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

Scaled data based on original data using

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

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P635530

Luminaire Tested: GWS-SA3D-830-U-T3R-W-GRSBK

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P635530
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-16)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA3D-830-U-T3R-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(48) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8768 lumens
Efficiency:	N/A
Efficacy:	72.6 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G1

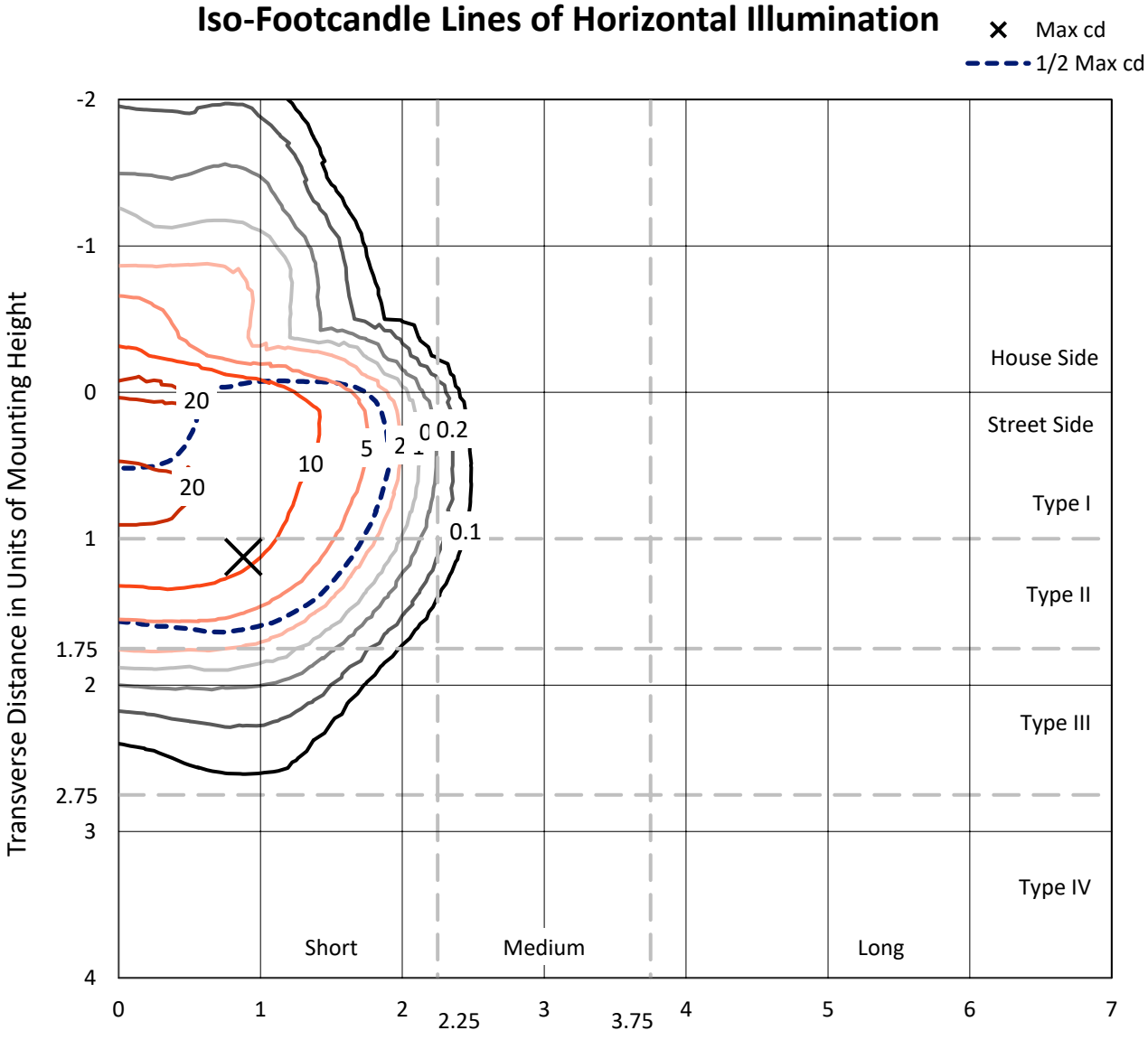
Input Watts (W):	120.8
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



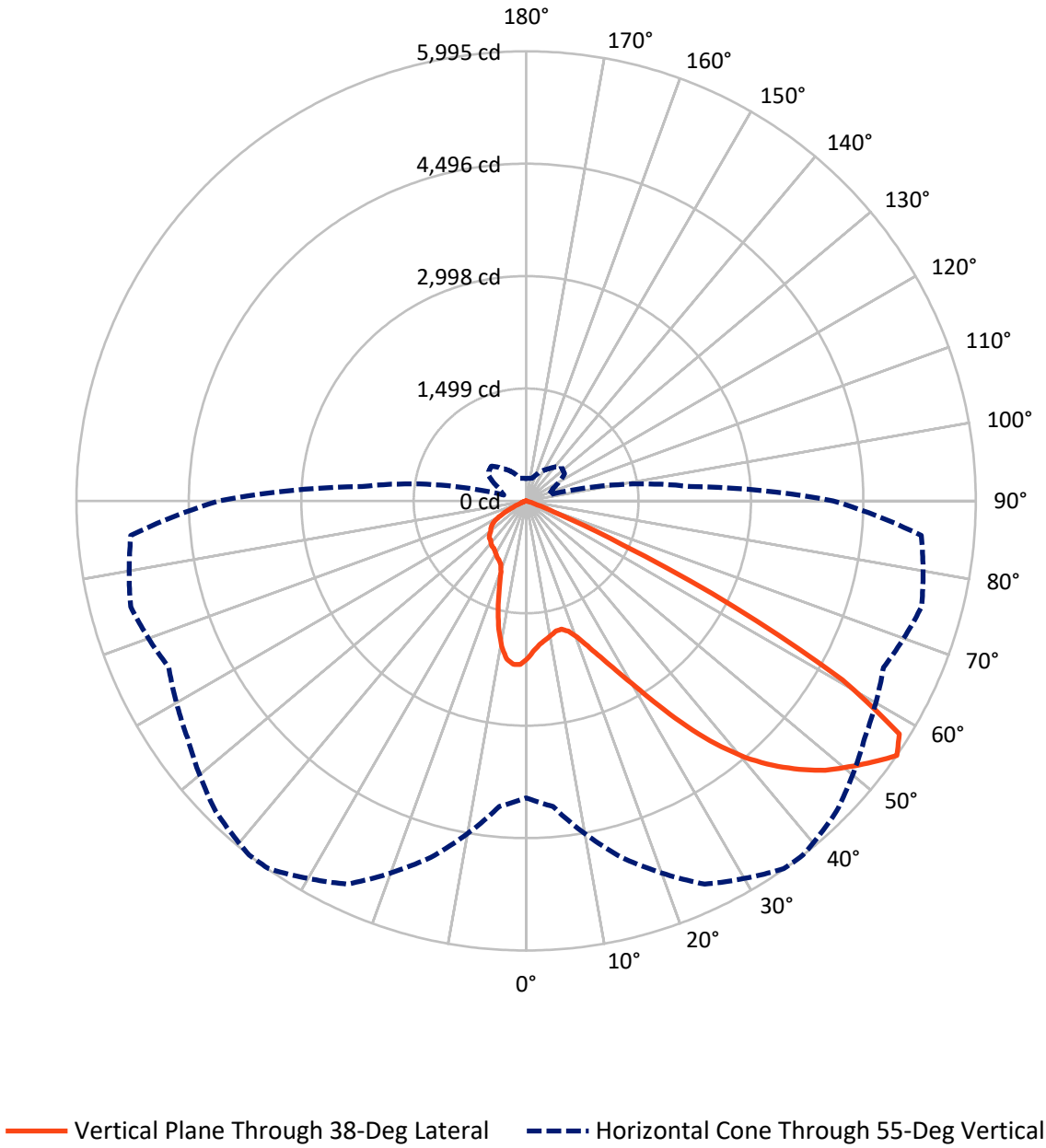
Based on 10 foot mounting height. Maximum calculated value = 22 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

Luminous Intensity Polar Plot



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

Scaled Data Report

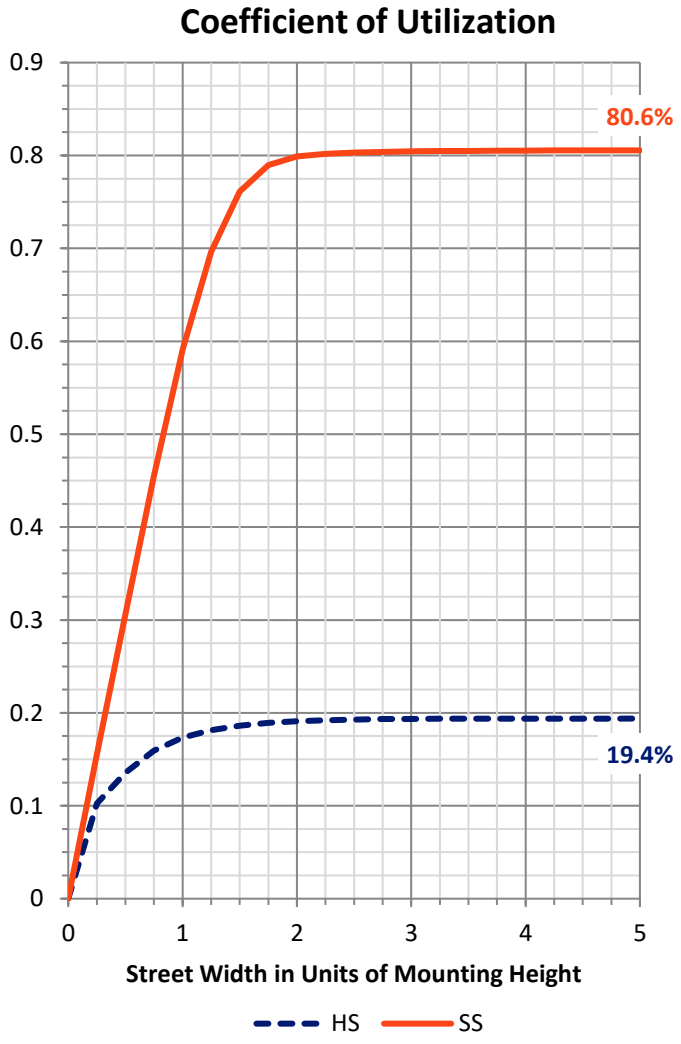
REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1708.3	0.0	1708.3
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	7059.7	0.0	7059.7
	% Fixture	80.5	0.0	80.5
Total	Lumens	8768.0	0.0	8768.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.4	2.2
10°-20°	523.4	6.0
20°-30°	898.2	10.2
30°-40°	1489.7	17.0
40°-50°	2189.9	25.0
50°-60°	2559.0	29.2
60°-70°	867.4	9.9
70°-80°	44.3	0.5
80°-90°	1.7	0.0
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°	8768.0	100.0
0°-180°	8768.0	100.0



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

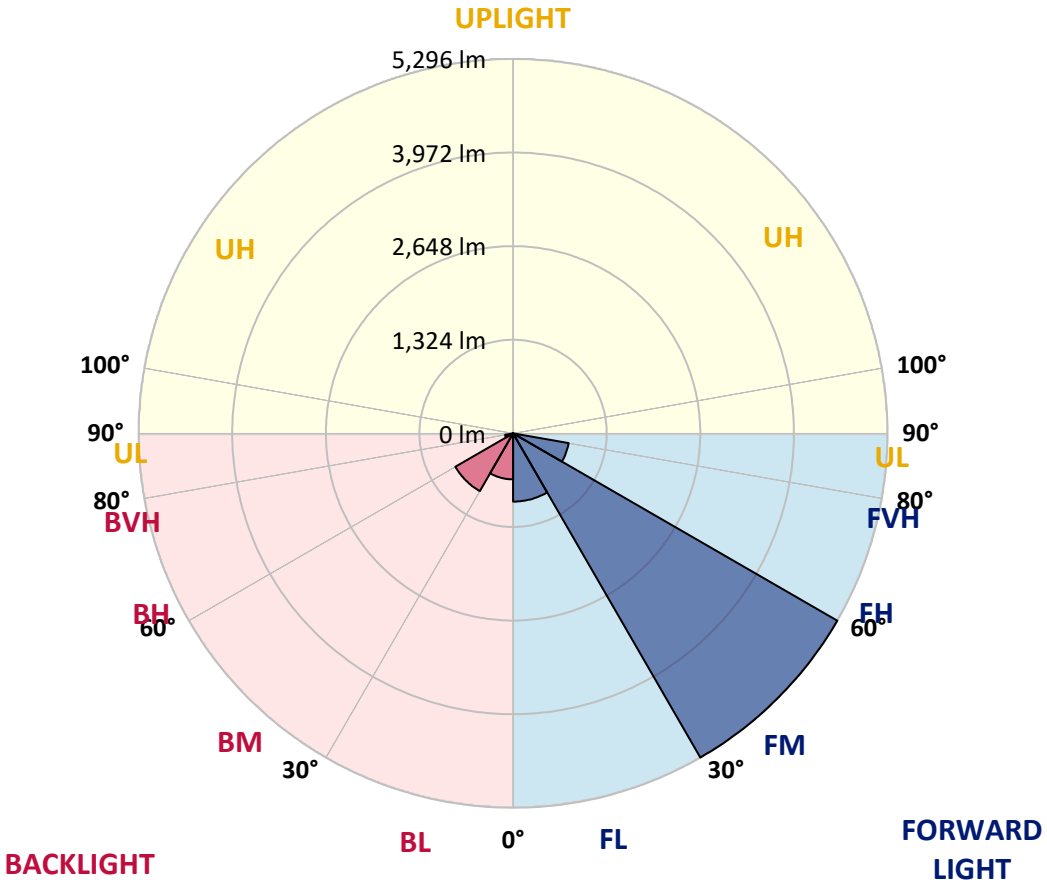
Scaled Data Report

REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	965.1	11.0			
FM	(30°-60°)	5295.6	60.4			
FH	(60°-80°)	798.0	9.1			G1/1800
FVH	(80°-90°)	0.9	0.0			G0/10
BL	(0°-30°)	650.8	7.4	B2/1000		
BM	(30°-60°)	942.9	10.8	B1/1000		
BH	(60°-80°)	113.7	1.3	B1/500		G1/500
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: B2-U0-G1
Type II Short



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

Scaled Data Report

REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6
2.5°	1958.3	1954.3	1962.3	1978.4	1993.4	1998.4	2013.4	2034.5	2047.5	2078.6	2103.6
5°	1870.1	1868.1	1876.1	1890.2	1910.2	1917.2	1940.3	1975.4	2010.4	2064.5	2117.7
7.5°	1789.9	1788.9	1801.0	1832.0	1861.1	1870.1	1898.2	1941.3	1988.4	2071.6	2149.7
10°	1684.7	1685.7	1708.8	1752.9	1806.0	1824.0	1869.1	1931.3	1992.4	2099.6	2207.9
12.5°	1650.6	1652.6	1664.7	1698.7	1756.9	1779.9	1843.1	1937.3	2015.4	2139.7	2283.0
15°	1733.8	1733.8	1723.8	1727.8	1753.9	1774.9	1841.1	1957.3	2054.5	2187.8	2357.2
17.5°	1895.2	1889.2	1864.1	1830.0	1821.0	1828.0	1881.1	2000.4	2109.6	2243.9	2441.4
20°	2113.7	2115.7	2066.6	1995.4	1938.3	1937.3	1969.3	2076.6	2188.8	2311.1	2532.6
22.5°	2378.2	2370.2	2305.1	2207.9	2108.6	2100.6	2113.7	2192.8	2303.1	2417.3	2644.8
25°	2684.9	2680.9	2588.7	2458.4	2327.1	2308.1	2308.1	2386.3	2466.4	2568.7	2779.1
27.5°	3005.6	3005.6	2916.4	2766.1	2591.7	2557.6	2552.6	2644.8	2697.9	2718.0	2892.4
30°	3335.4	3331.3	3243.1	3088.8	2902.4	2867.3	2853.3	2921.4	2959.5	2899.4	3033.7
32.5°	3670.1	3677.1	3587.9	3444.6	3278.2	3255.2	3212.1	3212.1	3243.1	3159.0	3256.2
35°	4029.9	4027.9	3957.7	3860.5	3718.2	3692.1	3621.0	3509.7	3556.8	3519.8	3563.9
37.5°	4347.6	4362.6	4328.5	4256.4	4141.1	4115.1	3997.8	3796.4	3832.4	3890.6	3929.7
40°	4670.3	4682.3	4716.4	4693.3	4548.0	4499.9	4291.5	3960.7	4000.8	4200.3	4312.5
42.5°	4987.0	4993.0	5062.2	5100.2	4905.8	4821.6	4513.9	4060.9	4103.0	4442.8	4639.2
45°	5188.4	5201.5	5315.7	5432.0	5221.5	5106.3	4707.4	4189.2	4207.3	4611.2	4880.8
47.5°	5180.4	5210.5	5425.0	5636.4	5493.1	5368.8	4939.9	4394.7	4364.6	4769.5	5040.1
50°	5019.1	5055.1	5362.8	5698.6	5688.5	5573.3	5198.5	4692.3	4598.1	4909.8	5060.2
52.5°	4684.3	4788.6	5253.6	5706.6	5845.9	5787.8	5518.2	5093.2	4913.8	5111.3	5092.2
55°	3960.7	4089.0	4921.8	5638.4	5988.2	5995.2	5853.9	5511.1	5256.6	5458.0	5289.7
57.5°	3006.6	3108.9	3788.3	5019.1	5752.7	5867.9	5984.2	5731.6	5468.0	5694.5	5335.8
60°	1812.0	1930.3	2372.2	3683.1	4646.2	4842.7	5298.7	5249.6	4931.9	5029.1	4375.6
62.5°	734.6	796.8	1095.4	2029.5	2924.4	3107.8	3544.8	3619.0	3540.8	3441.6	2653.8
65°	268.6	293.6	439.0	838.8	1345.0	1412.1	1642.6	1773.9	1882.1	1602.5	987.2
67.5°	166.4	182.4	285.6	430.9	489.1	455.0	463.0	552.2	527.2	325.7	176.4
70°	123.3	136.3	223.5	298.7	197.4	152.3	103.2	110.2	99.2	87.2	86.2
72.5°	85.2	97.2	167.4	176.4	76.2	54.1	38.1	53.1	60.1	59.1	61.1
75°	56.1	65.1	105.2	69.2	19.0	15.0	13.0	28.1	36.1	36.1	37.1
77.5°	33.1	38.1	37.1	14.0	4.0	4.0	3.0	5.0	8.0	9.0	11.0
80°	4.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
82.5°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
85°	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
87.5°	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
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

Scaled Data Report

REPORT NUMBER: P635530
CATALOG NUMBER: GWS-SA3D-830-U-T3R-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6	2102.6
2.5°	2122.7	2115.7	2144.7	2165.8	2182.8	2190.8	2179.8	2178.8	2178.8	2156.8	2150.7
5°	2147.7	2150.7	2191.8	2209.9	2212.9	2202.9	2177.8	2160.8	2150.7	2127.7	2114.7
7.5°	2195.8	2205.9	2244.9	2241.9	2214.9	2168.8	2102.6	2051.5	2018.4	1982.4	1960.3
10°	2265.0	2284.0	2308.1	2266.0	2179.8	2062.5	1926.2	1829.0	1770.9	1729.8	1704.8
12.5°	2349.2	2368.2	2360.2	2261.0	2081.6	1872.1	1696.7	1556.4	1489.3	1452.2	1426.1
15°	2434.4	2446.4	2394.3	2200.8	1908.2	1626.6	1431.2	1291.8	1209.7	1179.6	1157.6
17.5°	2521.6	2518.6	2400.3	2082.6	1676.7	1350.0	1157.6	1062.3	1039.3	1034.3	1032.3
20°	2612.8	2585.7	2376.2	1913.2	1398.1	1076.4	967.1	973.1	1015.2	1035.3	1039.3
22.5°	2717.0	2648.8	2316.1	1683.7	1113.5	897.0	908.0	967.1	1024.3	1051.3	1055.3
25°	2828.2	2707.0	2215.9	1389.1	877.9	824.8	890.0	958.1	1019.2	1052.3	1056.3
27.5°	2901.4	2721.0	2051.5	1092.4	753.7	796.8	865.9	931.1	994.2	1030.3	1035.3
30°	2980.6	2715.0	1828.0	841.9	711.6	772.7	832.8	892.0	950.1	990.2	994.2
32.5°	3096.8	2711.0	1555.4	683.5	694.5	753.7	797.8	846.9	887.0	910.0	907.0
35°	3249.2	2706.0	1237.7	616.4	684.5	738.6	773.7	796.8	752.7	738.6	741.6
37.5°	3444.6	2718.0	970.1	588.3	681.5	734.6	764.7	698.5	630.4	604.3	600.3
40°	3661.1	2749.1	739.6	577.3	691.5	744.6	730.6	621.4	537.2	486.1	475.0
42.5°	3878.5	2783.1	585.3	573.3	708.6	772.7	674.5	565.2	439.0	409.9	405.9
45°	4039.9	2777.1	506.1	566.2	723.6	788.7	659.5	485.1	391.9	378.8	379.8
47.5°	4121.1	2711.0	463.0	550.2	729.6	772.7	622.4	452.0	359.8	373.8	385.9
50°	4078.0	2539.6	422.9	519.1	716.6	751.7	563.2	426.9	343.8	401.9	428.9
52.5°	4025.9	2329.1	378.8	471.0	685.5	722.6	540.2	419.9	333.7	387.9	407.9
55°	*4095.0*	*2195.8*	*306.7*	*396.9*	*624.4*	*654.4*	*522.2*	*418.9*	*310.7*	*301.7*	*298.7*
57.5°	3997.8	1930.3	219.5	285.6	479.1	518.1	509.1	411.9	275.6	274.6	278.6
60°	3089.8	1177.6	150.3	181.4	293.6	330.7	462.0	393.9	237.5	218.5	219.5
62.5°	1755.9	501.1	103.2	112.2	150.3	178.4	352.8	357.8	219.5	208.5	219.5
65°	611.3	179.4	80.2	75.2	83.2	95.2	202.4	276.6	199.4	180.4	182.4
67.5°	126.3	89.2	71.2	62.1	62.1	62.1	103.2	172.4	164.4	143.3	145.3
70°	80.2	76.2	62.1	53.1	51.1	47.1	59.1	95.2	113.2	104.2	105.2
72.5°	59.1	58.1	49.1	43.1	38.1	34.1	37.1	47.1	58.1	60.1	61.1
75°	36.1	37.1	32.1	27.1	24.1	21.0	22.0	22.0	22.0	20.0	22.0
77.5°	11.0	12.0	10.0	8.0	7.0	7.0	7.0	6.0	5.0	3.0	3.0
80°	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	0.0	0.0
82.5°	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0
85°	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0
87.5°	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0	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

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

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.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

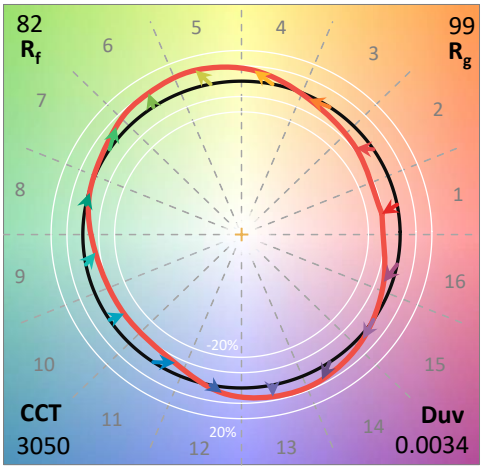
Test Information

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	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

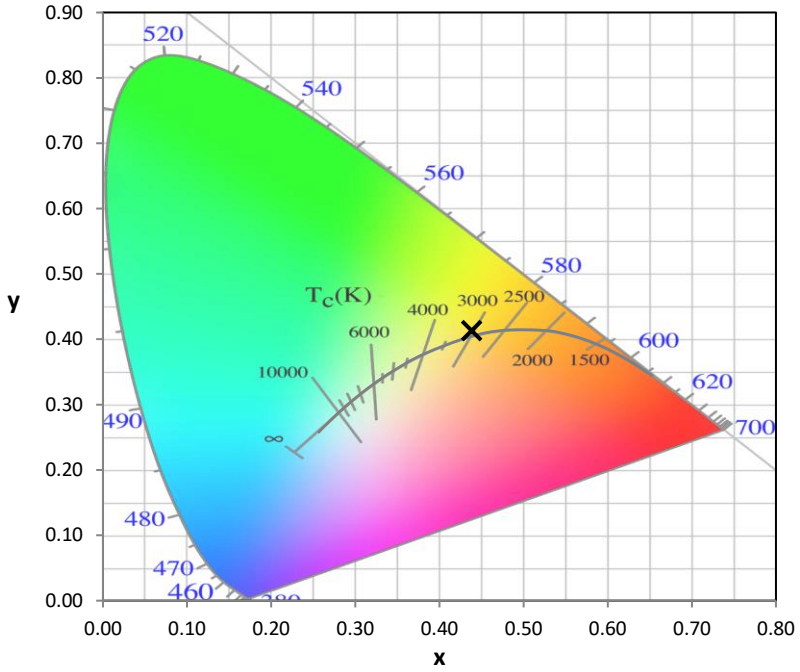
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

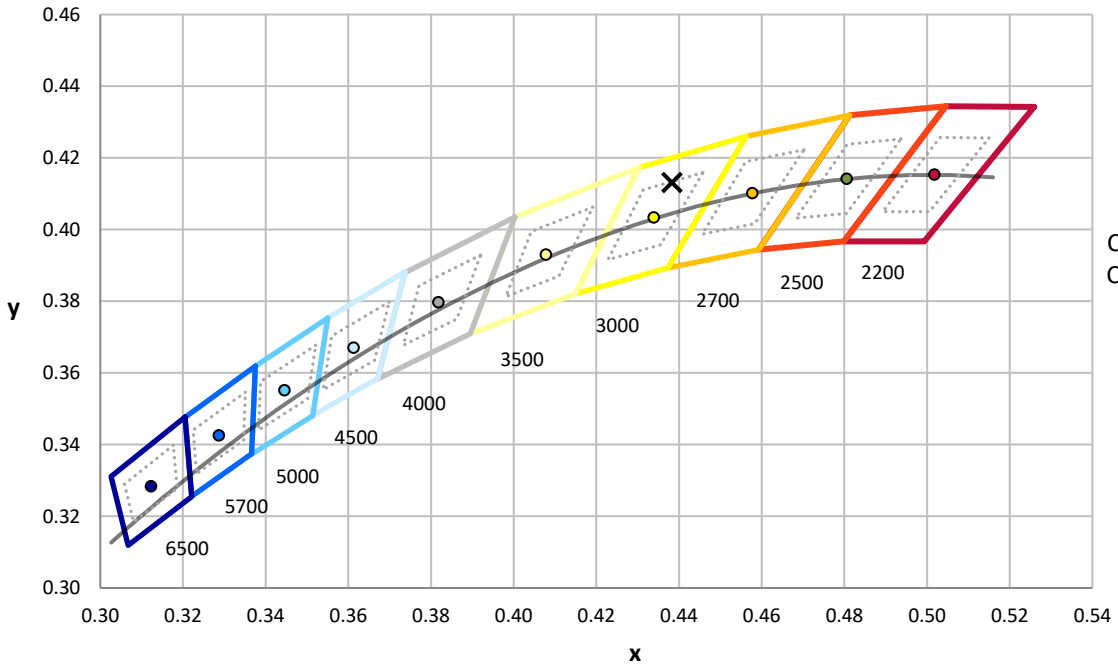
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

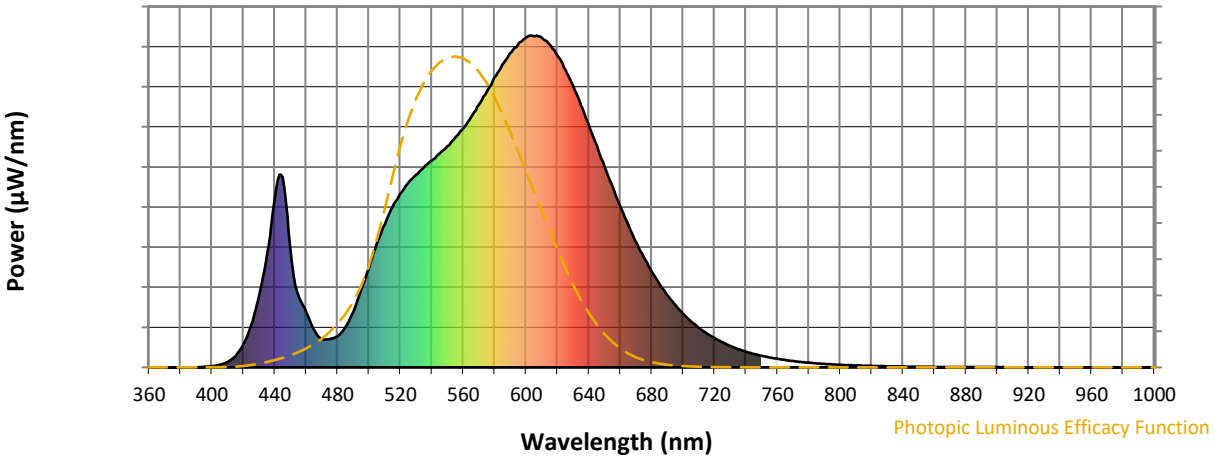


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

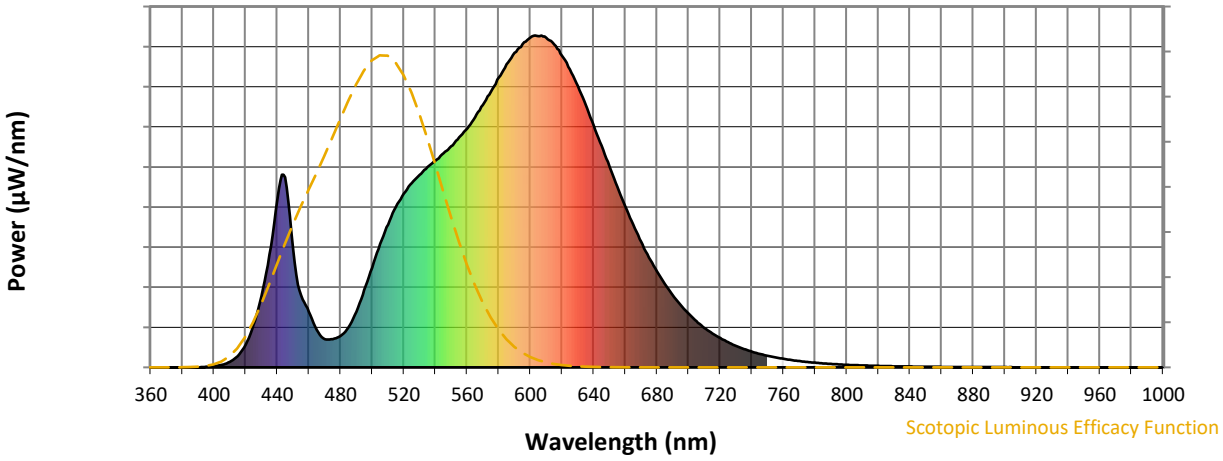


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

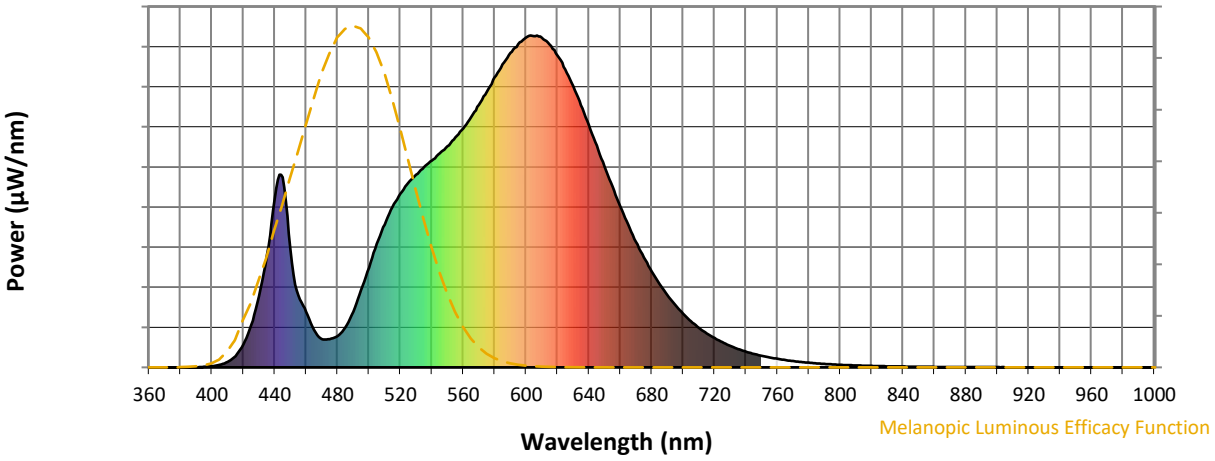


Scotopic Lumens: NR **S/P: 1.27**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/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			

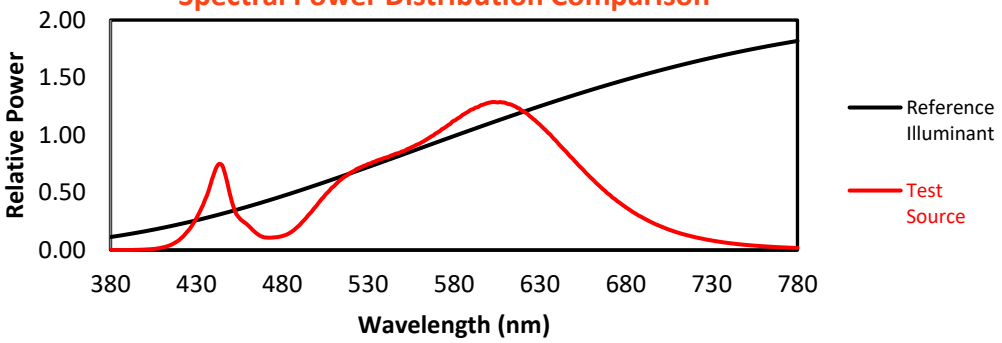
REPORT NUMBER: SP1-2408-195-9

TM-30-18

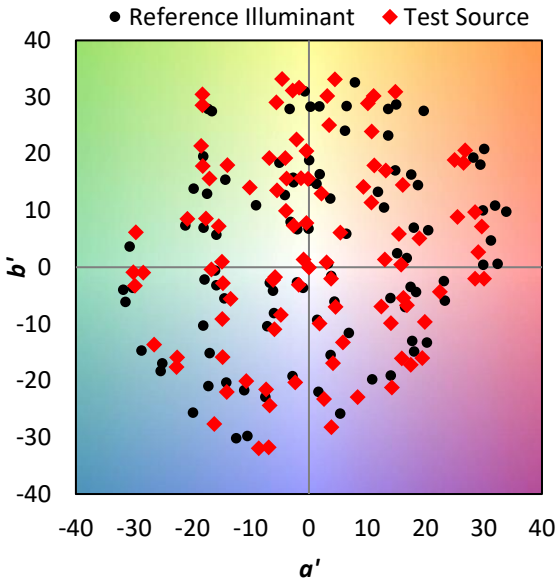
Summary

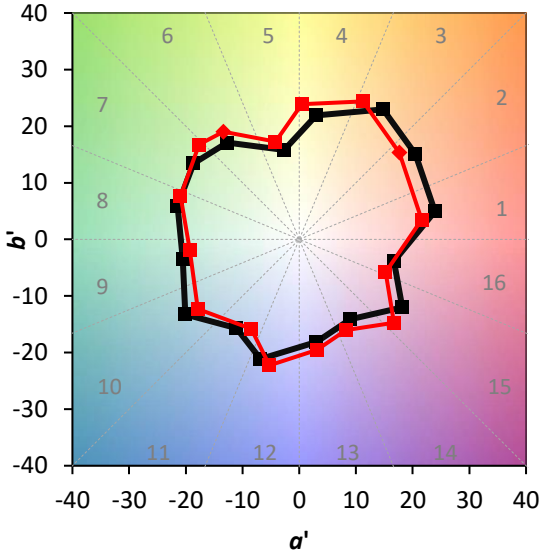
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

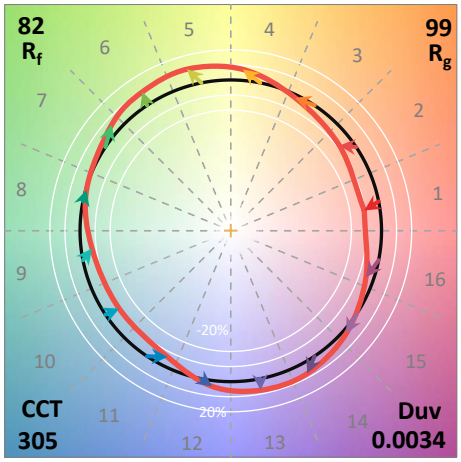
Spectral Power Distribution Comparison

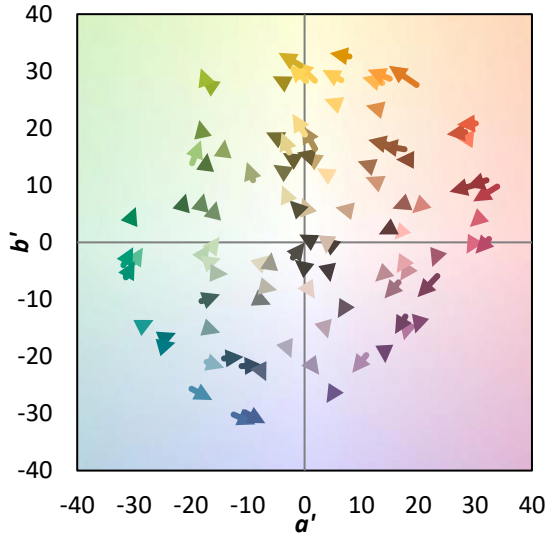


Color Vector Graphics







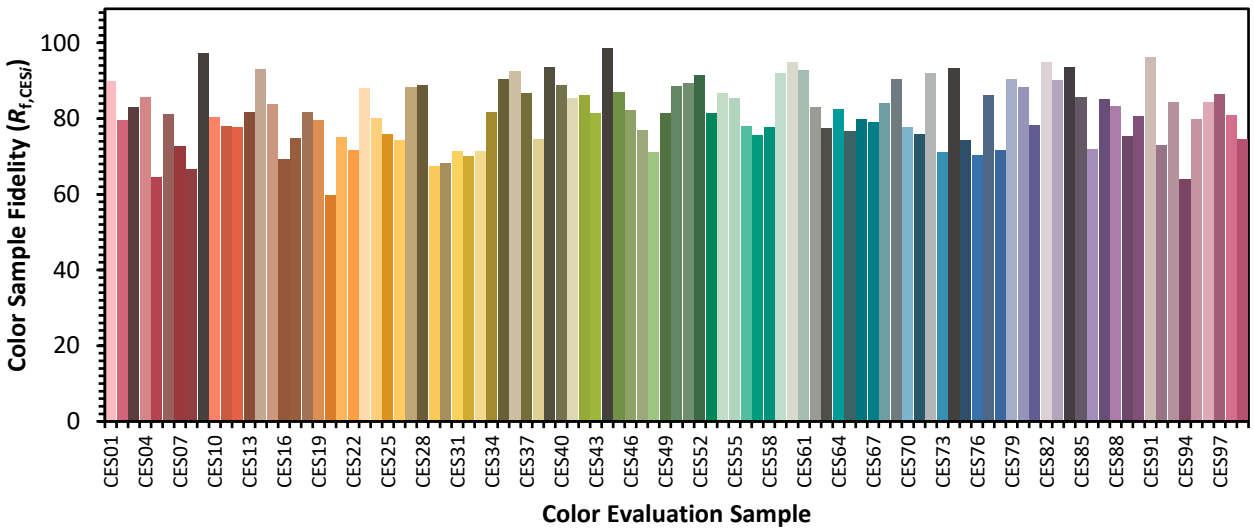


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

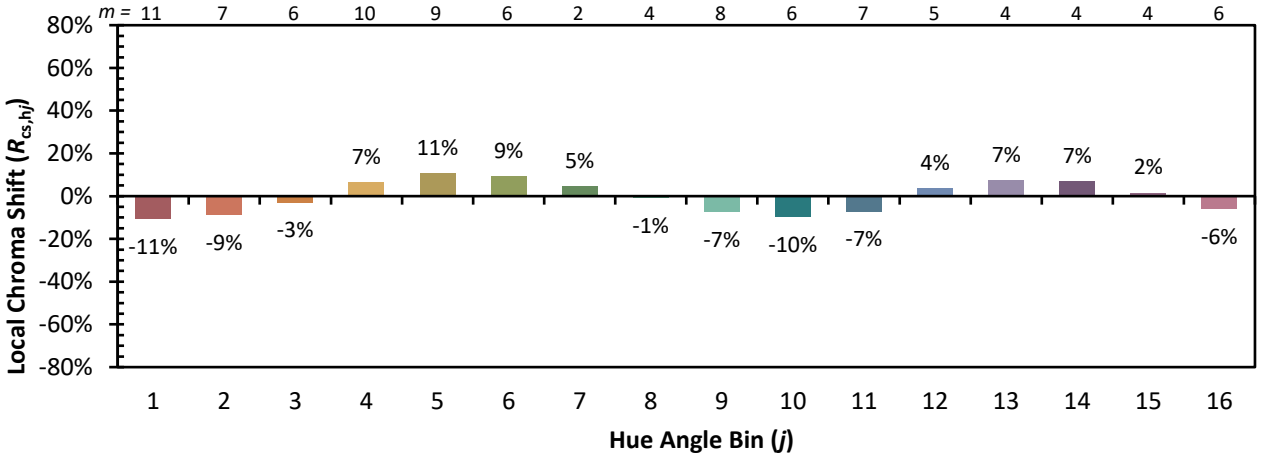
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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	

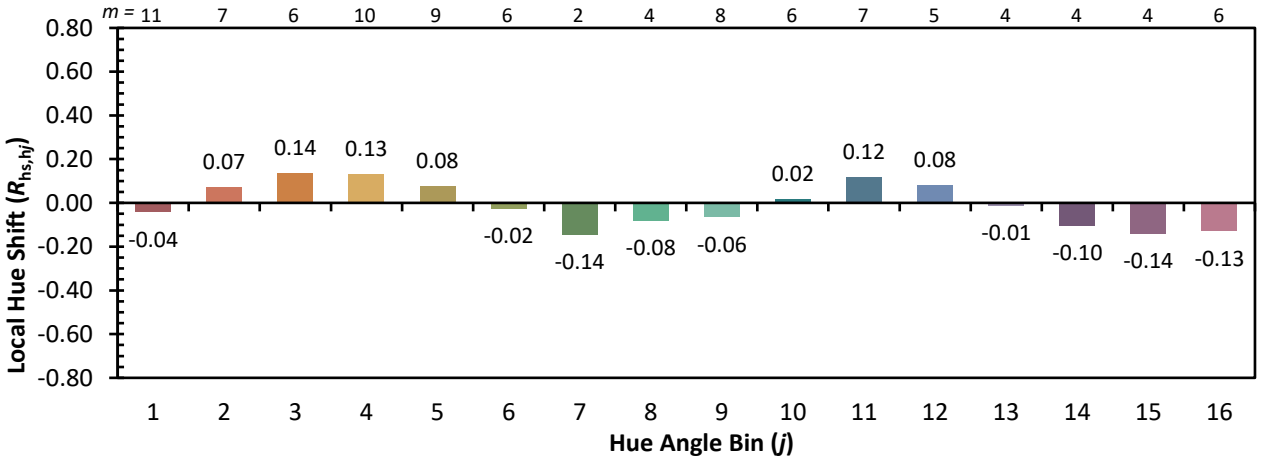


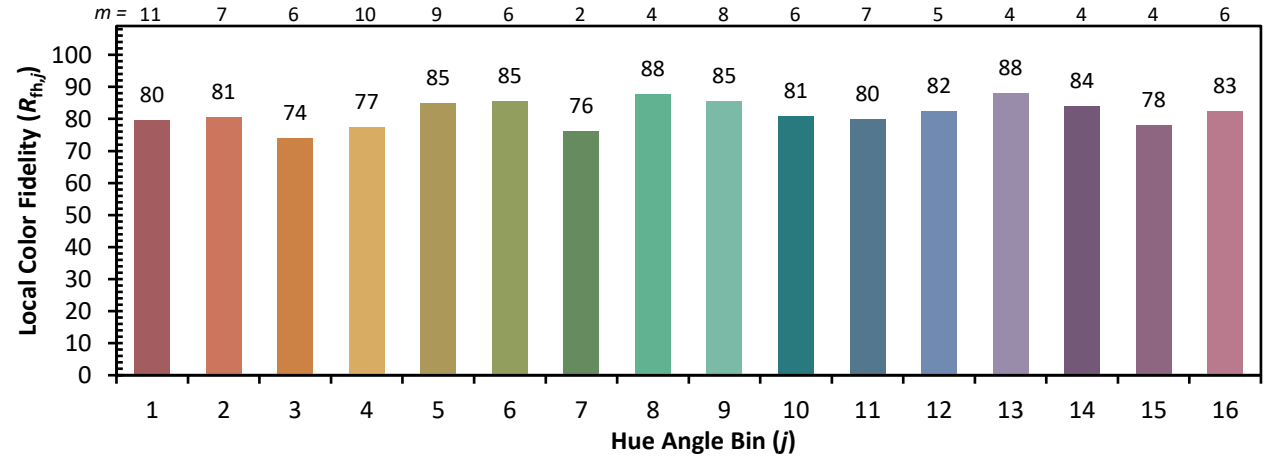
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



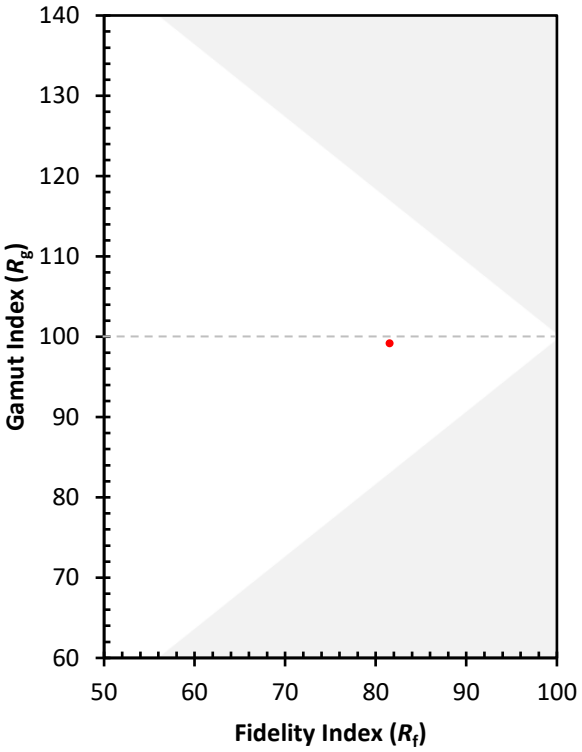


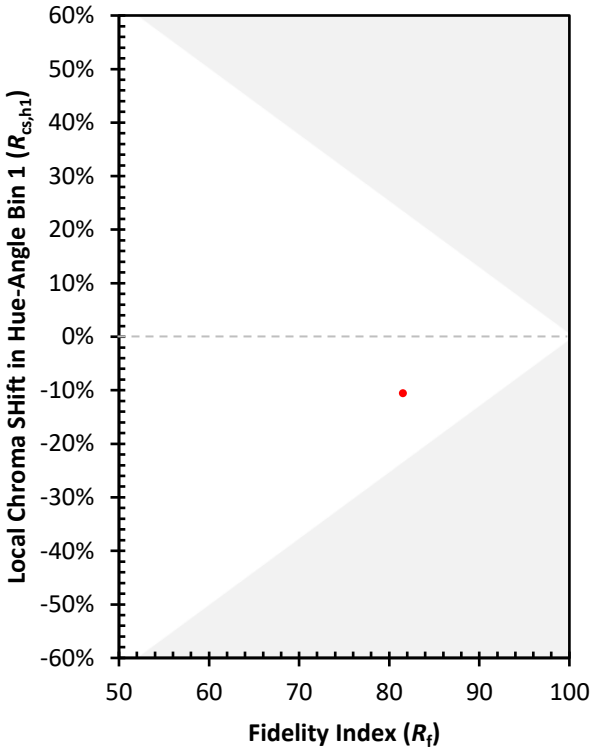


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)