146.0	1956.0	1737.1	1507.8
52.5°	2049.1	2055.8	2122.0	2236.2	2325.5	2335.1	2332.2	2214.1	2018.3	1793.8	1544.2
55°	2080.7	2088.4	2167.1	2308.2	2404.2	2414.7	2394.6	2266.9	2067.3	1835.0	1578.8
57°	2064.4	2075.0	2170.9	2320.7	2424.3	2435.8	2409.9	2286.1	2081.7	1846.5	1591.3
57.5°	2059.6	2067.3	2167.1	2319.7	2425.3	2435.8	2409.9	2285.1	2080.7	1845.6	1591.3
60°	1989.5	2007.8	2120.1	2285.1	2397.4	2410.9	2385.9	2246.8	2056.7	1818.7	1565.3
62.5°	1895.5	1920.4	2038.5	2203.6	2330.3	2339.9	2314.9	2182.5	2003.0	1762.1	1511.6
65°	1760.2	1798.6	1922.4	2081.7	2218.9	2230.4	2205.5	2075.0	1913.7	1675.7	1431.0
67.5°	1627.7	1650.8	1783.2	1934.8	2062.5	2079.8	2058.6	1942.5	1790.9	1560.5	1323.5
70°	1477.0	1493.4	1602.8	1751.5	1880.1	1894.5	1876.3	1767.8	1624.8	1417.5	1197.8
72.5°	1295.7	1312.9	1406.0	1543.3	1657.5	1680.5	1668.0	1555.7	1426.2	1246.7	1057.6
75°	1091.2	1110.4	1193.9	1303.3	1414.7	1428.1	1413.7	1331.2	1214.1	1051.9	886.8
77.5°	884.9	897.4	957.8	1040.4	1126.7	1155.5	1151.7	1093.1	975.1	846.5	712.1
80°	662.2	664.1	695.8	764.0	833.1	854.2	859.0	806.2	728.4	631.5	533.6
82.5°	418.4	425.2	442.4	493.3	526.9	555.7	562.4	531.7	482.8	422.3	361.8
85°	194.8	189.1	202.5	219.8	267.8	267.8	276.4	260.1	245.7	225.5	187.1
87.5°	16.3	15.4	15.4	16.3	25.9	27.8	44.1	48.9	52.8	52.8	55.7
90°	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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CATALOG NUMBER: CCP-VA-4-735-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2	710.2
2.5°	724.6	723.6	720.8	720.8	722.7	725.6	726.5	727.5	728.4	729.4	729.4
5°	736.1	735.2	733.2	731.3	733.2	734.2	737.1	739.0	739.0	740.9	740.0
7.5°	746.7	747.6	745.7	744.8	744.8	746.7	750.5	753.4	755.3	756.3	758.2
10°	770.7	764.9	757.2	753.4	753.4	757.2	761.1	764.9	768.8	770.7	770.7
12.5°	791.8	785.1	770.7	764.9	764.0	767.8	772.6	778.4	781.2	784.1	784.1
15°	811.0	805.2	787.9	774.5	770.7	773.6	779.3	786.0	790.8	793.7	793.7
17.5°	847.5	830.2	807.1	785.1	777.4	778.4	785.1	791.8	797.5	799.5	798.5
20°	882.0	859.9	825.4	793.7	781.2	777.4	784.1	792.7	797.5	800.4	800.4
22.5°	921.4	897.4	843.6	802.3	779.3	773.6	779.3	787.0	792.7	794.7	796.6
25°	977.0	934.8	863.8	809.1	776.4	764.9	768.8	776.4	783.2	784.1	783.2
27.5°	1026.9	978.9	890.6	815.8	769.7	748.6	744.8	750.5	761.1	767.8	769.7
30°	1070.1	1026.0	918.5	821.5	757.2	721.7	716.9	718.8	725.6	743.8	744.8
32.5°	1134.4	1066.3	946.3	826.3	742.8	707.3	700.6	698.7	700.6	710.2	710.2
35°	1178.6	1111.4	974.1	835.0	732.3	695.8	689.1	686.2	684.3	674.7	671.8
37.5°	1236.1	1161.3	1001.0	842.7	727.5	691.0	681.4	683.3	673.7	646.9	639.2
40°	1299.5	1206.4	1027.9	850.3	729.4	692.0	683.3	682.4	666.1	628.6	621.0
42.5°	1330.2	1244.8	1055.7	860.9	737.1	694.9	687.2	684.3	664.1	621.9	611.4
45°	1360.0	1272.6	1075.9	869.5	744.8	698.7	689.1	686.2	663.2	616.2	608.5
47.5°	1386.8	1289.9	1085.5	874.3	750.5	701.6	690.1	685.3	658.4	613.3	605.6
50°	1399.3	1299.5	1085.5	874.3	752.4	704.5	688.1	681.4	650.7	608.5	601.8
52.5°	1418.5	1305.3	1076.8	868.6	749.6	704.5	684.3	673.7	641.1	601.8	596.0
55°	1447.3	1315.8	1065.3	859.9	742.8	698.7	677.6	663.2	627.7	592.2	587.4
57°	1456.9	1319.6	1057.6	849.4	735.2	691.0	669.9	651.7	615.2	582.6	577.8
57.5°	1455.0	1317.7	1054.8	846.5	732.3	688.1	668.0	648.8	612.3	580.6	575.8
60°	1429.1	1299.5	1036.5	828.3	716.9	672.8	650.7	629.6	592.2	564.3	560.5
62.5°	1386.8	1258.2	1003.9	804.3	695.8	651.7	628.6	604.6	567.2	543.2	541.3
65°	1314.8	1189.1	956.9	769.7	668.9	623.8	598.9	573.0	540.3	519.2	513.5
67.5°	1194.9	1097.0	890.6	721.7	627.7	589.3	562.4	535.5	505.8	487.5	483.7
70°	1095.1	996.2	806.2	661.3	577.8	541.3	516.3	490.4	464.5	448.2	447.2
72.5°	968.4	873.4	700.6	586.4	514.4	478.9	459.7	436.7	416.5	402.1	402.1
75°	814.8	740.0	591.2	497.1	438.6	412.7	396.4	378.1	360.9	351.3	353.2
77.5°	647.8	591.2	482.8	402.1	358.9	341.7	326.3	315.8	305.2	296.6	297.5
80°	478.0	435.7	355.1	295.6	274.5	259.1	256.3	249.5	243.8	240.9	236.1
82.5°	327.3	289.8	236.1	202.5	187.1	182.4	183.3	183.3	184.3	184.3	182.4
85°	169.9	155.5	120.0	108.5	106.5	111.3	117.1	120.9	120.0	120.0	117.1
87.5°	48.9	44.1	38.4	34.6	36.5	39.3	34.6	33.6	32.6	31.7	31.7
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: SP1-2005-785-21

Luminaire Tested: WIS-VA-3-735-U-T4FT

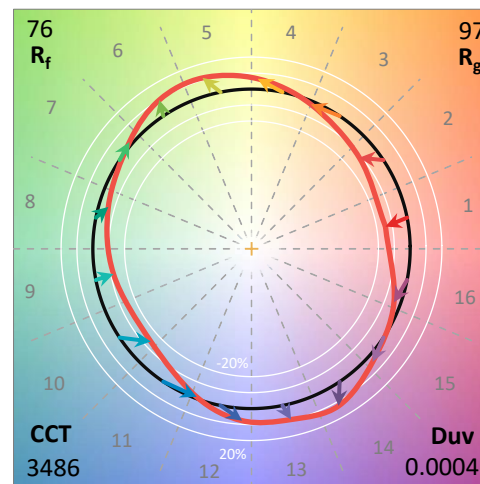
Test Date: 09/08/2020

Test Information

Test Method: LM-79-08
 Report Number: SP1-2005-785-21
 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-3-735-U-T4FT**
 Description: INVUE WALL PACK VA

Spectral Parameters

CCT (K):	3486	CRI (Ra):	74.4		
CIE u':	0.2358	R1:	72.3	R9:	-12.4
CIE v':	0.5120	R2:	80.7	R10:	53.8
Duv:	0.0004	R3:	87.0	R11:	69.3
CIE x:	0.4064	R4:	73.6	R12:	46.2
CIE y:	0.3921	R5:	71.0	R13:	73.4
CIE z:	0.2015	R6:	72.2	R14:	92.2
Peak Wavelength (nm):	593	R7:	82.3		
Dominant Wavelength (nm):	580	R8:	56.3		
Purity:	39.9				
Rf:	75.7				
Rg:	96.5				



Test Conditions

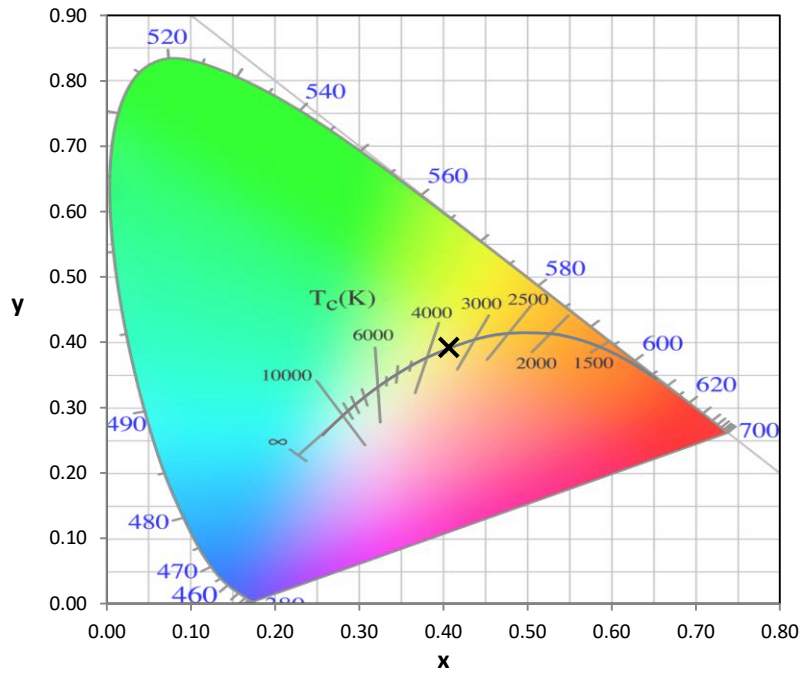
Stabilization Time: 82M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.0/46%
 Sphere Temperature (°C): 25.7

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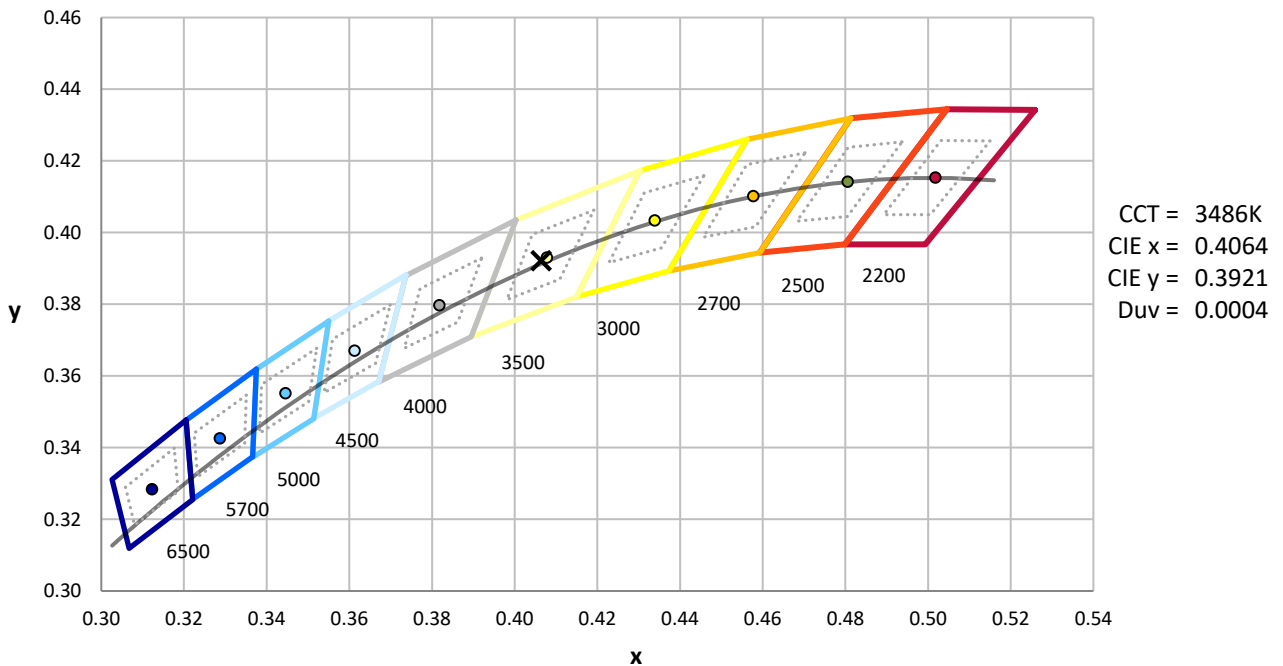
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	7/29/2020	1/29/2021
Power Meter	IN0071	12/3/2020	12/3/2020
AC Power Source	IN0063	12/3/2020	12/3/2020
DC Power Source	IN0208	12/3/2020	12/3/2020
Sphere Thermometer	IN0085	12/3/2020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

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CIE 1931 Chromaticity Diagram



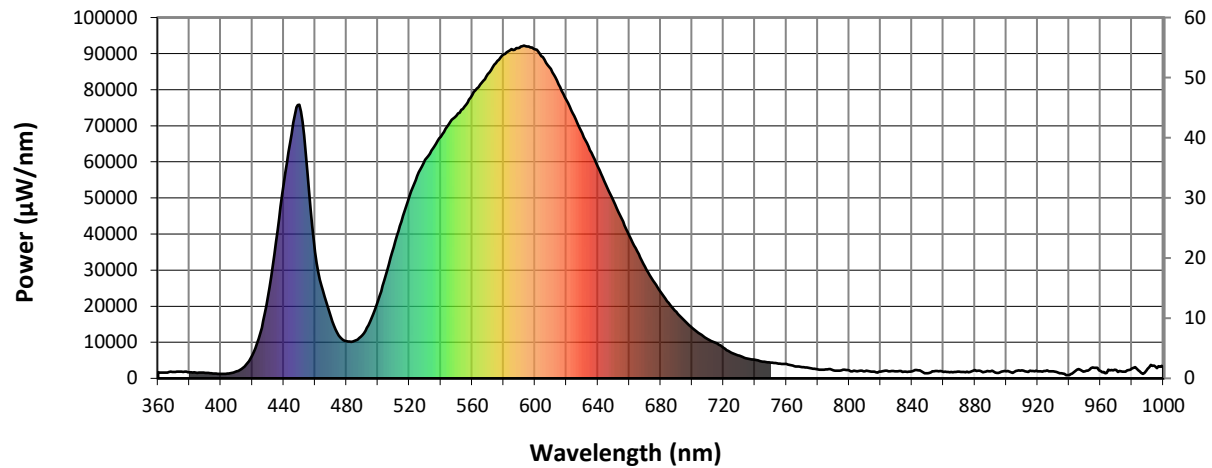
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

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Photopic Flux vs. Wavelength

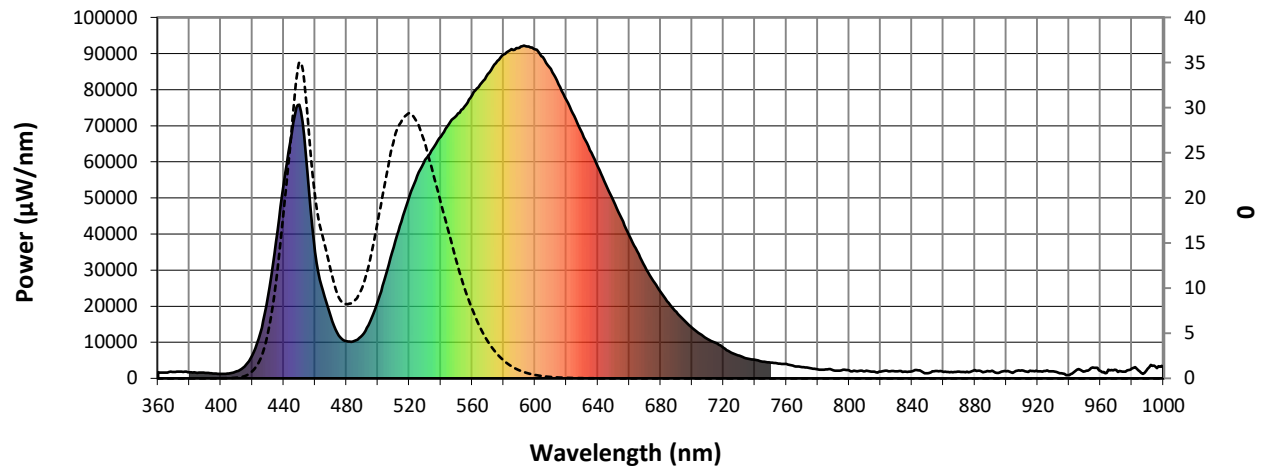


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λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1694	0.0	490	11961	1.7	620	77036	20.0	750	4377	0.0	880	2271	0.0
365	1591	0.0	495	15721	2.9	625	72716	16.0	755	4117	0.0	885	1711	0.0
370	1770	0.0	500	21514	4.7	630	67928	12.3	760	3969	0.0	890	1986	0.0
375	1835	0.0	505	28551	8.0	635	63273	9.5	765	3416	0.0	895	1480	0.0
380	1657	0.0	510	36348	12.5	640	58591	7.0	770	3118	0.0	900	1982	0.0
385	1511	0.0	515	43490	18.0	645	53669	5.2	775	2846	0.0	905	1794	0.0
390	1503	0.0	520	50496	24.5	650	49111	3.6	780	2519	0.0	910	2237	0.0
395	1343	0.0	525	56037	30.1	655	44337	2.5	785	2487	0.0	915	2093	0.0
400	1254	0.0	530	60528	35.6	660	39548	1.6	790	2260	0.0	920	1980	0.0
405	1336	0.0	535	63727	39.5	665	35203	1.1	795	2240	0.0	925	2079	0.0
410	1922	0.0	540	66952	43.6	670	30911	0.7	800	2233	0.0	930	1991	0.0
415	3268	0.0	545	70402	46.9	675	27162	0.5	805	1992	0.0	935	1439	0.0
420	6421	0.0	550	72833	49.5	680	23988	0.3	810	1999	0.0	940	919	0.0
425	12531	0.1	555	75261	51.4	685	20923	0.2	815	1886	0.0	945	2356	0.0
430	22703	0.2	560	78503	53.3	690	18421	0.1	820	1871	0.0	950	1926	0.0
435	37769	0.4	565	81450	54.2	695	16019	0.1	825	1948	0.0	955	3062	0.0
440	53851	0.8	570	84341	54.8	700	14014	0.0	830	1931	0.0	960	2083	0.0
445	67798	1.4	575	87351	54.4	705	12348	0.0	835	1891	0.0	965	2372	0.0
450	75835	2.0	580	89722	53.3	710	10862	0.0	840	1993	0.0	970	2341	0.0
455	57420	1.9	585	91274	50.7	715	9815	0.0	845	2230	0.0	975	1835	0.0
460	34998	1.4	590	91636	47.4	720	8417	0.0	850	1466	0.0	980	2784	0.0
465	24175	1.2	595	91960	43.6	725	7131	0.0	855	2043	0.0	985	1945	0.0
470	16967	1.1	600	91208	39.3	730	6277	0.0	860	1799	0.0	990	2689	0.0
475	11915	0.9	605	88999	34.5	735	5498	0.0	865	1810	0.0	995	3194	0.0
480	10261	1.0	610	85799	29.5	740	5155	0.0	870	1854	0.0	1000	3112	0.0
485	10367	1.2	615	81543	24.6	745	4609	0.0	875	1868	0.0			

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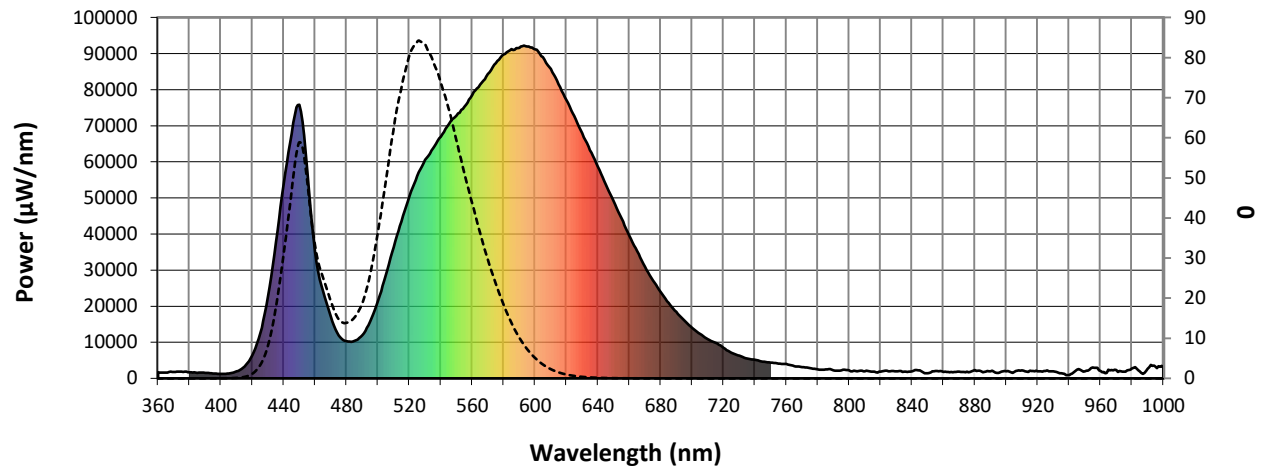
Scotopic Flux vs. Wavelength


Scotopic Lumens: 2555.9
S/P: 0.51

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	1694	0.0	490	11961	18.4	620	77036	1.0	750	4377	0.0	880	2271	0.0
365	1591	0.0	495	15721	25.4	625	72716	0.6	755	4117	0.0	885	1711	0.0
370	1770	0.0	500	21514	36.0	630	67928	0.4	760	3969	0.0	890	1986	0.0
375	1835	0.0	505	28551	48.5	635	63273	0.2	765	3416	0.0	895	1480	0.0
380	1657	0.0	510	36348	61.6	640	58591	0.1	770	3118	0.0	900	1982	0.0
385	1511	0.0	515	43490	72.1	645	53669	0.1	775	2846	0.0	905	1794	0.0
390	1503	0.0	520	50496	80.3	650	49111	0.1	780	2519	0.0	910	2237	0.0
395	1343	0.0	525	56037	83.8	655	44337	0.0	785	2487	0.0	915	2093	0.0
400	1254	0.0	530	60528	83.4	660	39548	0.0	790	2260	0.0	920	1980	0.0
405	1336	0.0	535	63727	79.4	665	35203	0.0	795	2240	0.0	925	2079	0.0
410	1922	0.1	540	66952	74.0	670	30911	0.0	800	2233	0.0	930	1991	0.0
415	3268	0.3	545	70402	67.5	675	27162	0.0	805	1992	0.0	935	1439	0.0
420	6421	1.1	550	72833	59.6	680	23988	0.0	810	1999	0.0	940	919	0.0
425	12531	3.1	555	75261	51.4	685	20923	0.0	815	1886	0.0	945	2356	0.0
430	22703	7.7	560	78503	43.9	690	18421	0.0	820	1871	0.0	950	1926	0.0
435	37769	16.9	565	81450	36.5	695	16019	0.0	825	1948	0.0	955	3062	0.0
440	53851	30.1	570	84341	29.8	700	14014	0.0	830	1931	0.0	960	2083	0.0
445	67798	45.4	575	87351	23.8	705	12348	0.0	835	1891	0.0	965	2372	0.0
450	75835	58.8	580	89722	18.5	710	10862	0.0	840	1993	0.0	970	2341	0.0
455	57420	50.2	585	91274	13.9	715	9815	0.0	845	2230	0.0	975	1835	0.0
460	34998	33.8	590	91636	10.2	720	8417	0.0	850	1466	0.0	980	2784	0.0
465	24175	25.5	595	91960	7.3	725	7131	0.0	855	2043	0.0	985	1945	0.0
470	16967	19.5	600	91208	5.1	730	6277	0.0	860	1799	0.0	990	2689	0.0
475	11915	14.9	605	88999	3.5	735	5498	0.0	865	1810	0.0	995	3194	0.0
480	10261	13.9	610	85799	2.3	740	5155	0.0	870	1854	0.0	1000	3112	0.0
485	10367	15.0	615	81543	1.5	745	4609	0.0	875	1868	0.0			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: 6884
S/P: 1.37

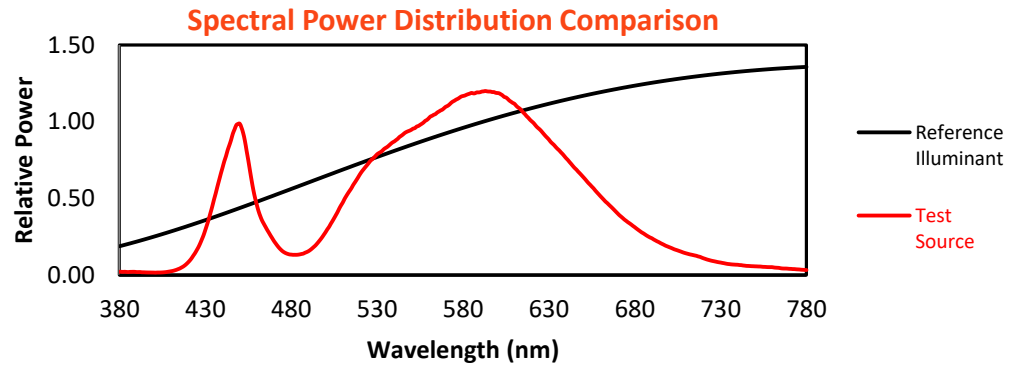
λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	1694	0.0	490	11961	10.0	620	77036	0.1	750	4377	0.0	880	2271	0.0
365	1591	0.0	495	15721	13.0	625	72716	0.0	755	4117	0.0	885	1711	0.0
370	1770	0.0	500	21514	17.3	630	67928	0.0	760	3969	0.0	890	1986	0.0
375	1835	0.0	505	28551	21.9	635	63273	0.0	765	3416	0.0	895	1480	0.0
380	1657	0.0	510	36348	26.1	640	58591	0.0	770	3118	0.0	900	1982	0.0
385	1511	0.0	515	43490	28.4	645	53669	0.0	775	2846	0.0	905	1794	0.0
390	1503	0.0	520	50496	29.4	650	49111	0.0	780	2519	0.0	910	2237	0.0
395	1343	0.0	525	56037	28.4	655	44337	0.0	785	2487	0.0	915	2093	0.0
400	1254	0.0	530	60528	26.2	660	39548	0.0	790	2260	0.0	920	1980	0.0
405	1336	0.0	535	63727	22.9	665	35203	0.0	795	2240	0.0	925	2079	0.0
410	1922	0.1	540	66952	19.6	670	30911	0.0	800	2233	0.0	930	1991	0.0
415	3268	0.2	545	70402	16.4	675	27162	0.0	805	1992	0.0	935	1439	0.0
420	6421	0.7	550	72833	13.1	680	23988	0.0	810	1999	0.0	940	919	0.0
425	12531	2.0	555	75261	10.1	685	20923	0.0	815	1886	0.0	945	2356	0.0
430	22703	4.8	560	78503	7.7	690	18421	0.0	820	1871	0.0	950	1926	0.0
435	37769	10.1	565	81450	5.7	695	16019	0.0	825	1948	0.0	955	3062	0.0
440	53851	18.0	570	84341	4.1	700	14014	0.0	830	1931	0.0	960	2083	0.0
445	67798	26.7	575	87351	2.9	705	12348	0.0	835	1891	0.0	965	2372	0.0
450	75835	34.9	580	89722	2.0	710	10862	0.0	840	1993	0.0	970	2341	0.0
455	57420	30.1	585	91274	1.4	715	9815	0.0	845	2230	0.0	975	1835	0.0
460	34998	20.6	590	91636	0.9	720	8417	0.0	850	1466	0.0	980	2784	0.0
465	24175	15.8	595	91960	0.6	725	7131	0.0	855	2043	0.0	985	1945	0.0
470	16967	12.1	600	91208	0.4	730	6277	0.0	860	1799	0.0	990	2689	0.0
475	11915	9.1	605	88999	0.2	735	5498	0.0	865	1810	0.0	995	3194	0.0
480	10261	8.2	610	85799	0.2	740	5155	0.0	870	1854	0.0	1000	3112	0.0
485	10367	8.5	615	81543	0.1	745	4609	0.0	875	1868	0.0			

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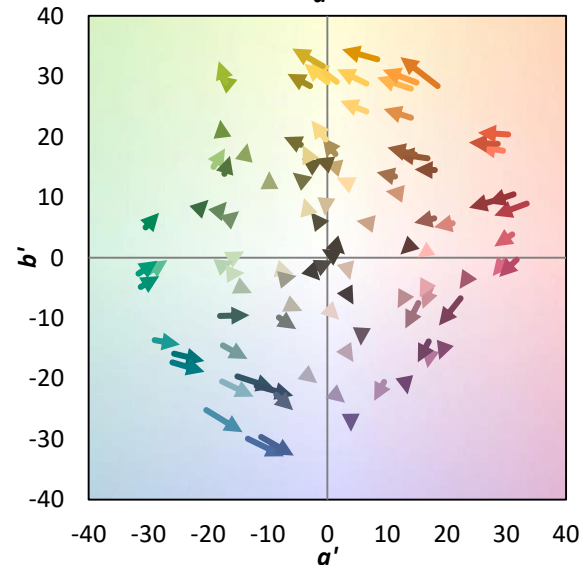
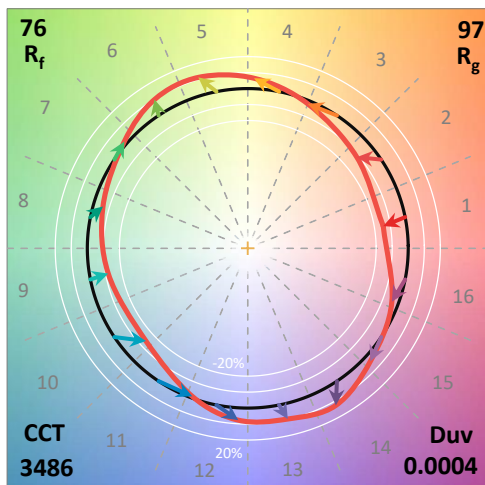
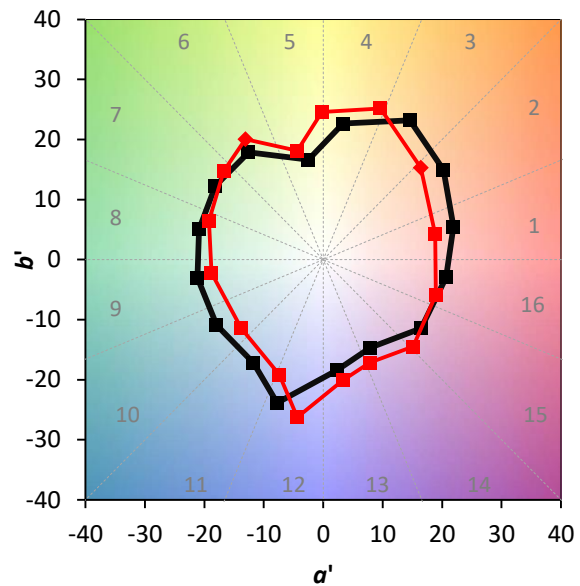
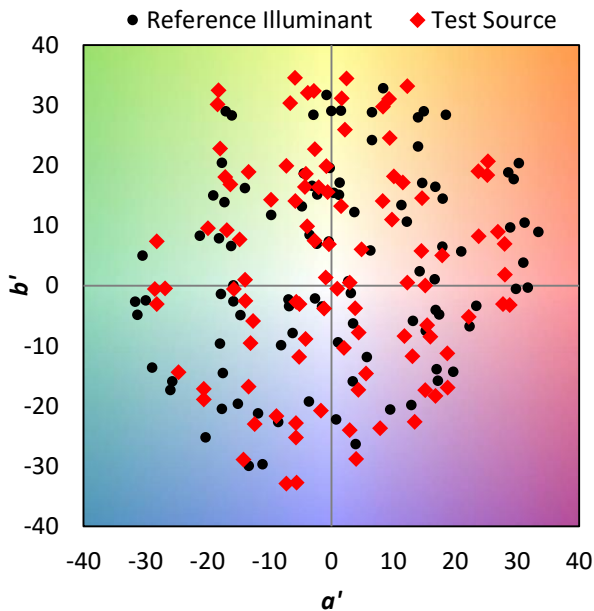
TM-30-18

Summary

$R_f = 75.7$
 $R_g = 96.5$
 CIE $R_a = 74.4$
 $R_g = -12.4$

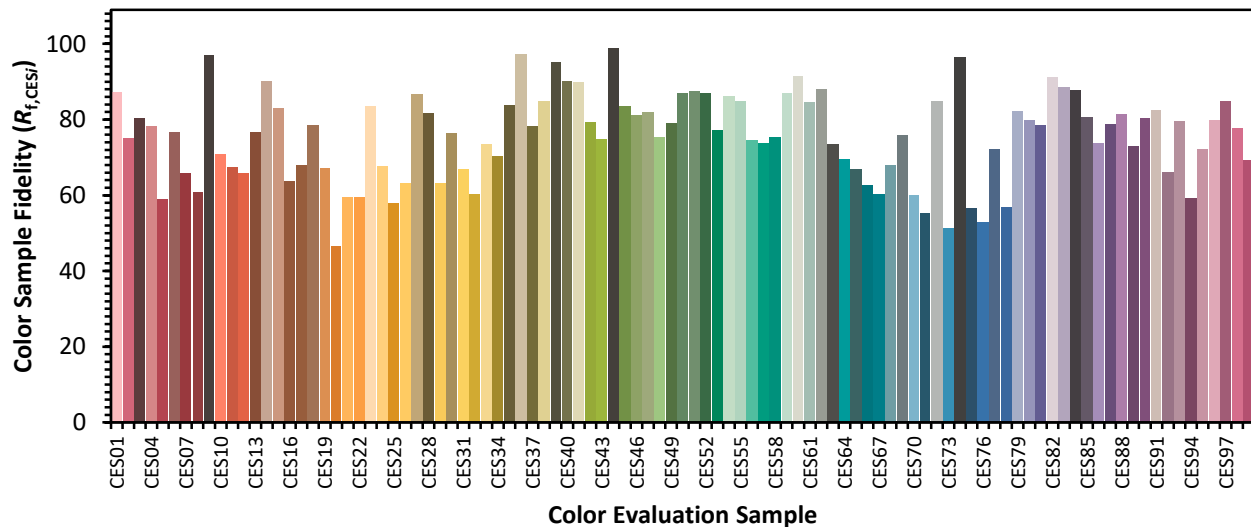


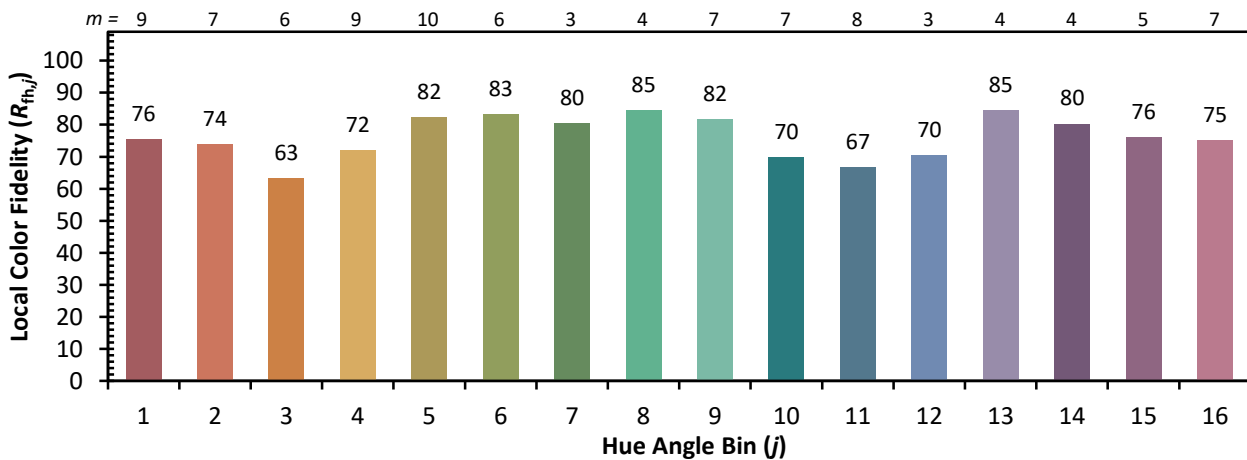
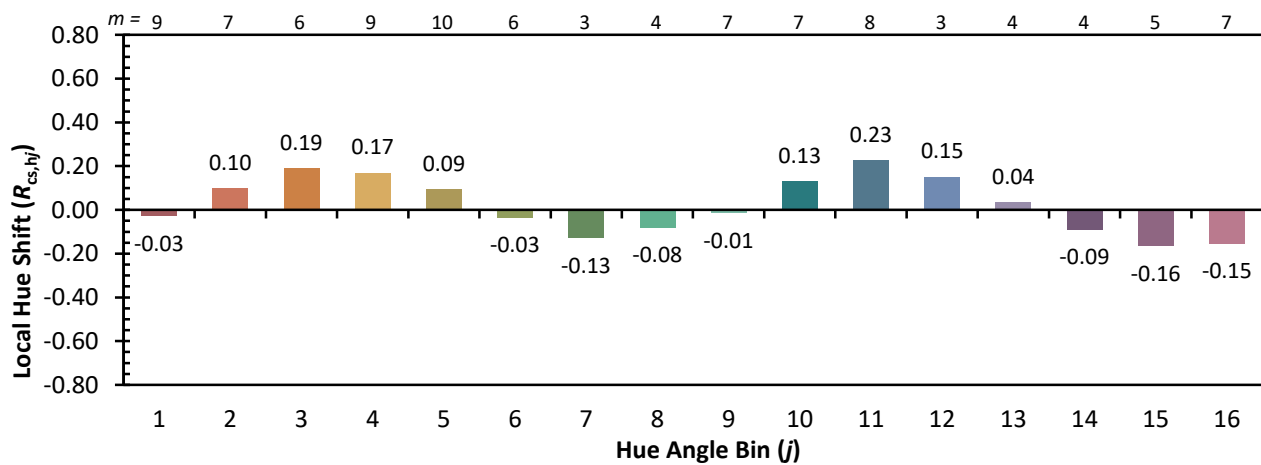
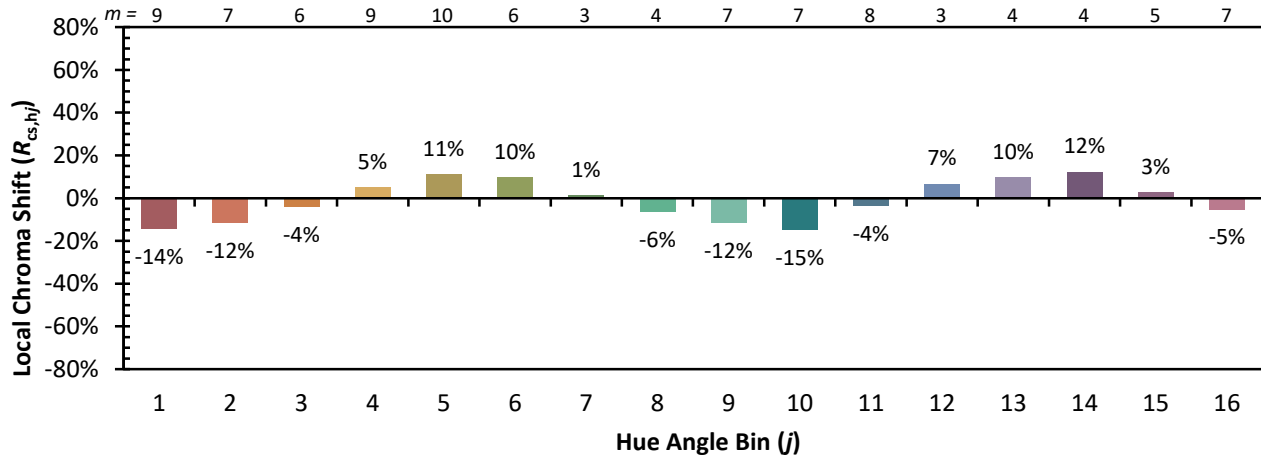
Color Vector Graphics

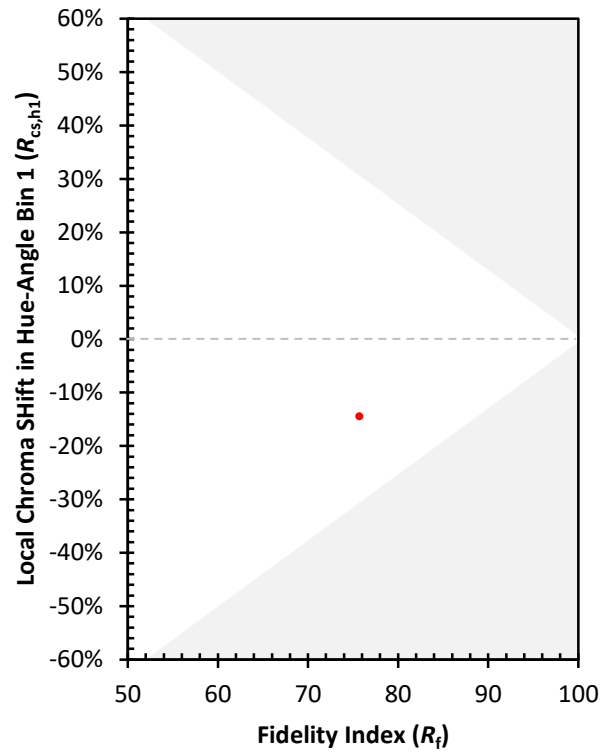
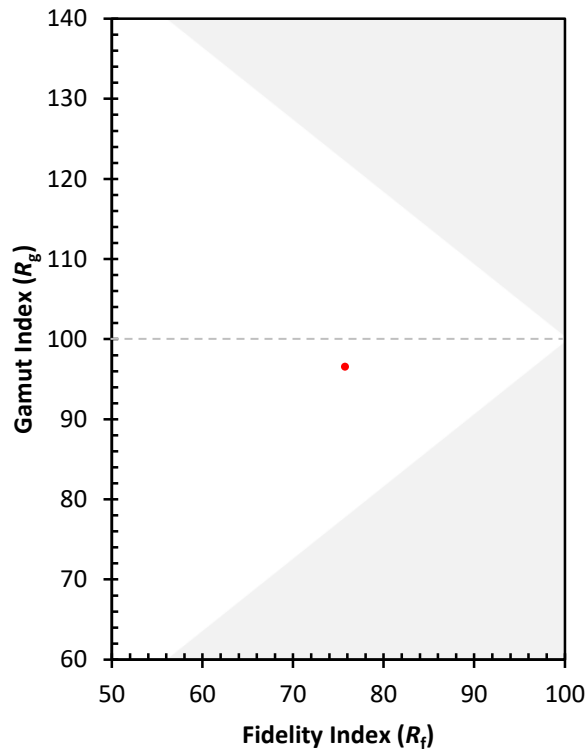


Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 63	CES51 = 88	CES76 = 53
CES02 = 62	CES27 = 87	CES52 = 87	CES77 = 72
CES03 = 31	CES28 = 82	CES53 = 77	CES78 = 57
CES04 = 70	CES29 = 63	CES54 = 86	CES79 = 82
CES05 = 48	CES30 = 76	CES55 = 85	CES80 = 80
CES06 = 51	CES31 = 67	CES56 = 75	CES81 = 79
CES07 = 41	CES32 = 60	CES57 = 74	CES82 = 91
CES08 = 40	CES33 = 73	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 84	CES60 = 91	CES85 = 81
CES11 = 58	CES36 = 97	CES61 = 85	CES86 = 74
CES12 = 64	CES37 = 78	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 85	CES63 = 73	CES88 = 82
CES14 = 74	CES39 = 95	CES64 = 70	CES89 = 73
CES15 = 71	CES40 = 90	CES65 = 67	CES90 = 80
CES16 = 47	CES41 = 90	CES66 = 63	CES91 = 82
CES17 = 50	CES42 = 79	CES67 = 60	CES92 = 66
CES18 = 56	CES43 = 75	CES68 = 68	CES93 = 80
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 59
CES20 = 65	CES45 = 84	CES70 = 60	CES95 = 72
CES21 = 86	CES46 = 81	CES71 = 55	CES96 = 80
CES22 = 79	CES47 = 82	CES72 = 85	CES97 = 85
CES23 = 92	CES48 = 75	CES73 = 51	CES98 = 78
CES24 = 91	CES49 = 79	CES74 = 97	CES99 = 69
CES25 = 72	CES50 = 87	CES75 = 57	



Color Rendition by Hue-Angle Bin


Measure Comparisons


(END OF REPORT)