

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: P472174

Luminaire Tested: **CCP-VA-4-760-U-T4W**

Issue Date: 01/27/2021



Test Information

Test Method: LM-79-08
Report Number: P472174
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCP-VA-4-760-U-T4W
Description: INVUE CLEARCURVE POLE MOUNT Wave Stream LUMINAIRE WITH T4W
DISTRIBUTION LENS
Light Source: 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6331.7 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.54' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

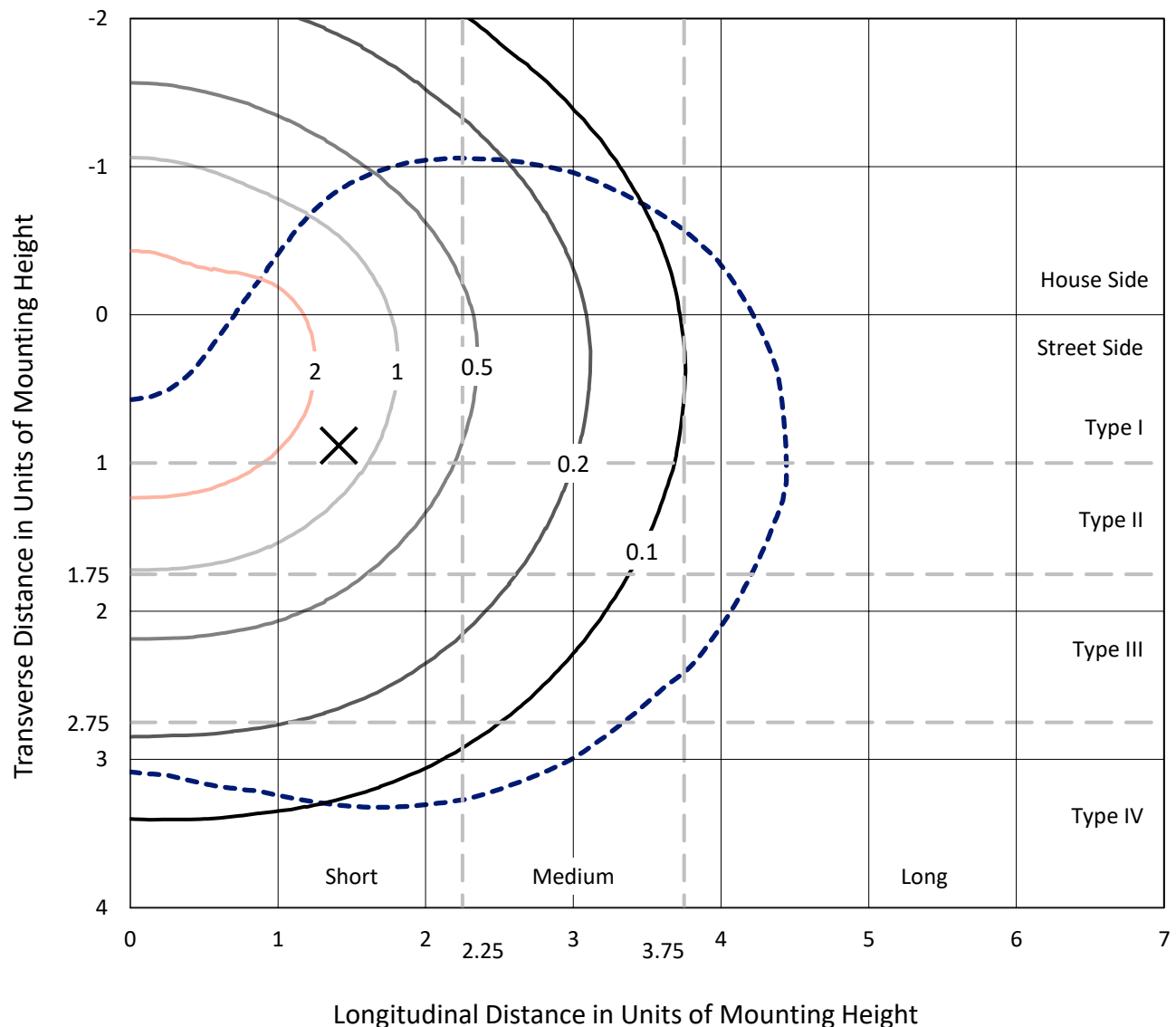
Input Watts (W): 57.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Iso-Footcandle Lines of Horizontal Illumination

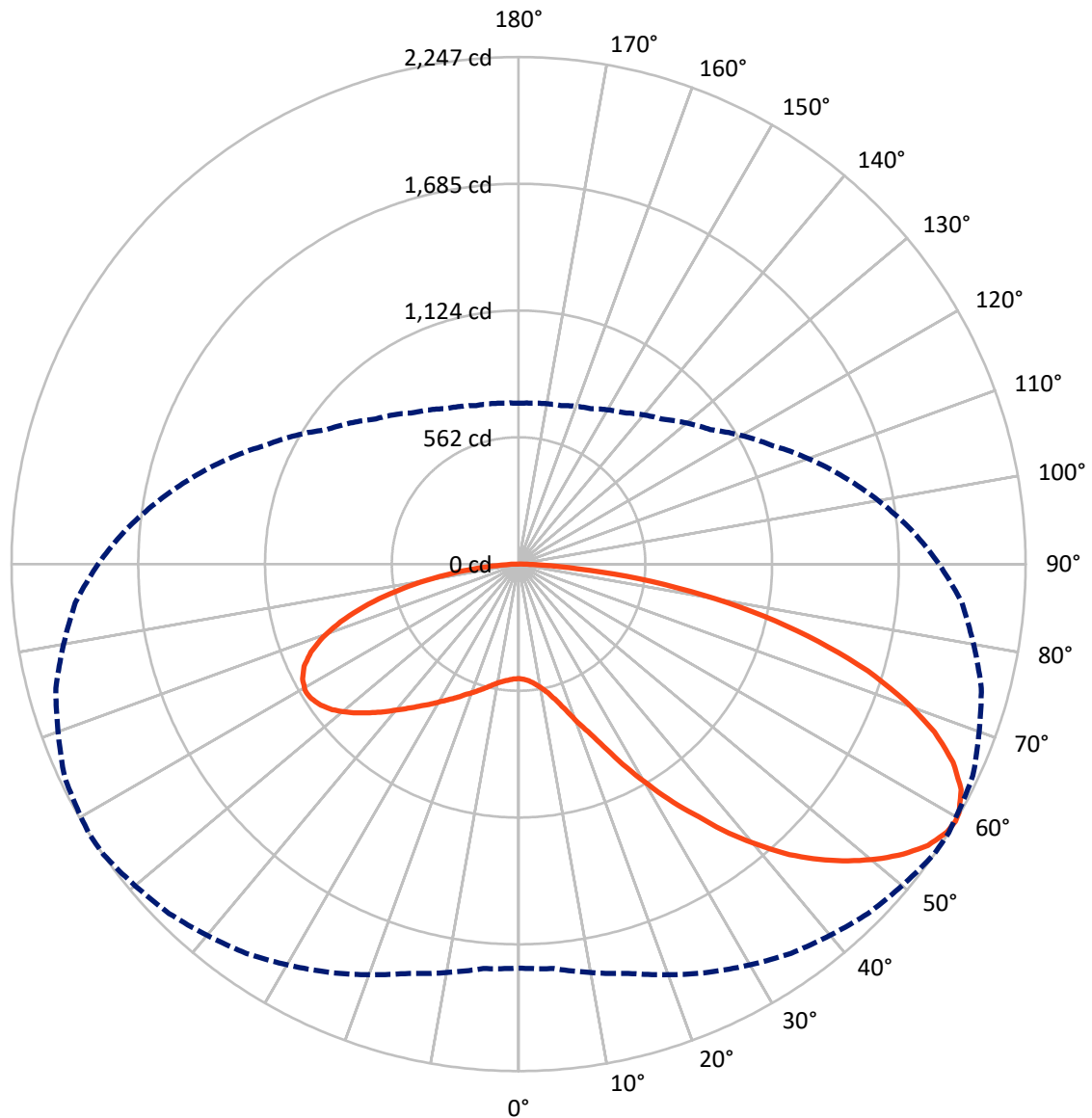
✕ Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 59-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2258.1	0.0	2258.1
	% Fixture	35.7	0.0	35.7
Street Side	Lumens	4073.6	0.0	4073.6
	% Fixture	64.3	0.0	64.3
Total	Lumens	6331.7	0.0	6331.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	0.8
10°-20°	171.8	2.7
20°-30°	362.5	5.7
30°-40°	667.1	10.5
40°-50°	1039.9	16.4
50°-60°	1366.4	21.6
60°-70°	1431.8	22.6
70°-80°	992.7	15.7
80°-90°	249.3	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°	6331.7	100.0
0°-180°	6331.7	100.0

Coefficient of Utilization



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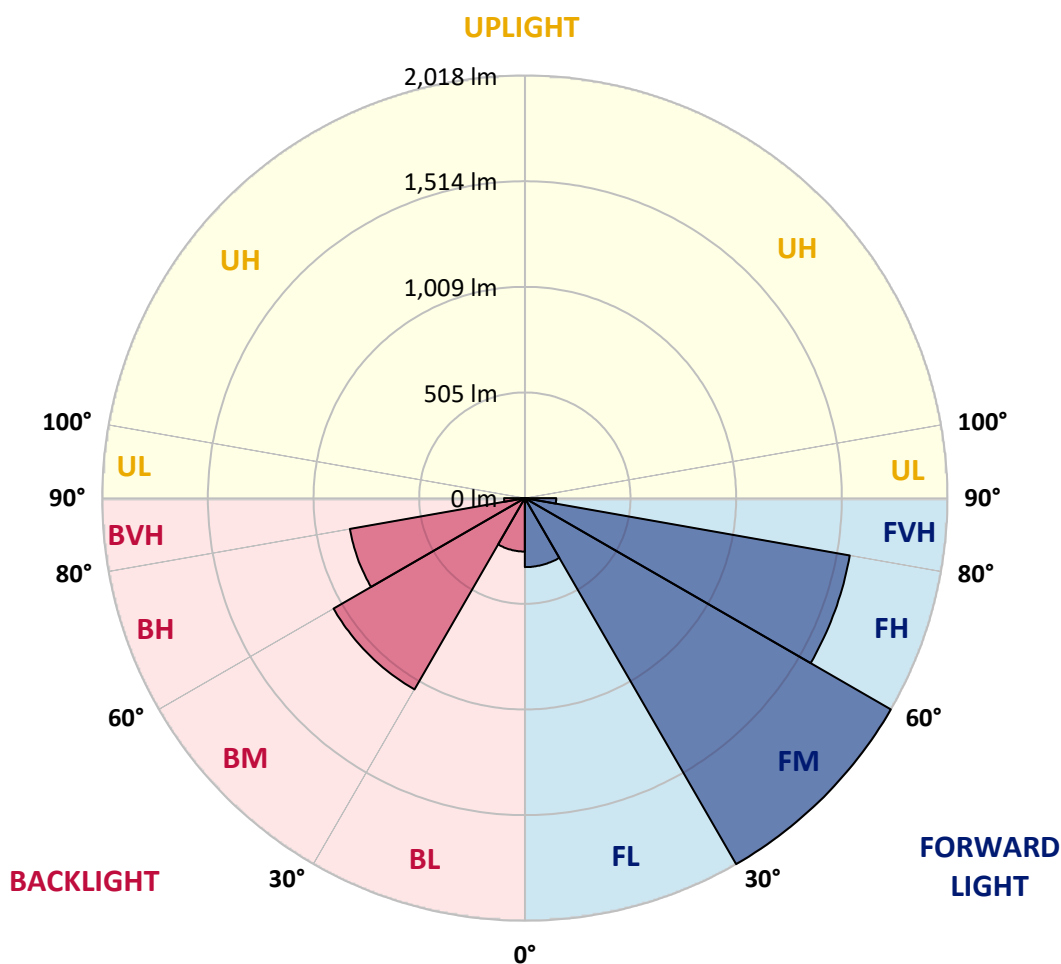
CATALOG NUMBER: CCP-VA-4-760-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	329.4	5.2			
FM	(30°-60°)	2018.4	31.9			
FH	(60°-80°)	1576.0	24.9			G1/1800
FVH	(80°-90°)	149.8	2.4			G2/225
BL	(0°-30°)	255.2	4.0	B1/500		
BM	(30°-60°)	1055.0	16.7	B2/2500		
BH	(60°-80°)	848.5	13.4	B2/1000		G2/1000
BVH	(80°-90°)	99.5	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°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	514.7	514.7	514.7	513.3	513.3	513.3	511.9	511.9	511.9	510.4	509.0
5°	526.1	526.1	524.7	526.1	524.7	523.3	521.8	521.8	521.8	520.4	519.0
7.5°	541.8	543.2	541.8	543.2	541.8	540.4	537.5	537.5	536.1	533.3	530.4
10°	566.0	566.0	566.0	564.6	563.2	561.8	560.3	558.9	557.5	553.2	548.9
12.5°	596.0	596.0	596.0	593.1	593.1	590.3	588.9	587.4	584.6	578.9	573.2
15°	633.1	631.6	635.9	635.9	634.5	634.5	630.2	627.4	624.5	615.9	603.1
17.5°	683.0	681.5	685.8	688.7	688.7	690.1	683.0	680.1	670.1	658.7	641.6
20°	750.0	747.1	751.4	754.3	751.4	754.3	747.1	748.5	734.3	714.3	687.2
22.5°	822.7	822.7	827.0	827.0	828.4	831.2	822.7	818.4	807.0	778.5	744.3
25°	912.5	919.6	919.6	919.6	925.3	926.8	918.2	911.1	895.4	856.9	809.9
27.5°	1022.3	1020.9	1019.5	1028.0	1028.0	1030.9	1025.2	1022.3	1003.8	956.7	885.4
30°	1139.2	1130.7	1136.4	1139.2	1144.9	1149.2	1143.5	1134.9	1112.1	1060.8	972.4
32.5°	1246.2	1251.9	1260.4	1263.3	1271.8	1273.2	1259.0	1259.0	1236.2	1170.6	1079.3
35°	1367.3	1367.3	1390.2	1400.1	1400.1	1408.7	1387.3	1375.9	1360.2	1291.8	1176.3
37.5°	1472.9	1475.7	1494.2	1517.1	1519.9	1532.7	1517.1	1512.8	1484.3	1414.4	1286.1
40°	1571.2	1574.1	1596.9	1624.0	1639.7	1659.6	1644.0	1636.8	1606.9	1527.0	1395.9
42.5°	1648.2	1653.9	1682.4	1722.4	1748.0	1772.3	1765.1	1760.9	1719.5	1635.4	1497.1
45°	1706.7	1716.7	1756.6	1803.6	1839.3	1874.9	1876.4	1867.8	1829.3	1735.2	1595.5
47.5°	1753.7	1765.1	1809.3	1869.2	1923.4	1967.6	1976.2	1966.2	1930.5	1832.2	1683.9
50°	1792.2	1797.9	1847.8	1924.8	1991.8	2047.5	2064.6	2056.0	2024.6	1913.4	1760.9
52.5°	1812.2	1820.8	1877.8	1966.2	2047.5	2114.5	2140.1	2135.9	2098.8	1987.6	1829.3
55°	1822.2	1830.7	1897.7	1999.0	2090.2	2168.6	2200.0	2201.4	2165.8	2054.6	1893.5
57.5°	1810.8	1822.2	1894.9	2007.5	2108.8	2192.9	2241.4	2239.9	2211.4	2105.9	1947.6
59°	1790.8	1799.4	1877.8	1996.1	2105.9	2190.0	2245.6	2247.1	2221.4	2123.0	1971.9
60°	1768.0	1778.0	1857.8	1981.9	2094.5	2180.1	2238.5	2241.4	2220.0	2127.3	1981.9
62.5°	1689.6	1702.4	1790.8	1923.4	2046.0	2127.3	2197.2	2201.4	2190.0	2115.9	1989.0
65°	1579.8	1591.2	1686.7	1827.9	1956.2	2040.3	2105.9	2115.9	2114.5	2064.6	1960.5
67.5°	1445.8	1447.2	1537.0	1691.0	1825.0	1907.7	1970.5	1987.6	2000.4	1967.6	1876.4
70°	1284.7	1283.2	1370.2	1522.8	1656.8	1743.8	1806.5	1817.9	1850.7	1825.0	1750.9
72.5°	1085.0	1102.1	1183.4	1311.7	1444.3	1541.3	1596.9	1618.3	1636.8	1642.5	1581.2
75°	896.8	915.4	979.5	1099.3	1213.4	1303.2	1363.1	1373.1	1407.3	1415.8	1358.8
77.5°	717.2	718.6	765.7	861.2	965.3	1039.4	1087.9	1113.6	1132.1	1149.2	1089.3
80°	503.3	510.4	543.2	611.7	692.9	771.4	811.3	828.4	841.2	852.6	832.7
82.5°	315.1	318.0	339.3	380.7	436.3	480.5	521.8	536.1	539.0	564.6	561.8
85°	149.7	151.1	165.4	185.4	209.6	245.2	260.9	260.9	280.9	299.4	299.4
87.5°	20.0	20.0	24.2	27.1	34.2	44.2	61.3	62.7	74.1	82.7	89.8
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-4-760-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6	507.6
2.5°	509.0	509.0	509.0	509.0	509.0	507.6	509.0	509.0	509.0	509.0	509.0
5°	519.0	517.6	516.1	514.7	514.7	513.3	513.3	513.3	513.3	513.3	513.3
7.5°	529.0	527.5	526.1	523.3	521.8	520.4	520.4	519.0	519.0	519.0	519.0
10°	546.1	544.7	539.0	534.7	531.8	530.4	529.0	527.5	526.1	526.1	526.1
12.5°	568.9	566.0	556.1	550.4	546.1	543.2	540.4	539.0	537.5	536.1	536.1
15°	597.4	590.3	577.5	568.9	563.2	558.9	554.6	551.8	550.4	548.9	548.9
17.5°	631.6	623.1	606.0	590.3	580.3	573.2	567.5	563.2	561.8	561.8	561.8
20°	674.4	660.1	635.9	614.5	598.8	588.9	580.3	576.0	574.6	573.2	571.7
22.5°	724.3	705.8	670.1	637.3	617.4	603.1	593.1	587.4	583.2	581.7	581.7
25°	781.3	754.3	707.2	667.3	640.2	620.2	607.4	600.3	593.1	590.3	590.3
27.5°	849.8	814.1	751.4	698.6	661.6	637.3	623.1	613.1	606.0	600.3	597.4
30°	923.9	884.0	799.9	732.9	685.8	658.7	641.6	630.2	620.2	610.2	608.8
32.5°	1018.0	961.0	858.3	771.4	714.3	680.1	660.1	645.9	633.1	623.1	620.2
35°	1113.6	1045.1	919.6	811.3	741.4	700.1	675.8	660.1	647.3	635.9	634.5
37.5°	1211.9	1139.2	986.7	858.3	772.8	722.9	692.9	675.8	660.1	648.7	647.3
40°	1314.6	1229.0	1055.1	906.8	805.6	745.7	711.5	690.1	673.0	663.0	661.6
42.5°	1411.5	1318.9	1129.2	963.8	844.1	769.9	730.0	707.2	685.8	675.8	674.4
45°	1504.2	1404.4	1203.4	1016.6	882.6	795.6	748.5	721.5	698.6	688.7	687.2
47.5°	1588.3	1488.5	1271.8	1073.6	922.5	824.1	768.5	735.7	710.1	700.1	700.1
50°	1663.9	1559.8	1338.8	1126.4	959.6	852.6	785.6	748.5	722.9	712.9	711.5
52.5°	1735.2	1622.6	1397.3	1172.0	995.2	878.3	802.7	758.5	731.4	720.0	718.6
55°	1792.2	1679.6	1445.8	1209.1	1019.5	895.4	814.1	764.2	734.3	724.3	722.9
57.5°	1842.1	1726.6	1480.0	1234.7	1035.1	905.4	819.8	764.2	732.9	721.5	720.0
59°	1863.5	1746.6	1491.4	1241.9	1038.0	906.8	818.4	760.0	727.2	715.8	712.9
60°	1874.9	1755.2	1495.7	1243.3	1036.6	904.0	817.0	755.7	721.5	708.6	708.6
62.5°	1886.3	1762.3	1490.0	1231.9	1020.9	888.3	802.7	738.6	700.1	685.8	685.8
65°	1862.1	1736.6	1457.2	1200.5	989.5	861.2	775.6	710.1	667.3	653.0	653.0
67.5°	1790.8	1673.9	1397.3	1142.1	938.2	814.1	731.4	664.4	624.5	608.8	604.5
70°	1669.6	1571.2	1303.2	1057.9	868.3	754.3	675.8	611.7	570.3	554.6	548.9
72.5°	1507.1	1410.1	1177.7	955.3	775.6	675.8	607.4	546.1	500.5	484.8	486.2
75°	1283.2	1214.8	1015.2	825.5	668.7	576.0	519.0	467.7	429.2	416.3	417.8
77.5°	1040.8	983.8	822.7	673.0	546.1	474.8	426.3	385.0	359.3	352.2	347.9
80°	797.0	741.4	617.4	501.9	414.9	365.0	332.2	303.7	283.7	273.8	276.6
82.5°	534.7	500.5	409.2	332.2	282.3	246.7	235.3	216.7	209.6	203.9	208.2
85°	288.0	258.1	213.9	178.2	155.4	145.4	148.3	146.9	141.2	139.7	144.0
87.5°	94.1	81.3	62.7	52.8	54.2	48.5	48.5	45.6	41.3	39.9	42.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

INVUE

Report Number: SP1-2005-785-15-R2

Luminaire Tested: CCW-VA3-757-U-T4FT

Test Date: 08/05/2020

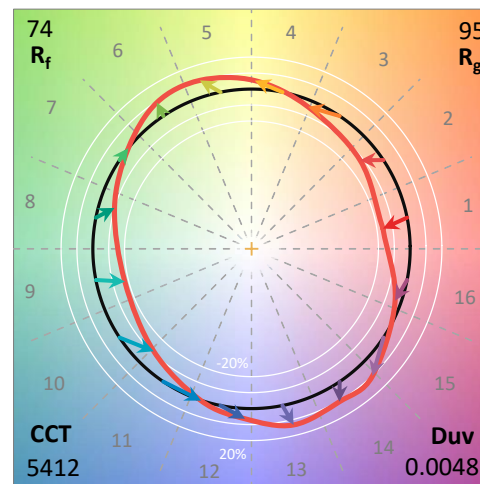
Test Information

Test Method: LM-79-08
 Report Number: SP1-2005-785-15-R2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1
 Measurement Geometry: 4π
 Issue Date: 08/05/2020
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: INVUE
 Catalog Number: **CCW-VA3-757-U-T4FT**
 Description: INVUE WALL PACK VA

THIS IS A REVISION OF SP1-2005-785-15. TO UPDATE THE CATALOG INFORMATION.TESTED
 IN SITU. INVUE WALL PACK WAVEGUIDE 6500LM 120V T4FT (2 LED BOARDS)

Spectral Parameters

CCT (K):	5412	CRI (Ra):	72.3		
CIE u':	0.2040	R1:	70.1	R9:	-21.7
CIE v':	0.4835	R2:	75.8	R10:	41.9
Duv:	0.0048	R3:	79.0	R11:	70.5
CIE x:	0.3346	R4:	73.5	R12:	40.7
CIE y:	0.3525	R5:	70.8	R13:	70.5
CIE z:	0.3129	R6:	66.7	R14:	88.1
Peak Wavelength (nm):	450	R7:	81.5		
Dominant Wavelength (nm):	557	R8:	60.9		
Purity:	6.3				
Rf:	73.7				
Rg:	94.9				



Test Conditions

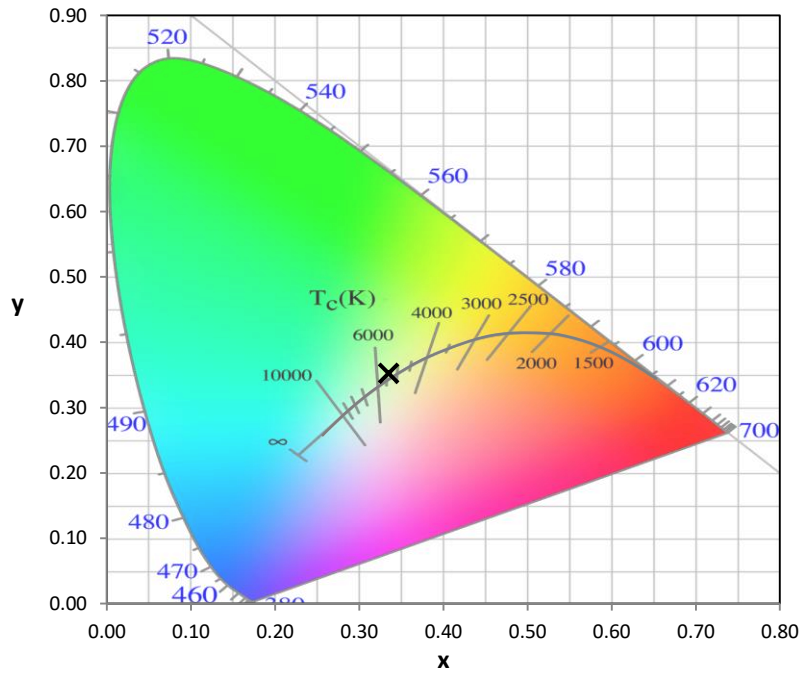
Stabilization Time: 149M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 24.1/47%
 Sphere Temperature (°C): 24.6

REPORT NUMBER: SP1-2005-785-15-R2

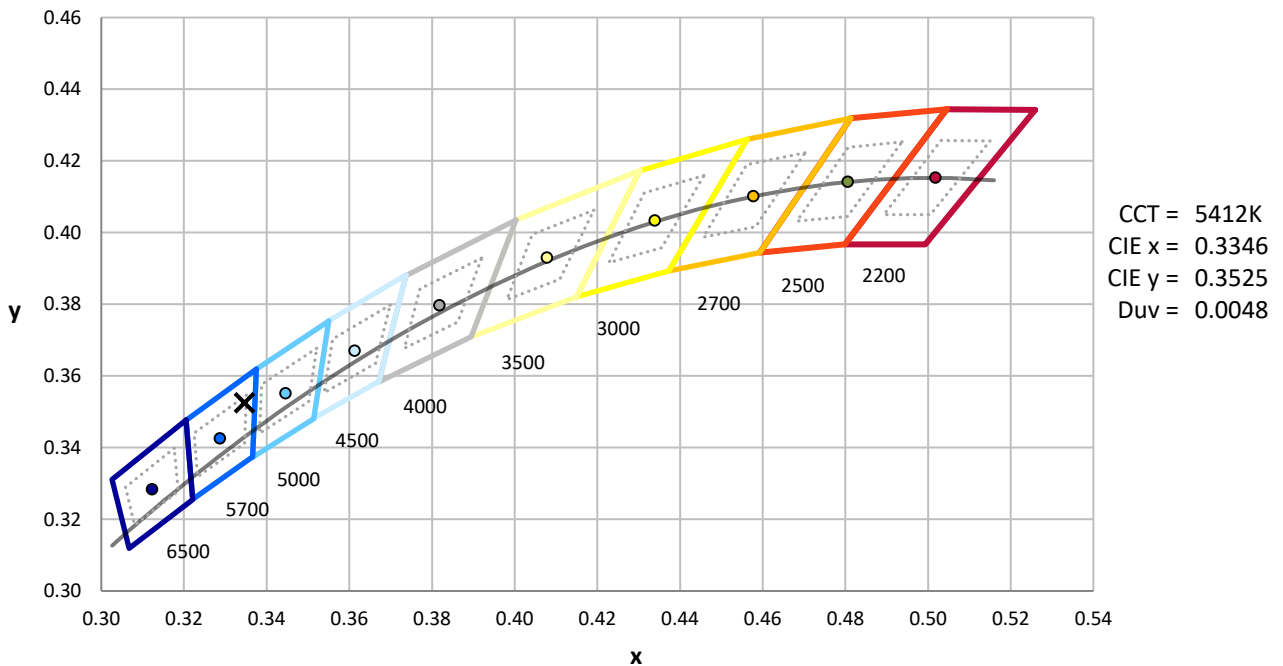
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	7/29/2020	1/29/2021
Power Meter	IN0071	12/3/2019	12/3/2020
AC Power Source	IN0063	12/3/2019	12/3/2020
DC Power Source	IN0208	12/3/2019	12/3/2020
Sphere Thermometer	IN0085	12/3/2019	12/3/2020
Room Thermometer	IN0046	12/3/2019	12/3/2020

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CIE 1931 Chromaticity Diagram



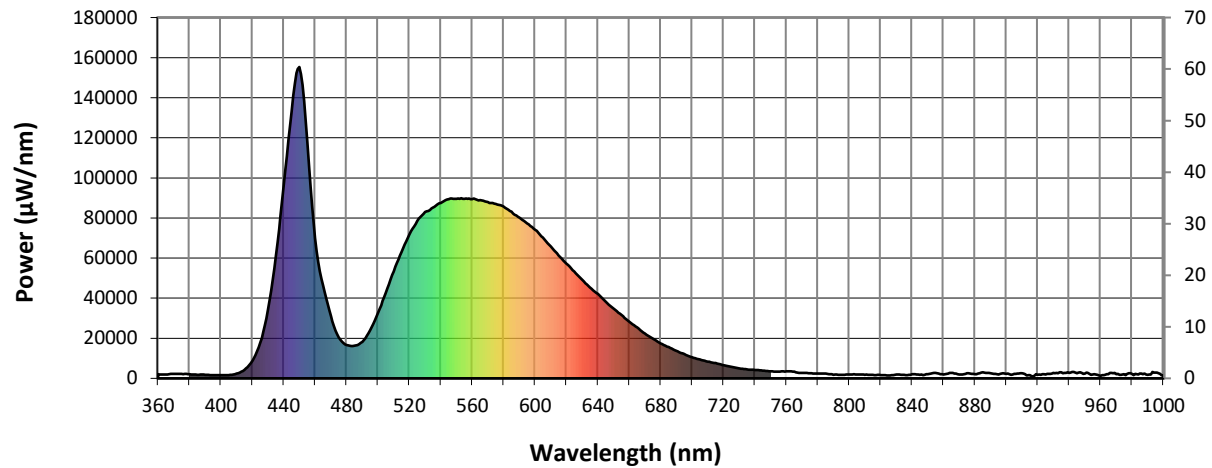
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5700K 4-step quadrangle

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Photopic Flux vs. Wavelength

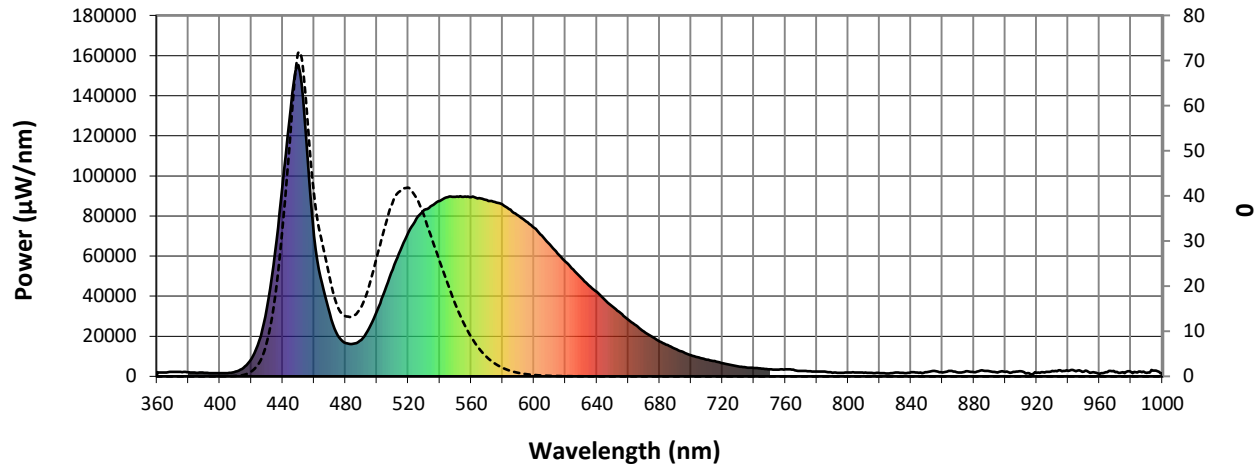


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λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	2035	0.0	490	18267	2.6	620	57151	14.9	750	3563	0.0	880	2076	0.0
365	1869	0.0	495	23934	4.3	625	53334	11.8	755	3330	0.0	885	3023	0.0
370	2188	0.0	500	32674	7.2	630	49216	8.9	760	3460	0.0	890	2520	0.0
375	2218	0.0	505	42700	11.9	635	45376	6.8	765	3299	0.0	895	1970	0.0
380	2021	0.0	510	53368	18.3	640	42098	5.0	770	2718	0.0	900	2228	0.0
385	1805	0.0	515	62859	26.0	645	38229	3.7	775	2611	0.0	905	2238	0.0
390	1779	0.0	520	71861	34.8	650	34842	2.5	780	2426	0.0	910	2559	0.0
395	1606	0.0	525	78355	42.1	655	31589	1.8	785	2348	0.0	915	1565	0.0
400	1528	0.0	530	82939	48.8	660	28242	1.2	790	1808	0.0	920	1780	0.0
405	1642	0.0	535	85238	52.9	665	25334	0.8	795	1787	0.0	925	1992	0.0
410	2346	0.0	540	87522	57.0	670	22317	0.5	800	1949	0.0	930	2652	0.0
415	4273	0.0	545	89375	59.5	675	19825	0.3	805	1908	0.0	935	3057	0.0
420	8704	0.0	550	89497	60.8	680	17410	0.2	810	1829	0.0	940	2698	0.0
425	17810	0.1	555	89501	61.1	685	15582	0.1	815	1725	0.0	945	2634	0.0
430	34326	0.3	560	89466	60.8	690	13759	0.1	820	1622	0.0	950	2377	0.0
435	61506	0.7	565	88906	59.1	695	12086	0.1	825	1481	0.0	955	1957	0.0
440	96053	1.5	570	88018	57.2	700	10537	0.0	830	1852	0.0	960	1363	0.0
445	133345	2.8	575	86953	54.1	705	9373	0.0	835	1753	0.0	965	2111	0.0
450	155307	4.0	580	85647	50.9	710	8374	0.0	840	2051	0.0	970	2087	0.0
455	117821	3.9	585	83103	46.2	715	7627	0.0	845	1833	0.0	975	2005	0.0
460	69928	2.9	590	80140	41.4	720	6564	0.0	850	2145	0.0	980	2236	0.0
465	46390	2.4	595	77299	36.6	725	5753	0.0	855	2718	0.0	985	2341	0.0
470	31025	1.9	600	74052	31.9	730	5021	0.0	860	1994	0.0	990	1734	0.0
475	20494	1.6	605	70171	27.2	735	4504	0.0	865	2663	0.0	995	2953	0.0
480	16647	1.6	610	65816	22.6	740	4193	0.0	870	1955	0.0	1000	1647	0.0
485	16215	1.9	615	61374	18.5	745	3911	0.0	875	2508	0.0			

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Scotopic Flux vs. Wavelength



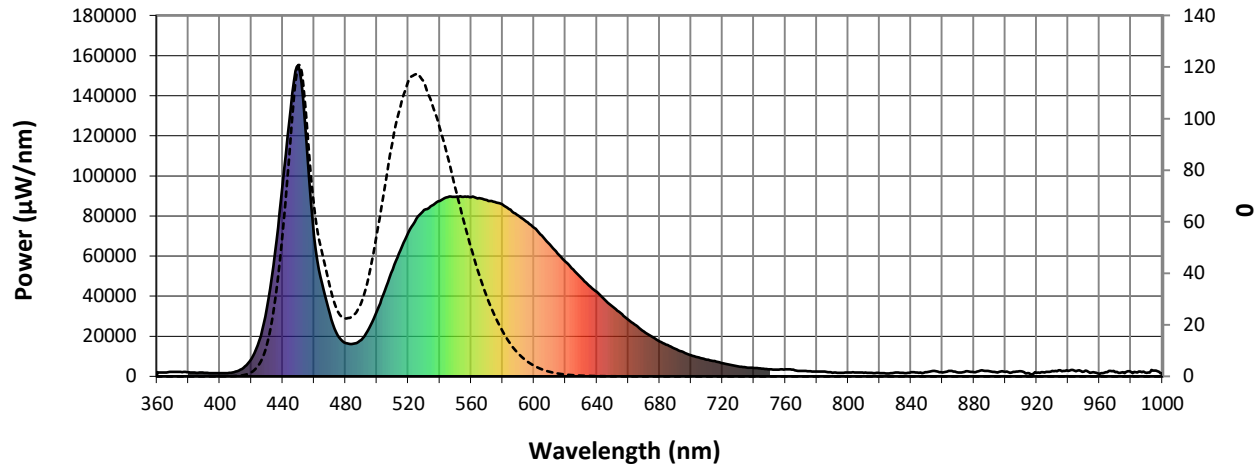
Scotopic Lumens: 4025.5

S/P: 0.75

λ (nm)	Power ($\mu\text{W/nm}$)	Lumens (Φ/nm)	λ (nm)	Power ($\mu\text{W/nm}$)	Lumens (Φ/nm)	λ (nm)	Power ($\mu\text{W/nm}$)	Lumens (Φ/nm)	λ (nm)	Power ($\mu\text{W/nm}$)	Lumens (Φ/nm)	λ (nm)	Power ($\mu\text{W/nm}$)	Lumens (Φ/nm)
360	2035	0.0	490	18267	28.1	620	57151	0.7	750	3563	0.0	880	2076	0.0
365	1869	0.0	495	23934	38.7	625	53334	0.5	755	3330	0.0	885	3023	0.0
370	2188	0.0	500	32674	54.7	630	49216	0.3	760	3460	0.0	890	2520	0.0
375	2218	0.0	505	42700	72.6	635	45376	0.2	765	3299	0.0	895	1970	0.0
380	2021	0.0	510	53368	90.5	640	42098	0.1	770	2718	0.0	900	2228	0.0
385	1805	0.0	515	62859	104.2	645	38229	0.1	775	2611	0.0	905	2238	0.0
390	1779	0.0	520	71861	114.2	650	34842	0.0	780	2426	0.0	910	2559	0.0
395	1606	0.0	525	78355	117.2	655	31589	0.0	785	2348	0.0	915	1565	0.0
400	1528	0.0	530	82939	114.3	660	28242	0.0	790	1808	0.0	920	1780	0.0
405	1642	0.1	535	85238	106.2	665	25334	0.0	795	1787	0.0	925	1992	0.0
410	2346	0.1	540	87522	96.7	670	22317	0.0	800	1949	0.0	930	2652	0.0
415	4273	0.4	545	89375	85.7	675	19825	0.0	805	1908	0.0	935	3057	0.0
420	8704	1.4	550	89497	73.2	680	17410	0.0	810	1829	0.0	940	2698	0.0
425	17810	4.4	555	89501	61.2	685	15582	0.0	815	1725	0.0	945	2634	0.0
430	34326	11.7	560	89466	50.0	690	13759	0.0	820	1622	0.0	950	2377	0.0
435	61506	27.5	565	88906	39.9	695	12086	0.0	825	1481	0.0	955	1957	0.0
440	96053	53.7	570	88018	31.1	700	10537	0.0	830	1852	0.0	960	1363	0.0
445	133345	89.3	575	86953	23.7	705	9373	0.0	835	1753	0.0	965	2111	0.0
450	155307	120.4	580	85647	17.6	710	8374	0.0	840	2051	0.0	970	2087	0.0
455	117821	103.0	585	83103	12.7	715	7627	0.0	845	1833	0.0	975	2005	0.0
460	69928	67.5	590	80140	8.9	720	6564	0.0	850	2145	0.0	980	2236	0.0
465	46390	49.0	595	77299	6.2	725	5753	0.0	855	2718	0.0	985	2341	0.0
470	31025	35.7	600	74052	4.2	730	5021	0.0	860	1994	0.0	990	1734	0.0
475	20494	25.6	605	70171	2.8	735	4504	0.0	865	2663	0.0	995	2953	0.0
480	16647	22.5	610	65816	1.8	740	4193	0.0	870	1955	0.0	1000	1647	0.0
485	16215	23.5	615	61374	1.1	745	3911	0.0	875	2508	0.0			

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Melanopic Flux vs. Wavelength



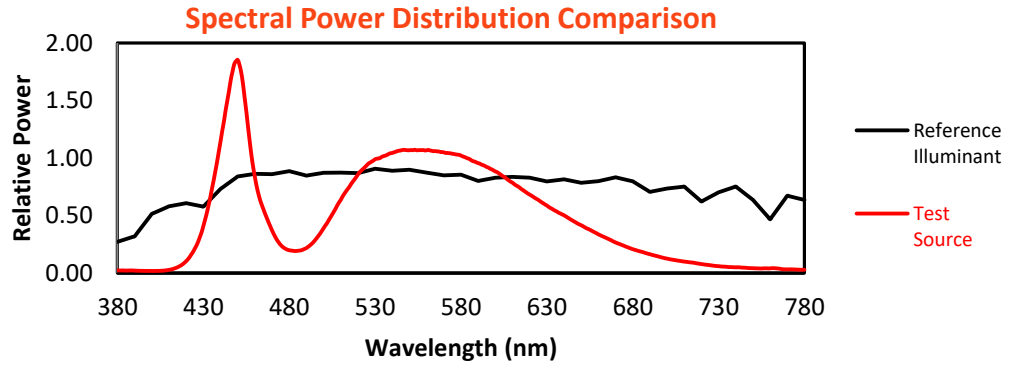
Melanopic Lumens: 9973.1

S/P: 1.85

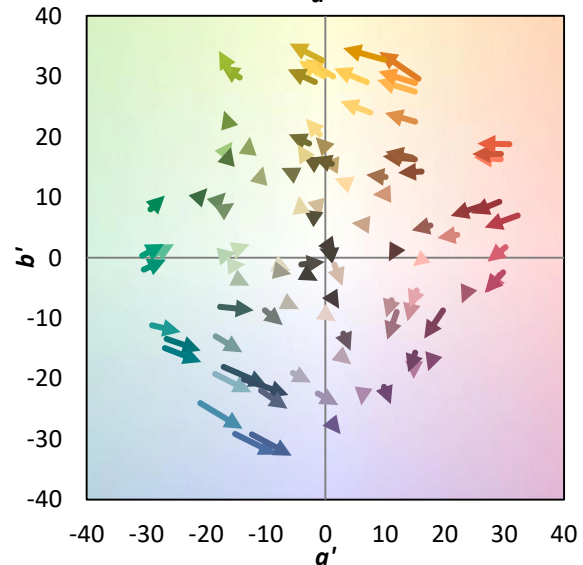
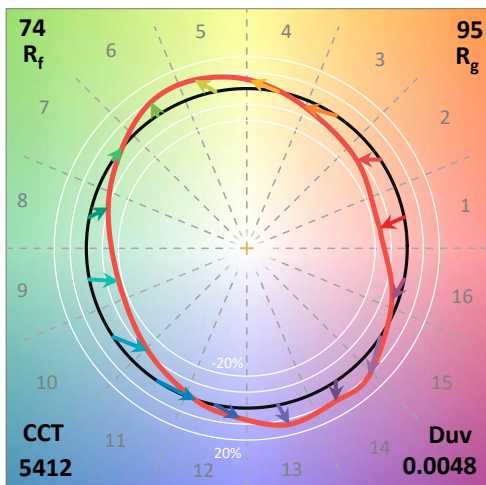
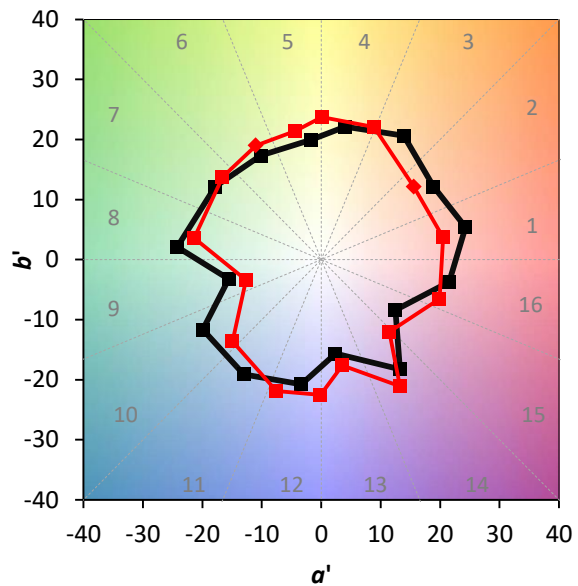
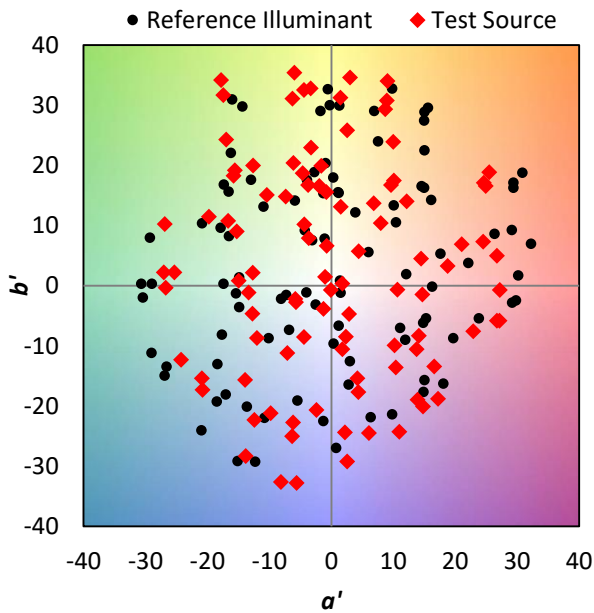
λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)	λ (nm)	Power (μW/nm)	Lumens (Φ/nm)
360	2035	0.0	490	18267	15.2	620	57151	0.0	750	3563	0.0	880	2076	0.0
365	1869	0.0	495	23934	19.8	625	53334	0.0	755	3330	0.0	885	3023	0.0
370	2188	0.0	500	32674	26.3	630	49216	0.0	760	3460	0.0	890	2520	0.0
375	2218	0.0	505	42700	32.8	635	45376	0.0	765	3299	0.0	895	1970	0.0
380	2021	0.0	510	53368	38.3	640	42098	0.0	770	2718	0.0	900	2228	0.0
385	1805	0.0	515	62859	41.1	645	38229	0.0	775	2611	0.0	905	2238	0.0
390	1779	0.0	520	71861	41.8	650	34842	0.0	780	2426	0.0	910	2559	0.0
395	1606	0.0	525	78355	39.7	655	31589	0.0	785	2348	0.0	915	1565	0.0
400	1528	0.0	530	82939	35.8	660	28242	0.0	790	1808	0.0	920	1780	0.0
405	1642	0.0	535	85238	30.7	665	25334	0.0	795	1787	0.0	925	1992	0.0
410	2346	0.1	540	87522	25.6	670	22317	0.0	800	1949	0.0	930	2652	0.0
415	4273	0.3	545	89375	20.8	675	19825	0.0	805	1908	0.0	935	3057	0.0
420	8704	1.0	550	89497	16.1	680	17410	0.0	810	1829	0.0	940	2698	0.0
425	17810	2.8	555	89501	12.1	685	15582	0.0	815	1725	0.0	945	2634	0.0
430	34326	7.3	560	89466	8.8	690	13759	0.0	820	1622	0.0	950	2377	0.0
435	61506	16.4	565	88906	6.2	695	12086	0.0	825	1481	0.0	955	1957	0.0
440	96053	32.1	570	88018	4.3	700	10537	0.0	830	1852	0.0	960	1363	0.0
445	133345	52.6	575	86953	2.9	705	9373	0.0	835	1753	0.0	965	2111	0.0
450	155307	71.6	580	85647	1.9	710	8374	0.0	840	2051	0.0	970	2087	0.0
455	117821	61.7	585	83103	1.2	715	7627	0.0	845	1833	0.0	975	2005	0.0
460	69928	41.2	590	80140	0.8	720	6564	0.0	850	2145	0.0	980	2236	0.0
465	46390	30.3	595	77299	0.5	725	5753	0.0	855	2718	0.0	985	2341	0.0
470	31025	22.2	600	74052	0.3	730	5021	0.0	860	1994	0.0	990	1734	0.0
475	20494	15.7	605	70171	0.2	735	4504	0.0	865	2663	0.0	995	2953	0.0
480	16647	13.4	610	65816	0.1	740	4193	0.0	870	1955	0.0	1000	1647	0.0
485	16215	13.4	615	61374	0.1	745	3911	0.0	875	2508	0.0			

Summary

$R_f = 73.7$
 $R_g = 94.9$
 CIE $R_a = 72.3$
 $R_g = -21.7$

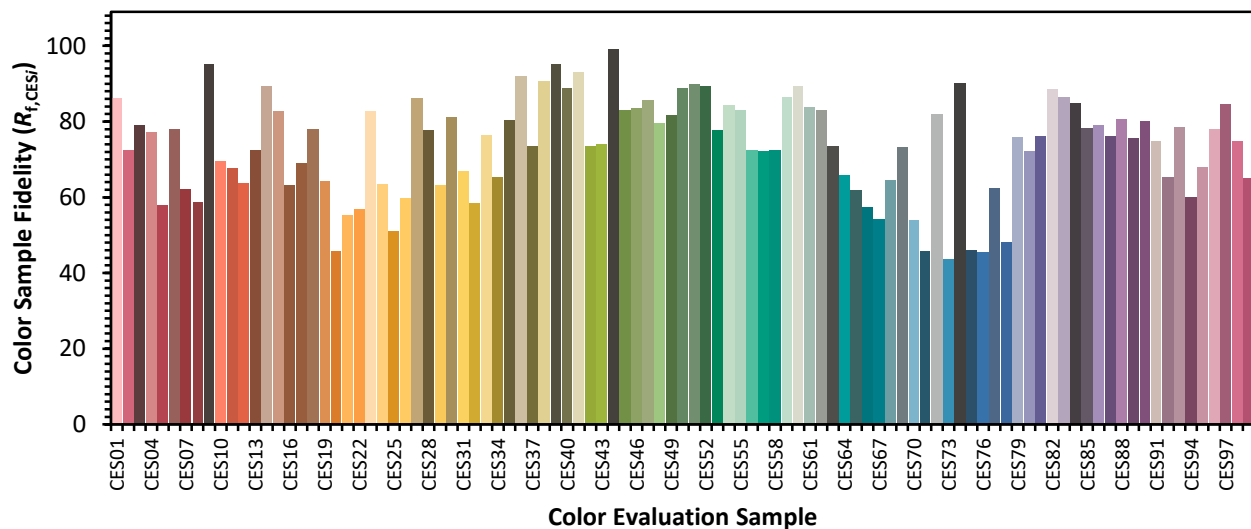


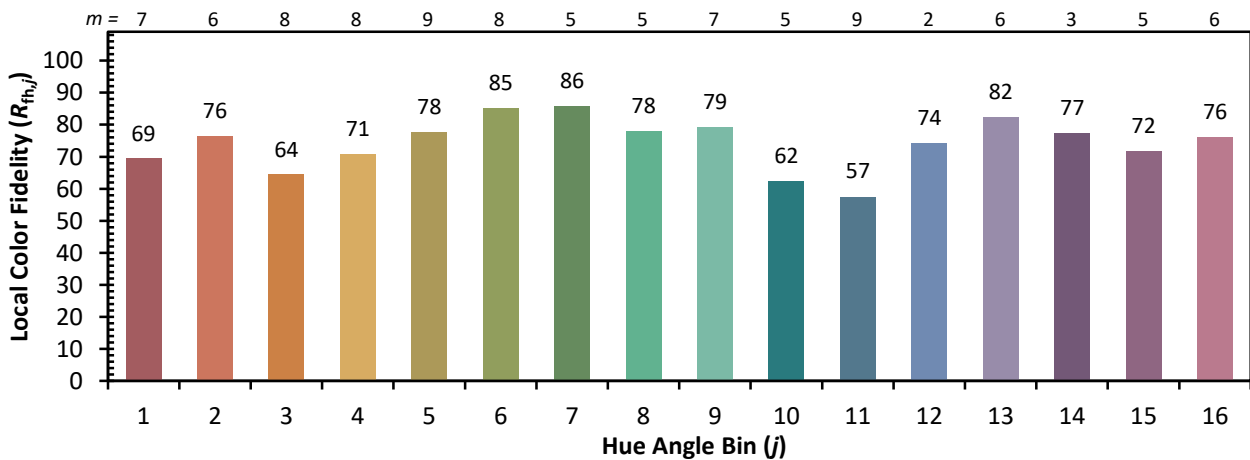
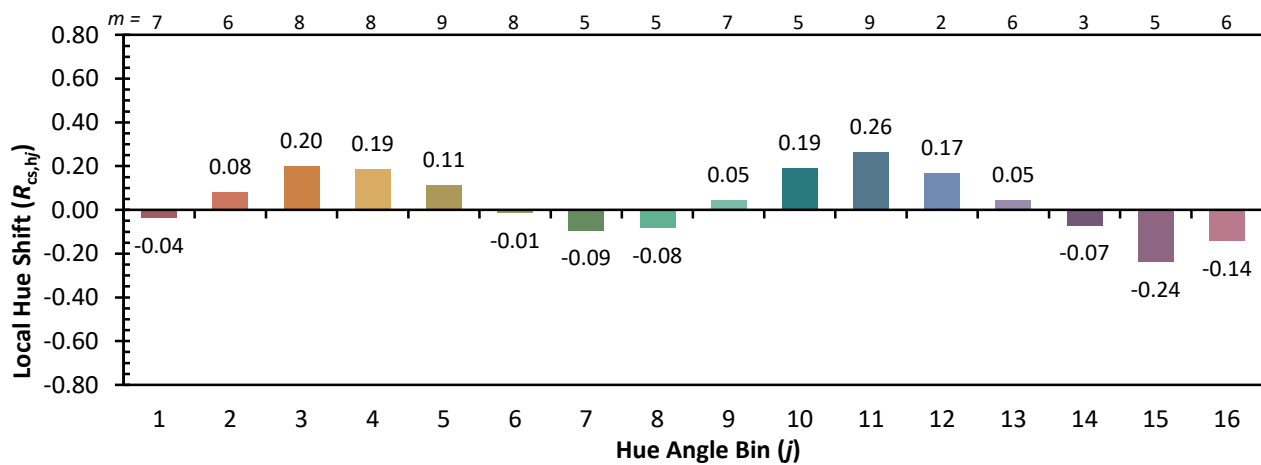
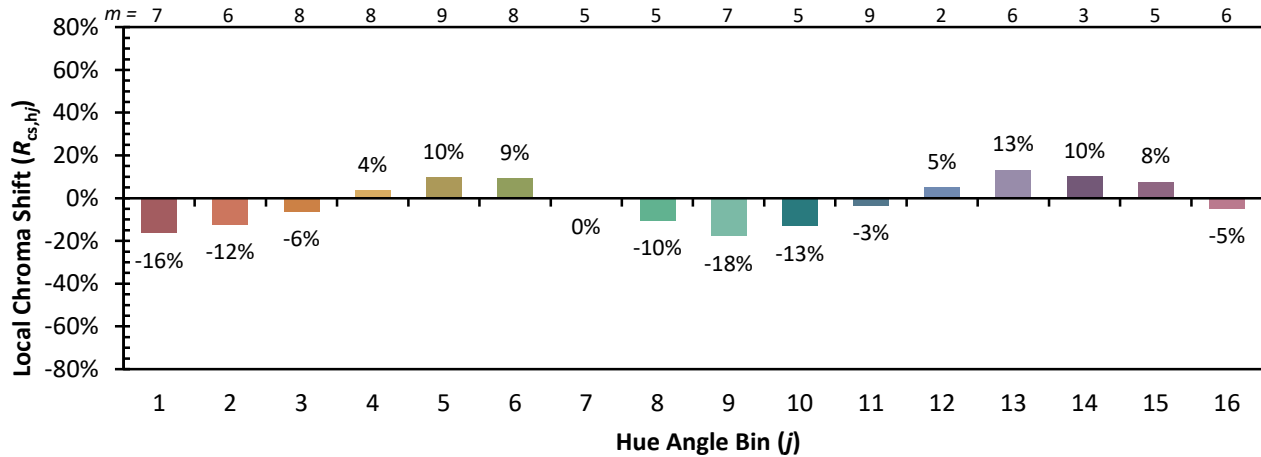
Color Vector Graphics



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

CES01 = 85	CES26 = 60	CES51 = 90	CES76 = 45
CES02 = 59	CES27 = 86	CES52 = 89	CES77 = 63
CES03 = 30	CES28 = 78	CES53 = 78	CES78 = 48
CES04 = 69	CES29 = 63	CES54 = 84	CES79 = 76
CES05 = 46	CES30 = 81	CES55 = 83	CES80 = 72
CES06 = 50	CES31 = 67	CES56 = 73	CES81 = 76
CES07 = 38	CES32 = 58	CES57 = 72	CES82 = 89
CES08 = 38	CES33 = 76	CES58 = 73	CES83 = 87
CES09 = 29	CES34 = 65	CES59 = 87	CES84 = 85
CES10 = 72	CES35 = 80	CES60 = 89	CES85 = 78
CES11 = 55	CES36 = 92	CES61 = 84	CES86 = 79
CES12 = 61	CES37 = 74	CES62 = 83	CES87 = 76
CES13 = 41	CES38 = 91	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 95	CES64 = 66	CES89 = 76
CES15 = 70	CES40 = 89	CES65 = 62	CES90 = 80
CES16 = 46	CES41 = 93	CES66 = 58	CES91 = 75
CES17 = 48	CES42 = 74	CES67 = 54	CES92 = 65
CES18 = 55	CES43 = 74	CES68 = 65	CES93 = 79
CES19 = 70	CES44 = 99	CES69 = 73	CES94 = 60
CES20 = 63	CES45 = 83	CES70 = 54	CES95 = 68
CES21 = 85	CES46 = 83	CES71 = 46	CES96 = 78
CES22 = 77	CES47 = 86	CES72 = 82	CES97 = 84
CES23 = 91	CES48 = 80	CES73 = 44	CES98 = 75
CES24 = 90	CES49 = 82	CES74 = 90	CES99 = 65
CES25 = 71	CES50 = 89	CES75 = 46	

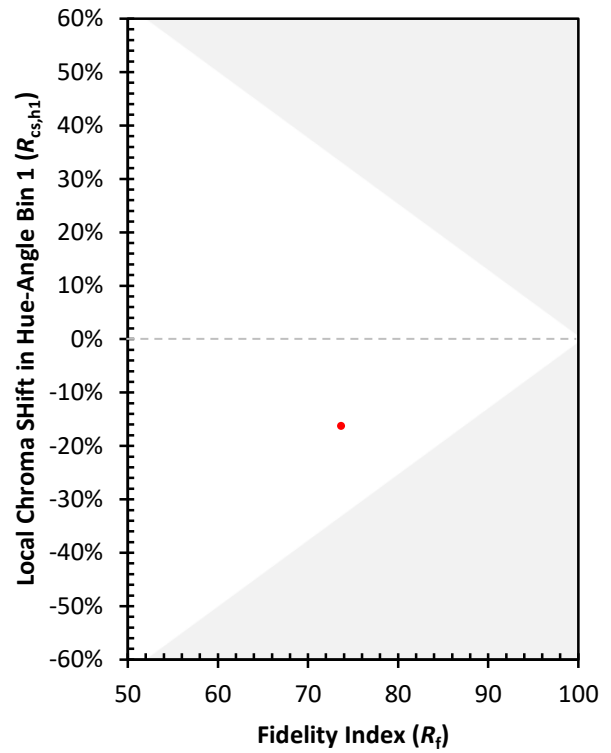
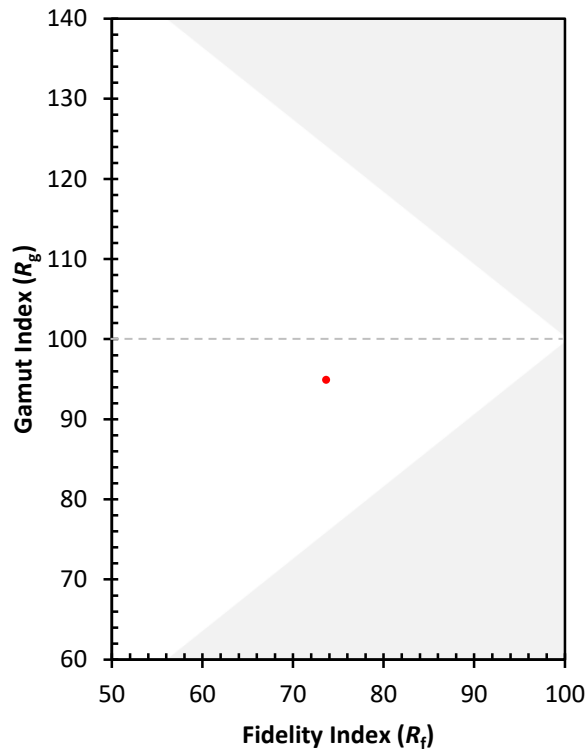


Color Rendition by Hue-Angle Bin


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TM-30-18

Measure Comparisons



(END OF REPORT)