

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: McGRAW-EDISON

Report Number: P438113

Luminaire Tested: **ISW-SA1A-830-U-T2-HSS**

Issue Date: 12/10/2020

Test Information

Test Method: LM-79-08
Report Number: P438113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/10/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: ISW-SA1A-830-U-T2-HSS
Description: IMPACT ELITE LED WEDGE LUMINAIRE
(1) 80 CRI, 3000K, 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: 1625 lumens
Efficiency: N/A
Efficacy: 80.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G0

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



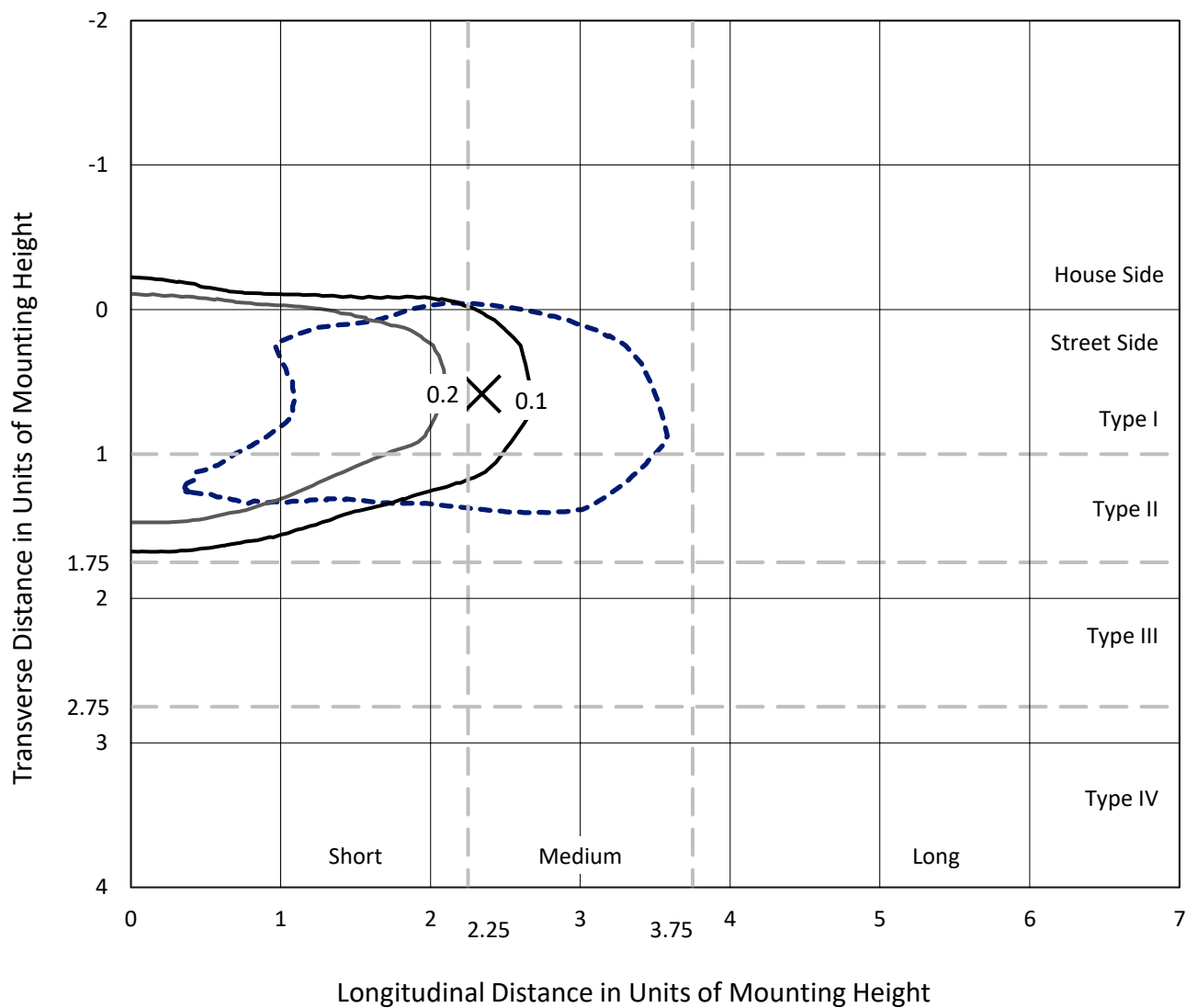
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

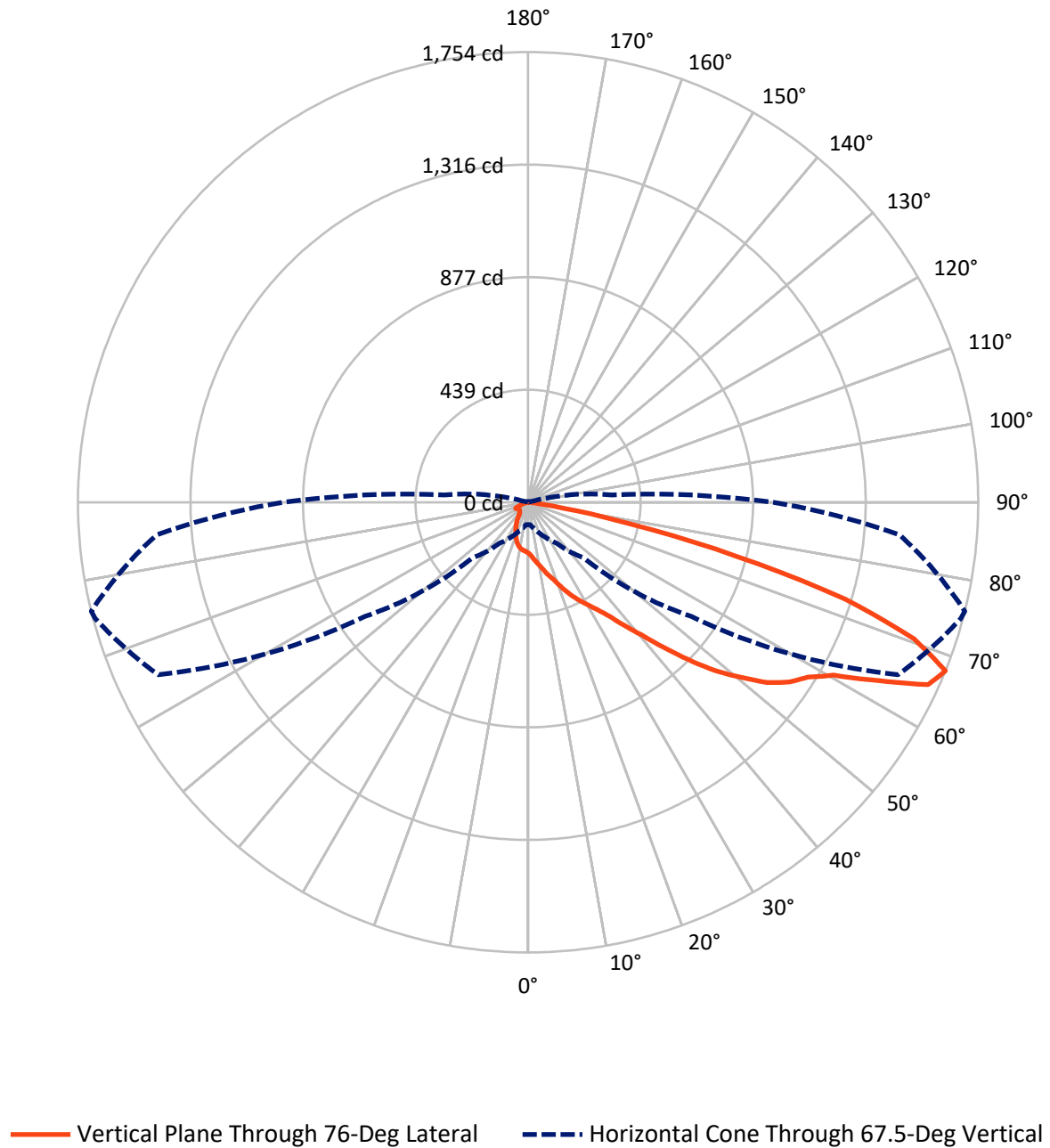


Based on 25 foot mounting height. Maximum calculated value = 0.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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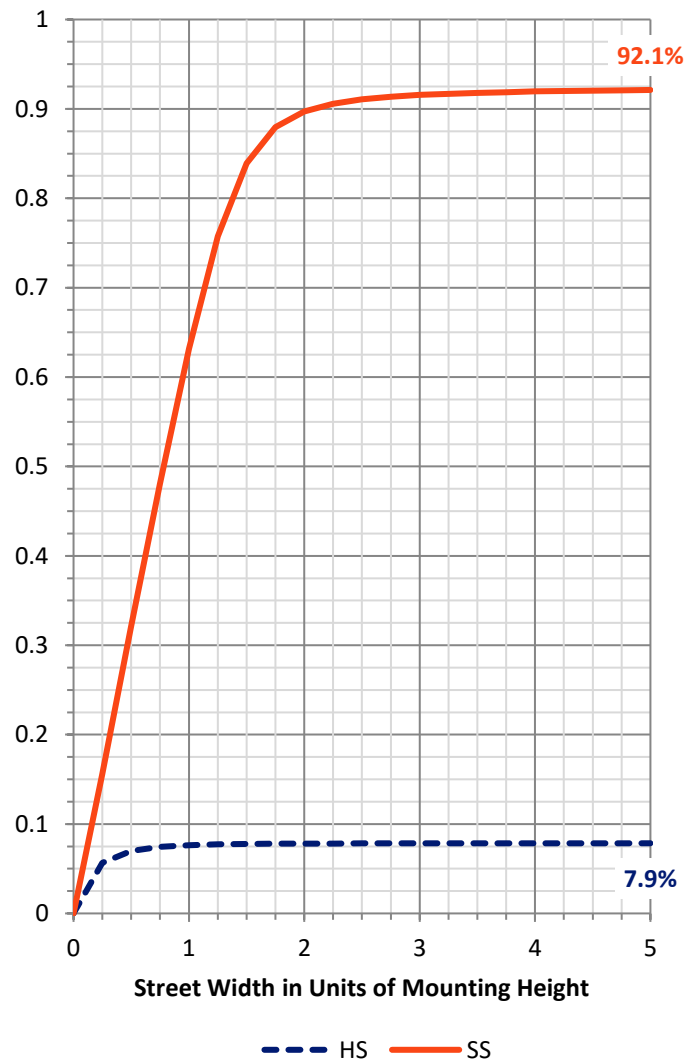
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	128.6	0.0	128.6
	% Fixture	7.9	0.0	7.9
Street Side	Lumens	1496.4	0.0	1496.4
	% Fixture	92.1	0.0	92.1
Total	Lumens	1625.0	0.0	1625.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.0	1.2
10°-20°	52.8	3.2
20°-30°	91.1	5.6
30°-40°	162.3	10.0
40°-50°	289.1	17.8
50°-60°	433.5	26.7
60°-70°	410.6	25.3
70°-80°	160.0	9.8
80°-90°	6.6	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°	1625.0	100.0
0°-180°	1625.0	100.0

Coefficient of Utilization



REPORT NUMBER: P438113

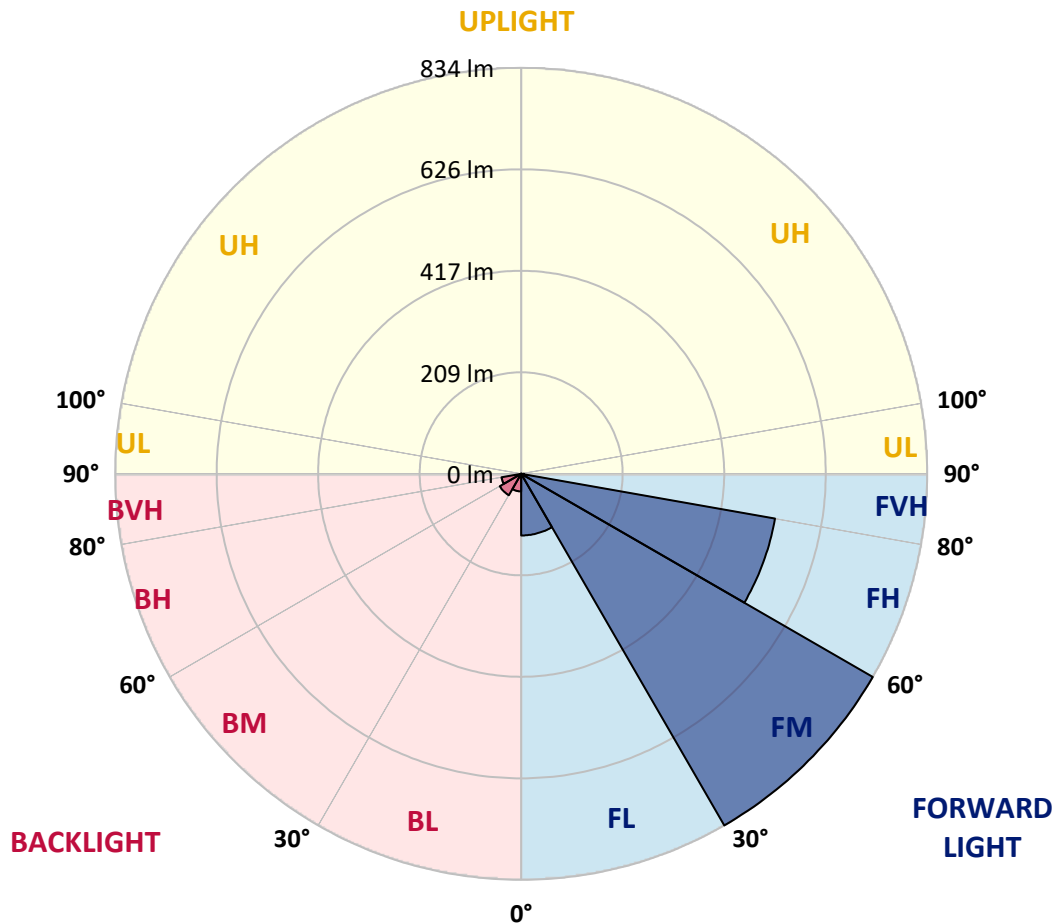
CATALOG NUMBER: ISW-SA1A-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	126.7	7.8			
FM	(30°-60°)	834.1	51.3			
FH	(60°-80°)	529.6	32.6			G0/660
FVH	(80°-90°)	6.0	0.4			G0/10
BL	(0°-30°)	36.2	2.2	B0/110		
BM	(30°-60°)	50.7	3.1	B0/220		
BH	(60°-80°)	41.0	2.5	B0/110		G0/110
BVH	(80°-90°)	0.6	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-G0

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6
2.5°	234.1	231.8	230.3	229.5	228.0	223.5	219.7	212.8	206.7	206.7	202.9
5°	255.4	254.6	251.6	250.1	249.3	246.3	239.4	231.1	221.2	220.4	211.3
7.5°	261.5	262.2	262.2	263.7	264.5	263.0	256.9	249.3	236.4	234.9	221.2
10°	259.2	259.2	261.5	266.0	272.1	275.1	274.4	268.3	253.1	251.6	232.6
12.5°	250.8	252.3	256.1	263.7	275.1	284.3	289.6	287.3	272.1	270.6	247.8
15°	239.4	240.9	247.8	258.4	273.6	291.1	303.3	310.1	294.9	293.4	263.7
17.5°	223.5	225.0	232.6	248.5	269.8	294.1	317.7	331.4	318.5	313.9	280.5
20°	217.4	218.9	225.0	237.9	263.0	294.1	330.6	356.5	346.6	342.8	301.7
22.5°	241.7	240.9	235.6	237.1	256.1	291.9	340.5	387.6	380.0	374.7	324.5
25°	285.8	288.8	281.2	263.7	260.7	289.6	347.3	412.0	411.2	405.9	348.1
27.5°	336.7	338.2	329.9	311.6	286.5	294.1	354.9	436.3	440.1	435.5	366.3
30°	378.5	383.8	377.7	361.0	334.4	313.9	360.3	458.3	471.2	465.2	383.8
32.5°	438.6	440.8	434.8	410.4	383.1	351.9	370.1	477.3	505.4	500.1	404.4
35°	501.6	504.7	493.3	466.7	433.2	398.3	393.7	503.2	554.8	544.2	435.5
37.5°	557.9	560.9	555.6	522.9	490.2	453.0	435.5	538.1	614.9	608.0	474.3
40°	602.7	610.3	608.8	580.7	550.3	516.8	495.6	579.2	684.1	678.0	523.7
42.5°	648.3	653.7	650.6	630.1	608.8	588.3	561.7	636.2	773.0	769.9	585.2
45°	705.3	713.7	709.9	693.2	667.3	662.8	637.7	704.6	878.6	874.1	659.7
47.5°	789.7	797.3	791.2	768.4	738.8	730.4	709.1	782.1	982.0	979.7	733.5
50°	835.3	842.9	858.9	862.7	842.9	798.1	773.0	855.8	1074.7	1070.9	804.1
52.5°	819.3	826.2	864.9	901.4	944.8	906.8	850.5	935.6	1159.9	1166.7	873.3
55°	750.9	760.1	815.5	874.1	979.0	1029.9	965.3	1026.1	1226.7	1236.6	918.9
57.5°	612.6	623.2	694.7	785.1	926.5	1061.0	1107.4	1150.7	1272.3	1285.3	977.4
60°	367.1	383.8	457.6	577.6	773.7	987.3	1208.5	1330.1	1361.3	1367.3	1102.1
62.5°	203.7	199.9	259.2	358.0	533.6	801.9	1193.3	1548.2	1529.2	1529.2	1314.9
65°	122.4	126.2	156.6	212.8	310.1	529.0	1064.1	1682.8	1707.9	1713.2	1487.4
67.5°	86.6	87.4	109.4	145.9	193.8	304.8	776.0	1590.0	1746.6	1754.2	1453.2
70°	56.2	57.0	78.3	104.1	138.3	168.0	474.3	1310.3	1599.9	1596.1	1285.3
72.5°	34.2	35.7	49.4	76.8	106.4	95.0	255.4	947.0	1267.8	1293.6	1008.6
75°	21.3	22.8	29.6	53.2	74.5	64.6	112.5	632.4	817.8	837.6	651.4
77.5°	12.2	13.7	19.0	30.4	53.2	44.8	53.2	332.1	396.0	408.9	261.5
80°	4.6	5.3	9.9	15.2	32.7	27.4	24.3	112.5	126.2	141.4	79.8
82.5°	0.8	1.5	4.6	9.1	12.9	12.9	10.6	34.2	35.0	37.2	21.3
85°	0.0	0.0	1.5	2.3	2.3	2.3	3.8	6.8	10.6	10.6	6.1
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.5	1.5	1.5	1.5
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: ISW-SA1A-830-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6	197.6
2.5°	199.1	197.6	191.5	185.5	180.9	177.1	171.0	171.0	168.7	166.5	167.2
5°	204.5	199.9	188.5	177.1	166.5	156.6	148.2	144.4	139.1	137.6	136.8
7.5°	211.3	202.9	183.9	165.7	148.2	135.3	124.6	117.8	111.7	110.2	111.0
10°	219.7	207.5	178.6	150.5	129.2	113.2	101.1	95.8	88.9	86.6	84.4
12.5°	231.8	212.8	170.3	133.8	110.2	94.2	76.8	63.8	59.3	57.8	57.8
15°	241.7	215.9	159.6	117.8	94.2	69.2	54.7	52.4	51.7	51.7	51.7
17.5°	253.1	218.1	146.7	102.6	73.0	50.9	47.9	47.9	47.1	47.1	46.4
20°	265.3	218.9	133.0	88.9	51.7	45.6	43.3	42.6	41.0	40.3	40.3
22.5°	278.9	218.1	117.8	73.0	45.6	41.8	38.0	36.5	35.0	33.4	33.4
25°	290.3	216.6	104.1	52.4	41.8	36.5	32.7	30.4	28.9	28.1	27.4
27.5°	300.2	208.3	90.4	44.8	38.0	32.7	28.1	25.8	24.3	23.6	23.6
30°	301.0	194.6	79.0	41.8	35.0	28.9	24.3	22.8	22.0	21.3	21.3
32.5°	305.5	180.9	66.9	39.5	31.2	25.8	22.0	20.5	19.0	19.0	19.0
35°	314.7	168.7	51.7	35.7	28.1	22.8	19.8	18.2	17.5	16.7	16.7
37.5°	329.1	160.4	42.6	32.7	25.8	20.5	18.2	16.7	16.0	15.2	15.2
40°	348.1	155.8	38.8	29.6	22.8	19.0	16.7	15.2	13.7	12.9	12.9
42.5°	380.8	155.8	35.7	26.6	20.5	17.5	15.2	13.7	12.2	11.4	11.4
45°	418.8	161.9	33.4	23.6	18.2	16.0	13.7	11.4	9.9	9.1	9.1
47.5°	460.6	173.3	31.2	21.3	16.7	14.4	12.2	9.1	7.6	6.8	6.8
50°	509.2	190.0	29.6	19.0	15.2	12.9	9.9	6.8	6.1	5.3	5.3
52.5°	550.3	206.7	27.4	17.5	13.7	11.4	7.6	6.1	4.6	4.6	4.6
55°	589.0	225.0	25.8	16.0	12.9	9.1	6.1	4.6	3.8	3.8	3.8
57.5°	640.7	247.8	23.6	14.4	10.6	6.8	5.3	3.8	3.0	3.0	3.0
60°	746.4	298.7	20.5	12.9	9.1	6.1	4.6	3.8	3.0	2.3	2.3
62.5°	918.2	381.5	17.5	11.4	6.8	5.3	3.8	3.0	2.3	1.5	1.5
65°	1026.8	402.1	14.4	9.1	5.3	3.8	3.0	2.3	1.5	0.8	0.8
67.5°	956.9	326.8	11.4	6.8	4.6	3.0	2.3	1.5	0.8	0.0	0.0
70°	807.9	247.0	8.4	4.6	3.8	2.3	1.5	0.8	0.0	0.0	0.0
72.5°	638.5	187.7	7.6	3.8	3.0	1.5	1.5	0.8	0.0	0.0	0.0
75°	418.8	96.5	6.1	3.8	2.3	1.5	0.8	0.8	0.0	0.0	0.0
77.5°	164.9	36.5	4.6	3.0	2.3	1.5	0.8	0.8	0.0	0.0	0.0
80°	44.8	12.2	2.3	1.5	1.5	0.8	0.8	0.8	0.0	0.0	0.0
82.5°	11.4	5.3	1.5	1.5	0.8	0.8	0.8	0.8	0.0	0.0	0.0
85°	3.8	1.5	1.5	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	1.5	1.5	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

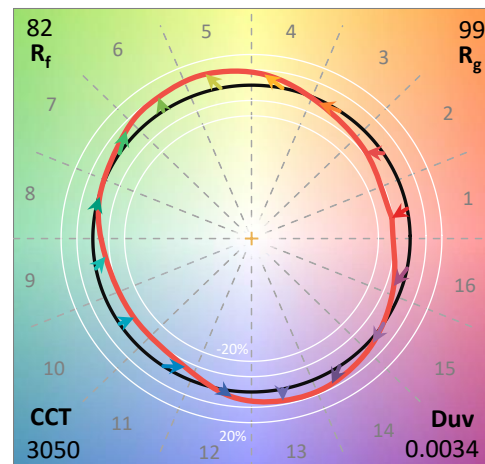
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

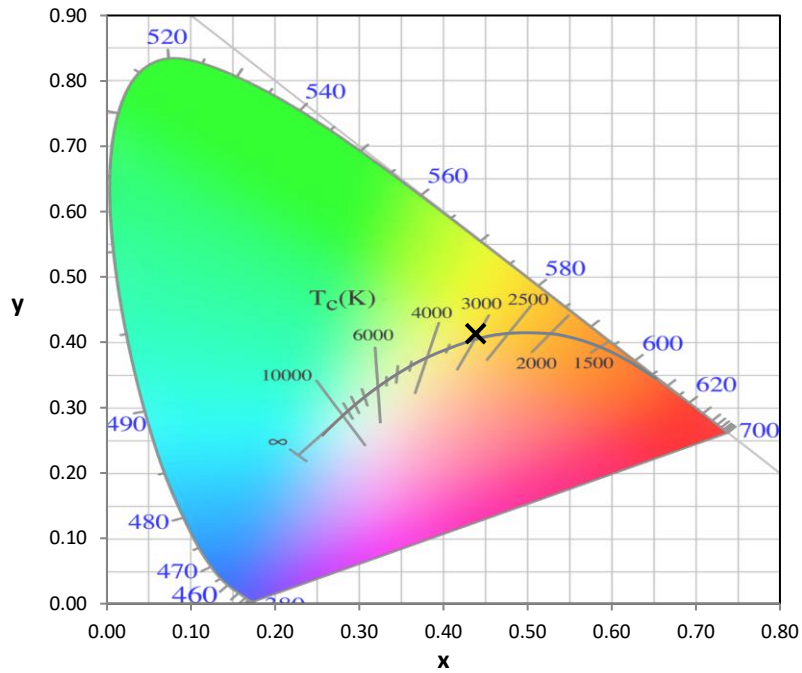
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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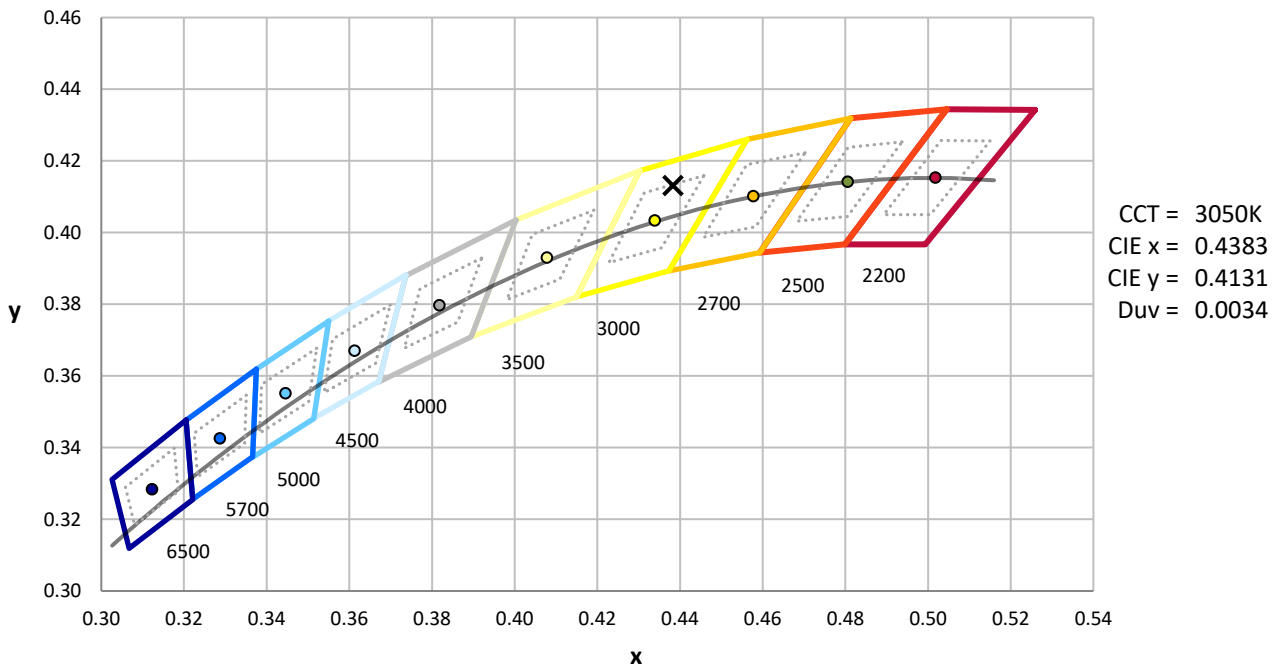
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



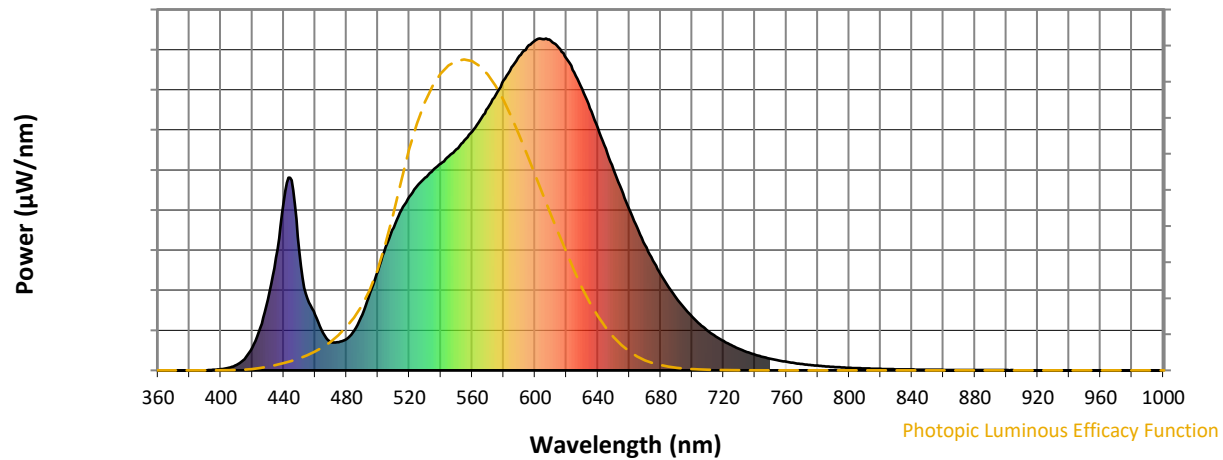
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

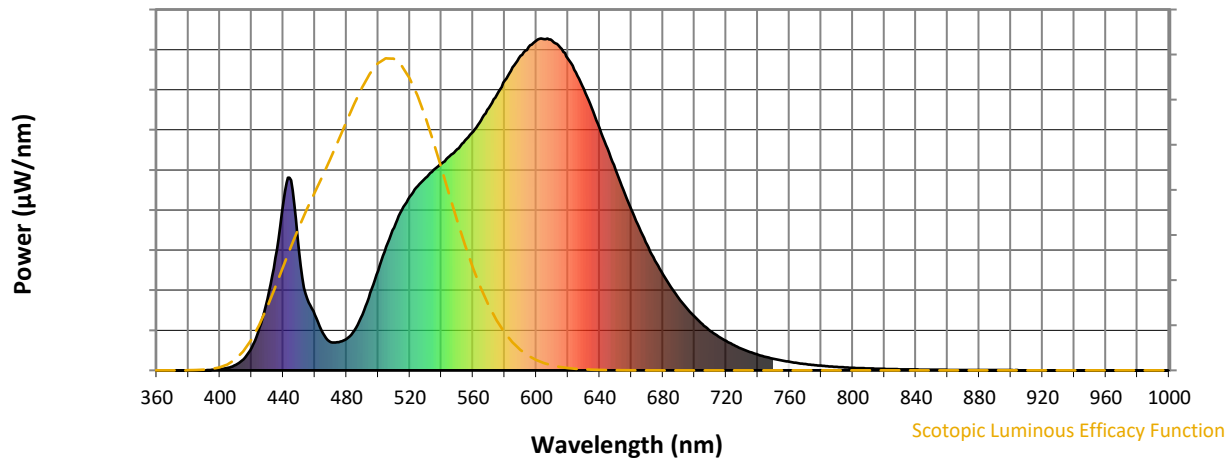


Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



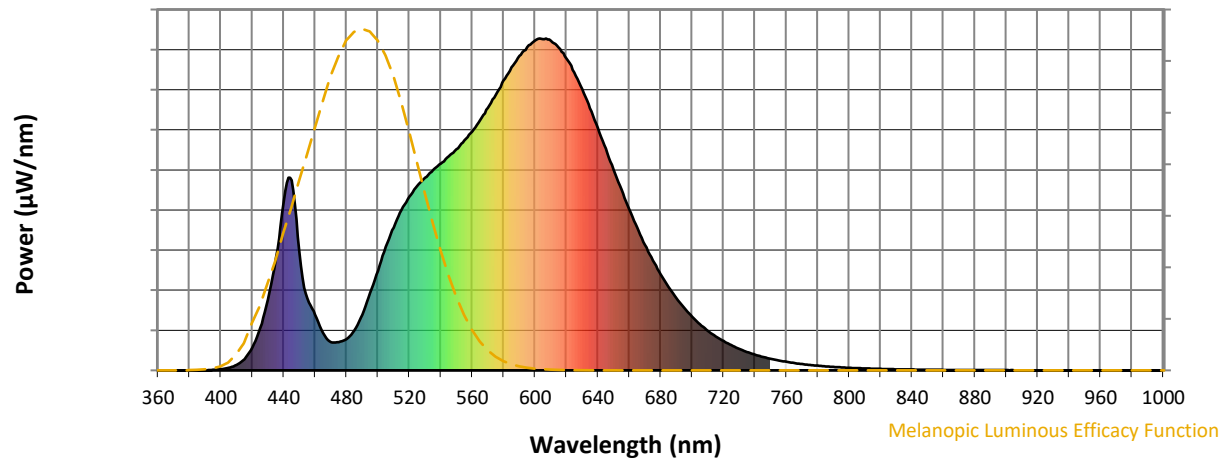
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^Λ /nm	Lumens (Φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

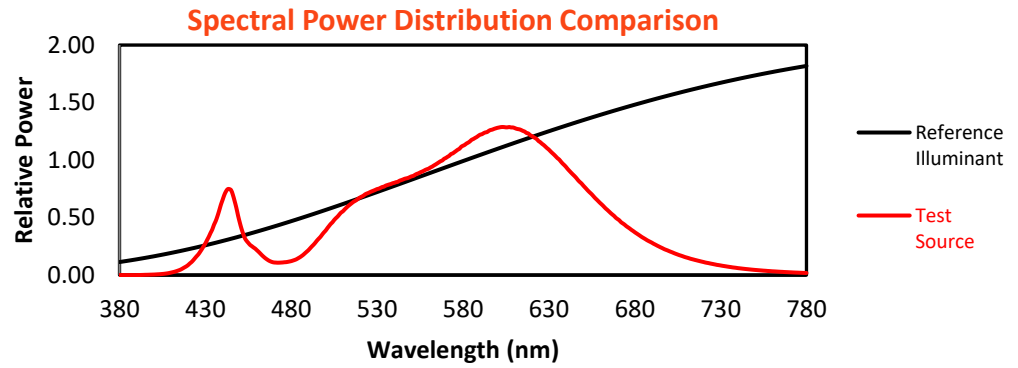
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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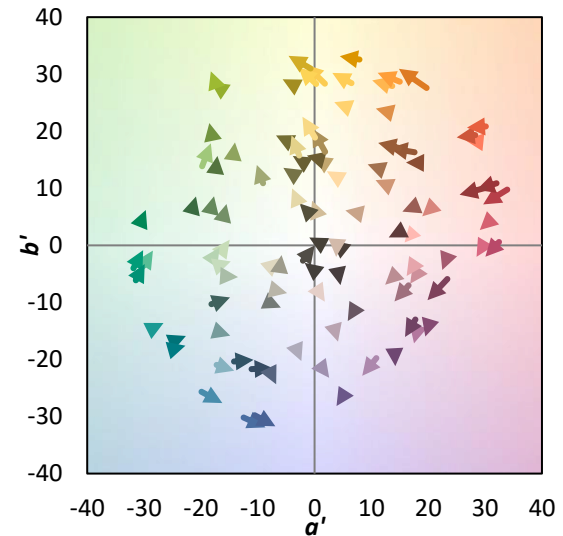
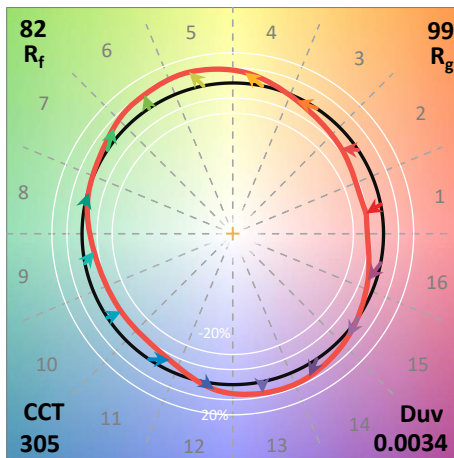
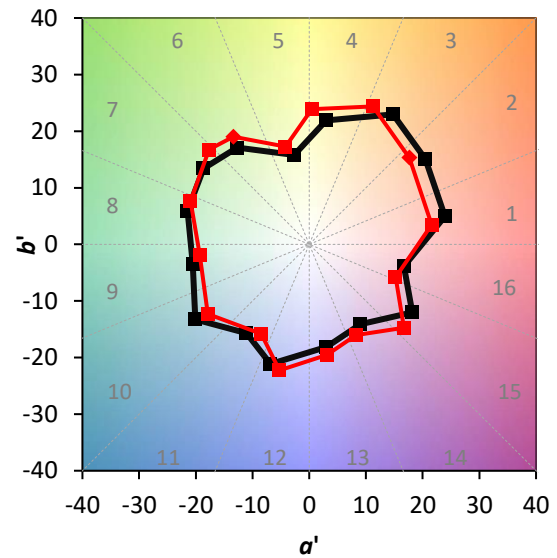
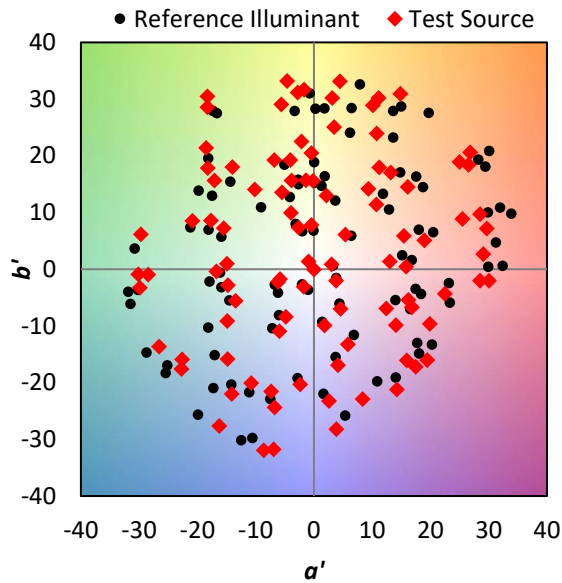
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

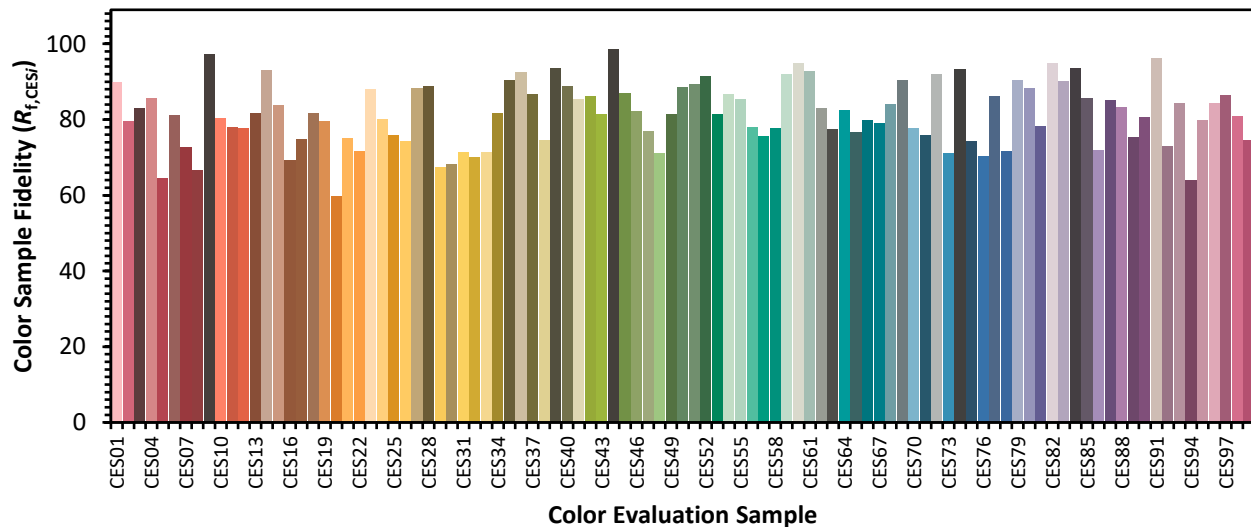


Color Vector Graphics

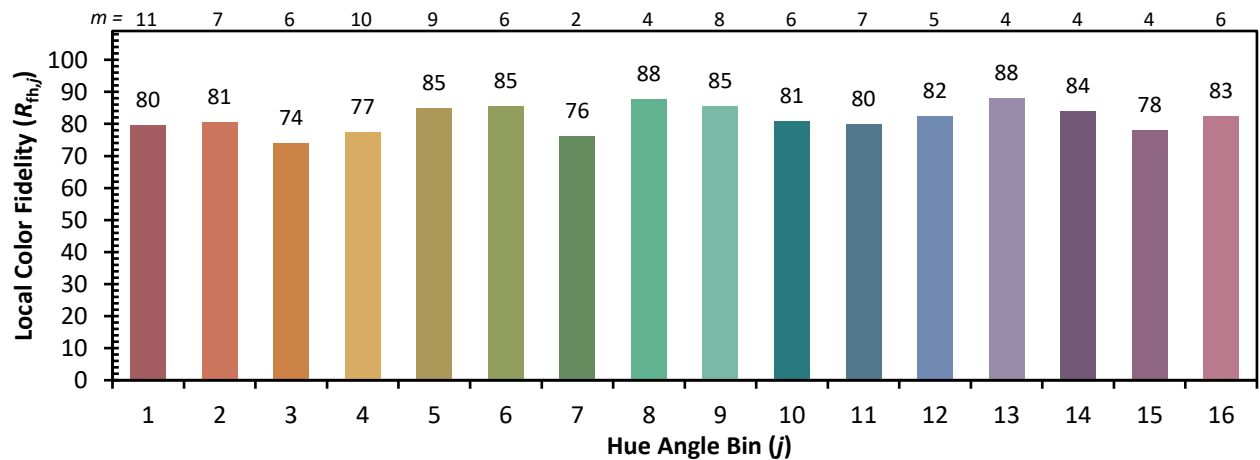
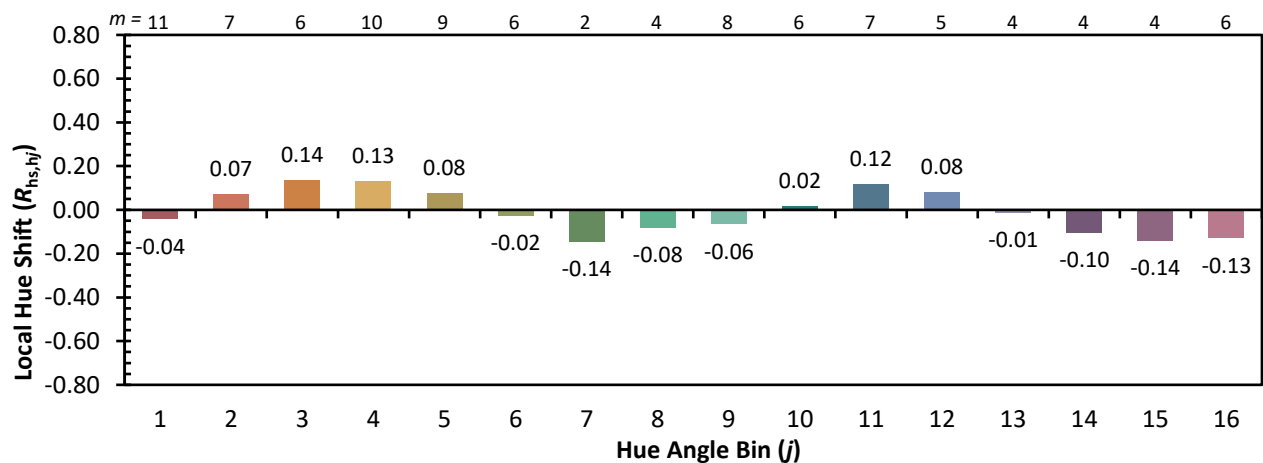
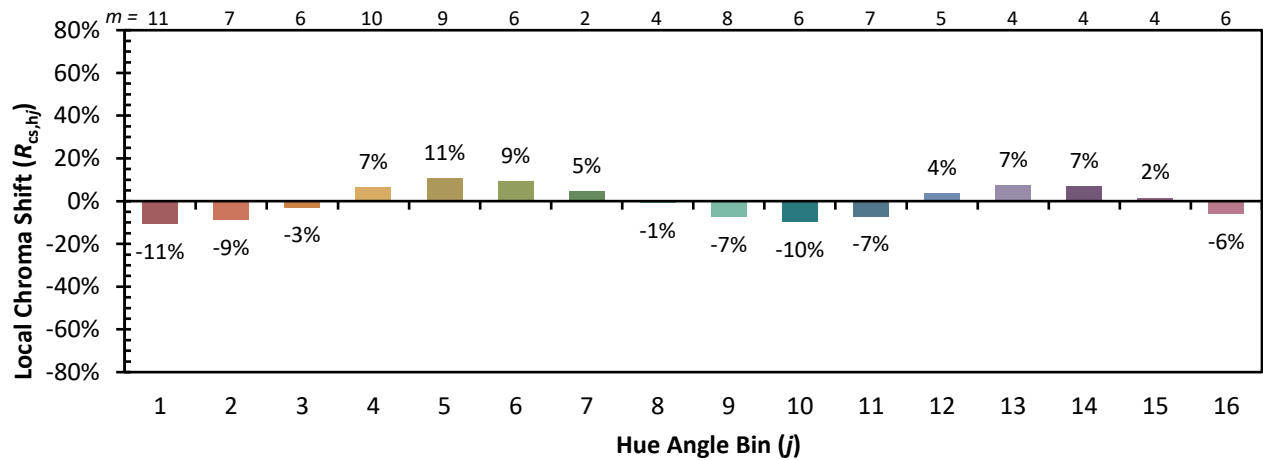


Individual Sample Fidelity Index ($R_{f,i}$)

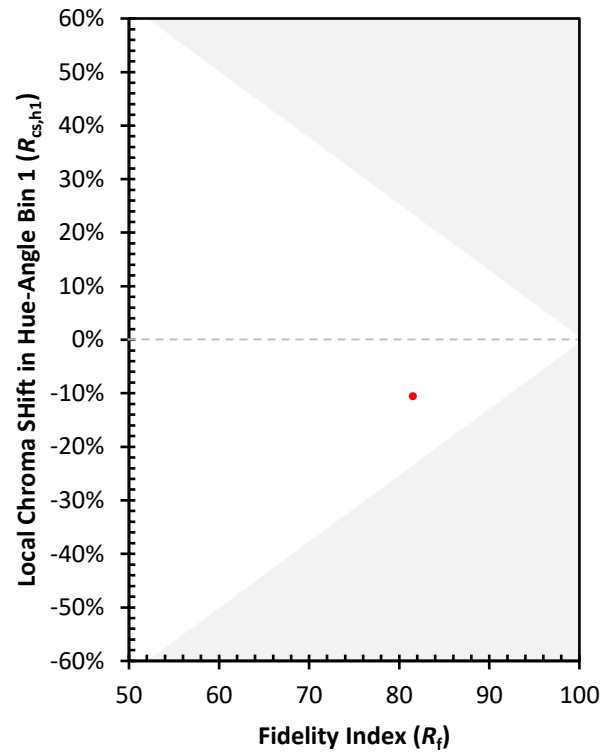
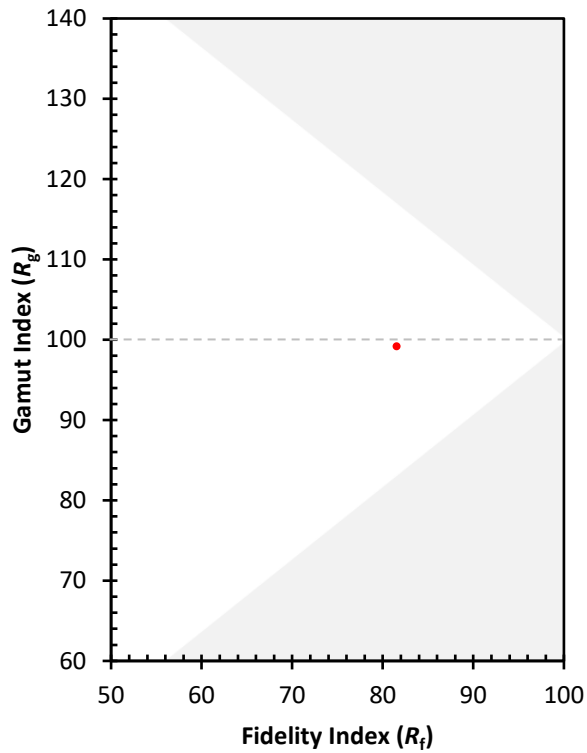
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)