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: McGRAW-EDISON

Report Number: P437030

Luminaire Tested: **ISS-SA1A-750-U-T2-HSS**

Issue Date: 12/9/2020

Report Generated By 670245982

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

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P437030
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-7)
Test Lab:	INNOVATION CENTER
Issue Date:	12/9/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	ISS-SA1A-750-U-T2-HSS
Description:	IMPACT ELITE LED QUARTER SPHERE LUMINAIRE
	(1) 70 CRI, 5000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2138 lumens
Efficiency:	N/A
Efficacy:	106.4 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Medium
BUG Rating:	B0 - U0 - G1

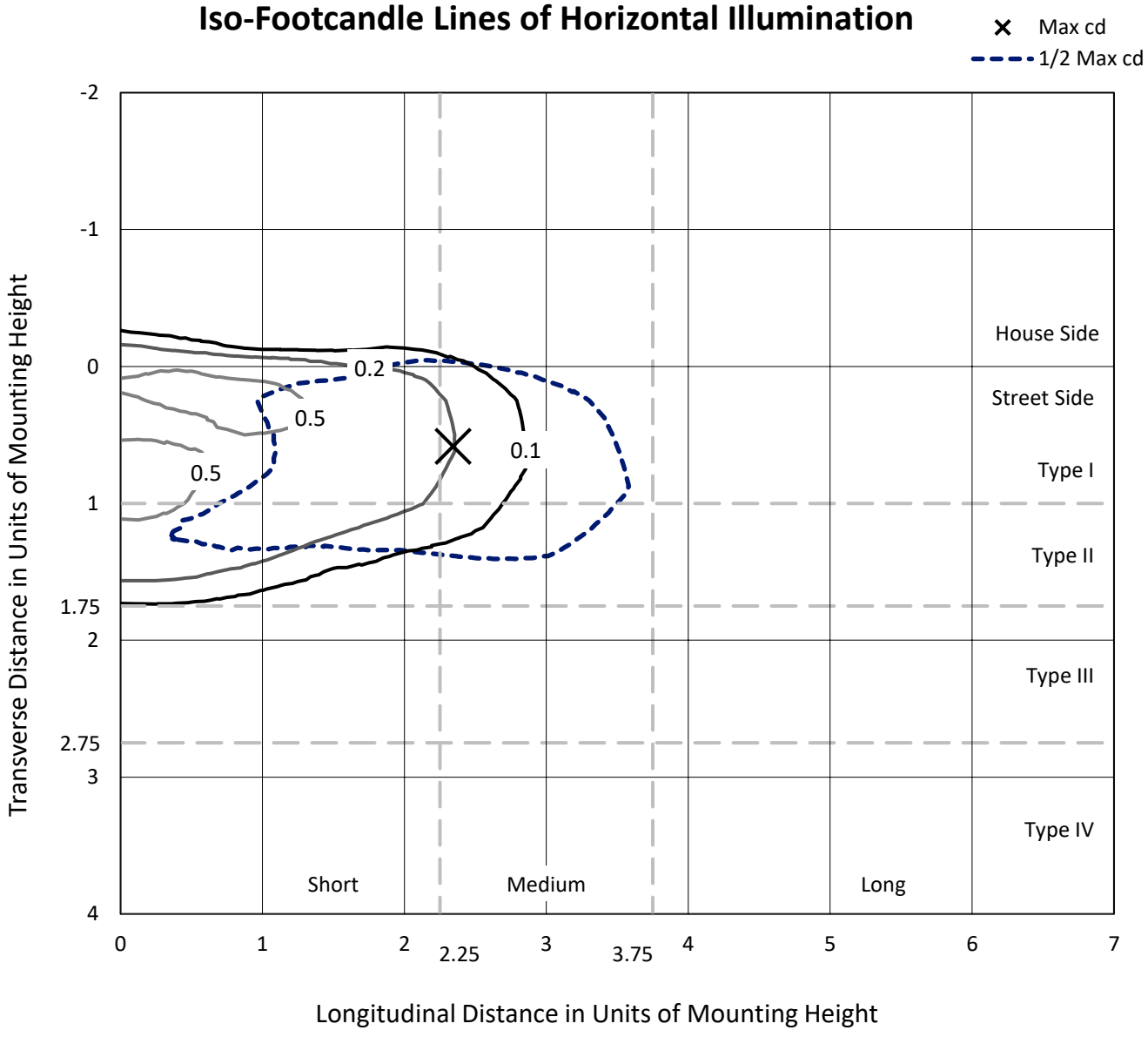
Input Watts (W):	20.1
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination



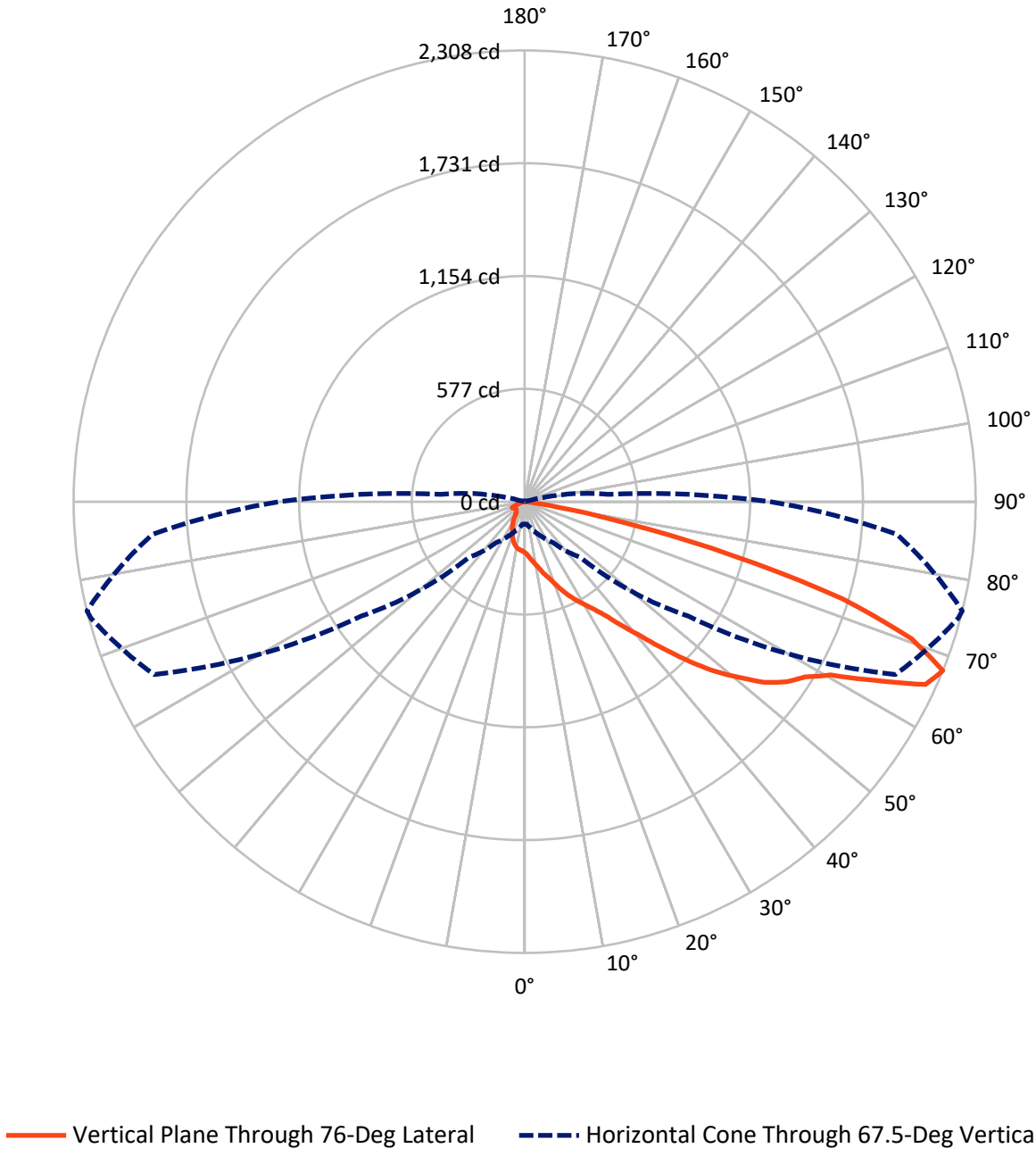
Based on 25 foot mounting height. Maximum calculated value = 0.6 fc
Type II - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

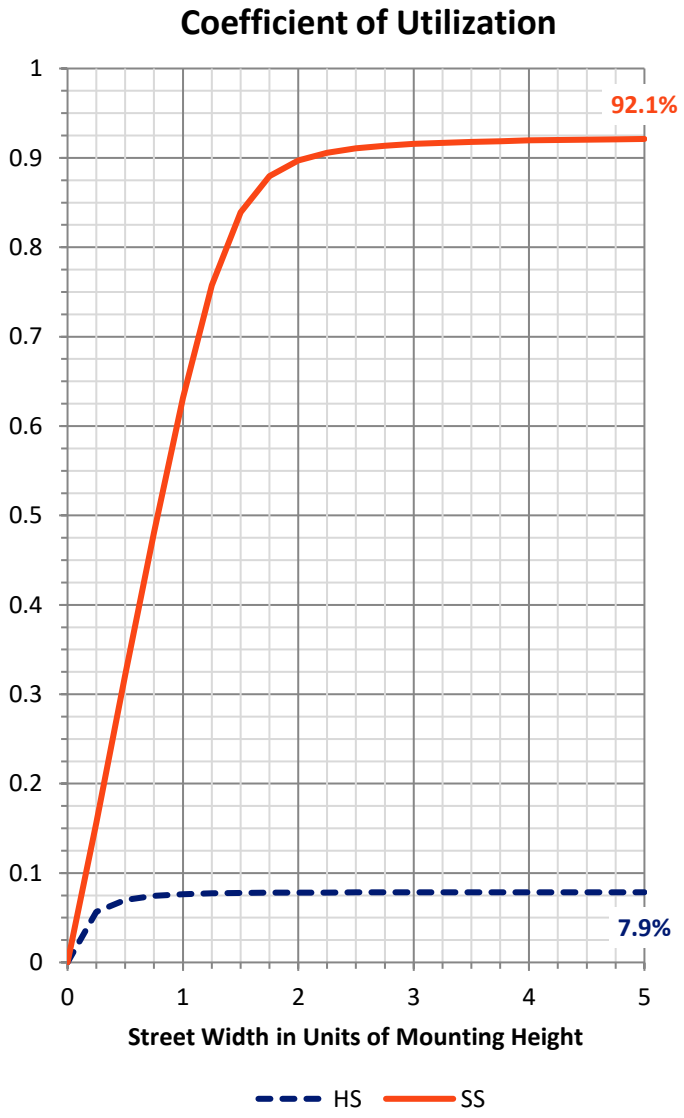
REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	169.1	0.0	169.1
	% Fixture	7.9	0.0	7.9
Street Side	Lumens	1968.8	0.0	1968.8
	% Fixture	92.1	0.0	92.1
Total	Lumens	2138.0	0.0	2138.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	1.2
10°-20°	69.5	3.2
20°-30°	119.9	5.6
30°-40°	213.6	10.0
40°-50°	380.3	17.8
50°-60°	570.3	26.7
60°-70°	540.2	25.3
70°-80°	210.5	9.8
80°-90°	8.7	0.4
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°	2138.0	100.0
0°-180°	2138.0	100.0



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

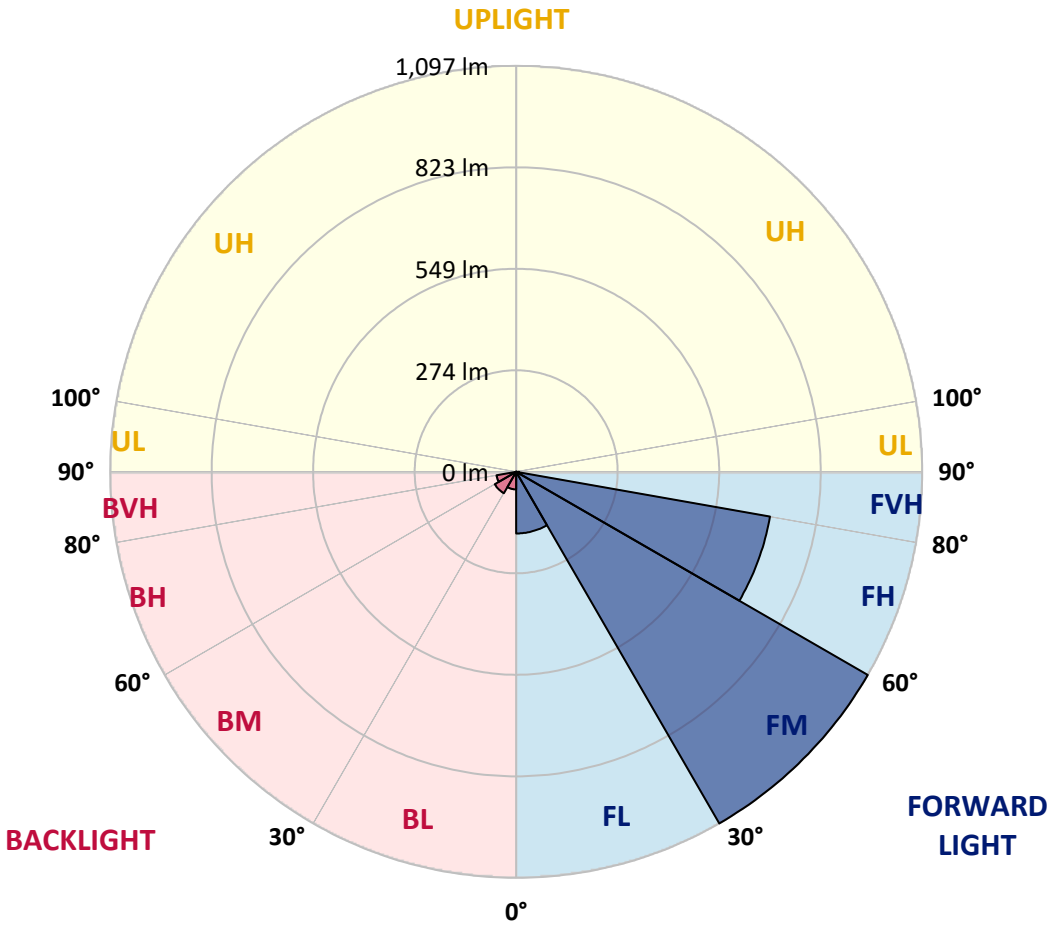
Scaled Data Report

REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	166.7	7.8			
FM	(30°-60°)	1097.5	51.3			
FH	(60°-80°)	696.7	32.6			G1/1800
FVH	(80°-90°)	7.9	0.4			G0/10
BL	(0°-30°)	47.6	2.2	B0/110		
BM	(30°-60°)	66.8	3.1	B0/220		
BH	(60°-80°)	54.0	2.5	B0/110		G0/110
BVH	(80°-90°)	0.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
Type II Medium



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

Scaled Data Report

REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	260	260	260	260	260	260	260	260	260	*260*	260
2.5°	308	305	303	302	300	294	289	280	272	*272*	267
5°	336	335	331	329	328	324	315	304	291	*290*	278
7.5°	344	345	345	347	348	346	338	328	311	*309*	291
10°	341	341	344	350	358	362	361	353	333	*331*	306
12.5°	330	332	337	347	362	374	381	378	358	*356*	326
15°	315	317	326	340	360	383	399	408	388	*386*	347
17.5°	294	296	306	327	355	387	418	436	419	*413*	369
20°	286	288	296	313	346	387	435	469	456	*451*	397
22.5°	318	317	310	312	337	384	448	510	500	*493*	427
25°	376	380	370	347	343	381	457	542	541	*534*	458
27.5°	443	445	434	410	377	387	467	574	579	*573*	482
30°	498	505	497	475	440	413	474	603	620	*612*	505
32.5°	577	580	572	540	504	463	487	628	665	*658*	532
35°	660	664	649	614	570	524	518	662	730	*716*	573
37.5°	734	738	731	688	645	596	573	708	809	*800*	624
40°	793	803	801	764	724	680	652	762	900	*892*	689
42.5°	853	860	856	829	801	774	739	837	1017	*1013*	770
45°	928	939	934	912	878	872	839	927	1156	*1150*	868
47.5°	1039	1049	1041	1011	972	961	933	1029	1292	*1289*	965
50°	1099	1109	1130	1135	1109	1050	1017	1126	1414	*1409*	1058
52.5°	1078	1087	1138	1186	1243	1193	1119	1231	1526	*1535*	1149
55°	988	1000	1073	1150	1288	1355	1270	1350	1614	*1627*	1209
57.5°	806	820	914	1033	1219	1396	1457	1514	1674	*1691*	1286
60°	483	505	602	760	1018	1299	1590	1750	1791	*1799*	1450
62.5°	268	263	341	471	702	1055	1570	2037	2012	*2012*	1730
65°	161	166	206	280	408	696	1400	2214	2247	*2254*	1957
67.5°	*114*	*115*	*144*	*192*	*255*	*401*	*1021*	*2092*	*2298*	*2308*	*1912*
70°	74	75	103	137	182	221	624	1724	2105	*2100*	1691
72.5°	45	47	65	101	140	125	336	1246	1668	*1702*	1327
75°	28	30	39	70	98	85	148	832	1076	*1102*	857
77.5°	16	18	25	40	70	59	70	437	521	*538*	344
80°	6	7	13	20	43	36	32	148	166	*186*	105
82.5°	1	2	6	12	17	17	14	45	46	*49*	28
85°	0	0	2	3	3	3	5	9	14	*14*	8
87.5°	0	0	0	0	1	1	1	2	2	*2*	2
90°	0	0	0	0	0	0	0	0	0	*0*	0

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

Scaled Data Report

REPORT NUMBER: P437030
CATALOG NUMBER: ISS-SA1A-750-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	260	260	260	260	260	260	260	260	260	260	260
2.5°	262	260	252	244	238	233	225	225	222	219	220
5°	269	263	248	233	219	206	195	190	183	181	180
7.5°	278	267	242	218	195	178	164	155	147	145	146
10°	289	273	235	198	170	149	133	126	117	114	111
12.5°	305	280	224	176	145	124	101	84	78	76	76
15°	318	284	210	155	124	91	72	69	68	68	68
17.5°	333	287	193	135	96	67	63	63	62	62	61
20°	349	288	175	117	68	60	57	56	54	53	53
22.5°	367	287	155	96	60	55	50	48	46	44	44
25°	382	285	137	69	55	48	43	40	38	37	36
27.5°	395	274	119	59	50	43	37	34	32	31	31
30°	396	256	104	55	46	38	32	30	29	28	28
32.5°	402	238	88	52	41	34	29	27	25	25	25
35°	414	222	68	47	37	30	26	24	23	22	22
37.5°	433	211	56	43	34	27	24	22	21	20	20
40°	458	205	51	39	30	25	22	20	18	17	17
42.5°	501	205	47	35	27	23	20	18	16	15	15
45°	551	213	44	31	24	21	18	15	13	12	12
47.5°	606	228	41	28	22	19	16	12	10	9	9
50°	670	250	39	25	20	17	13	9	8	7	7
52.5°	724	272	36	23	18	15	10	8	6	6	6
55°	775	296	34	21	17	12	8	6	5	5	5
57.5°	843	326	31	19	14	9	7	5	4	4	4
60°	982	393	27	17	12	8	6	5	4	3	3
62.5°	1208	502	23	15	9	7	5	4	3	2	2
65°	1351	529	19	12	7	5	4	3	2	1	1
67.5°	*1259*	*430*	*15*	*9*	*6*	*4*	*3*	*2*	*1*	*0*	*0*
70°	1063	325	11	6	5	3	2	1	0	0	0
72.5°	840	247	10	5	4	2	2	1	0	0	0
75°	551	127	8	5	3	2	1	1	0	0	0
77.5°	217	48	6	4	3	2	1	1	0	0	0
80°	59	16	3	2	2	1	1	1	0	0	0
82.5°	15	7	2	2	1	1	1	1	1	0	0
85°	5	2	2	1	1	1	0	0	0	0	0
87.5°	2	2	2	1	1	1	0	0	0	0	0
90°	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: SP1-1908-441-4-R4

Test Date: 10/02/2019

Luminaire Tested: SA1C-750-U-5WQ

Data in this report applies to families of products SA1C-760-U-5WQ .

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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

Test Information

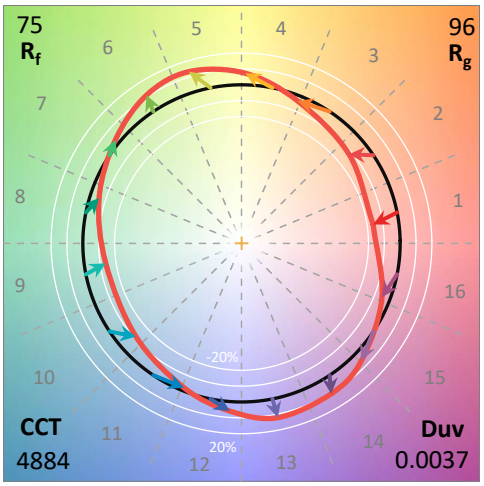
Test Method:	LM-79-2008
Report Number:	SP1-1908-441-4-R4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	10/28/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	**SA1C-750-U-5WQ**
Description:	McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K):	4884	CRI (Ra):	73.5		
CIE u':	0.2101	R1:	70.5	R9:	-28.4
CIE v':	0.4904	R2:	77.7	R10:	48.6
Duv:	0.0037	R3:	84.6	R11:	73.2
CIE x:	0.3493	R4:	74.7	R12:	50.7
CIE y:	0.3624	R5:	71.9	R13:	71.2
CIE z:	0.2884	R6:	70.7	R14:	91.4
Peak Wavelength (nm):	444	R7:	81.2		
Dominant Wavelength (nm):	571	R8:	56.9		
Purity:	13.7				

Rf:	74.9
Rg:	96.3



Test Conditions

Stabilization Time:	240M
Operation Time:	12H
Room Temperature (°C) / RH%:	25.0./44%
Sphere Temperature (°C):	25.7

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

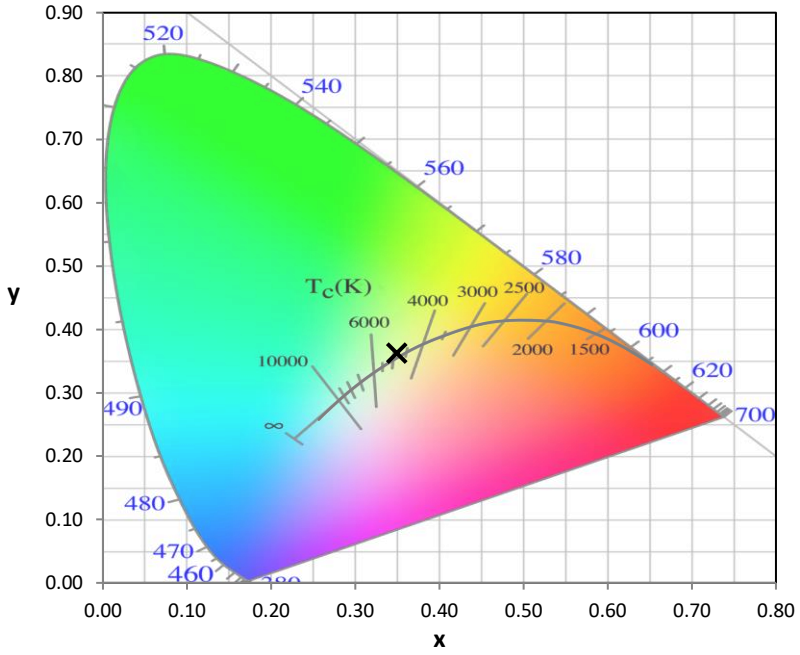
REPORT NUMBER: SP1-1908-441-4-R4

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

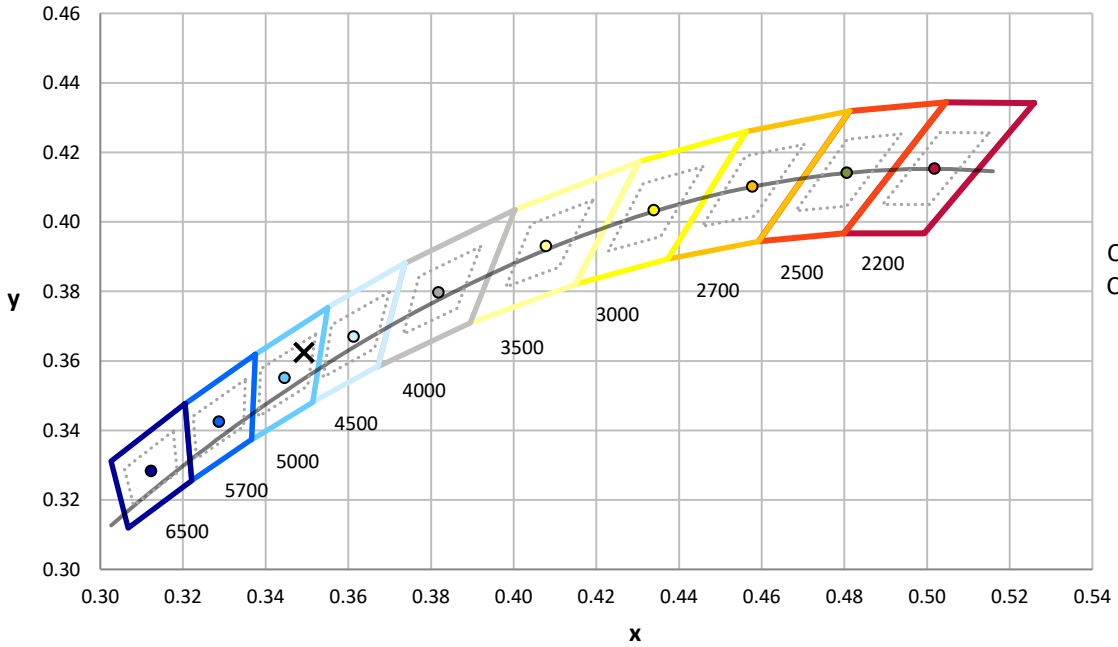
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-4-R4

CIE 1931 Chromaticity Diagram



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



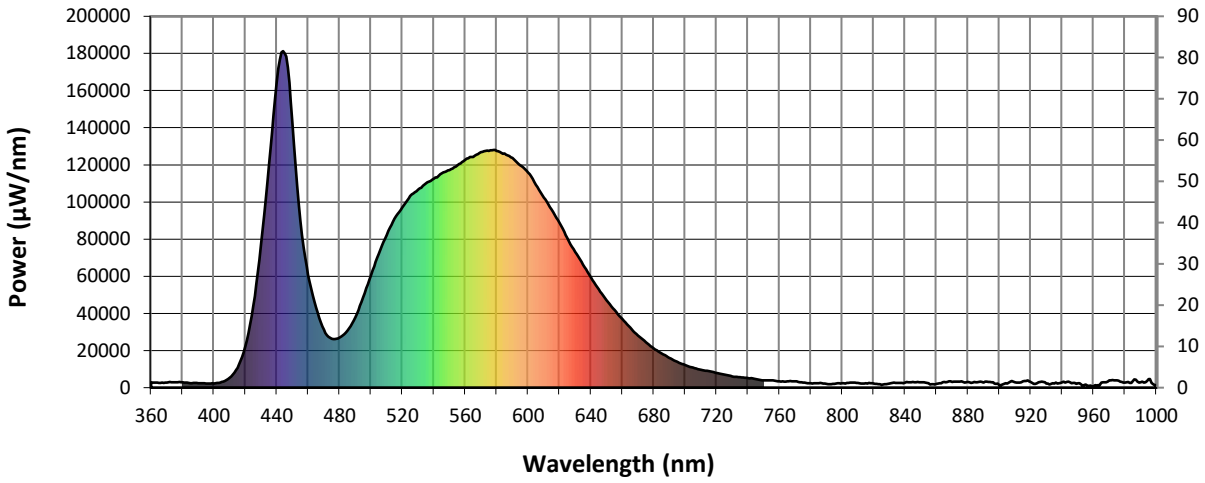
CCT = 4884K
CIE x = 0.3493
CIE y = 0.3624
Duv = 0.0037

Point lies inside the ANSI 5000K 4-step quadrangle

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

REPORT NUMBER: SP1-1908-441-4-R4

Photopic Flux vs. Wavelength



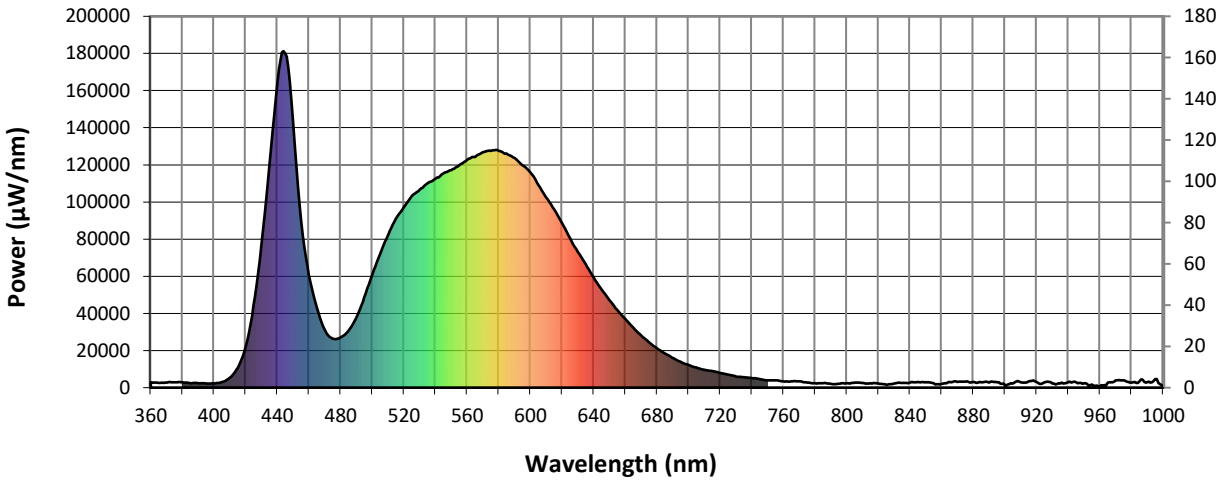
######

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	2945	NR	490	37941	NR	620	88803	NR	750	3908	NR	880	2997	NR
365	2596	NR	495	48525	NR	625	80578	NR	755	3988	NR	885	2927	NR
370	2732	NR	500	60609	NR	630	73127	NR	760	3335	NR	890	2649	NR
375	2894	NR	505	72036	NR	635	66244	NR	765	3438	NR	895	2828	NR
380	2822	NR	510	82168	NR	640	59440	NR	770	3427	NR	900	1407	NR
385	2394	NR	515	90898	NR	645	52864	NR	775	2759	NR	905	2224	NR
390	2370	NR	520	97142	NR	650	47085	NR	780	2340	NR	910	2905	NR
395	2267	NR	525	103255	NR	655	41789	NR	785	2412	NR	915	3350	NR
400	2262	NR	530	106697	NR	660	37064	NR	790	1999	NR	920	3114	NR
405	3000	NR	535	110081	NR	665	32299	NR	795	2054	NR	925	2834	NR
410	5324	NR	540	112494	NR	670	28142	NR	800	2331	NR	930	2271	NR
415	10725	NR	545	115513	NR	675	24505	NR	805	2648	NR	935	2228	NR
420	22128	NR	550	117203	NR	680	21162	NR	810	2485	NR	940	2833	NR
425	44095	NR	555	119753	NR	685	18400	NR	815	2409	NR	945	2941	NR
430	77002	NR	560	122602	NR	690	16065	NR	820	2221	NR	950	2323	NR
435	119881	NR	565	124314	NR	695	13860	NR	825	1562	NR	955	1667	NR
440	164454	NR	570	126775	NR	700	12177	NR	830	2249	NR	960	749	NR
445	179997	NR	575	127511	NR	705	10757	NR	835	2573	NR	965	2669	NR
450	142822	NR	580	127577	NR	710	9601	NR	840	2764	NR	970	3968	NR
455	90008	NR	585	126153	NR	715	8944	NR	845	3109	NR	975	3886	NR
460	60557	NR	590	123678	NR	720	7947	NR	850	2963	NR	980	2788	NR
465	43305	NR	595	119774	NR	725	7062	NR	855	2336	NR	985	3496	NR
470	31089	NR	600	115733	NR	730	6004	NR	860	2118	NR	990	2913	NR
475	26278	NR	605	109231	NR	735	5594	NR	865	3144	NR	995	4659	NR
480	27060	NR	610	102408	NR	740	5165	NR	870	3069	NR	1000	1308	NR
485	30698	NR	615	96015	NR	745	4687	NR	875	3311	NR			

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

REPORT NUMBER: SP1-1908-441-4-R4

Scotopic Flux vs. Wavelength



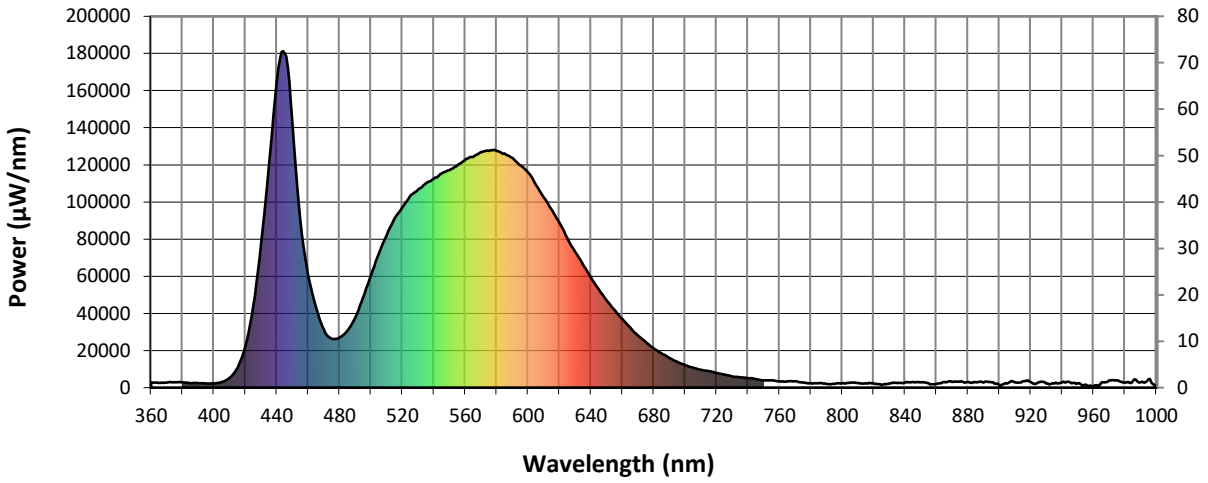
Scotopic Lumens: 13493.5 **S/P: 1.77**

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	2945	NR	490	37941	NR	620	88803	NR	750	3908	NR	880	2997	NR
365	2596	NR	495	48525	NR	625	80578	NR	755	3988	NR	885	2927	NR
370	2732	NR	500	60609	NR	630	73127	NR	760	3335	NR	890	2649	NR
375	2894	NR	505	72036	NR	635	66244	NR	765	3438	NR	895	2828	NR
380	2822	NR	510	82168	NR	640	59440	NR	770	3427	NR	900	1407	NR
385	2394	NR	515	90898	NR	645	52864	NR	775	2759	NR	905	2224	NR
390	2370	NR	520	97142	NR	650	47085	NR	780	2340	NR	910	2905	NR
395	2267	NR	525	103255	NR	655	41789	NR	785	2412	NR	915	3350	NR
400	2262	NR	530	106697	NR	660	37064	NR	790	1999	NR	920	3114	NR
405	3000	NR	535	110081	NR	665	32299	NR	795	2054	NR	925	2834	NR
410	5324	NR	540	112494	NR	670	28142	NR	800	2331	NR	930	2271	NR
415	10725	NR	545	115513	NR	675	24505	NR	805	2648	NR	935	2228	NR
420	22128	NR	550	117203	NR	680	21162	NR	810	2485	NR	940	2833	NR
425	44095	NR	555	119753	NR	685	18400	NR	815	2409	NR	945	2941	NR
430	77002	NR	560	122602	NR	690	16065	NR	820	2221	NR	950	2323	NR
435	119881	NR	565	124314	NR	695	13860	NR	825	1562	NR	955	1667	NR
440	164454	NR	570	126775	NR	700	12177	NR	830	2249	NR	960	749	NR
445	179997	NR	575	127511	NR	705	10757	NR	835	2573	NR	965	2669	NR
450	142822	NR	580	127577	NR	710	9601	NR	840	2764	NR	970	3968	NR
455	90008	NR	585	126153	NR	715	8944	NR	845	3109	NR	975	3886	NR
460	60557	NR	590	123678	NR	720	7947	NR	850	2963	NR	980	2788	NR
465	43305	NR	595	119774	NR	725	7062	NR	855	2336	NR	985	3496	NR
470	31089	NR	600	115733	NR	730	6004	NR	860	2118	NR	990	2913	NR
475	26278	NR	605	109231	NR	735	5594	NR	865	3144	NR	995	4659	NR
480	27060	NR	610	102408	NR	740	5165	NR	870	3069	NR	1000	1308	NR
485	30698	NR	615	96015	NR	745	4687	NR	875	3311	NR			

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

REPORT NUMBER: SP1-1908-441-4-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 5378.9 M/P: 0.71

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	2945	NR	490	37941	NR	620	88803	NR	750	3908	NR	880	2997	NR
365	2596	NR	495	48525	NR	625	80578	NR	755	3988	NR	885	2927	NR
370	2732	NR	500	60609	NR	630	73127	NR	760	3335	NR	890	2649	NR
375	2894	NR	505	72036	NR	635	66244	NR	765	3438	NR	895	2828	NR
380	2822	NR	510	82168	NR	640	59440	NR	770	3427	NR	900	1407	NR
385	2394	NR	515	90898	NR	645	52864	NR	775	2759	NR	905	2224	NR
390	2370	NR	520	97142	NR	650	47085	NR	780	2340	NR	910	2905	NR
395	2267	NR	525	103255	NR	655	41789	NR	785	2412	NR	915	3350	NR
400	2262	NR	530	106697	NR	660	37064	NR	790	1999	NR	920	3114	NR
405	3000	NR	535	110081	NR	665	32299	NR	795	2054	NR	925	2834	NR
410	5324	NR	540	112494	NR	670	28142	NR	800	2331	NR	930	2271	NR
415	10725	NR	545	115513	NR	675	24505	NR	805	2648	NR	935	2228	NR
420	22128	NR	550	117203	NR	680	21162	NR	810	2485	NR	940	2833	NR
425	44095	NR	555	119753	NR	685	18400	NR	815	2409	NR	945	2941	NR
430	77002	NR	560	122602	NR	690	16065	NR	820	2221	NR	950	2323	NR
435	119881	NR	565	124314	NR	695	13860	NR	825	1562	NR	955	1667	NR
440	164454	NR	570	126775	NR	700	12177	NR	830	2249	NR	960	749	NR
445	179997	NR	575	127511	NR	705	10757	NR	835	2573	NR	965	2669	NR
450	142822	NR	580	127577	NR	710	9601	NR	840	2764	NR	970	3968	NR
455	90008	NR	585	126153	NR	715	8944	NR	845	3109	NR	975	3886	NR
460	60557	NR	590	123678	NR	720	7947	NR	850	2963	NR	980	2788	NR
465	43305	NR	595	119774	NR	725	7062	NR	855	2336	NR	985	3496	NR
470	31089	NR	600	115733	NR	730	6004	NR	860	2118	NR	990	2913	NR
475	26278	NR	605	109231	NR	735	5594	NR	865	3144	NR	995	4659	NR
480	27060	NR	610	102408	NR	740	5165	NR	870	3069	NR	1000	1308	NR
485	30698	NR	615	96015	NR	745	4687	NR	875	3311	NR			

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

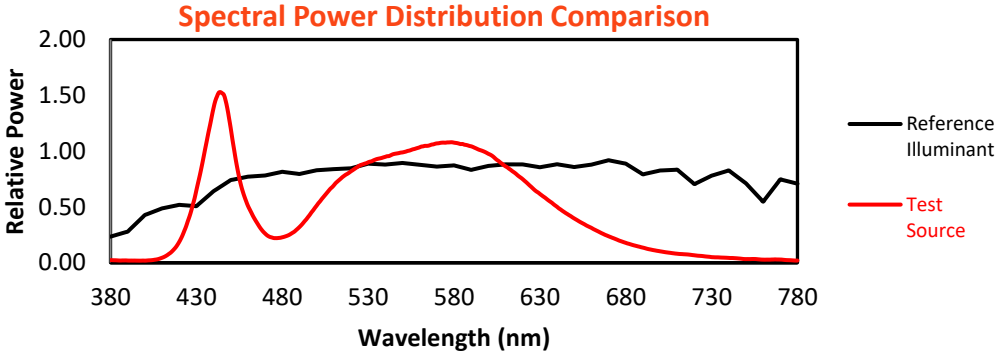
REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

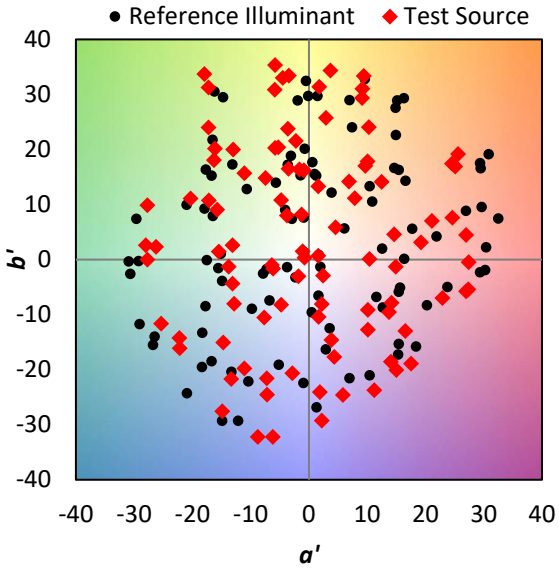
Summary

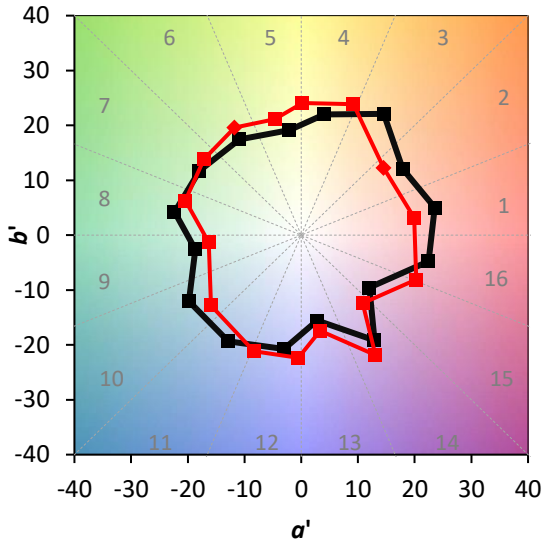
R_f = 74.9
R_g = 96.3
CIE R_a = 73.5
R_9 = -28.4

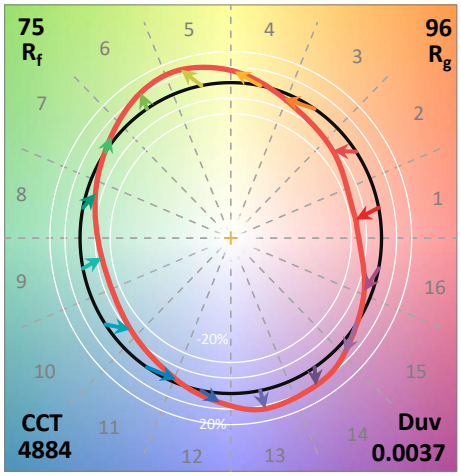
Spectral Power Distribution Comparison

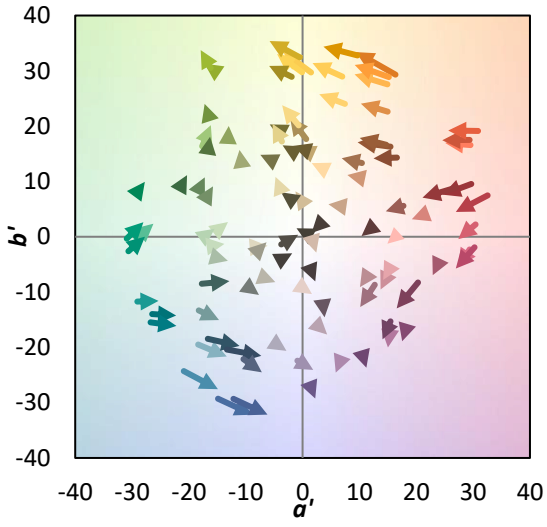


Color Vector Graphics









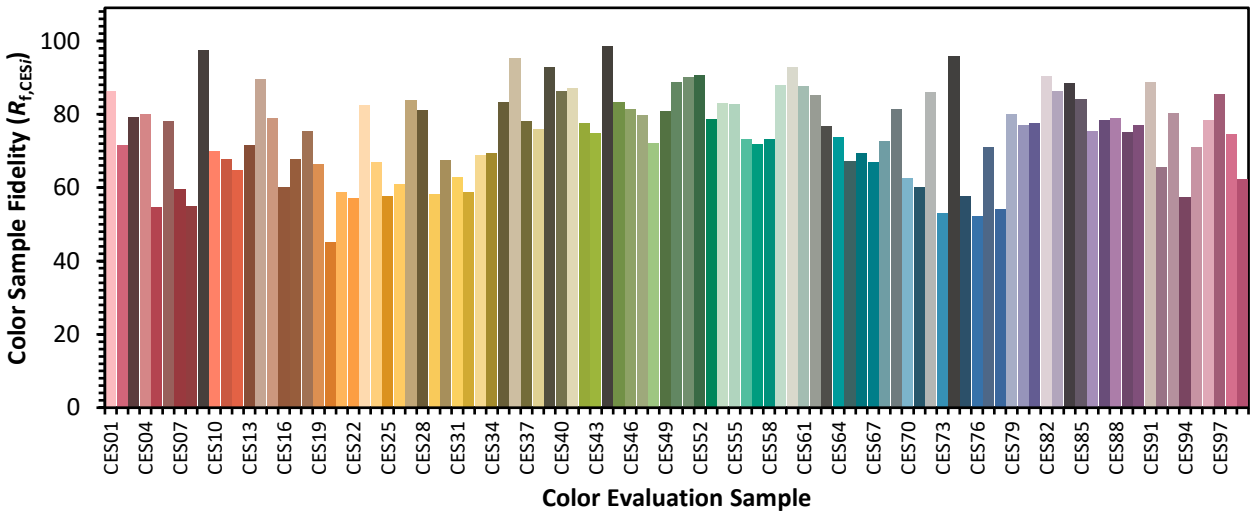
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

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

CES01 = 85	CES26 = 61	CES51 = 90	CES76 = 52
CES02 = 60	CES27 = 84	CES52 = 91	CES77 = 71
CES03 = 30	CES28 = 81	CES53 = 79	CES78 = 54
CES04 = 69	CES29 = 58	CES54 = 83	CES79 = 80
CES05 = 46	CES30 = 67	CES55 = 83	CES80 = 77
CES06 = 50	CES31 = 63	CES56 = 73	CES81 = 77
CES07 = 39	CES32 = 59	CES57 = 72	CES82 = 90
CES08 = 38	CES33 = 69	CES58 = 73	CES83 = 86
CES09 = 29	CES34 = 69	CES59 = 88	CES84 = 88
CES10 = 73	CES35 = 83	CES60 = 93	CES85 = 84
CES11 = 56	CES36 = 95	CES61 = 88	CES86 = 75
CES12 = 61	CES37 = 78	CES62 = 85	CES87 = 78
CES13 = 41	CES38 = 76	CES63 = 77	CES88 = 79
CES14 = 74	CES39 = 93	CES64 = 74	CES89 = 75
CES15 = 70	CES40 = 86	CES65 = 67	CES90 = 77
CES16 = 46	CES41 = 87	CES66 = 69	CES91 = 89
CES17 = 49	CES42 = 78	CES67 = 67	CES92 = 66
CES18 = 55	CES43 = 75	CES68 = 73	CES93 = 80
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 57
CES20 = 64	CES45 = 83	CES70 = 63	CES95 = 71
CES21 = 85	CES46 = 81	CES71 = 60	CES96 = 78
CES22 = 77	CES47 = 80	CES72 = 86	CES97 = 85
CES23 = 91	CES48 = 72	CES73 = 53	CES98 = 75
CES24 = 90	CES49 = 81	CES74 = 96	CES99 = 62
CES25 = 71	CES50 = 89	CES75 = 58	

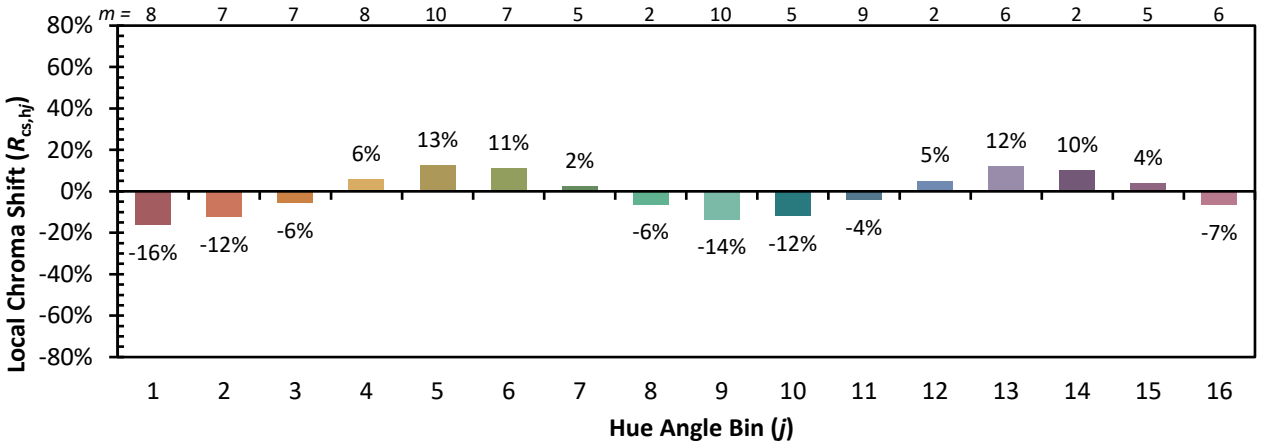


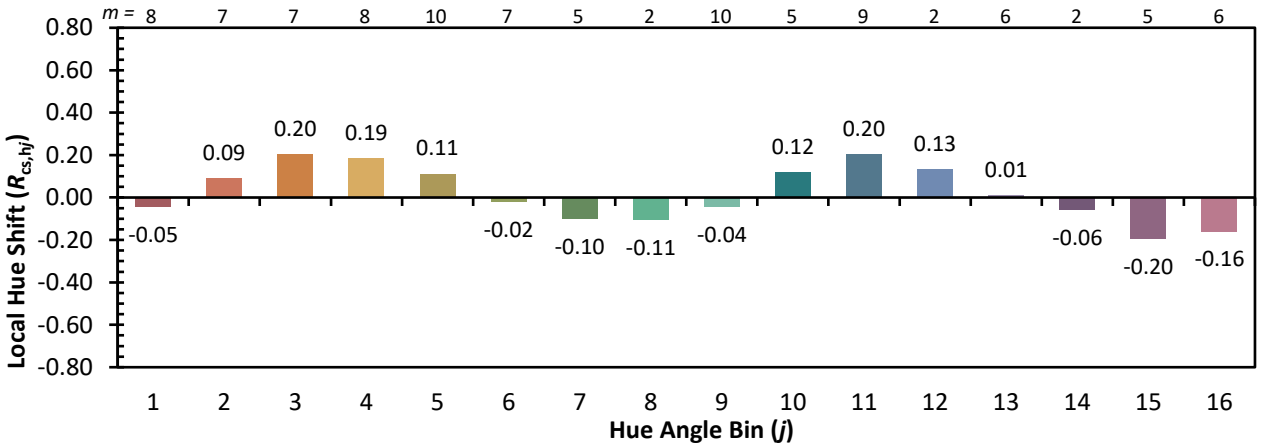
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

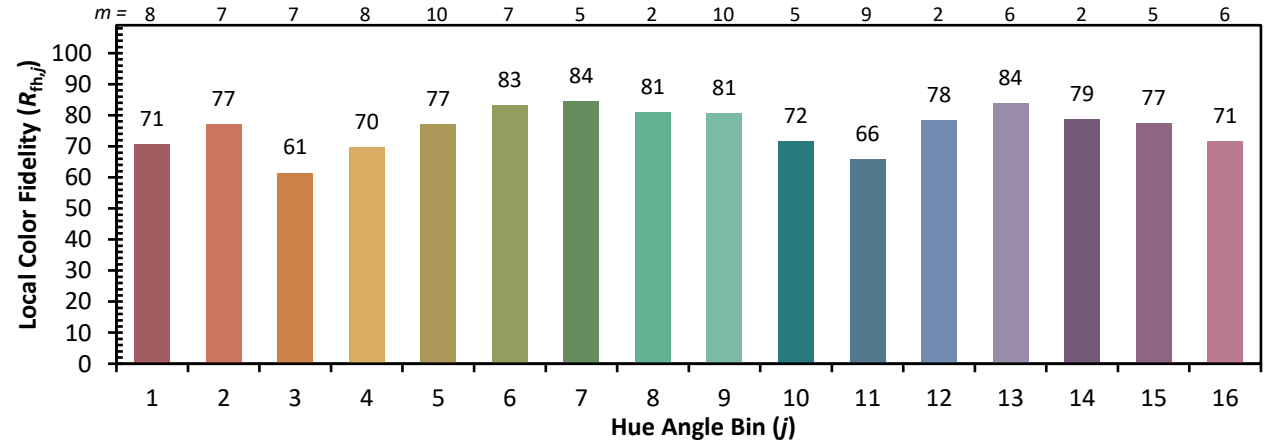
REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

Color Rendition by Hue-Angle Bin





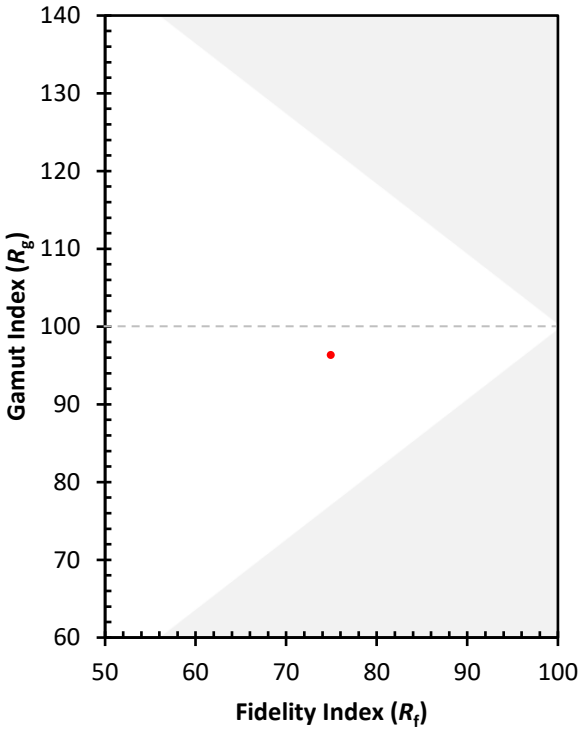


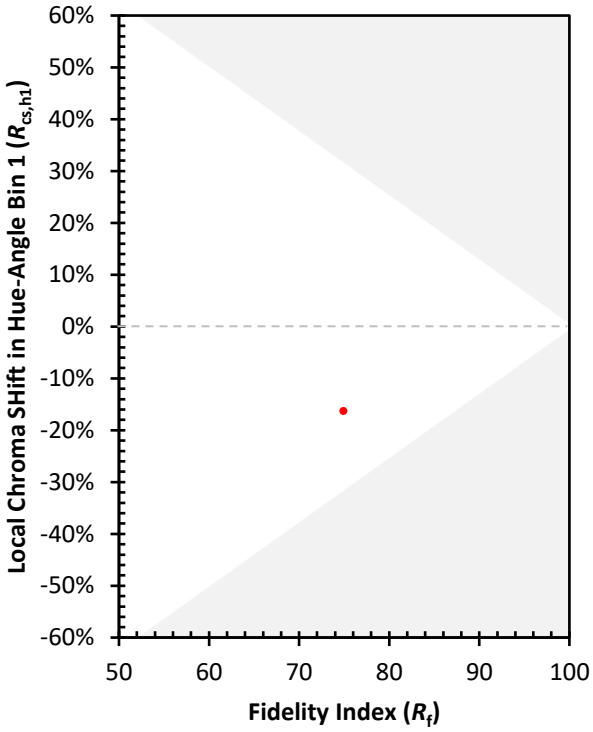
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-4-R4

TM-30-18

Measure Comparisons





(END OF REPORT)