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: P640443

Luminaire Tested: GWS-SA5D-830-U-AFL-W-GRSWH

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:	P640443
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5D-830-U-AFL-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	21649.6 lumens
Efficiency:	N/A
Efficacy:	105.8 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G2

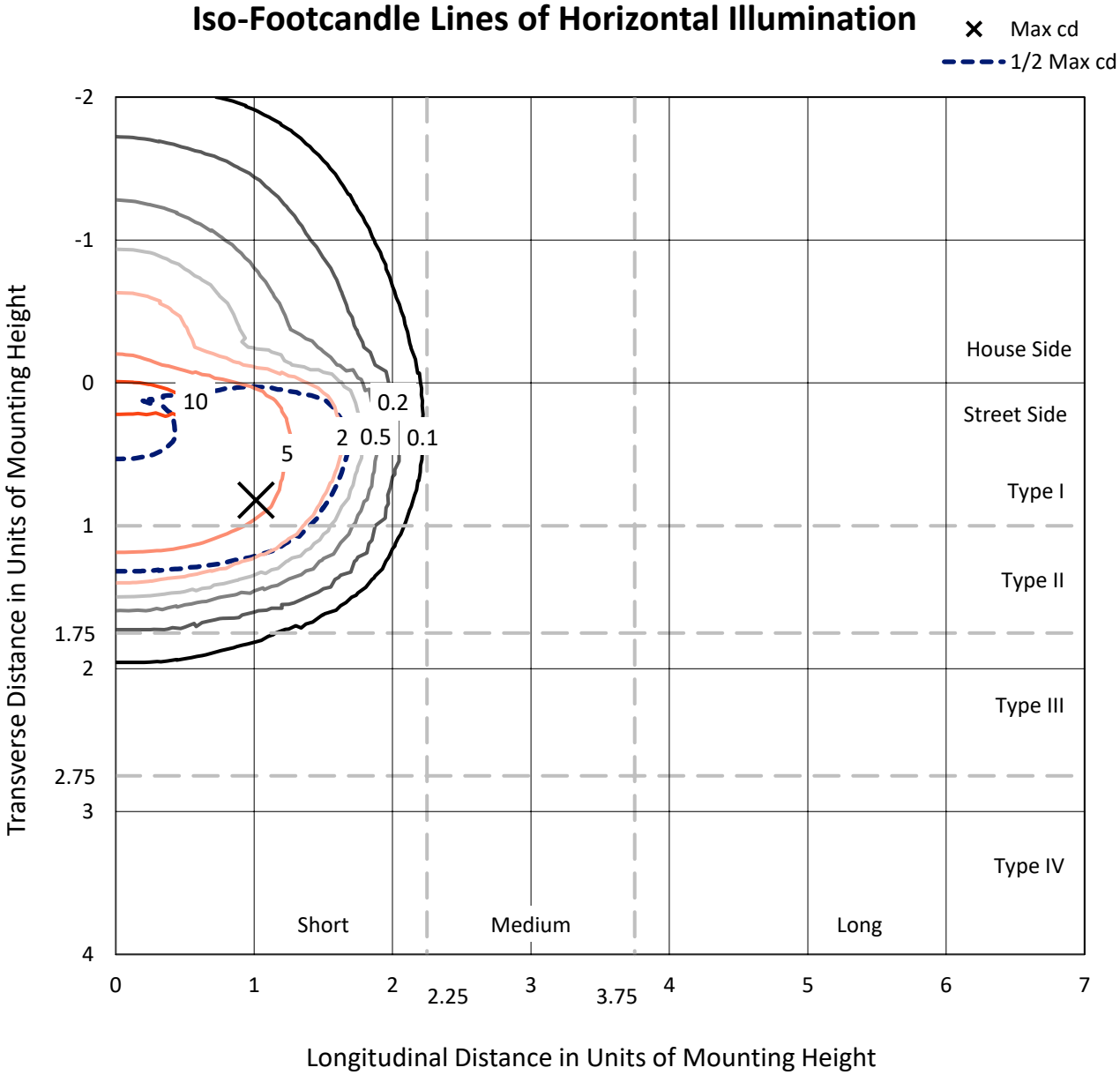
Input Watts (W):	204.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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

Scaled Data Report

REPORT NUMBER: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



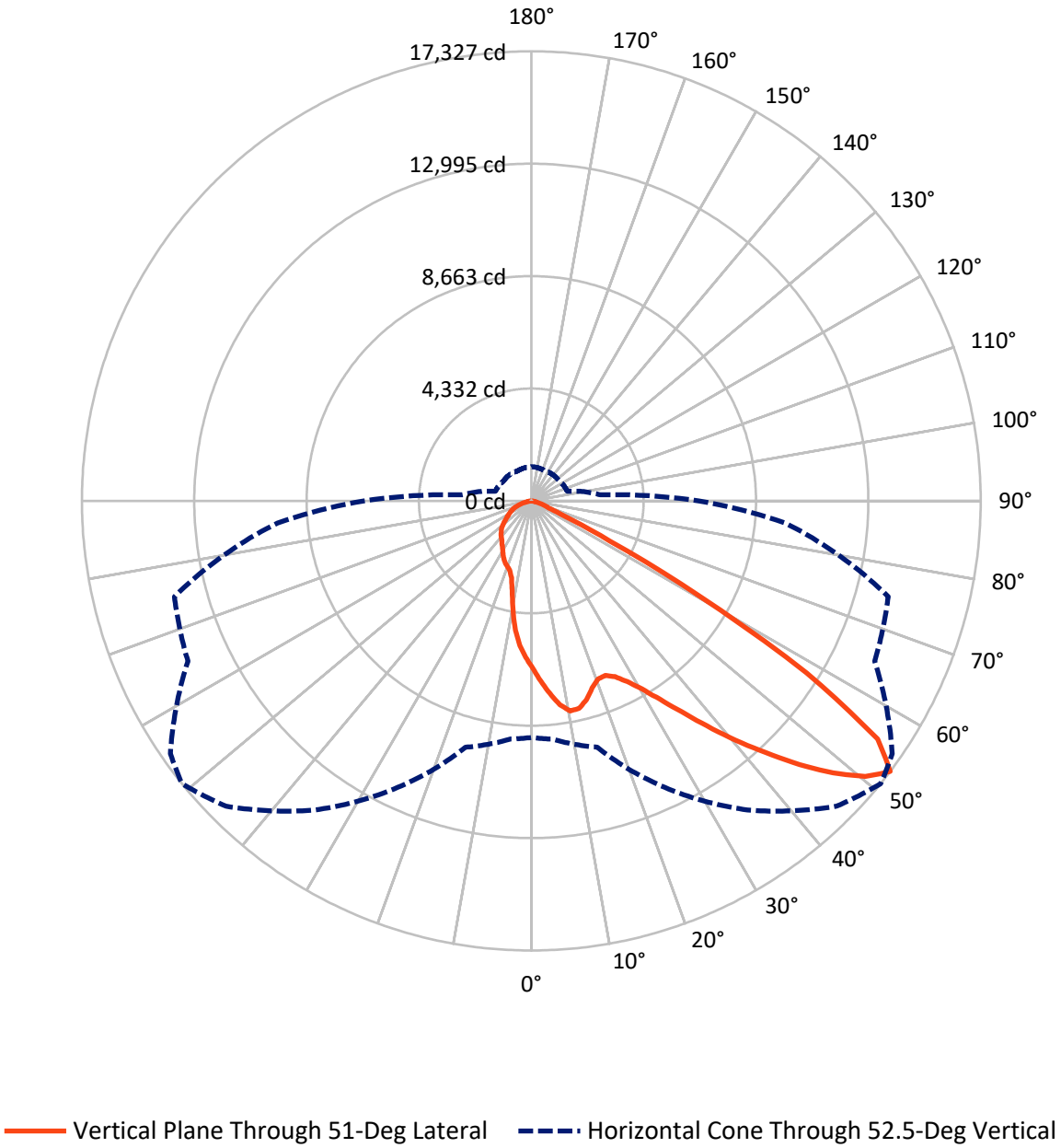
Based on 25 foot mounting height. Maximum calculated value = 12.6 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

Luminous Intensity Polar Plot



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

Scaled Data Report

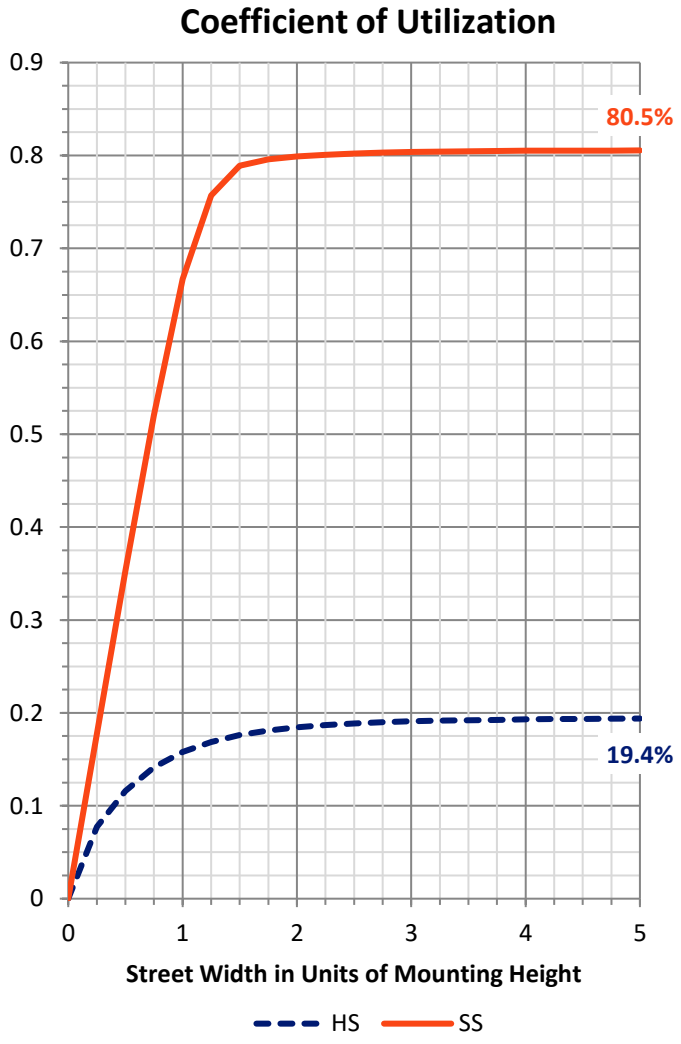
REPORT NUMBER: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4218.2	0.0	4218.2
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	17431.3	0.0	17431.3
	% Fixture	80.5	0.0	80.5
Total	Lumens	21649.6	0.0	21649.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	601.5	2.8
10°-20°	1563.0	7.2
20°-30°	2541.3	11.7
30°-40°	4027.4	18.6
40°-50°	6074.1	28.1
50°-60°	5254.6	24.3
60°-70°	1191.3	5.5
70°-80°	351.3	1.6
80°-90°	45.2	0.2
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°	21649.6	100.0
0°-180°	21649.6	100.0



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

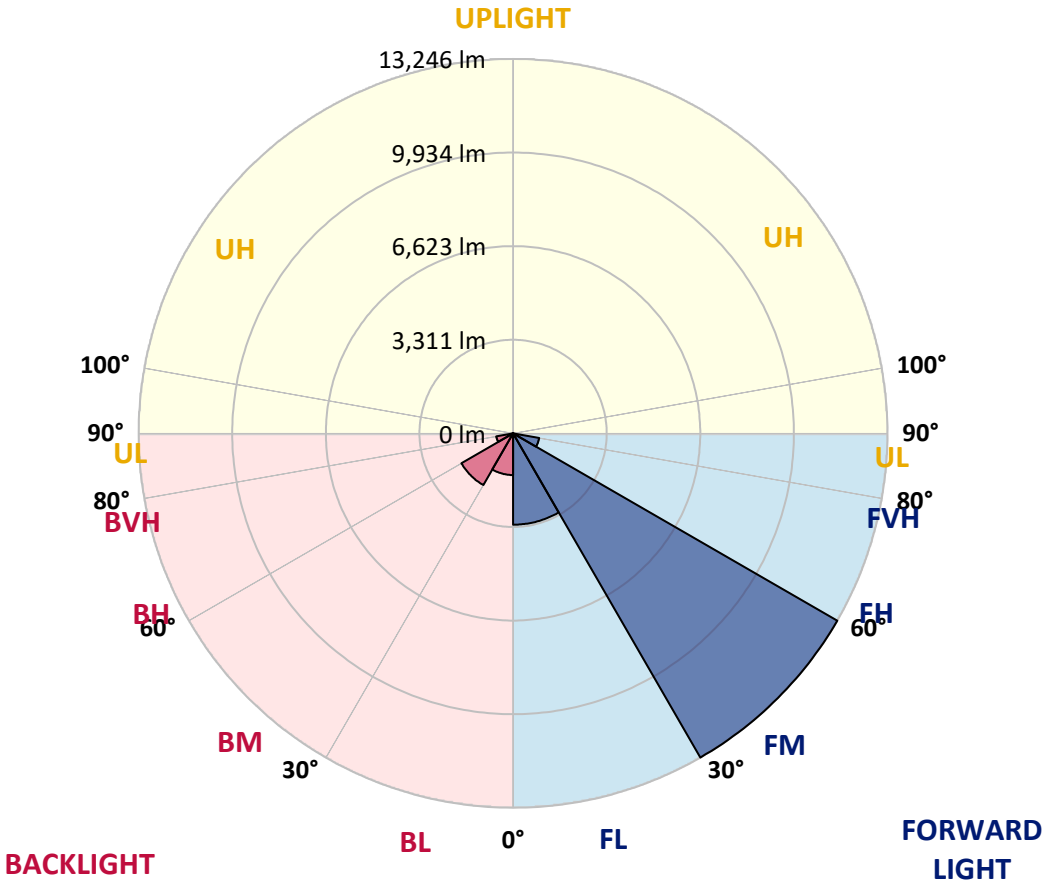
Scaled Data Report

REPORT NUMBER: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	3231.3	14.9			
FM	(30°-60°)	13245.5	61.2			
FH	(60°-80°)	937.5	4.3			G1/1800
FVH	(80°-90°)	17.1	0.1			G1/100
BL	(0°-30°)	1474.5	6.8	B3/2500		
BM	(30°-60°)	2110.5	9.7	B2/2500		
BH	(60°-80°)	605.0	2.8	B2/1000		G2/1000
BVH	(80°-90°)	28.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type II Short



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

Scaled Data Report

REPORT NUMBER: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	51°	55°	65°	75°	85°
0°	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	*6446.2*	6446.2	6446.2	6446.2	6446.2
2.5°	7183.5	7224.6	7161.3	7137.3	7098.0	7029.5	*6950.8*	6928.6	6759.2	6648.0	6523.2
5°	7905.4	7927.7	7876.4	7825.0	7727.5	7606.1	*7453.8*	7421.3	7113.4	6858.5	6593.3
7.5°	8066.3	8057.7	8102.2	8131.3	8119.3	8071.4	*7936.2*	7872.9	7505.1	7101.4	6709.6
10°	7429.9	7382.0	7546.2	7741.2	7975.6	8245.9	*8230.5*	8225.4	7905.4	7428.1	6858.5
12.5°	6586.4	6562.5	6695.9	6940.6	7383.7	7982.4	*8206.5*	8381.0	8266.4	7739.5	7024.4
15°	6104.0	6095.5	6186.1	6362.3	6714.8	7470.9	*7949.9*	8295.5	8576.1	8073.1	7200.6
17.5°	6016.8	6021.9	6052.7	6153.6	6406.8	7029.5	*7583.8*	8066.3	8817.3	8439.2	7421.3
20°	6271.7	6305.9	6252.8	6268.2	6405.1	6870.4	*7334.1*	7835.3	8971.3	8807.0	7659.1
22.5°	6837.9	6826.0	6709.6	6641.2	6642.9	6967.9	*7306.7*	7727.5	9072.2	9164.6	7874.7
25°	7479.5	7465.8	7327.2	7175.0	7079.1	7233.1	*7503.4*	7842.2	9162.9	9491.3	8047.4
27.5°	8237.3	8194.6	8040.6	7845.6	7633.4	7700.2	*7883.2*	8151.8	9303.1	9813.0	8162.1
30°	8971.3	9020.9	8800.2	8569.2	8345.1	8304.1	*8410.1*	8653.1	9588.8	10189.3	8298.9
32.5°	9944.7	9927.6	9682.9	9381.8	9061.9	9031.1	*9115.0*	9337.4	10102.1	10709.4	8507.6
35°	11123.4	11126.8	10779.5	10372.4	9917.3	9835.2	*9975.5*	10191.0	10866.8	11414.2	8837.8
37.5°	12348.3	12343.2	12040.4	11578.5	10957.5	10841.1	*11001.9*	11162.7	11823.1	12374.0	9351.0
40°	13207.1	13241.3	13099.3	12856.4	12267.9	11983.9	*12125.9*	12237.1	12863.2	13503.1	10026.8
42.5°	13694.7	13746.0	13776.8	13922.2	13612.6	13309.8	*13258.4*	13316.6	13792.2	14551.8	10661.5
45°	13799.0	13867.5	14091.6	14630.5	14750.2	14664.7	*14497.0*	14356.7	14485.1	15296.0	11077.2
47.5°	13338.8	13458.6	13937.6	14880.2	15579.9	15848.5	*15662.1*	15448.2	14885.4	15487.6	11034.4
50°	11515.2	11655.4	12734.9	14370.4	15698.0	16676.5	*16693.7*	16377.2	14837.5	14935.0	10497.3
52.5°	*9116.7*	*9212.5*	*9830.1*	*12182.4*	*14539.8*	*16642.3*	*17326.6*	*16987.9*	*14606.5*	*14243.8*	*9824.9*
55°	5448.8	5602.8	6179.3	8037.2	11327.0	14750.2	*16207.8*	16372.0	14493.6	13663.9	9366.4
57.5°	1839.1	1914.3	2465.2	3549.8	6675.4	10800.1	*12522.8*	13190.0	13157.5	12777.7	8471.7
60°	875.9	893.0	1004.2	1346.4	2672.2	5643.8	*7412.7*	8182.6	8884.0	8954.1	5270.9
62.5°	667.2	677.5	733.9	807.5	1074.4	2378.0	*3397.6*	3986.1	4258.1	3654.2	1919.5
65°	557.7	566.3	609.0	655.2	730.5	1029.9	*1303.6*	1503.8	1354.9	1055.5	915.3
67.5°	465.3	472.2	504.7	554.3	605.6	689.4	*723.7*	744.2	780.1	875.9	841.7
70°	364.4	371.2	405.5	448.2	497.8	518.4	*550.9*	571.4	643.2	766.4	763.0
72.5°	280.6	289.1	307.9	335.3	376.4	396.9	*432.8*	456.8	497.8	597.1	638.1
75°	205.3	210.4	227.5	236.1	241.2	236.1	*272.0*	299.4	354.1	391.8	402.0
77.5°	83.8	94.1	90.7	90.7	107.8	130.0	*148.8*	165.9	203.6	225.8	227.5
80°	34.2	37.6	44.5	49.6	59.9	77.0	*89.0*	95.8	112.9	126.6	136.9
82.5°	20.5	22.2	25.7	27.4	34.2	44.5	*51.3*	56.5	70.1	83.8	89.0
85°	10.3	10.3	12.0	13.7	17.1	20.5	*24.0*	27.4	35.9	44.5	49.6
87.5°	1.7	1.7	1.7	3.4	5.1	6.8	*8.6*	10.3	12.0	13.7	17.1
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: P640443
CATALOG NUMBER: GWS-SA5D-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2	6446.2
2.5°	6449.6	6357.2	6249.4	6163.9	6064.7	5991.1	5886.7	5821.7	5760.1	5708.8	5671.2
5°	6456.4	6300.8	6076.6	5878.2	5672.9	5477.9	5277.7	5115.2	4969.8	4848.3	4838.0
7.5°	6495.8	6271.7	5921.0	5573.7	5173.4	4786.7	4400.1	4085.3	3845.8	3720.9	3695.3
10°	6562.5	6268.2	5761.9	5207.6	4525.0	3902.3	3443.8	3204.3	3065.7	3016.1	2999.0
12.5°	6632.6	6259.7	5558.3	4690.9	3743.2	3197.4	2945.9	2916.9	2942.5	2945.9	2944.2
15°	6718.2	6254.6	5301.7	4085.3	3171.8	2870.7	2887.8	2949.4	3009.2	3022.9	3022.9
17.5°	6822.5	6242.6	4952.7	3493.4	2814.2	2807.4	2898.0	2980.2	3036.6	3046.9	3046.9
20°	6932.0	6211.8	4523.3	3010.9	2668.8	2768.0	2865.5	2928.8	2968.2	2981.9	2983.6
22.5°	7007.3	6129.7	4028.9	2653.4	2578.1	2692.7	2762.9	2827.9	2827.9	2793.7	2783.4
25°	7022.7	5953.5	3493.4	2408.8	2470.3	2576.4	2648.3	2610.6	2540.5	2513.1	2511.4
27.5°	6966.2	5696.9	2964.8	2234.3	2340.3	2446.4	2434.4	2379.7	2348.9	2321.5	2331.8
30°	6897.8	5388.9	2506.3	2090.6	2189.8	2294.1	2253.1	2234.3	2212.0	2181.2	2188.1
32.5°	6851.6	5045.0	2153.9	1979.4	2088.8	2106.0	2135.0	2133.3	2112.8	2054.6	2051.2
35°	6865.3	4697.8	1917.8	1888.7	2005.0	1998.2	2052.9	2042.7	1900.7	1820.3	1815.1
37.5°	6974.8	4364.2	1779.2	1816.8	1871.6	1914.3	1962.2	1839.1	1789.5	1738.1	1741.6
40°	7183.5	4054.5	1703.9	1777.5	1791.2	1854.5	1743.3	1741.6	1719.3	1673.1	1671.4
42.5°	7419.6	3792.8	1652.6	1758.7	1739.8	1751.8	1633.8	1647.5	1645.8	1616.7	1608.1
45°	7563.3	3551.6	1611.5	1688.5	1693.7	1573.9	1538.0	1553.4	1561.9	1546.5	1544.8
47.5°	7414.5	3274.4	1568.8	1580.7	1625.2	1493.5	1449.0	1450.7	1466.1	1467.8	1461.0
50°	6997.0	2964.8	1517.4	1488.4	1459.3	1409.7	1368.6	1360.1	1375.5	1390.9	1396.0
52.5°	*6458.1*	*2668.8*	*1431.9*	*1387.4*	*1319.0*	*1319.0*	*1300.2*	*1272.8*	*1293.3*	*1313.9*	*1320.7*
55°	6063.0	2449.8	1310.4	1260.8	1185.6	1211.2	1207.8	1183.9	1211.2	1226.6	1231.8
57.5°	5253.8	1969.1	1153.1	1137.7	1074.4	1105.2	1112.0	1081.2	1067.5	1070.9	1076.1
60°	3118.7	1271.1	1040.1	1038.4	982.0	1017.9	1038.4	1007.6	966.6	971.7	978.6
62.5°	1399.4	971.7	898.2	891.3	889.6	935.8	958.0	928.9	870.8	875.9	882.8
65°	881.0	840.0	780.1	780.1	807.5	846.8	863.9	840.0	773.3	764.7	771.6
67.5°	817.7	781.8	720.2	708.3	721.9	754.4	756.2	710.0	670.6	663.8	663.8
70°	733.9	706.5	646.7	622.7	617.6	615.9	610.7	598.8	573.1	566.3	569.7
72.5°	607.3	588.5	550.9	525.2	511.5	509.8	489.3	479.0	456.8	453.4	451.6
75°	402.0	407.2	407.2	403.7	391.8	386.6	364.4	354.1	328.5	318.2	316.5
77.5°	237.8	242.9	249.8	251.5	249.8	249.8	229.2	217.3	191.6	177.9	174.5
80°	145.4	148.8	152.3	157.4	150.5	145.4	126.6	114.6	102.6	94.1	92.4
82.5°	94.1	97.5	99.2	102.6	99.2	92.4	77.0	70.1	61.6	54.7	53.0
85°	53.0	54.7	58.2	58.2	53.0	47.9	39.3	34.2	29.1	25.7	25.7
87.5°	18.8	18.8	18.8	20.5	17.1	15.4	10.3	6.8	5.1	5.1	5.1
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

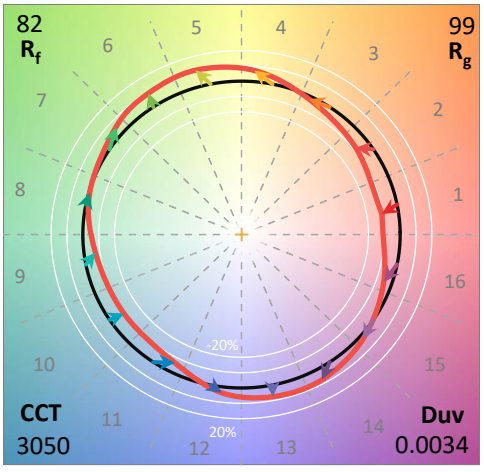
Test Information

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

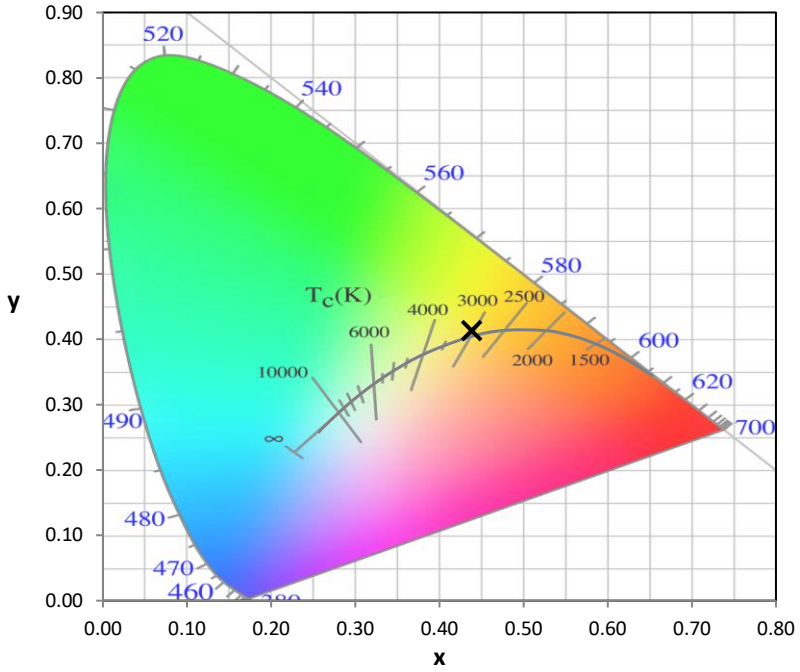
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

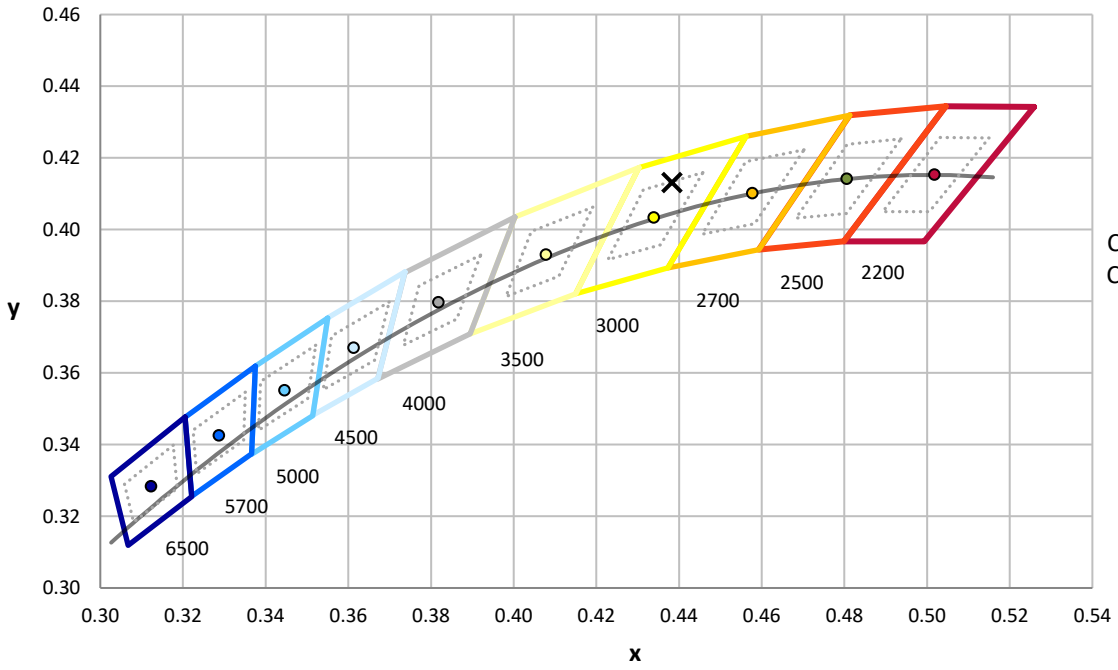
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

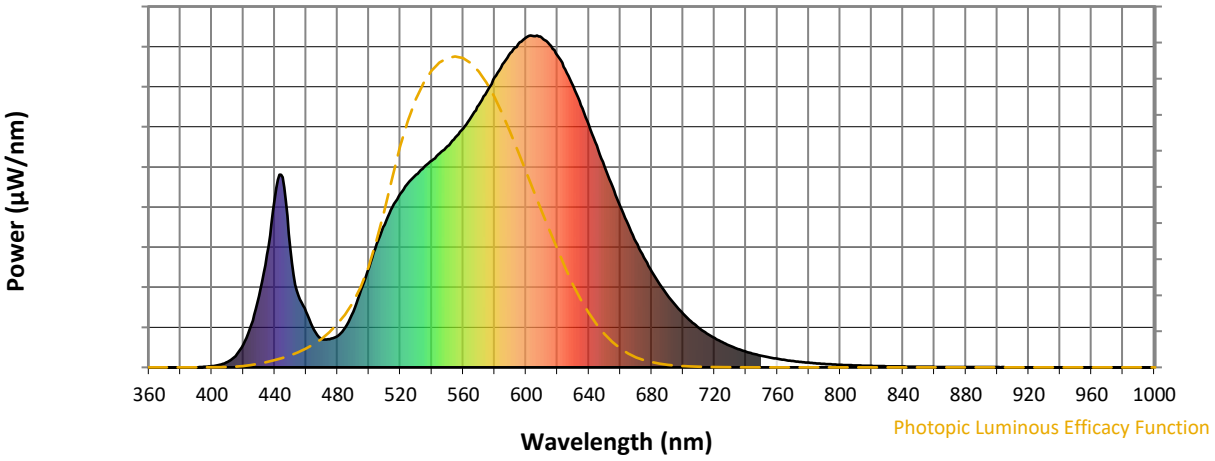


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

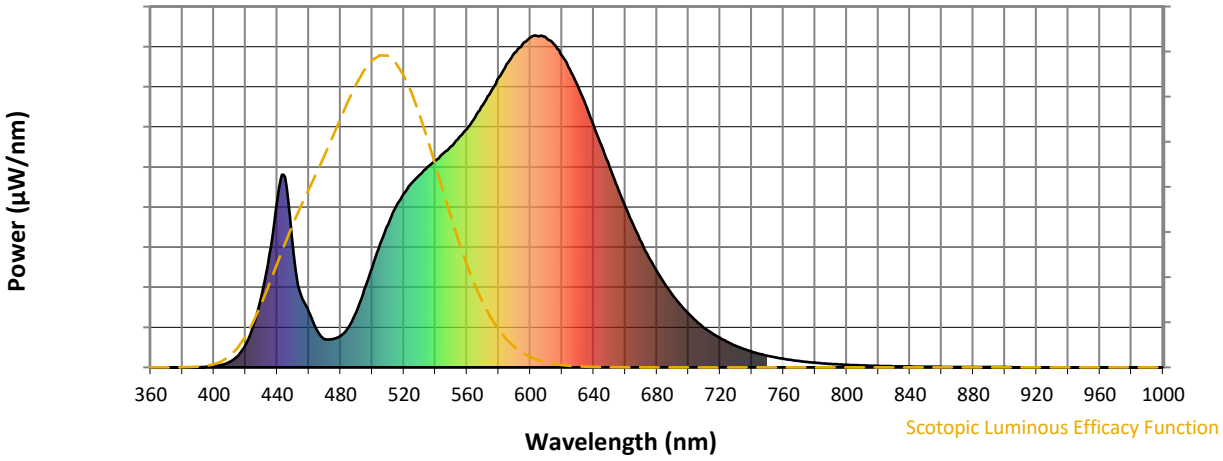


Photopic Lumens: NR

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

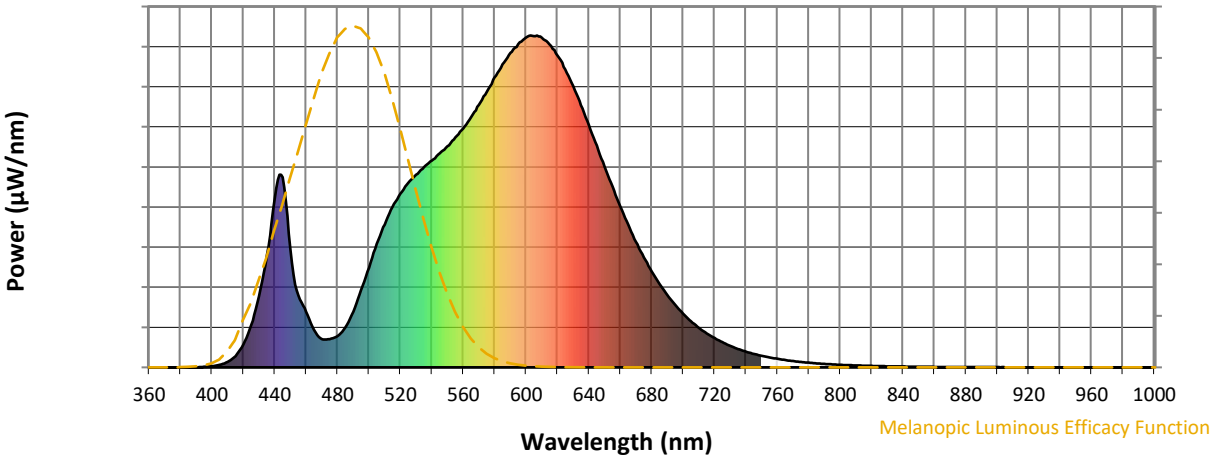


Scotopic Lumens: NR **S/P: 1.27**

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			

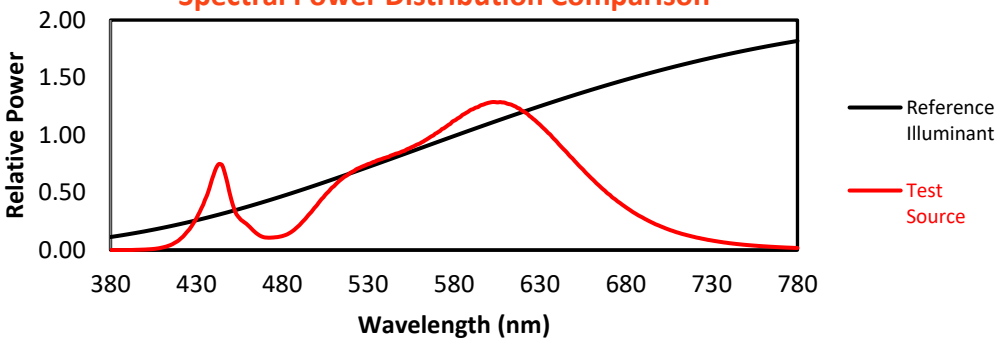
REPORT NUMBER: SP1-2408-195-9

TM-30-18

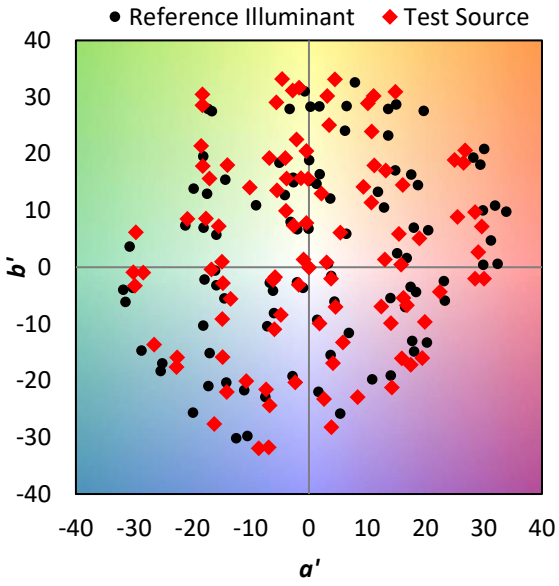
Summary

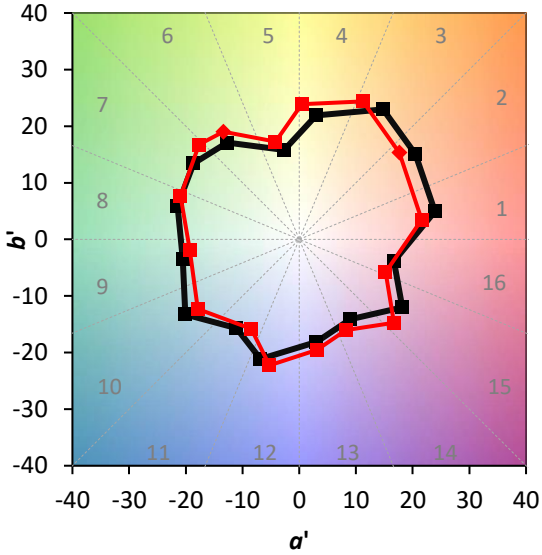
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

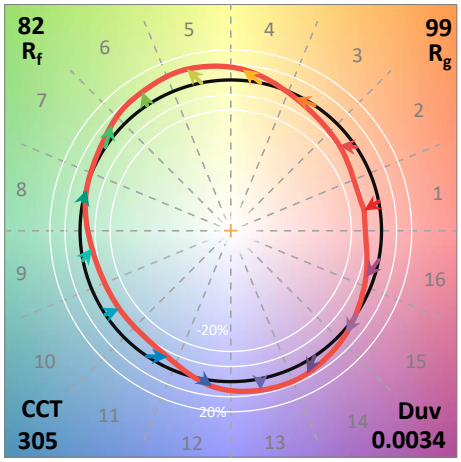
Spectral Power Distribution Comparison

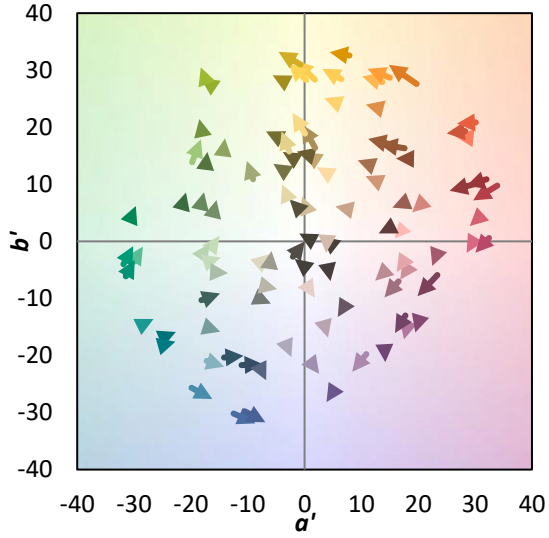


Color Vector Graphics







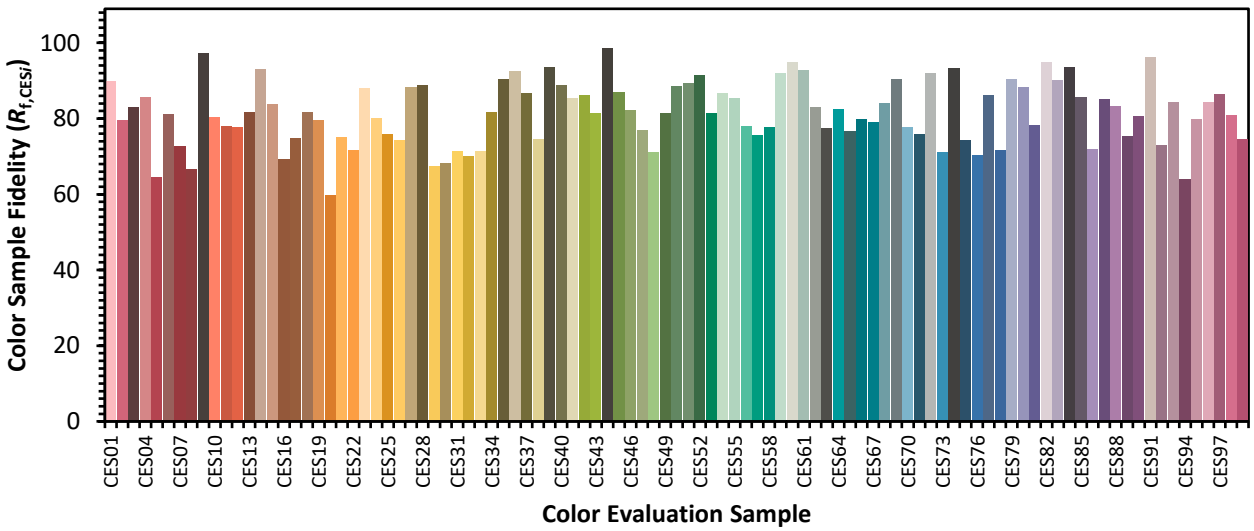


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

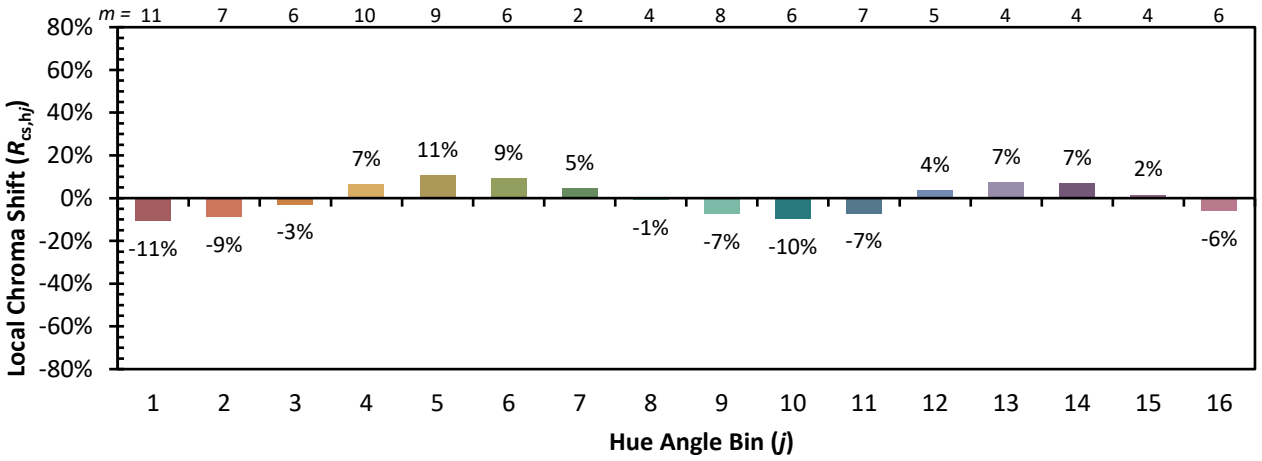
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

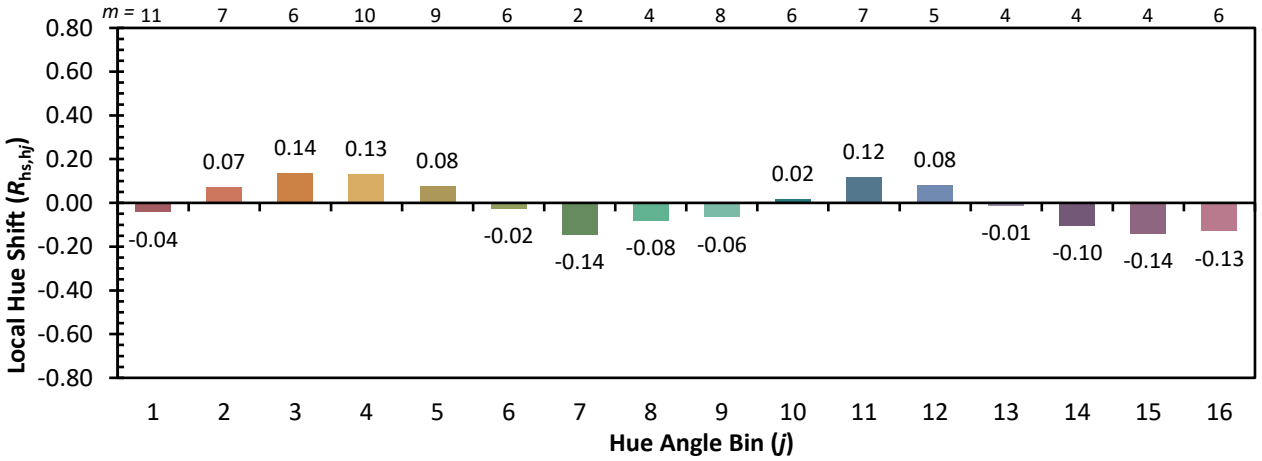


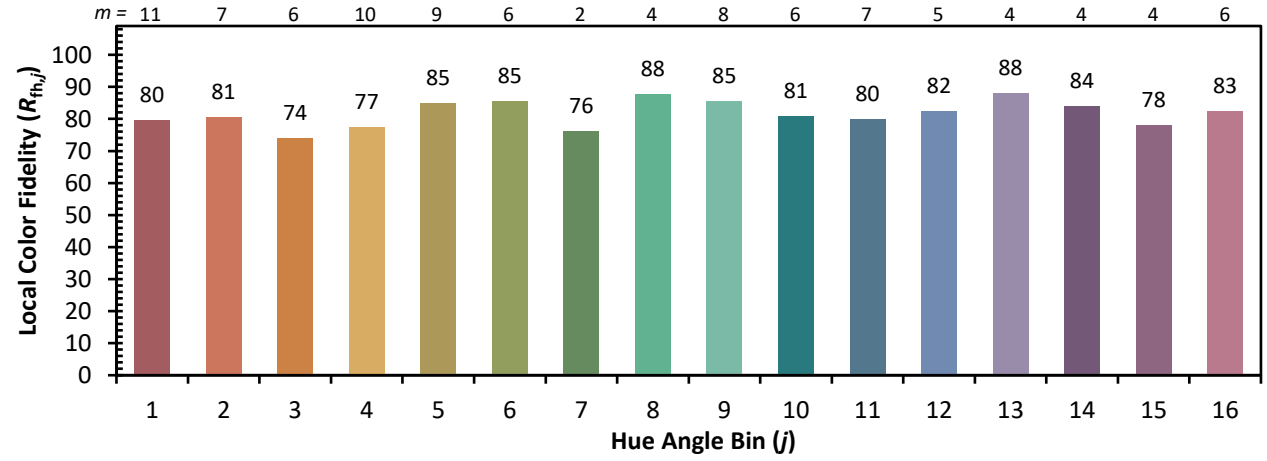
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



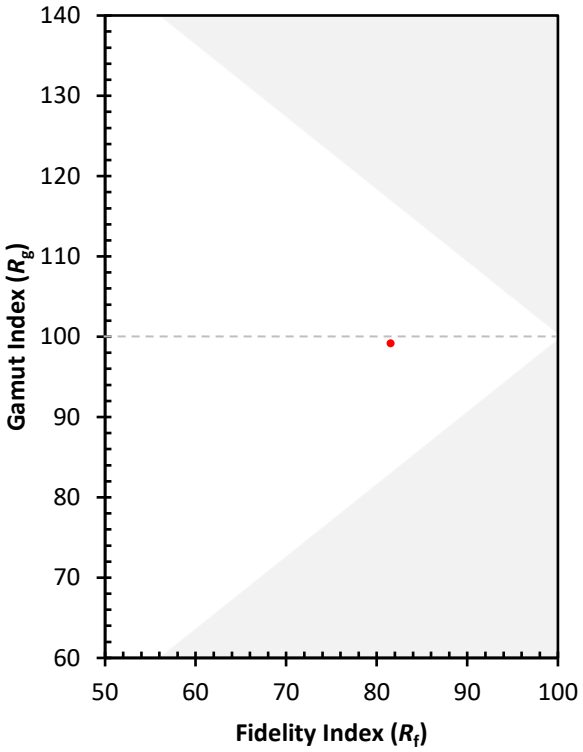


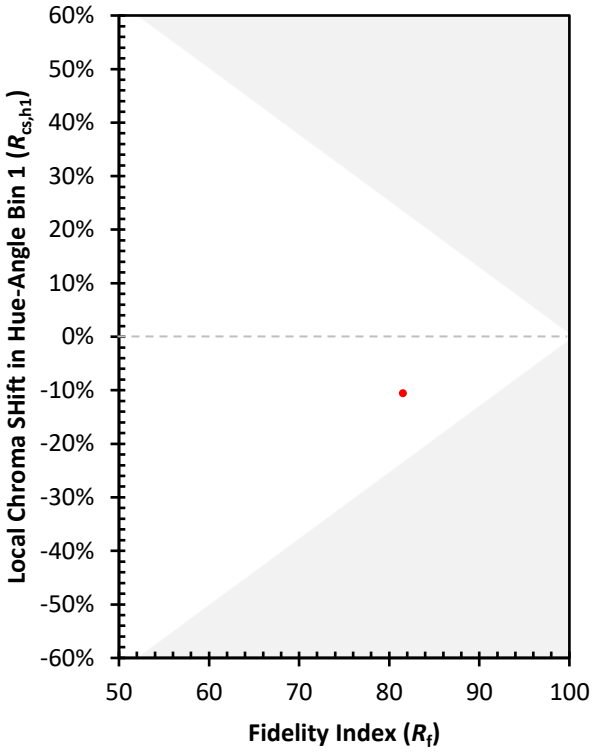


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)