Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: INVUE

Report Number: P869119

Luminaire Tested: EMM2-HSN-SA2A-727-U-5MQ

Issue Date: 08/22/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2024
Report Number:	P869119
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	5/19/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	INVUE
Catalog Number:	EMM2-HSN-SA2A-727-U-5MQ
Description:	EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 70W 70CRI 2700K FIXTURE w/ TYPE V SQUARE MEDIUM DISTRIBUTION OPTIC
Light Source:	(20) 2700K CCT, 70 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8951.5 lumens
Efficiency:	N/A
Efficacy:	146.7 lumens/watt
Luminous Opening:	Rectangular (W 0.67' x L: 0.33' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G1

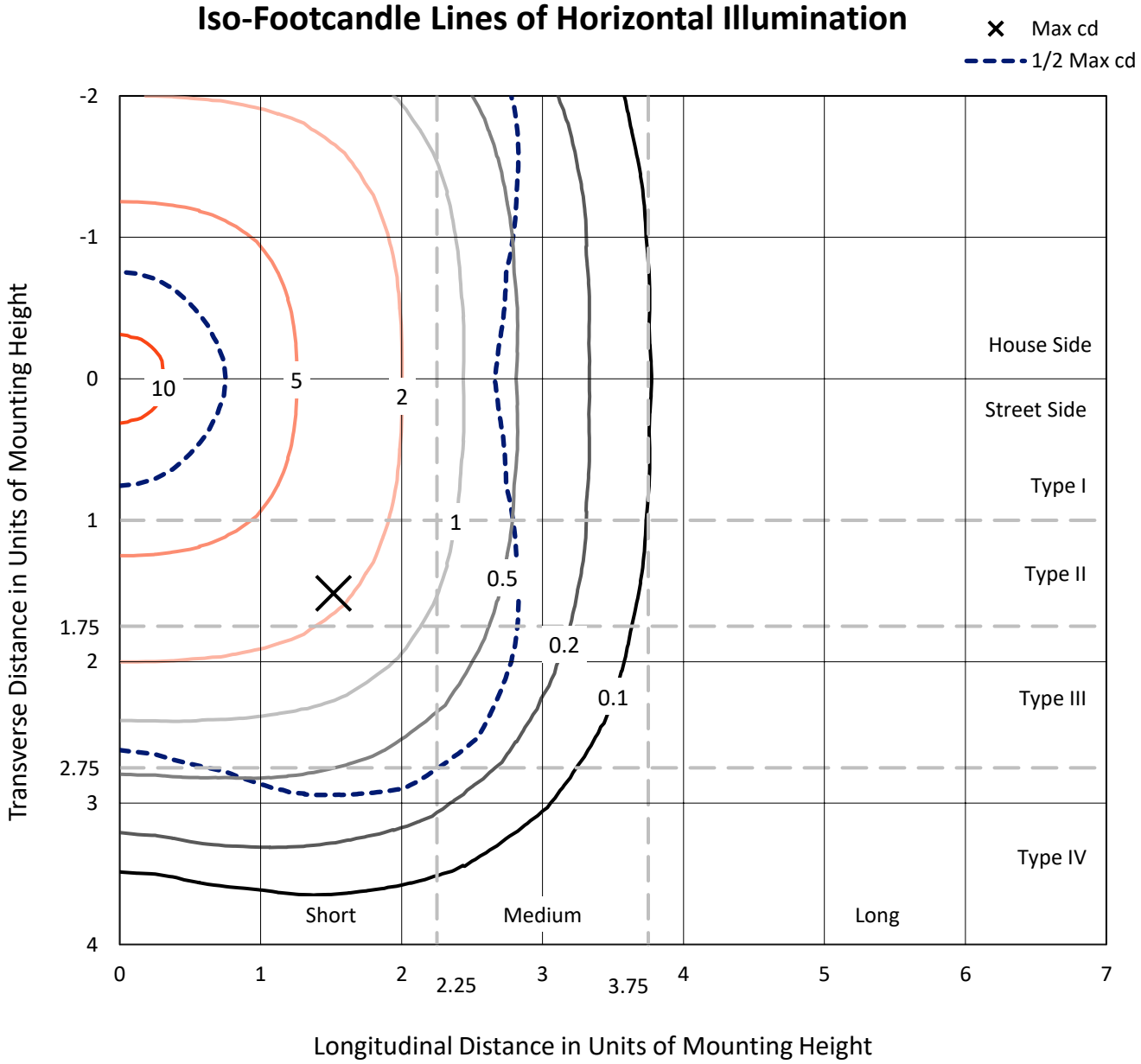
Input Watts (W):	61
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	9.89%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P869119
CATALOG NUMBER: EMM2-HSN-SA2A-727-U-5MQ

Iso-Footcandle Lines of Horizontal Illumination



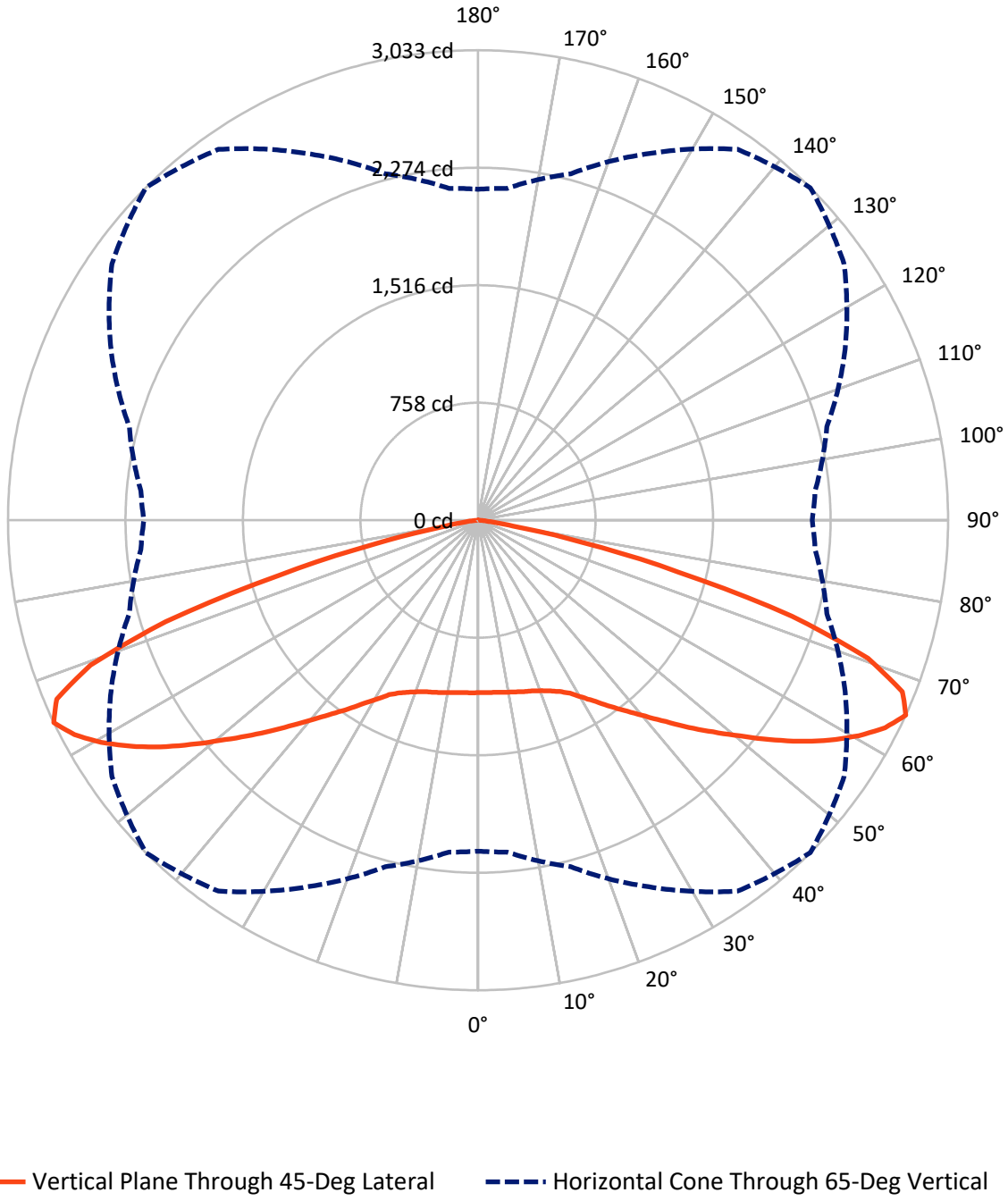
Based on 10 foot mounting height. Maximum calculated value = 11.1 fc
Type V - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P869119
CATALOG NUMBER: EMM2-HSN-SA2A-727-U-5MQ

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

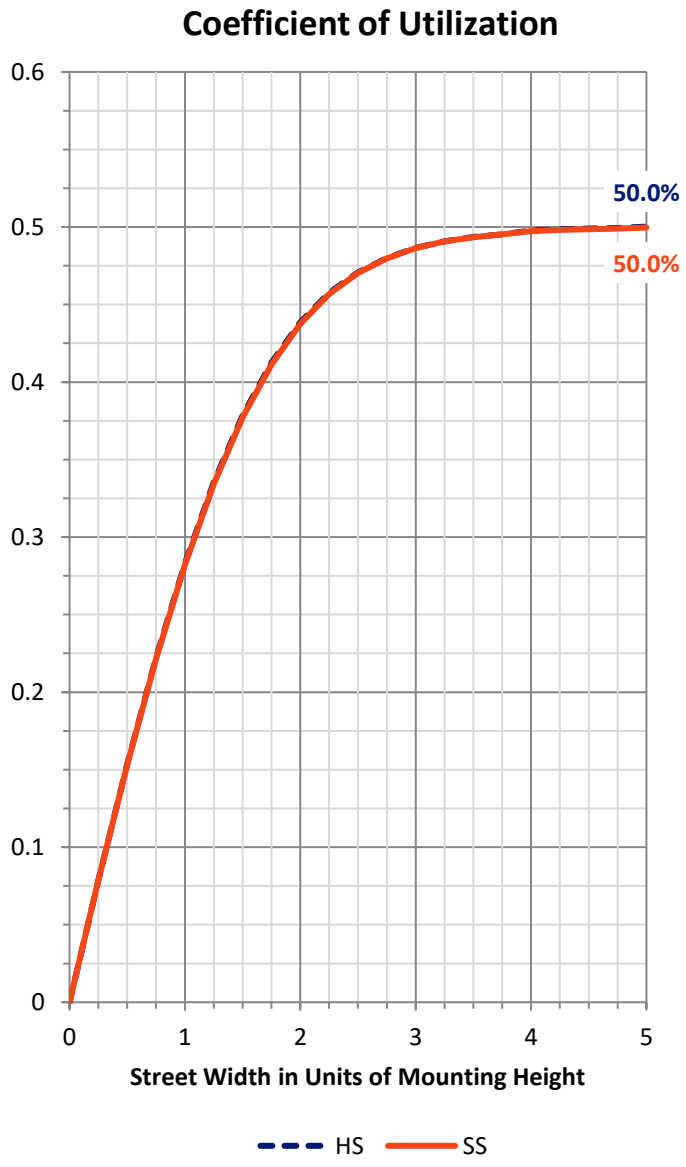
REPORT NUMBER: P869119
CATALOG NUMBER: EMM2-HSN-SA2A-727-U-5MQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4475.8	0.0	4475.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4475.8	0.0	4475.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	8951.5	0.0	8951.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	1.2
10°-20°	325.6	3.6
20°-30°	572.6	6.4
30°-40°	926.1	10.3
40°-50°	1442.5	16.1
50°-60°	2109.3	23.6
60°-70°	2429.0	27.1
70°-80°	992.0	11.1
80°-90°	47.5	0.5
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°	8951.5	100.0
0°-180°	8951.5	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

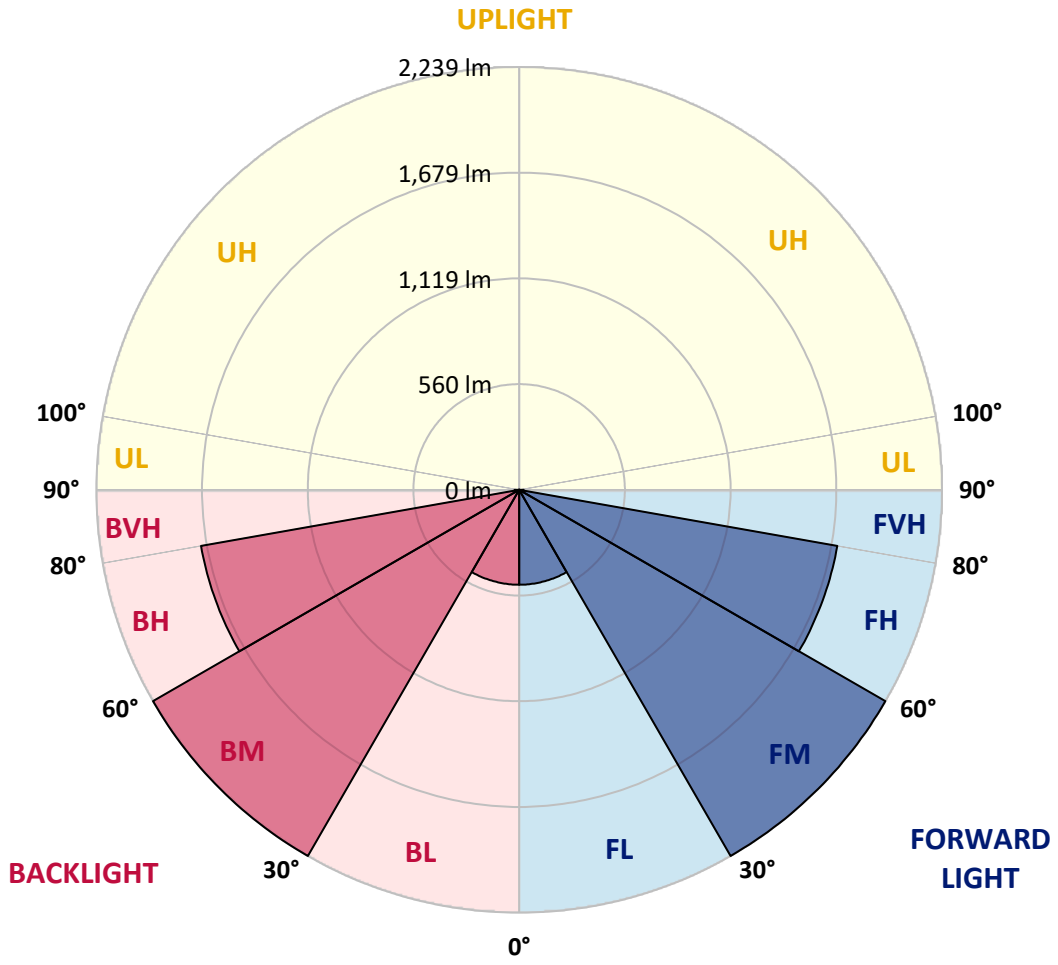
Scaled Data Report

REPORT NUMBER: P869119
CATALOG NUMBER: EMM2-HSN-SA2A-727-U-5MQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	502.6	5.6			
FM	(30°-60°)	2239.0	25.0			
FH	(60°-80°)	1710.5	19.1			G1/1800
FVH	(80°-90°)	23.7	0.3			G1/100
BL	(0°-30°)	502.6	5.6	B2/1000		
BM	(30°-60°)	2239.0	25.0	B2/2500		
BH	(60°-80°)	1710.5	19.1	B3/2500		G1/1800
BVH	(80°-90°)	23.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1
Type V Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P869119
CATALOG NUMBER: EMM2-HSN-SA2A-727-U-5MQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1112.3	1112.3	1112.3	1112.3	1112.3	*1112.3*	1112.3	1112.3	1112.3	1112.3	1112.3
2.5°	1115.7	1115.7	1114.0	1114.0	1110.6	*1114.0*	1112.3	1114.0	1112.3	1112.3	1114.0
5°	1119.2	1119.2	1115.7	1117.4	1114.0	*1115.7*	1114.0	1117.4	1115.7	1114.0	1117.4
7.5°	1124.3	1124.3	1120.9	1122.6	1119.2	*1120.9*	1119.2	1122.6	1120.9	1120.9	1122.6
10°	1129.5	1131.2	1127.8	1126.0	1126.0	*1127.8*	1129.5	1131.2	1129.5	1129.5	1132.9
12.5°	1138.1	1139.8	1136.3	1134.6	1134.6	*1136.3*	1138.1	1141.5	1136.3	1136.3	1136.3
15°	1146.7	1146.7	1144.9	1143.2	1144.9	*1146.7*	1146.7	1150.1	1146.7	1143.2	1143.2
17.5°	1150.1	1151.8	1150.1	1153.5	1155.3	*1157.0*	1158.7	1158.7	1153.5	1151.8	1151.8
20°	1162.1	1163.9	1160.4	1162.1	1167.3	*1174.2*	1174.2	1174.2	1174.2	1169.0	1169.0
22.5°	1182.8	1184.5	1182.8	1182.8	1189.6	*1196.5*	1196.5	1201.7	1194.8	1191.4	1191.4
25°	1217.1	1217.1	1215.4	1217.1	1220.6	*1224.0*	1230.9	1234.3	1234.3	1232.6	1234.3
27.5°	1258.4	1260.1	1258.4	1258.4	1256.7	*1263.6*	1273.9	1279.0	1280.8	1282.5	1282.5
30°	1313.4	1316.9	1315.1	1316.9	1320.3	*1325.5*	1328.9	1330.6	1330.6	1327.2	1327.2
32.5°	1373.6	1377.0	1373.6	1382.2	1394.2	*1394.2*	1390.8	1397.7	1392.5	1389.1	1385.6
35°	1444.1	1444.1	1447.5	1450.9	1468.1	*1476.7*	1476.7	1473.3	1463.0	1457.8	1461.3
37.5°	1524.9	1526.6	1530.0	1531.7	1547.2	*1562.7*	1561.0	1552.4	1540.3	1526.6	1526.6
40°	1621.1	1617.7	1619.4	1631.5	1643.5	*1662.4*	1664.1	1652.1	1631.5	1617.7	1617.7
42.5°	1708.8	1710.5	1717.4	1732.9	1760.4	*1775.9*	1767.3	1746.6	1724.3	1707.1	1705.4
45°	1801.7	1799.9	1818.8	1851.5	1887.6	*1906.5*	1892.8	1863.5	1829.2	1806.8	1806.8
47.5°	1896.2	1894.5	1925.4	1978.7	2025.1	*2040.6*	2026.9	1989.0	1942.6	1910.0	1904.8
50°	1994.2	2001.1	2033.7	2109.4	2169.5	*2186.7*	2169.5	2119.7	2057.8	2014.8	2007.9
52.5°	2105.9	2111.1	2154.1	2236.6	2310.5	*2350.1*	2324.3	2250.3	2171.3	2119.7	2112.8
55°	2209.1	2212.5	2274.4	2374.1	2465.2	*2518.5*	2477.3	2382.7	2283.0	2217.7	2210.8
57.5°	2281.3	2289.9	2369.0	2497.9	2614.8	*2676.7*	2614.8	2513.4	2381.0	2300.2	2295.0
60°	2327.7	2341.5	2432.6	2594.2	2755.8	*2822.8*	2759.2	2618.2	2454.9	2350.1	2344.9
62.5°	2303.6	2322.5	2439.5	2650.9	2876.1	*2948.3*	2865.8	2668.1	2446.3	2314.0	2300.2
65°	*2135.2*	*2148.9*	*2314.0*	*2609.6*	*2920.8*	*3032.6*	*2883.0*	*2613.1*	*2329.4*	*2183.3*	*2155.8*
67.5°	1786.2	1810.2	2028.6	2410.2	2824.5	*2953.5*	2764.4	2415.4	2073.3	1894.5	1863.5
70°	1371.9	1414.8	1653.8	2068.1	2523.7	*2669.8*	2461.8	2038.9	1636.6	1454.4	1397.7
72.5°	792.5	859.6	1210.3	1614.3	2007.9	*2118.0*	1825.7	1425.2	1086.5	957.6	942.1
75°	263.0	287.1	575.9	930.1	1280.8	*1335.8*	1141.5	899.1	715.2	612.0	617.2
77.5°	128.9	128.9	173.6	340.4	582.8	*687.7*	624.0	434.9	312.9	237.2	230.4
80°	103.1	103.1	120.3	166.8	196.0	*230.4*	196.0	142.7	116.9	106.6	111.7
82.5°	49.9	48.1	56.7	80.8	82.5	*79.1*	73.9	73.9	70.5	65.3	63.6
85°	3.4	3.4	6.9	15.5	25.8	*34.4*	39.5	37.8	36.1	30.9	34.4
87.5°	1.7	1.7	1.7	1.7	1.7	*1.7*	1.7	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-U-5WQ

Data in this report applies to products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Test Information

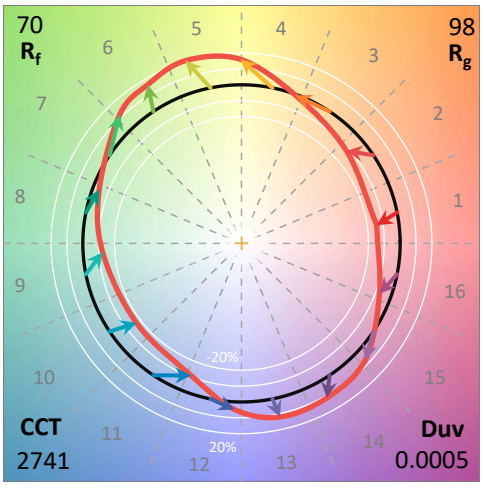
Test Method:	LM-79-2008
Report Number:	SP1-1908-441-1-R4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	10/28/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	**SA1C-727-U-5WQ**
Description:	McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K):	2741	CRI (Ra):	71.5		
CIE u':	0.2605	R1:	69.2	R9:	-16.1
CIE v':	0.5272	R2:	79.4	R10:	51.4
Duv:	0.0005	R3:	87.8	R11:	63.1
CIE x:	0.4573	R4:	69.4	R12:	42.0
CIE y:	0.4113	R5:	66.4	R13:	70.2
CIE z:	0.1313	R6:	69.8	R14:	92.4
Peak Wavelength (nm):	602	R7:	79.8		
Dominant Wavelength (nm):	583	R8:	50.1		
Purity:	61.2				

Rf:	69.9
Rg:	98.3



Test Conditions

Stabilization Time:	56M
Operation Time:	12H
Room Temperature (°C) / RH%:	25.3./42%
Sphere Temperature (°C):	25.7

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

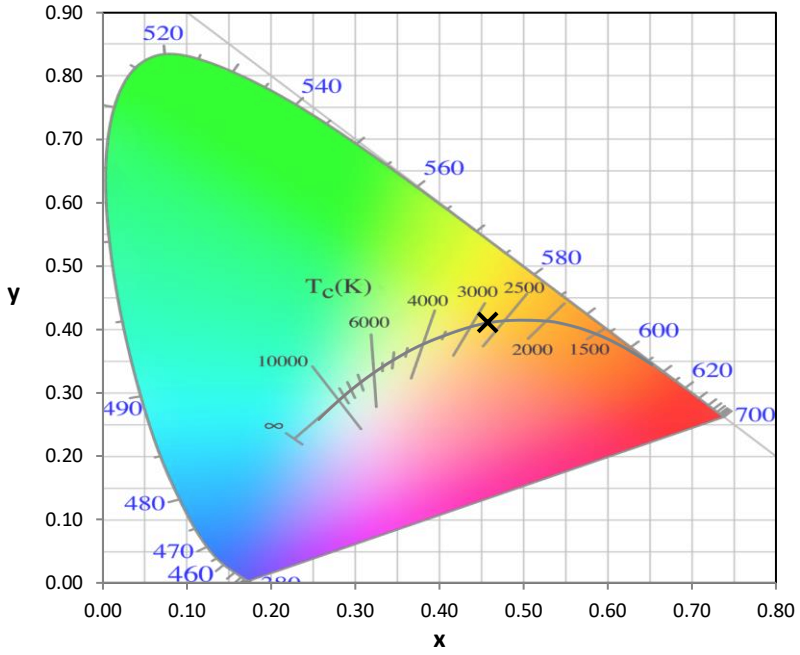
REPORT NUMBER: SP1-1908-441-1-R4

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/28/2019	12/28/2019
Power Meter	IN0071	12/5/2018	12/5/2019
AC Power Source	IN0063	12/5/2018	12/5/2019
DC Power Source	IN0208	12/5/2018	12/5/2019
Sphere Thermometer	IN0085	12/5/2018	12/5/2019
Room Thermometer	IN0046	12/5/2018	12/5/2019

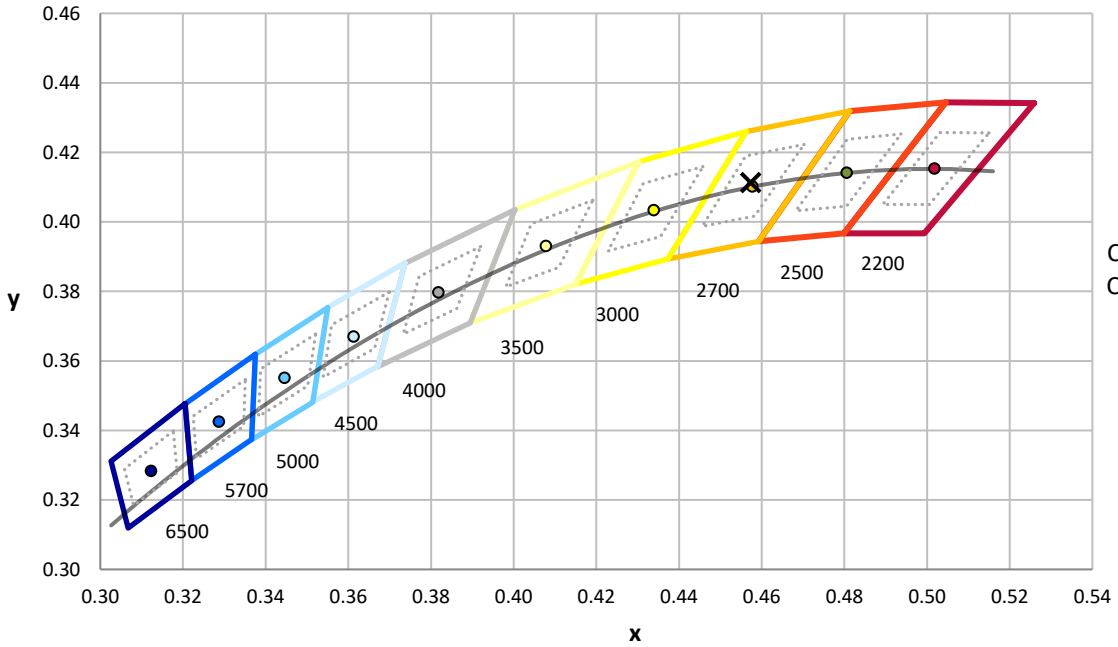
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

CIE 1931 Chromaticity Diagram



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



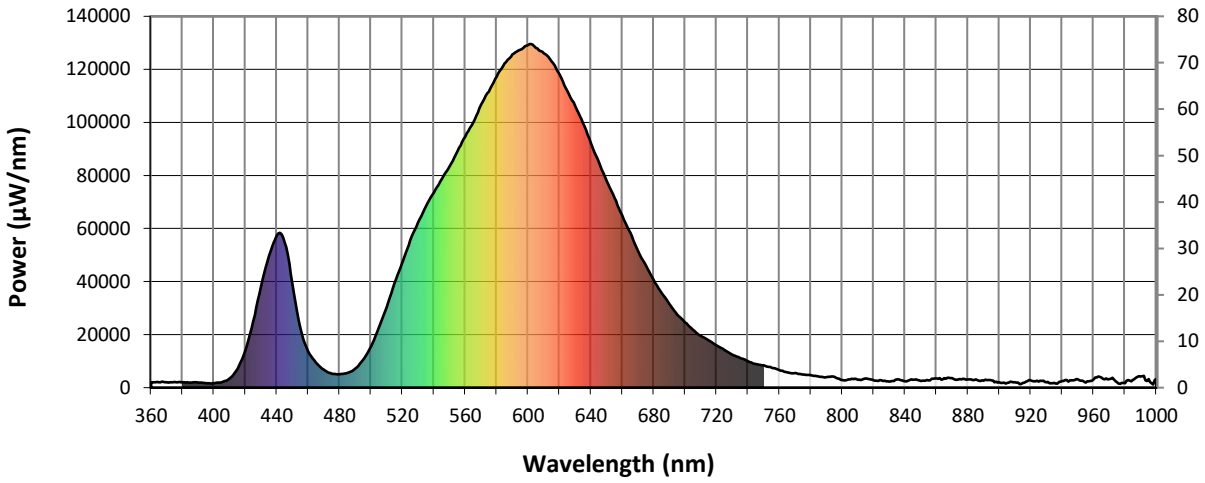
CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

Photopic Flux vs. Wavelength



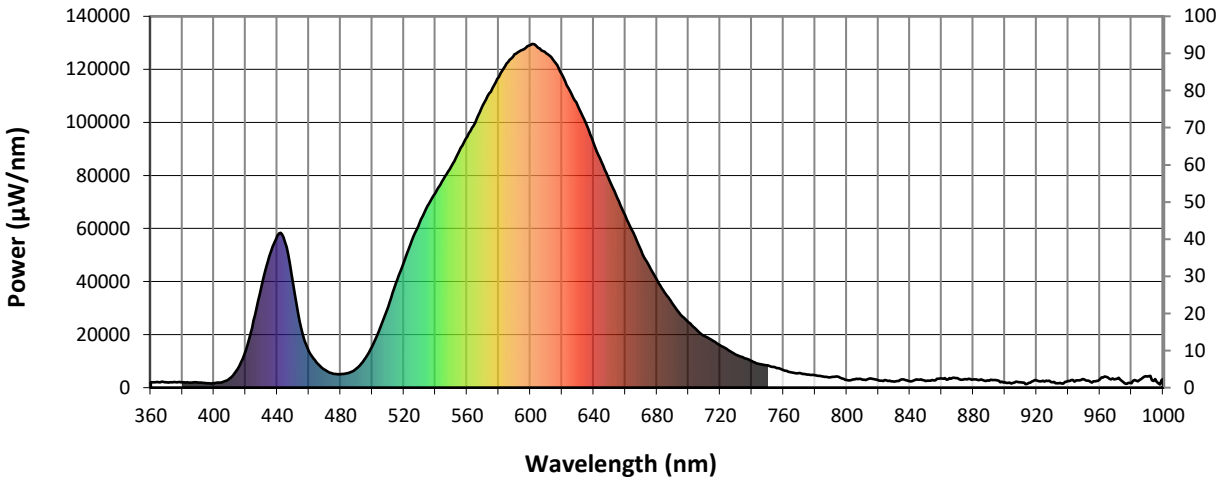
######

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	2044	NR	490	7179	NR	620	118034	NR	750	8362	NR	880	3128	NR
365	2016	NR	495	10476	NR	625	111884	NR	755	7635	NR	885	3110	NR
370	2020	NR	500	15549	NR	630	106119	NR	760	6582	NR	890	2632	NR
375	2137	NR	505	22477	NR	635	99706	NR	765	5777	NR	895	2709	NR
380	2046	NR	510	30417	NR	640	92142	NR	770	5474	NR	900	2016	NR
385	1925	NR	515	39274	NR	645	84987	NR	775	4977	NR	905	1748	NR
390	1893	NR	520	47282	NR	650	78016	NR	780	4723	NR	910	2046	NR
395	1695	NR	525	55413	NR	655	71541	NR	785	4219	NR	915	1844	NR
400	1633	NR	530	62377	NR	660	64863	NR	790	3969	NR	920	2734	NR
405	2065	NR	535	68520	NR	665	58485	NR	795	4122	NR	925	2307	NR
410	3449	NR	540	73435	NR	670	51641	NR	800	2864	NR	930	2039	NR
415	7117	NR	545	78677	NR	675	46030	NR	805	3151	NR	935	1784	NR
420	13992	NR	550	83331	NR	680	40590	NR	810	3022	NR	940	2464	NR
425	25176	NR	555	89120	NR	685	35691	NR	815	3471	NR	945	2794	NR
430	38151	NR	560	94613	NR	690	31631	NR	820	2749	NR	950	3090	NR
435	49673	NR	565	99818	NR	695	27437	NR	825	2729	NR	955	1866	NR
440	57273	NR	570	106526	NR	700	24589	NR	830	2282	NR	960	3110	NR
445	54802	NR	575	111610	NR	705	21832	NR	835	3140	NR	965	3880	NR
450	39184	NR	580	117163	NR	710	19500	NR	840	2365	NR	970	3243	NR
455	22506	NR	585	122201	NR	715	17870	NR	845	3024	NR	975	2014	NR
460	13692	NR	590	125662	NR	720	15924	NR	850	2510	NR	980	1688	NR
465	9446	NR	595	127415	NR	725	14268	NR	855	2739	NR	985	2827	NR
470	6698	NR	600	129155	NR	730	12438	NR	860	3515	NR	990	4172	NR
475	5328	NR	605	128057	NR	735	11255	NR	865	3600	NR	995	3177	NR
480	5081	NR	610	126031	NR	740	9951	NR	870	3609	NR	1000	3241	NR
485	5579	NR	615	123059	NR	745	8870	NR	875	3208	NR			

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

Scotopic Flux vs. Wavelength



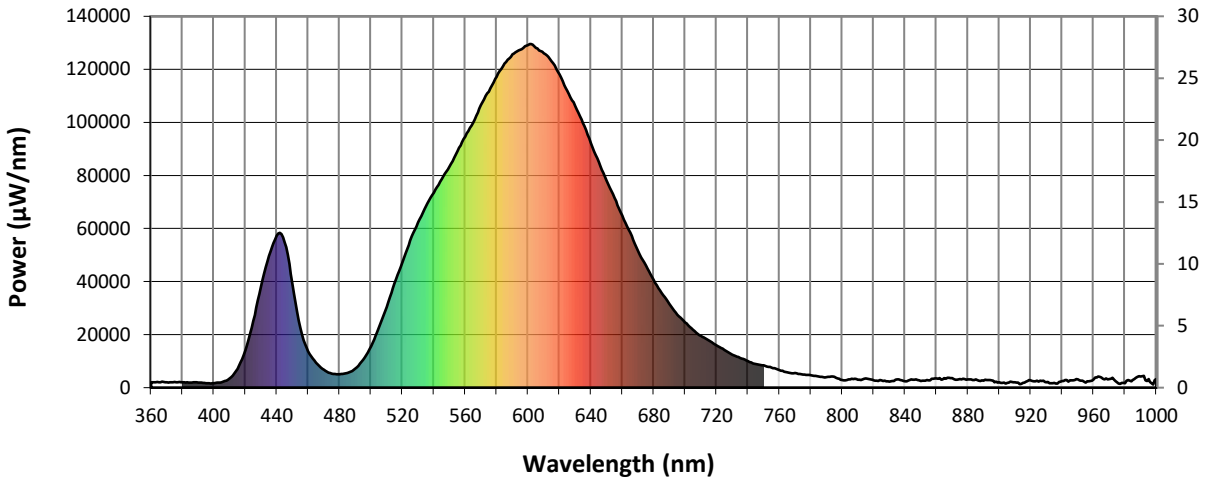
Scotopic Lumens: 6474.3 **S/P: 1.04**

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	2044	NR	490	7179	NR	620	118034	NR	750	8362	NR	880	3128	NR
365	2016	NR	495	10476	NR	625	111884	NR	755	7635	NR	885	3110	NR
370	2020	NR	500	15549	NR	630	106119	NR	760	6582	NR	890	2632	NR
375	2137	NR	505	22477	NR	635	99706	NR	765	5777	NR	895	2709	NR
380	2046	NR	510	30417	NR	640	92142	NR	770	5474	NR	900	2016	NR
385	1925	NR	515	39274	NR	645	84987	NR	775	4977	NR	905	1748	NR
390	1893	NR	520	47282	NR	650	78016	NR	780	4723	NR	910	2046	NR
395	1695	NR	525	55413	NR	655	71541	NR	785	4219	NR	915	1844	NR
400	1633	NR	530	62377	NR	660	64863	NR	790	3969	NR	920	2734	NR
405	2065	NR	535	68520	NR	665	58485	NR	795	4122	NR	925	2307	NR
410	3449	NR	540	73435	NR	670	51641	NR	800	2864	NR	930	2039	NR
415	7117	NR	545	78677	NR	675	46030	NR	805	3151	NR	935	1784	NR
420	13992	NR	550	83331	NR	680	40590	NR	810	3022	NR	940	2464	NR
425	25176	NR	555	89120	NR	685	35691	NR	815	3471	NR	945	2794	NR
430	38151	NR	560	94613	NR	690	31631	NR	820	2749	NR	950	3090	NR
435	49673	NR	565	99818	NR	695	27437	NR	825	2729	NR	955	1866	NR
440	57273	NR	570	106526	NR	700	24589	NR	830	2282	NR	960	3110	NR
445	54802	NR	575	111610	NR	705	21832	NR	835	3140	NR	965	3880	NR
450	39184	NR	580	117163	NR	710	19500	NR	840	2365	NR	970	3243	NR
455	22506	NR	585	122201	NR	715	17870	NR	845	3024	NR	975	2014	NR
460	13692	NR	590	125662	NR	720	15924	NR	850	2510	NR	980	1688	NR
465	9446	NR	595	127415	NR	725	14268	NR	855	2739	NR	985	2827	NR
470	6698	NR	600	129155	NR	730	12438	NR	860	3515	NR	990	4172	NR
475	5328	NR	605	128057	NR	735	11255	NR	865	3600	NR	995	3177	NR
480	5081	NR	610	126031	NR	740	9951	NR	870	3609	NR	1000	3241	NR
485	5579	NR	615	123059	NR	745	8870	NR	875	3208	NR			

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 2145.7 **M/P: 0.35**

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	2044	NR	490	7179	NR	620	118034	NR	750	8362	NR	880	3128	NR
365	2016	NR	495	10476	NR	625	111884	NR	755	7635	NR	885	3110	NR
370	2020	NR	500	15549	NR	630	106119	NR	760	6582	NR	890	2632	NR
375	2137	NR	505	22477	NR	635	99706	NR	765	5777	NR	895	2709	NR
380	2046	NR	510	30417	NR	640	92142	NR	770	5474	NR	900	2016	NR
385	1925	NR	515	39274	NR	645	84987	NR	775	4977	NR	905	1748	NR
390	1893	NR	520	47282	NR	650	78016	NR	780	4723	NR	910	2046	NR
395	1695	NR	525	55413	NR	655	71541	NR	785	4219	NR	915	1844	NR
400	1633	NR	530	62377	NR	660	64863	NR	790	3969	NR	920	2734	NR
405	2065	NR	535	68520	NR	665	58485	NR	795	4122	NR	925	2307	NR
410	3449	NR	540	73435	NR	670	51641	NR	800	2864	NR	930	2039	NR
415	7117	NR	545	78677	NR	675	46030	NR	805	3151	NR	935	1784	NR
420	13992	NR	550	83331	NR	680	40590	NR	810	3022	NR	940	2464	NR
425	25176	NR	555	89120	NR	685	35691	NR	815	3471	NR	945	2794	NR
430	38151	NR	560	94613	NR	690	31631	NR	820	2749	NR	950	3090	NR
435	49673	NR	565	99818	NR	695	27437	NR	825	2729	NR	955	1866	NR
440	57273	NR	570	106526	NR	700	24589	NR	830	2282	NR	960	3110	NR
445	54802	NR	575	111610	NR	705	21832	NR	835	3140	NR	965	3880	NR
450	39184	NR	580	117163	NR	710	19500	NR	840	2365	NR	970	3243	NR
455	22506	NR	585	122201	NR	715	17870	NR	845	3024	NR	975	2014	NR
460	13692	NR	590	125662	NR	720	15924	NR	850	2510	NR	980	1688	NR
465	9446	NR	595	127415	NR	725	14268	NR	855	2739	NR	985	2827	NR
470	6698	NR	600	129155	NR	730	12438	NR	860	3515	NR	990	4172	NR
475	5328	NR	605	128057	NR	735	11255	NR	865	3600	NR	995	3177	NR
480	5081	NR	610	126031	NR	740	9951	NR	870	3609	NR	1000	3241	NR
485	5579	NR	615	123059	NR	745	8870	NR	875	3208	NR			

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

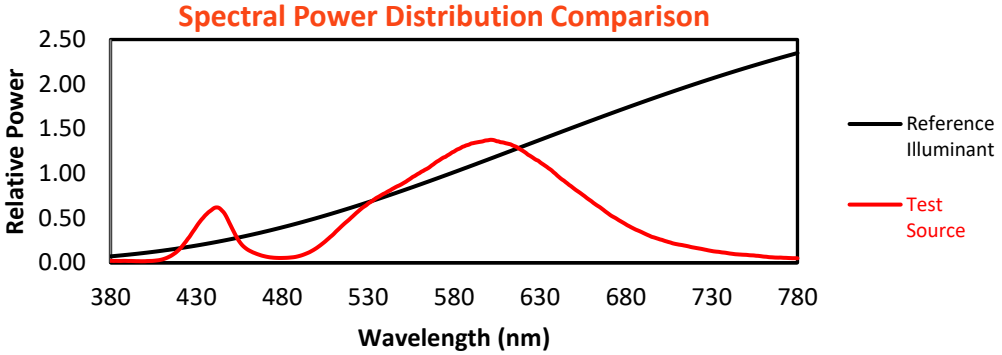
REPORT NUMBER: SP1-1908-441-1-R4

TM-30-18

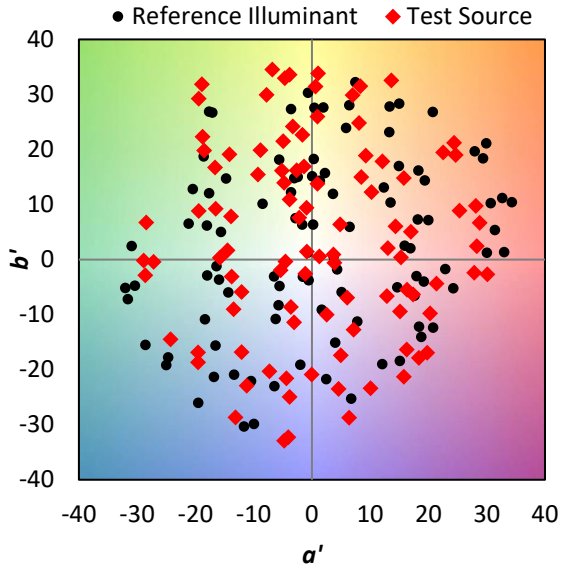
Summary

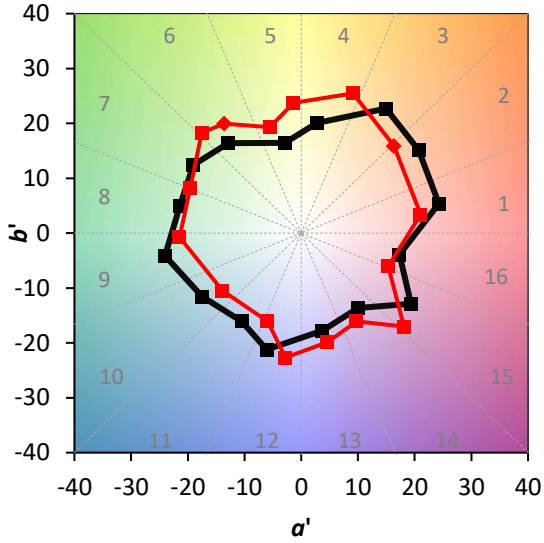
R_f = 69.9
R_g = 98.3
CIE R_a = 71.5
R_9 = -16.1

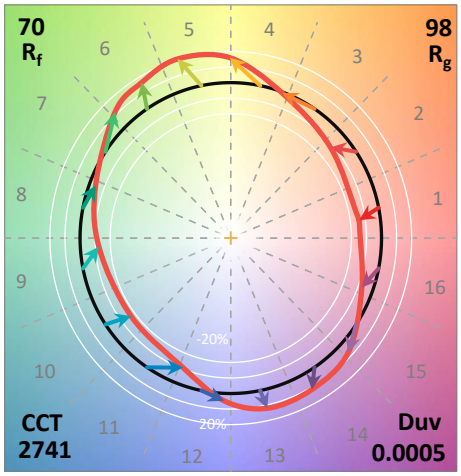
Spectral Power Distribution Comparison

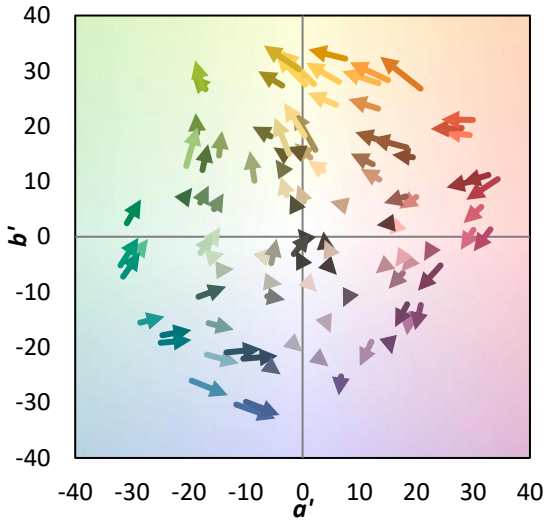


Color Vector Graphics









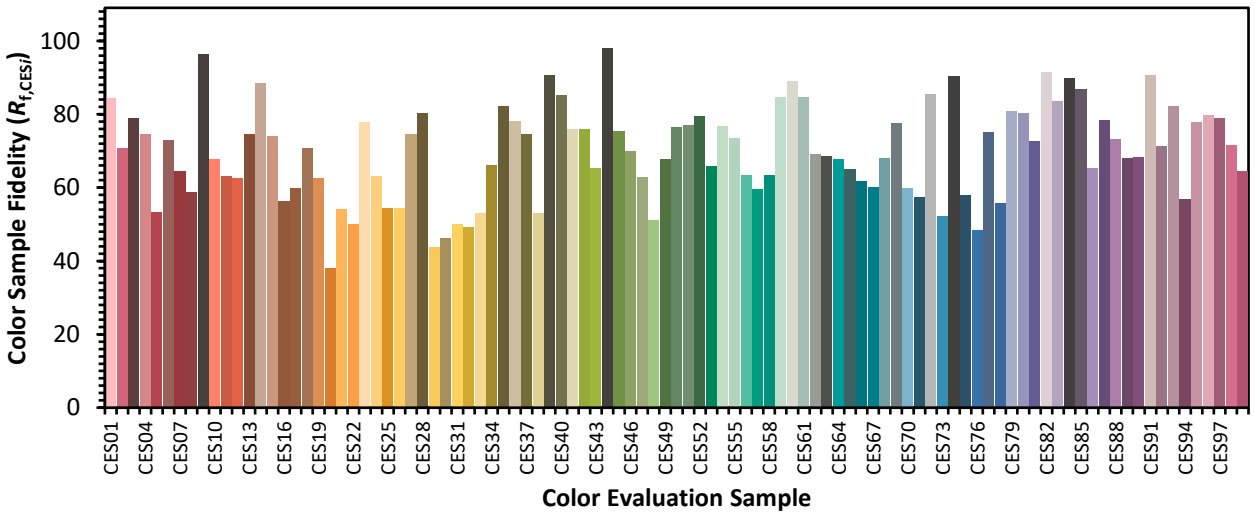
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

TM-30-18

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

CES01 = 86	CES26 = 54	CES51 = 77	CES76 = 48
CES02 = 63	CES27 = 74	CES52 = 80	CES77 = 75
CES03 = 31	CES28 = 80	CES53 = 66	CES78 = 56
CES04 = 71	CES29 = 44	CES54 = 77	CES79 = 81
CES05 = 50	CES30 = 46	CES55 = 74	CES80 = 80
CES06 = 52	CES31 = 50	CES56 = 63	CES81 = 73
CES07 = 42	CES32 = 49	CES57 = 60	CES82 = 91
CES08 = 41	CES33 = 53	CES58 = 63	CES83 = 84
CES09 = 29	CES34 = 66	CES59 = 85	CES84 = 90
CES10 = 77	CES35 = 82	CES60 = 89	CES85 = 87
CES11 = 60	CES36 = 78	CES61 = 85	CES86 = 65
CES12 = 66	CES37 = 75	CES62 = 69	CES87 = 78
CES13 = 43	CES38 = 53	CES63 = 68	CES88 = 73
CES14 = 74	CES39 = 91	CES64 = 68	CES89 = 68
CES15 = 71	CES40 = 85	CES65 = 65	CES90 = 68
CES16 = 48	CES41 = 76	CES66 = 62	CES91 = 91
CES17 = 50	CES42 = 76	CES67 = 60	CES92 = 71
CES18 = 57	CES43 = 65	CES68 = 68	CES93 = 82
CES19 = 73	CES44 = 98	CES69 = 77	CES94 = 57
CES20 = 67	CES45 = 75	CES70 = 60	CES95 = 78
CES21 = 88	CES46 = 70	CES71 = 57	CES96 = 80
CES22 = 80	CES47 = 63	CES72 = 86	CES97 = 79
CES23 = 92	CES48 = 51	CES73 = 52	CES98 = 71
CES24 = 91	CES49 = 68	CES74 = 90	CES99 = 64
CES25 = 73	CES50 = 77	CES75 = 58	

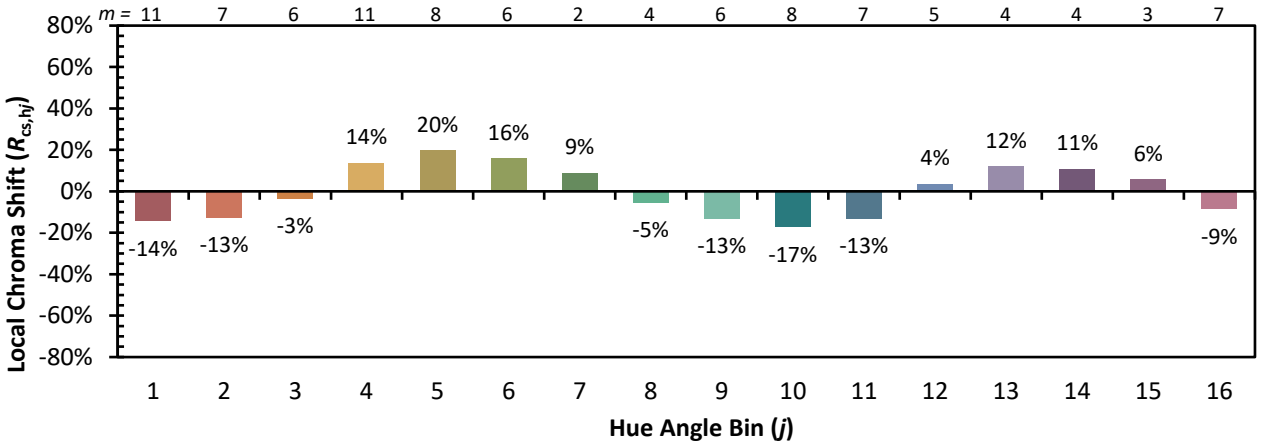


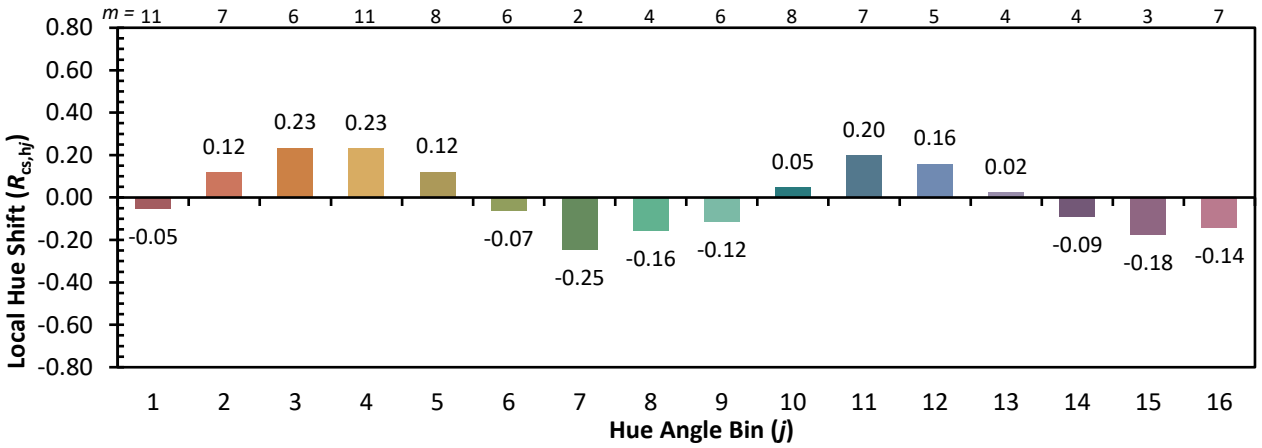
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

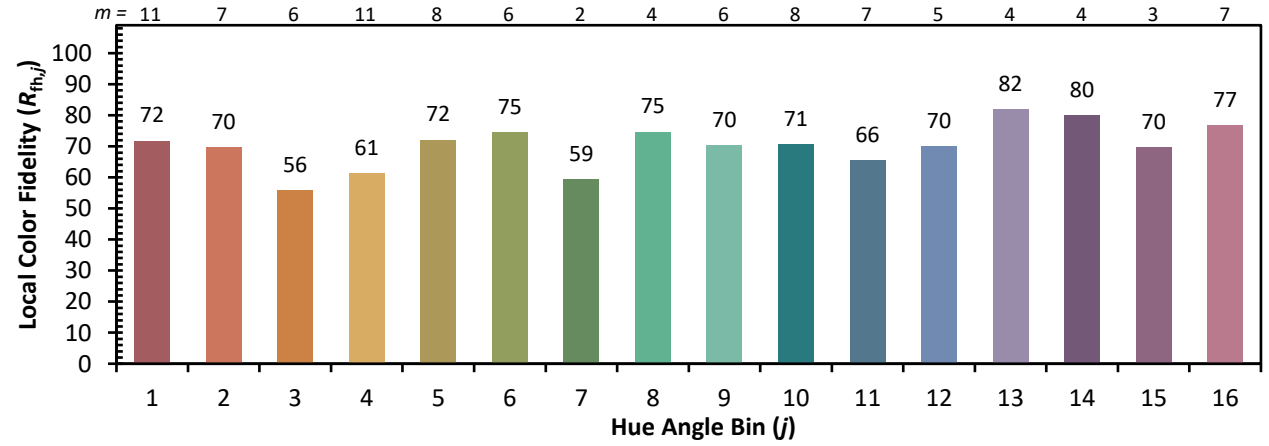
REPORT NUMBER: SP1-1908-441-1-R4

TM-30-18

Color Rendition by Hue-Angle Bin





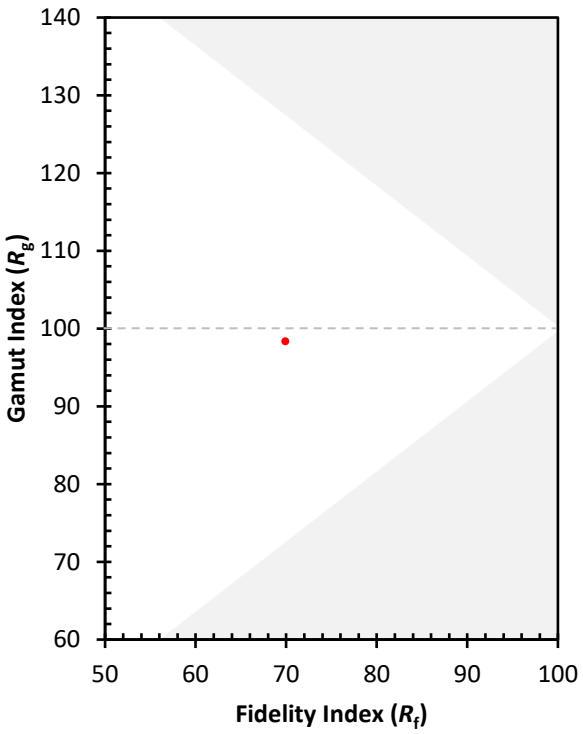


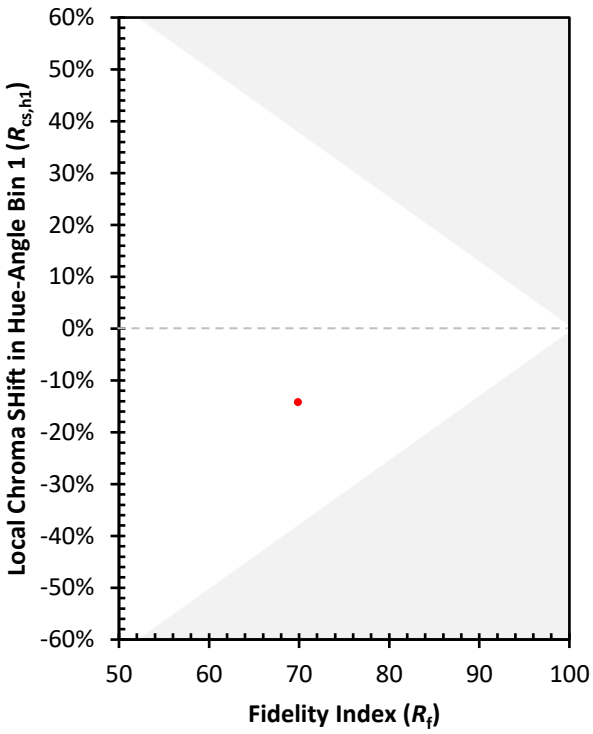
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

TM-30-18

Measure Comparisons





(END OF REPORT)