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: P640471

Luminaire Tested: GWS-SA5D-830-U-T2-W

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:	P640471
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-19)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5D-830-U-T2-W
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23676.8 lumens
Efficiency:	N/A
Efficacy:	115.7 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Medium
BUG Rating:	B3 - U0 - G4

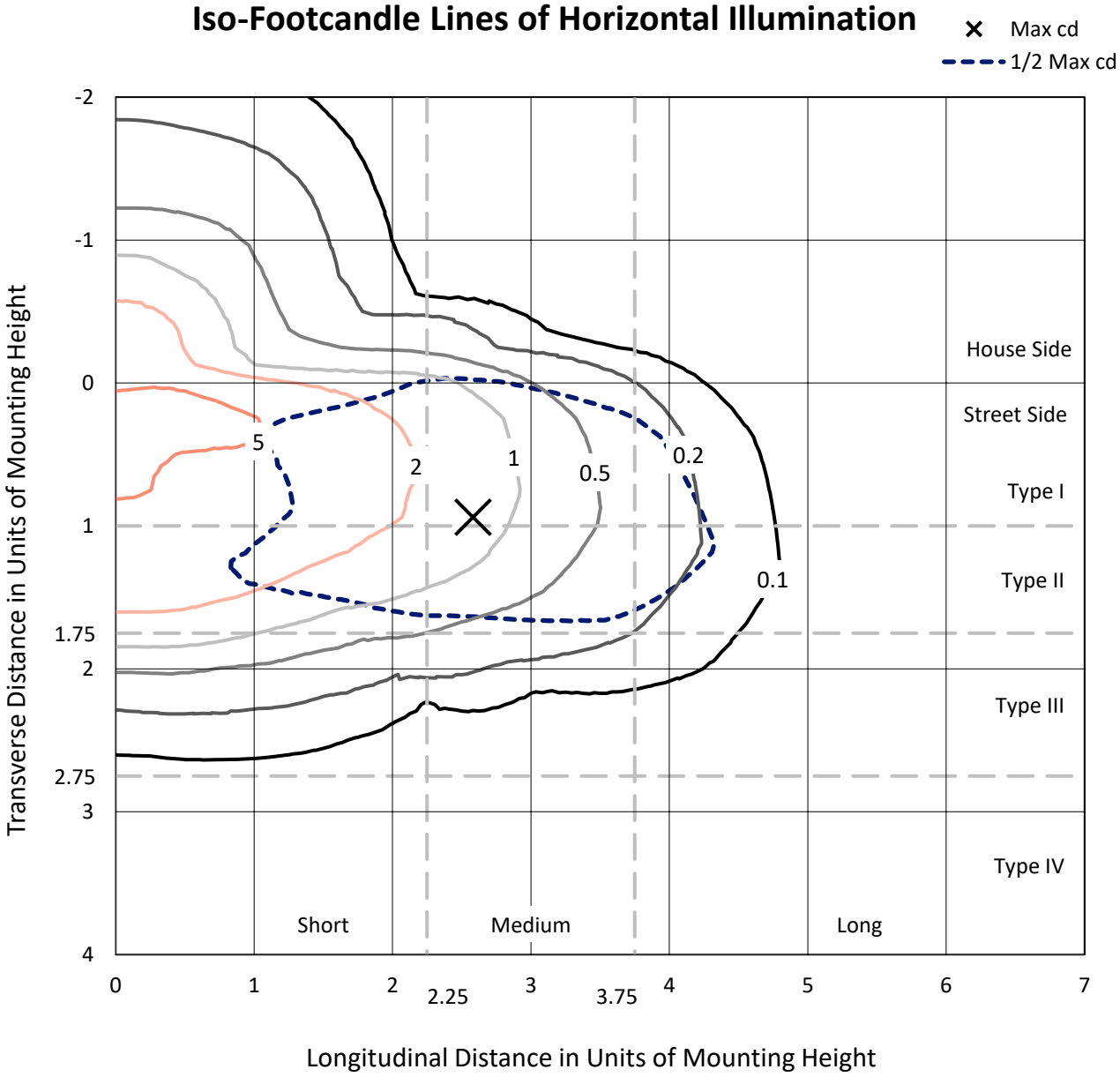
Input Watts (W):	204.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

Iso-Footcandle Lines of Horizontal Illumination



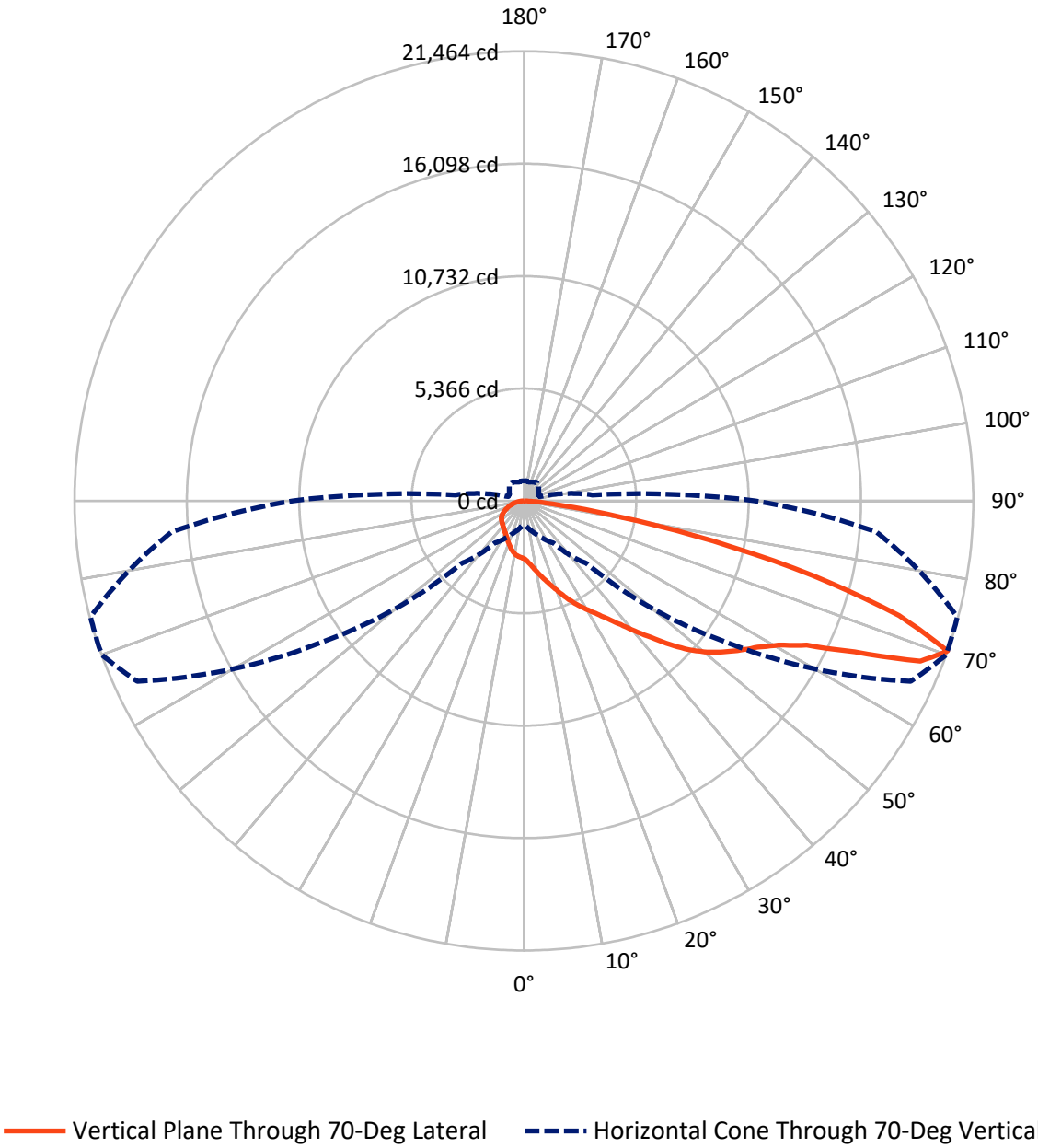
Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
Type II - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

Luminous Intensity Polar Plot



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

Scaled Data Report

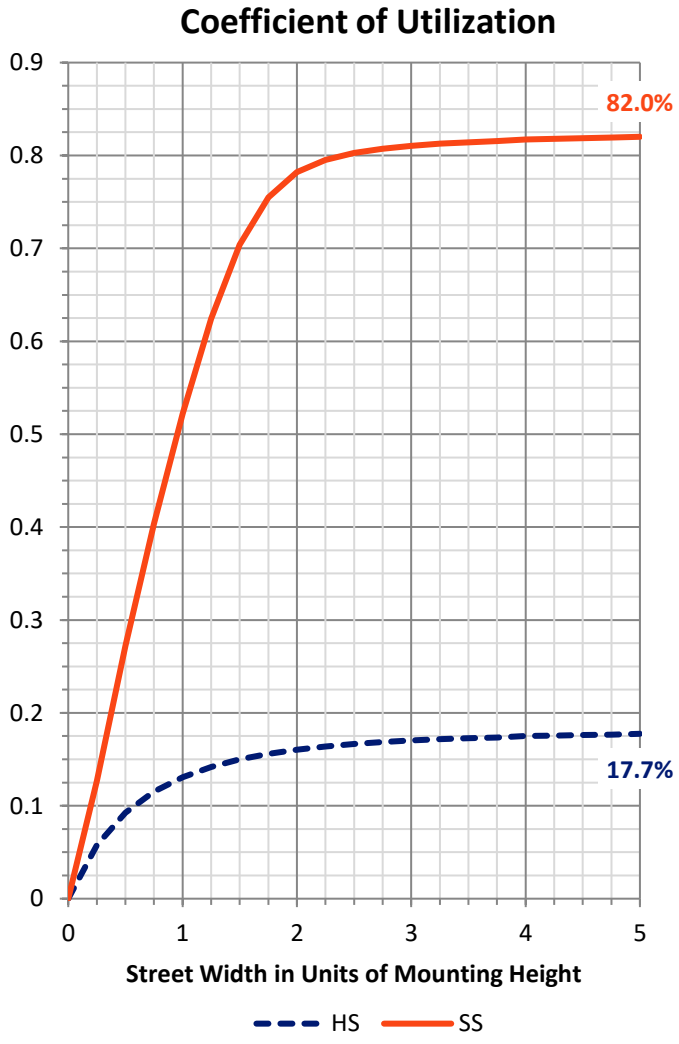
REPORT NUMBER: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4242.9	0.0	4242.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	19433.9	0.0	19433.9
	% Fixture	82.1	0.0	82.1
Total	Lumens	23676.8	0.0	23676.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.6	1.2
10°-20°	912.9	3.9
20°-30°	1617.3	6.8
30°-40°	2434.1	10.3
40°-50°	3682.5	15.6
50°-60°	5275.3	22.3
60°-70°	5831.3	24.6
70°-80°	3290.7	13.9
80°-90°	352.0	1.5
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°	23676.8	100.0
0°-180°	23676.8	100.0



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

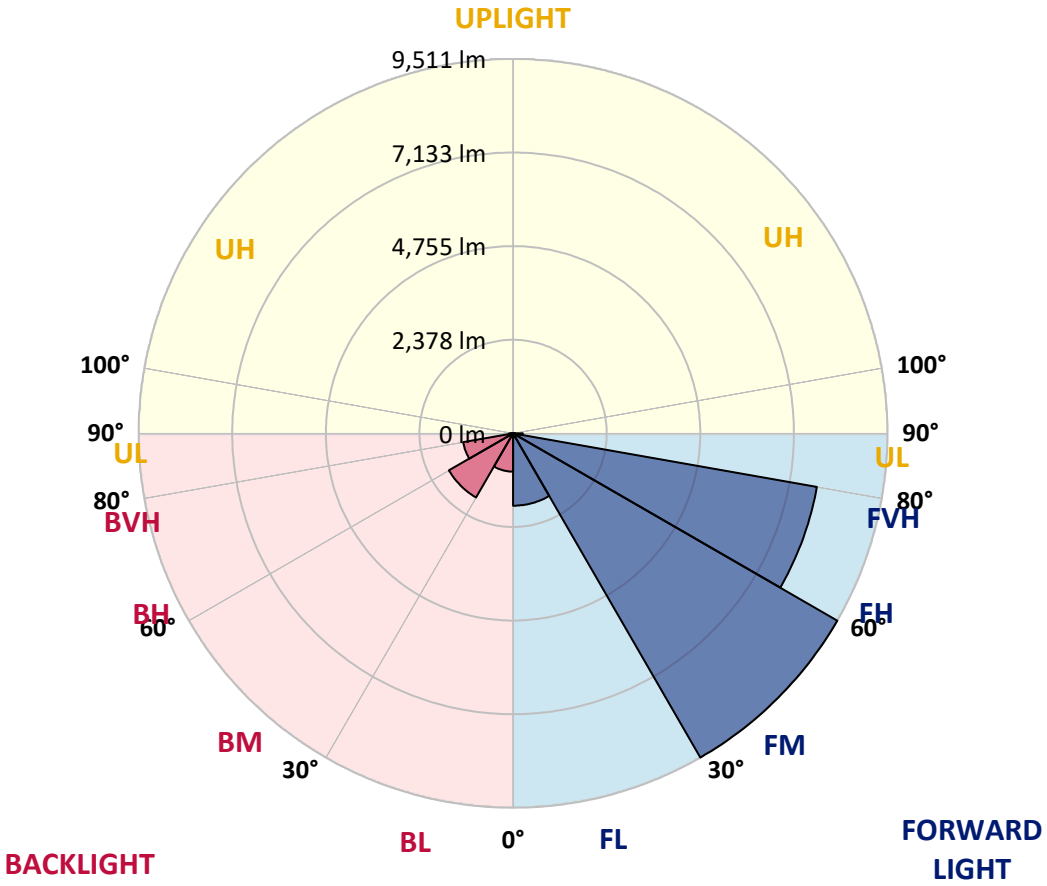
Scaled Data Report

REPORT NUMBER: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1838.0	7.8			
FM	(30°-60°)	9511.0	40.2			
FH	(60°-80°)	7836.0	33.1			G4/12000
FVH	(80°-90°)	248.8	1.1			G3/500
BL	(0°-30°)	972.8	4.1	B2/1000		
BM	(30°-60°)	1880.9	7.9	B2/2500		
BH	(60°-80°)	1286.0	5.4	B3/2500		G3/2500
BVH	(80°-90°)	103.2	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
Type II Medium



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

Scaled Data Report

REPORT NUMBER: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	*2761.2*	2761.2	2761.2
2.5°	3058.9	3053.7	3057.2	3053.7	3034.9	2988.7	2951.1	2903.2	*2870.7*	2851.9	2807.4
5°	3418.1	3413.0	3401.0	3383.9	3349.7	3286.4	3192.3	3088.0	*3024.7*	2976.8	2882.7
7.5°	3676.5	3676.5	3674.8	3654.2	3630.3	3563.6	3452.4	3315.5	*3223.1*	3141.0	2987.0
10°	3808.2	3816.8	3828.7	3857.8	3852.7	3816.8	3712.4	3565.3	*3448.9*	3353.1	3123.9
12.5°	3880.1	3885.2	3905.7	3965.6	4027.2	4035.7	3974.2	3820.2	*3693.6*	3565.3	3276.2
15°	3972.4	3974.2	4001.5	4073.4	4164.0	4254.7	4239.3	4085.4	*3955.3*	3813.3	3445.5
17.5°	4044.3	4056.3	4105.9	4189.7	4302.6	4427.5	4502.8	4407.0	*4246.2*	4083.6	3630.3
20°	4070.0	4078.5	4143.5	4271.8	4425.8	4602.0	4769.7	4744.0	*4581.5*	4389.9	3839.0
22.5°	4162.3	4162.3	4210.2	4318.0	4499.4	4756.0	5028.0	5094.7	*4951.0*	4726.9	4063.1
25°	4365.9	4359.1	4381.3	4425.8	4562.7	4879.2	5282.9	5483.1	*5322.2*	5070.8	4287.2
27.5°	4644.8	4641.4	4639.6	4646.5	4692.7	4986.9	5498.5	5845.7	*5684.9*	5400.9	4487.4
30°	4947.6	4937.3	4959.6	4939.0	4928.8	5115.2	5681.5	6170.8	*6045.9*	5727.7	4653.3
32.5°	5359.9	5341.1	5335.9	5269.2	5228.2	5315.4	5828.6	6540.3	*6441.1*	6080.1	4839.8
35°	5903.9	5886.8	5799.6	5693.5	5572.0	5613.1	6011.7	6901.3	*6908.1*	6521.5	5084.4
37.5°	6453.1	6456.5	6388.1	6138.3	6013.4	5989.5	6290.6	7341.0	*7488.1*	7048.4	5400.9
40°	6909.9	6930.4	6930.4	6666.9	6480.4	6458.2	6682.3	7862.8	*8155.3*	7695.1	5801.3
42.5°	7257.1	7276.0	7335.8	7145.9	6949.2	7026.2	7157.9	8386.3	*8911.5*	8494.0	6307.7
45°	7638.7	7654.0	7686.6	7577.1	7462.4	7667.7	7696.8	9012.4	*9777.1*	9390.5	6896.2
47.5°	8145.0	8131.4	8134.8	8054.4	7965.4	8297.3	8290.5	9539.3	*10613.7*	10372.5	7534.3
50°	8774.6	8800.3	8776.3	8617.2	8512.9	8815.7	8855.0	10122.7	*11349.3*	11344.2	8177.5
52.5°	9380.2	9390.5	9517.1	9523.9	9310.1	9246.8	9349.4	10711.2	*11970.4*	12233.8	8795.1
55°	9411.0	9450.4	9830.2	10103.9	10449.5	9941.4	9849.0	11272.4	*12570.8*	13104.6	9436.7
57.5°	8755.8	8819.1	9464.1	10054.3	11015.7	11133.8	10704.4	11997.7	*13171.3*	13961.7	10179.2
60°	7356.4	7488.1	8364.0	9267.3	10760.8	11990.9	12454.5	12983.1	*13960.0*	14837.6	11080.7
62.5°	4697.8	4749.1	5977.5	7489.8	9612.9	11907.1	14360.3	14719.6	*15161.0*	15978.7	12469.9
65°	2352.3	2516.6	3236.8	4470.3	6932.1	10492.2	15323.5	17899.9	*17359.3*	17932.4	14721.3
67.5°	1596.2	1649.2	2013.6	2685.9	4064.8	7433.4	14726.4	20579.0	*20419.9*	20514.0	17121.5
70°	*1177.0*	*1211.2*	*1498.6*	*1902.4*	*2458.4*	*4220.5*	*11724.0*	*20377.1*	*21463.5*	*21429.3*	*16870.0*
72.5°	858.8	875.9	1093.2	1452.5	1822.0	2183.0	7159.6	16461.2	*18736.5*	19723.6	14753.8
75°	624.4	645.0	759.6	1086.3	1416.5	1361.8	3534.5	11889.9	*14288.5*	16187.4	12020.0
77.5°	465.3	491.0	544.0	680.9	992.3	975.1	1527.7	7720.8	*9241.7*	10572.6	7301.6
80°	335.3	340.4	371.2	436.2	629.6	571.4	727.1	4025.5	*4615.7*	5057.1	2862.1
82.5°	203.6	208.7	248.1	268.6	390.1	359.3	378.1	1303.6	*1868.2*	1982.8	1069.2
85°	59.9	63.3	112.9	123.2	162.5	154.0	152.3	530.3	*633.0*	809.2	420.9
87.5°	0.0	0.0	0.0	0.0	1.7	10.3	18.8	94.1	*142.0*	196.7	102.6
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: P640471
CATALOG NUMBER: GWS-SA5D-830-U-T2-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2	2761.2
2.5°	2790.3	2750.9	2730.4	2694.5	2668.8	2643.2	2617.5	2593.5	2583.3	2567.9	2571.3
5°	2839.9	2778.3	2716.7	2646.6	2586.7	2537.1	2492.6	2453.3	2436.2	2420.8	2427.6
7.5°	2915.2	2822.8	2704.7	2576.4	2482.3	2413.9	2367.7	2340.4	2331.8	2319.8	2319.8
10°	3011.0	2872.4	2665.4	2482.3	2369.4	2314.7	2294.2	2292.5	2301.0	2302.7	2299.3
12.5°	3117.0	2920.3	2607.2	2371.1	2275.3	2258.2	2273.6	2302.7	2331.8	2347.2	2343.8
15°	3226.5	2951.1	2508.0	2265.1	2206.9	2229.2	2278.8	2336.9	2393.4	2422.5	2420.8
17.5°	3329.2	2957.9	2379.7	2162.4	2147.0	2203.5	2289.0	2379.7	2456.7	2497.7	2499.5
20°	3443.8	2946.0	2248.0	2070.0	2087.2	2179.5	2292.5	2401.9	2492.6	2533.7	2543.9
22.5°	3548.2	2904.9	2119.7	1982.8	2035.8	2150.5	2265.1	2367.7	2448.1	2487.5	2501.2
25°	3642.3	2826.2	1979.4	1909.2	1996.5	2109.4	2196.6	2268.5	2325.0	2348.9	2367.7
27.5°	3693.6	2708.2	1873.3	1851.1	1958.8	2051.2	2099.1	2121.4	2140.2	2133.3	2147.0
30°	3703.8	2561.0	1780.9	1804.9	1902.4	1970.8	1981.1	1958.8	1926.3	1873.3	1885.3
32.5°	3693.6	2391.7	1703.9	1755.3	1839.1	1880.2	1866.5	1808.3	1729.6	1647.5	1652.6
35°	3697.0	2220.6	1640.6	1700.5	1765.5	1787.8	1753.6	1673.1	1589.3	1514.0	1510.6
37.5°	3734.6	2076.9	1587.6	1647.5	1693.7	1697.1	1659.5	1575.6	1532.9	1476.4	1469.6
40°	3839.0	1970.8	1539.7	1594.5	1623.5	1621.8	1579.1	1519.2	1548.3	1529.4	1524.3
42.5°	4010.1	1905.8	1500.4	1538.0	1558.5	1561.9	1527.7	1490.1	1553.4	1529.4	1520.9
45°	4285.5	1902.4	1473.0	1481.5	1514.0	1538.0	1514.0	1471.3	1495.2	1378.9	1356.7
47.5°	4612.3	1960.6	1452.5	1431.9	1488.4	1531.2	1493.5	1425.1	1375.5	1269.4	1254.0
50°	5005.8	2078.6	1433.6	1378.9	1450.7	1505.5	1467.9	1373.8	1298.5	1242.0	1233.5
52.5°	5472.8	2234.3	1409.7	1319.0	1394.3	1491.8	1467.9	1368.6	1269.4	1218.1	1209.5
55°	5962.1	2413.9	1382.3	1247.2	1331.0	1495.2	1479.8	1332.7	1247.2	1219.8	1212.9
57.5°	6569.4	2629.5	1332.7	1163.3	1274.5	1464.4	1431.9	1312.2	1231.8	1209.5	1202.7
60°	7358.1	2949.4	1238.6	1077.8	1209.5	1409.7	1389.2	1278.0	1190.7	1171.9	1166.8
62.5°	8607.0	3491.7	1124.0	995.7	1132.5	1295.1	1325.9	1212.9	1139.4	1137.7	1136.0
65°	10642.8	4143.5	988.8	922.1	1052.1	1201.0	1242.0	1146.2	1086.3	1105.2	1103.5
67.5°	12069.6	4200.0	877.6	845.1	958.0	1098.3	1158.2	1077.8	1012.8	1048.7	1047.0
70°	*11055.1*	*3276.2*	*781.8*	*764.7*	*857.1*	*987.1*	*1067.5*	*992.3*	*927.2*	*961.5*	*954.6*
72.5°	9323.8	2511.4	691.2	680.9	754.5	870.8	951.2	906.7	838.3	838.3	822.9
75°	7493.2	2071.8	595.4	590.2	639.8	752.7	843.4	768.1	704.8	701.4	691.2
77.5°	4297.5	1358.4	499.5	496.1	511.5	629.6	655.2	639.8	591.9	569.7	562.8
80°	1712.5	706.6	393.5	371.2	386.6	461.9	516.7	491.0	449.9	422.6	407.2
82.5°	663.8	354.1	277.1	242.9	265.2	333.6	374.7	366.1	338.7	277.1	260.0
85°	270.3	172.8	165.9	140.3	154.0	179.6	215.6	186.5	154.0	109.5	104.4
87.5°	71.9	63.3	61.6	37.6	29.1	8.6	1.7	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

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

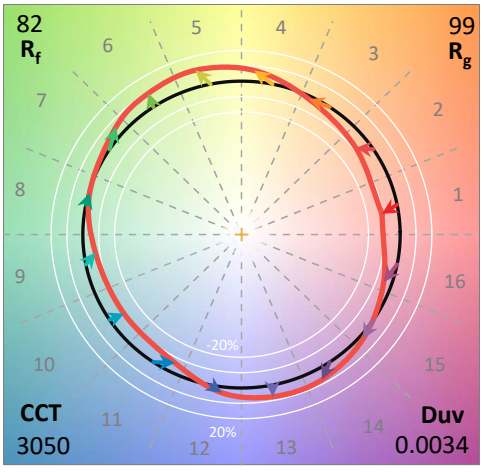
Test Information

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

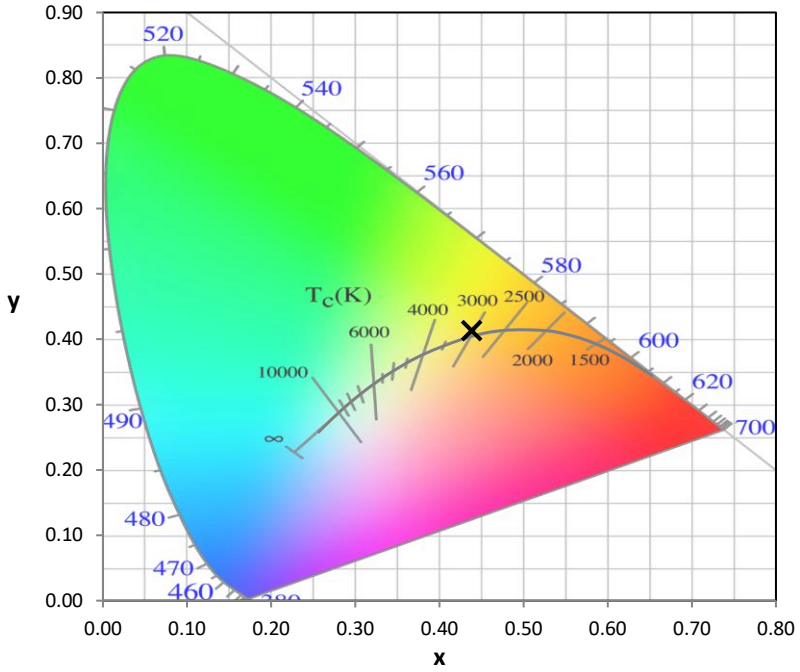
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

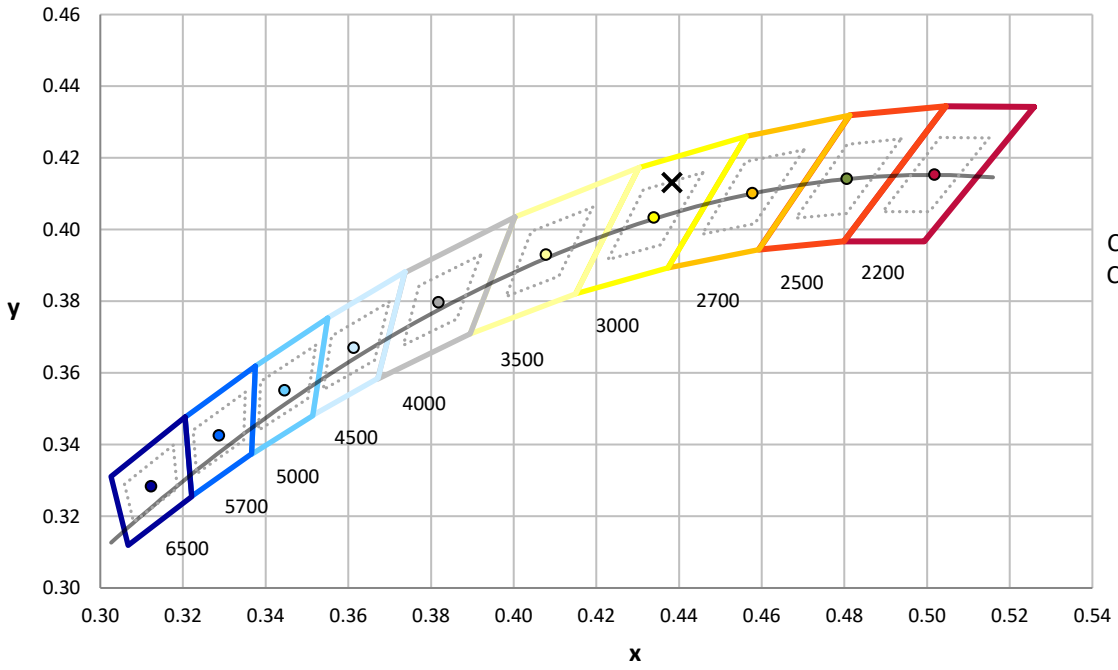
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

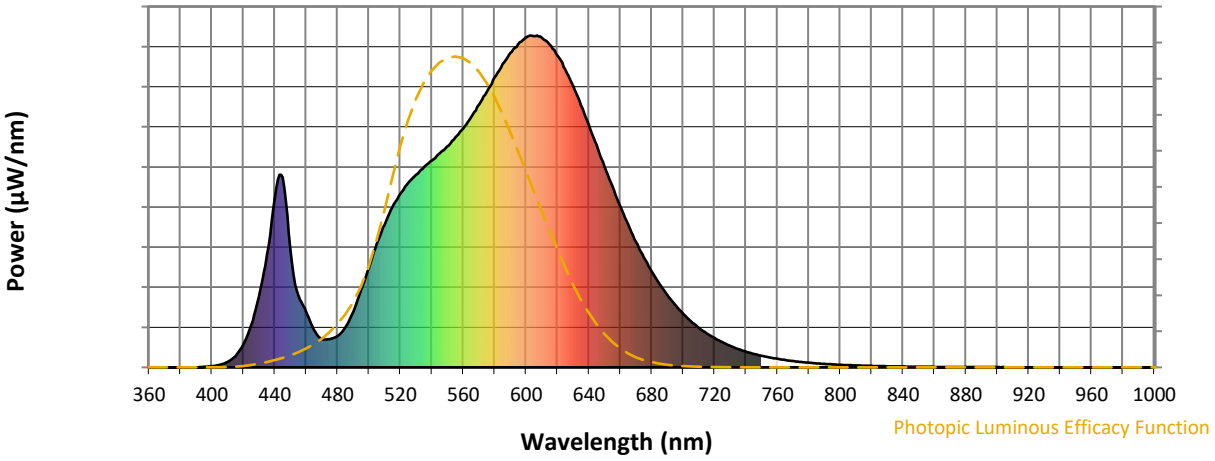


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

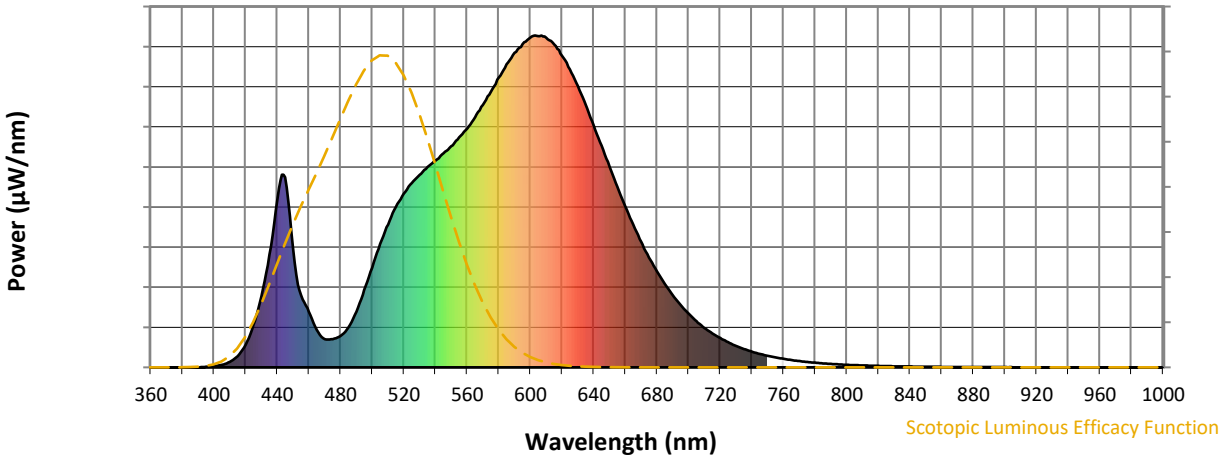


Photopic Lumens: NR

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

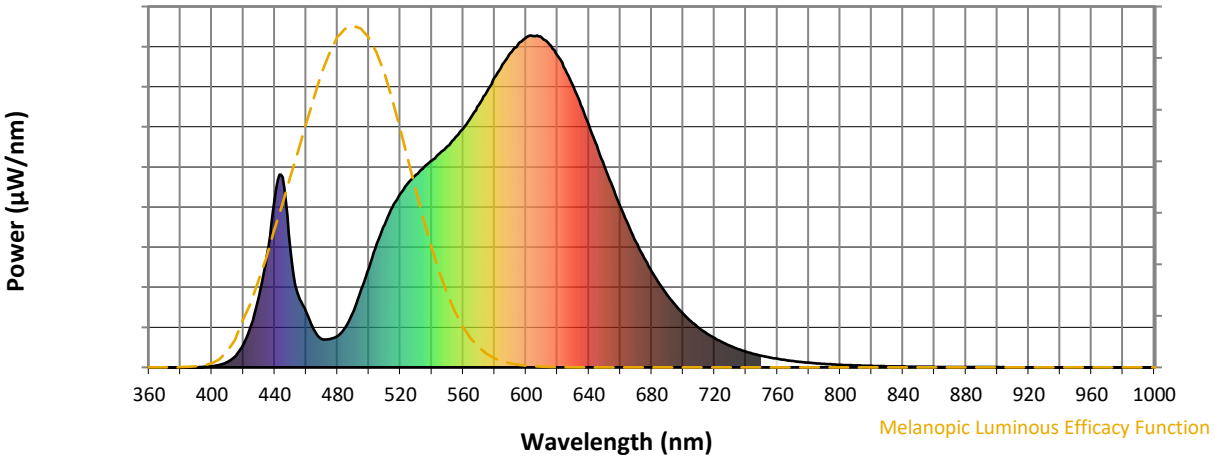


Scotopic Lumens: NR **S/P: 1.27**

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			

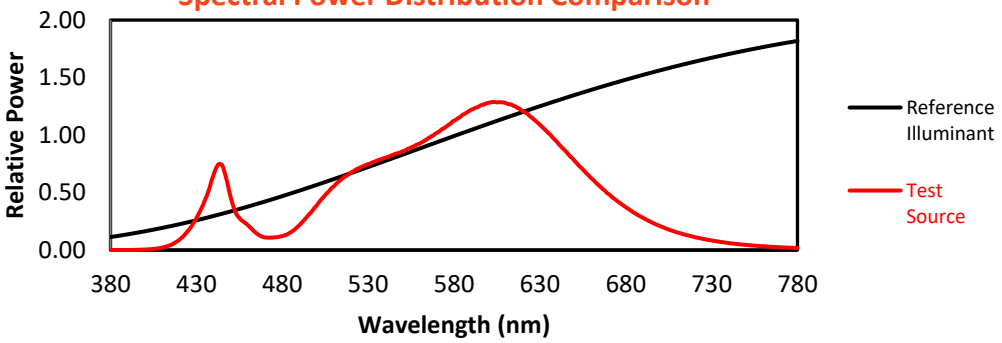
REPORT NUMBER: SP1-2408-195-9

TM-30-18

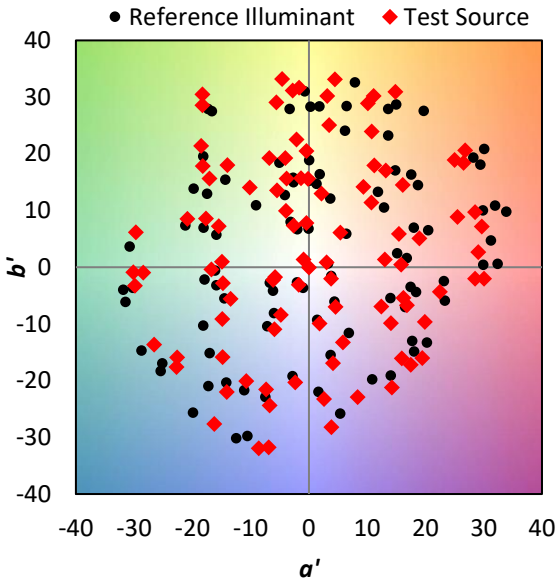
Summary

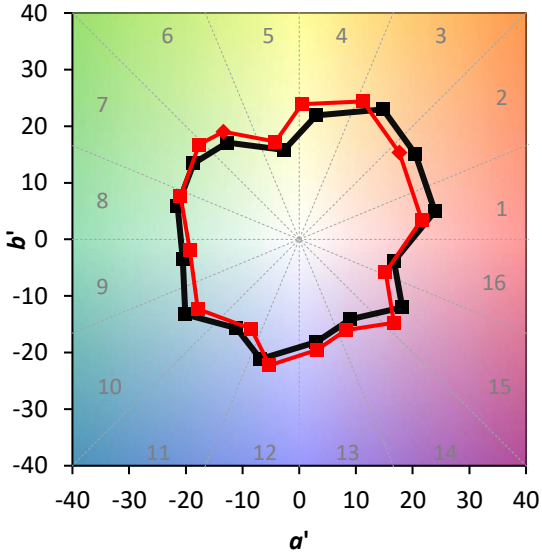
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

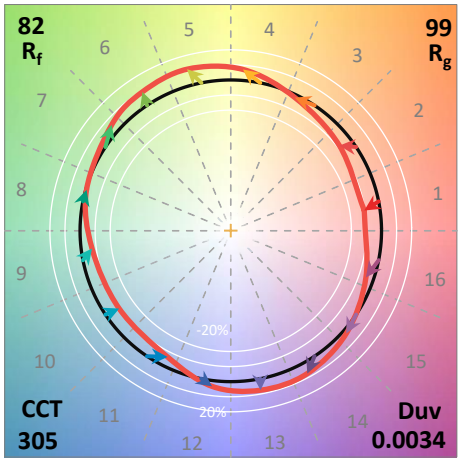
Spectral Power Distribution Comparison

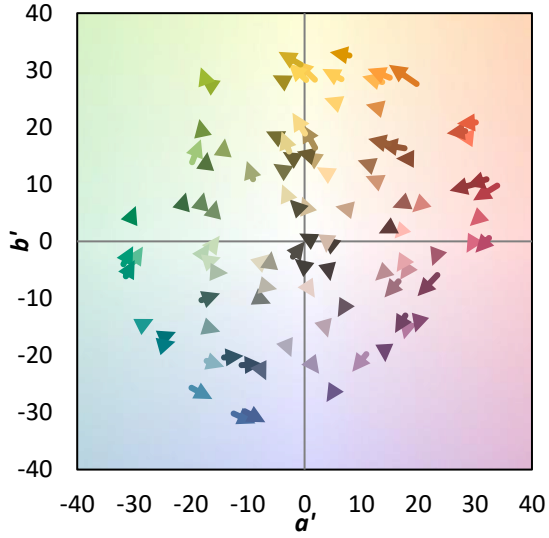


Color Vector Graphics







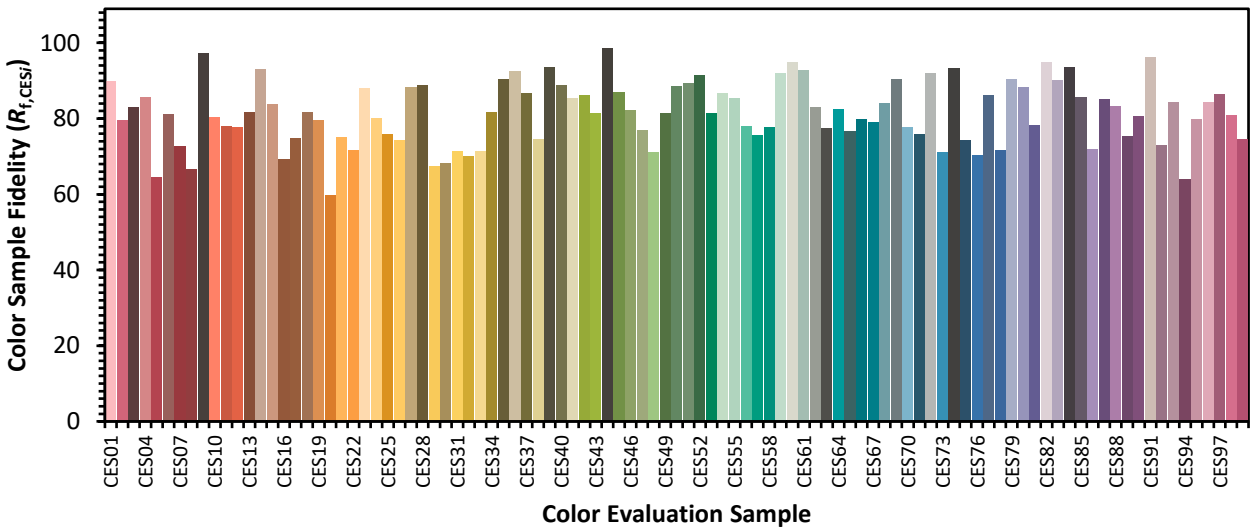


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

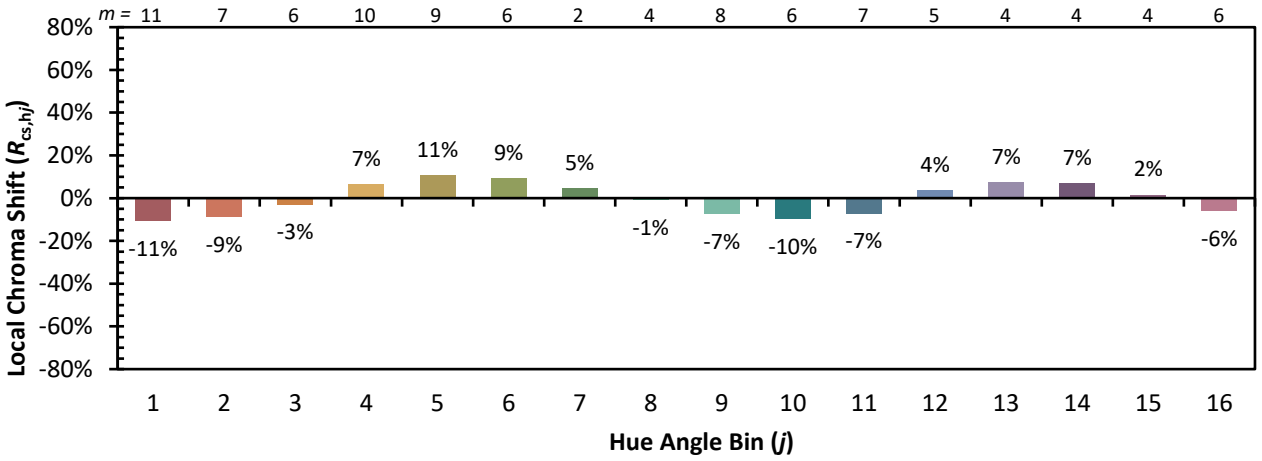
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

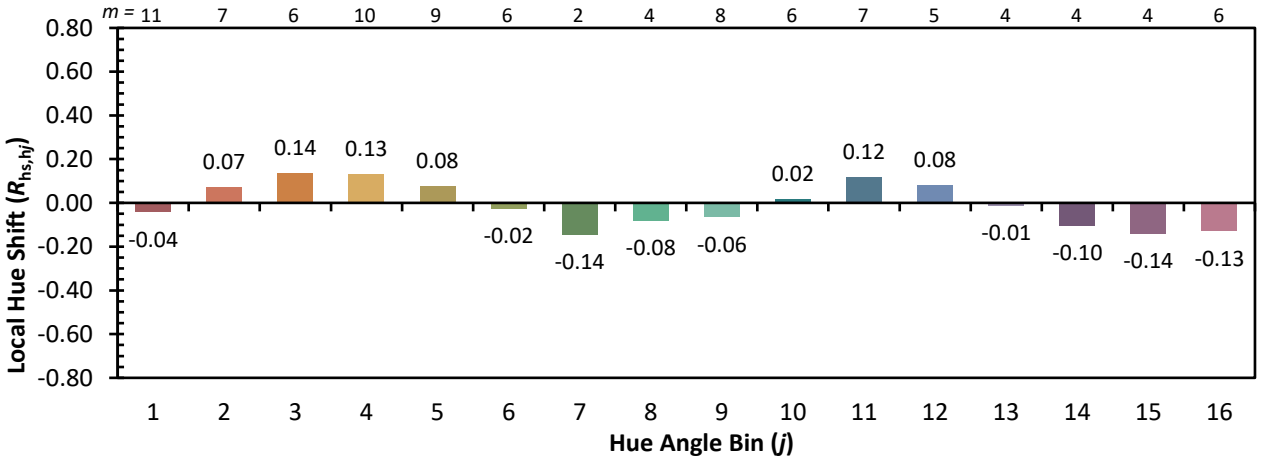


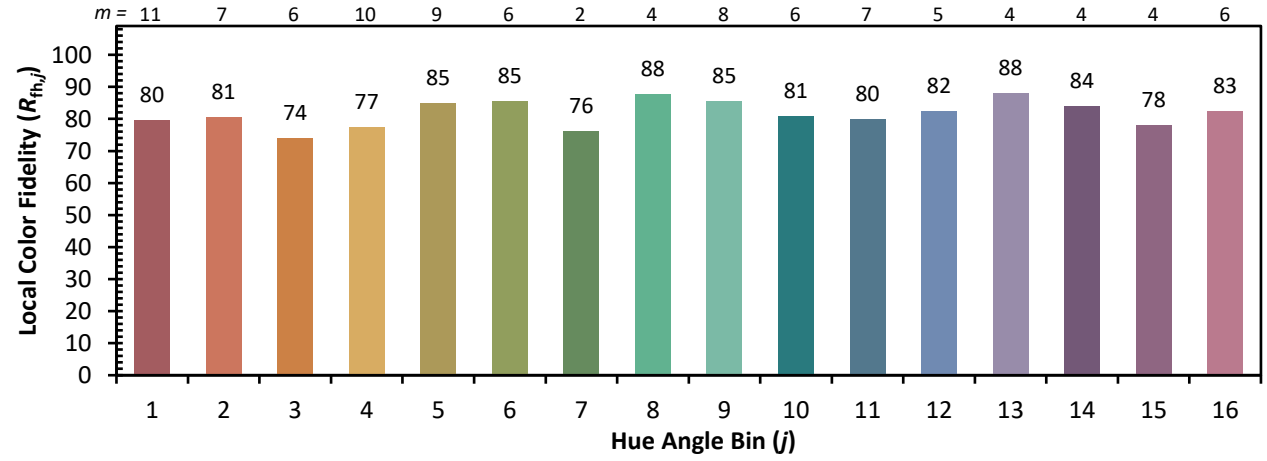
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



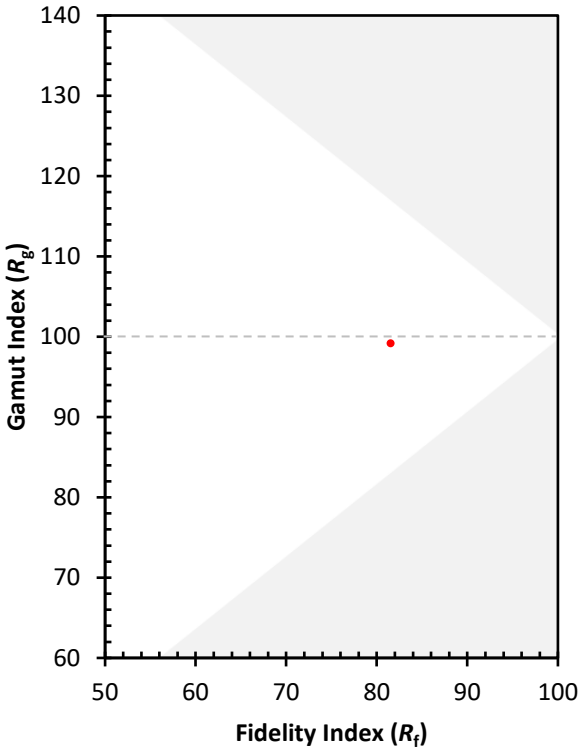


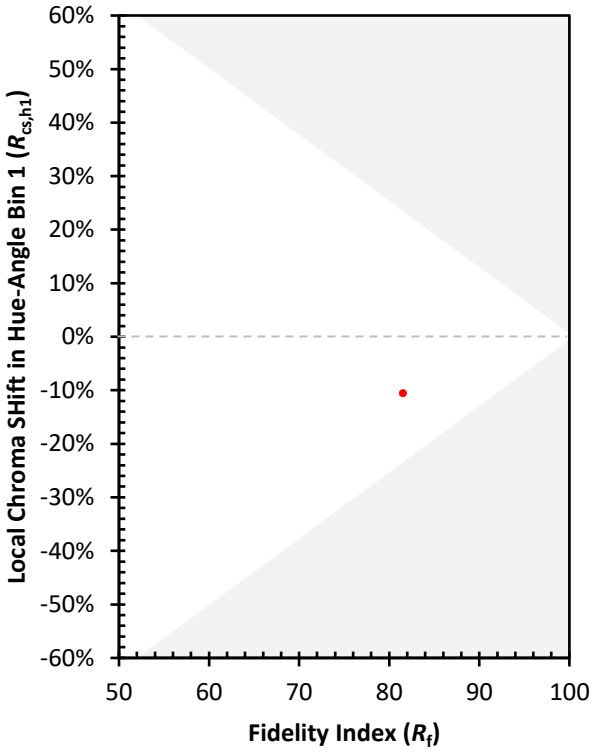


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)