

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P632050

Luminaire Tested: GWS-SA2B-830-U-SLR-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P632050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-44)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2B-830-U-SLR-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3402.3 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

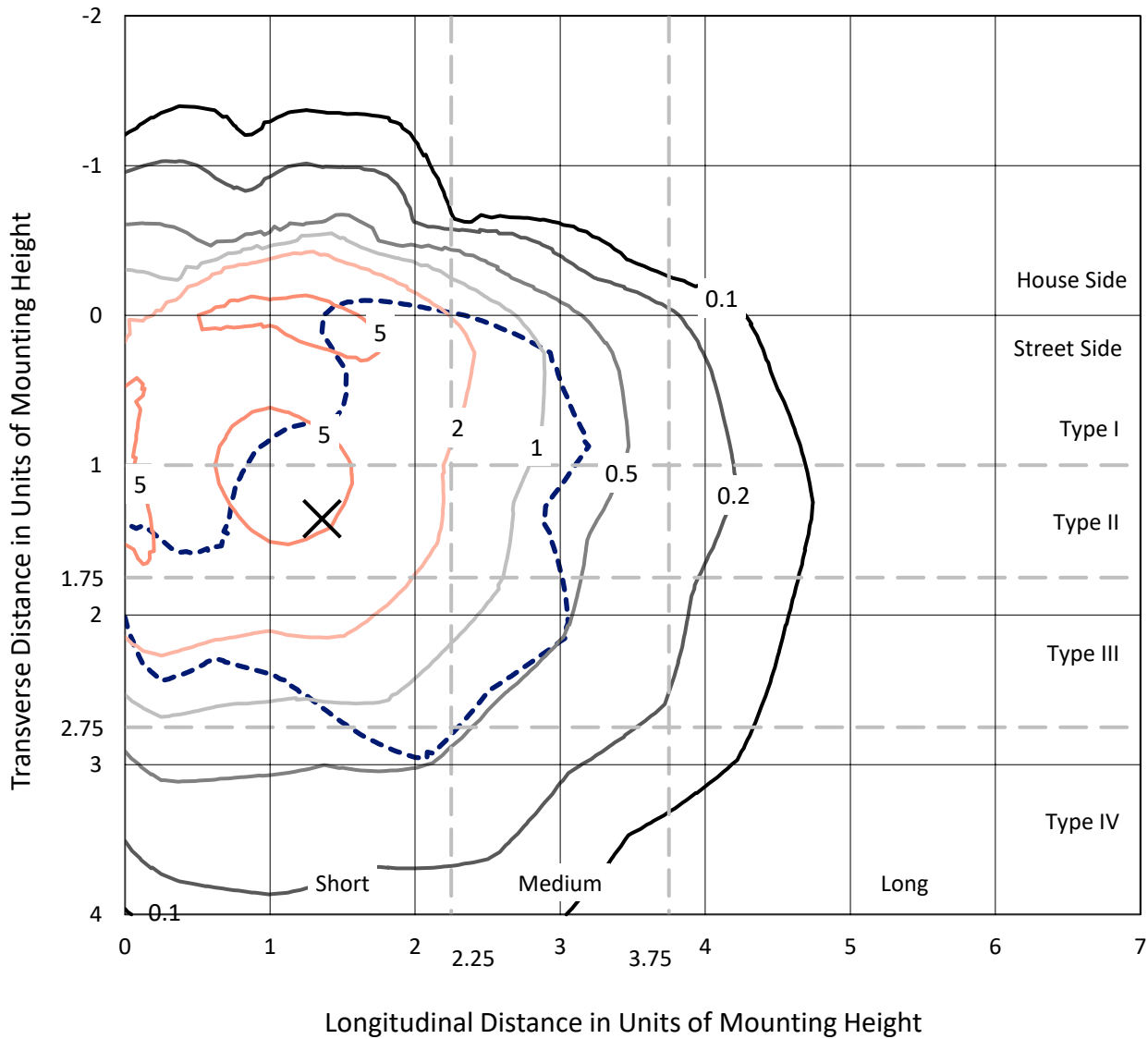
Input Watts (W): 46.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

Iso-Footcandle Lines of Horizontal Illumination

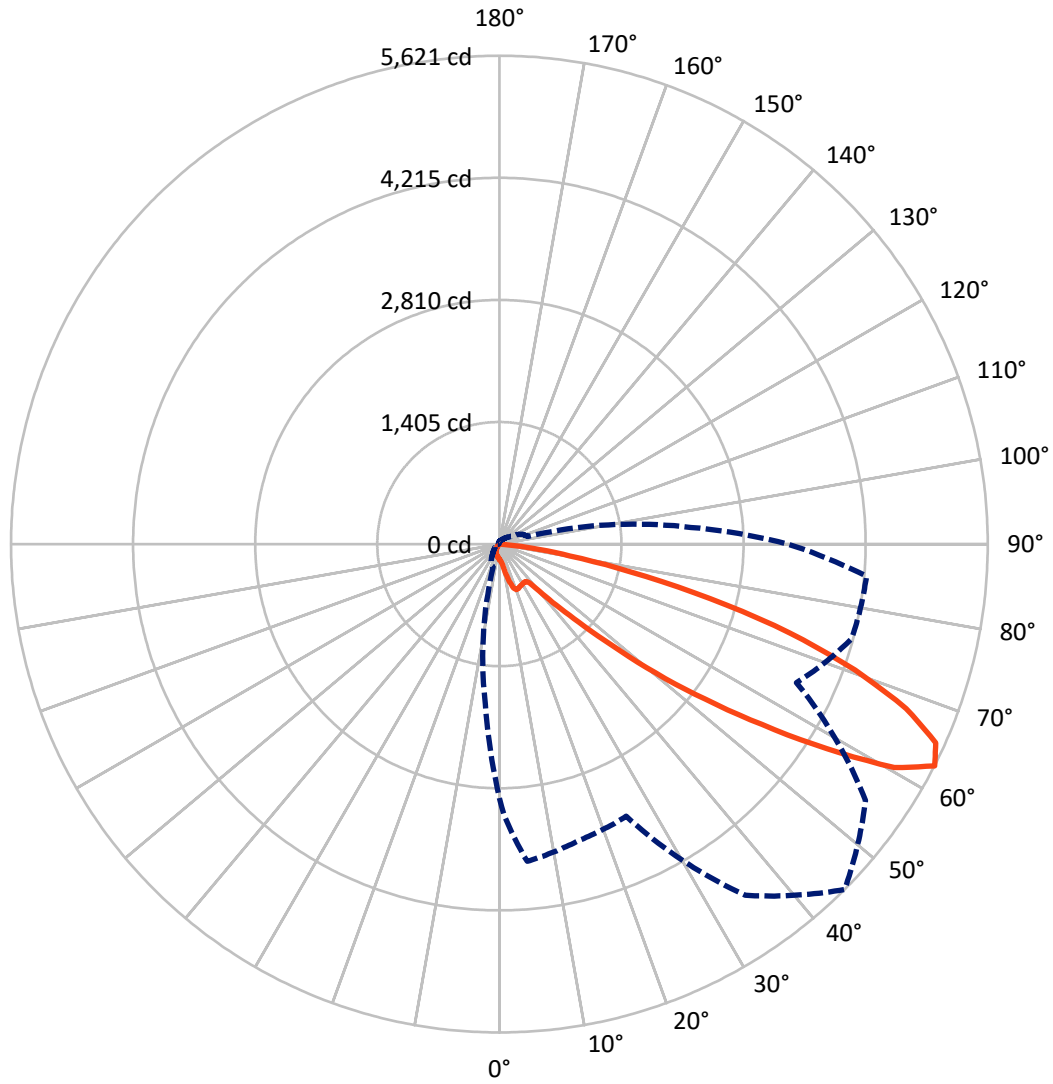
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P632050
CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

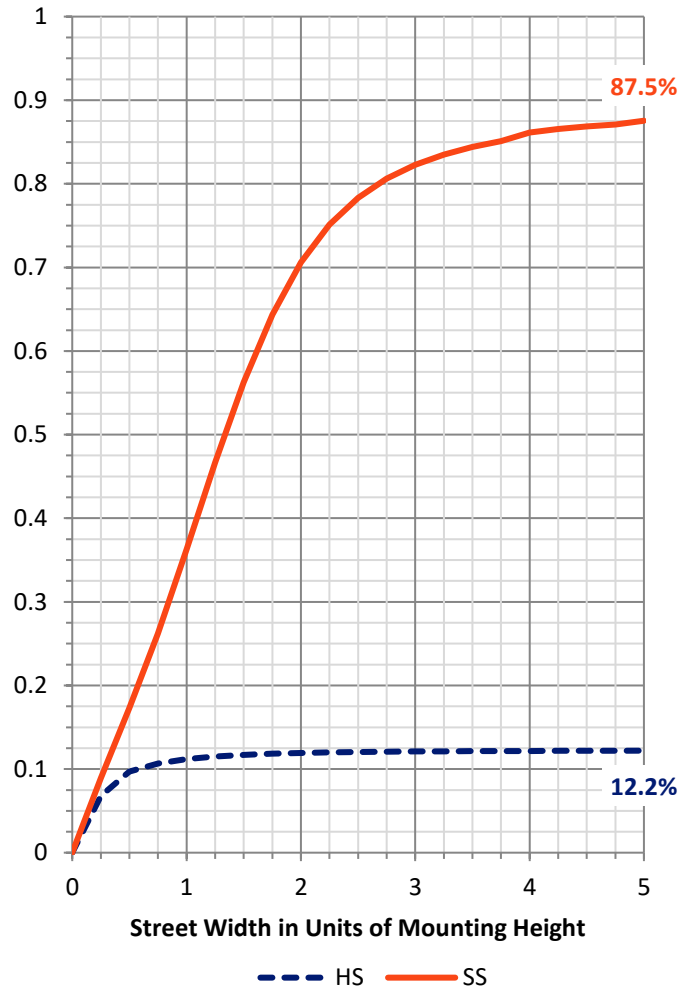
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	419.8	0.0	419.8
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	2982.5	0.0	2982.5
	% Fixture	87.7	0.0	87.7
Total	Lumens	3402.3	0.0	3402.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.7	0.5
10°-20°	59.3	1.7
20°-30°	128.9	3.8
30°-40°	211.6	6.2
40°-50°	389.1	11.4
50°-60°	835.6	24.6
60°-70°	1122.3	33.0
70°-80°	584.4	17.2
80°-90°	55.4	1.6
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°	3402.3	100.0
0°-180°	3402.3	100.0

Coefficient of Utilization

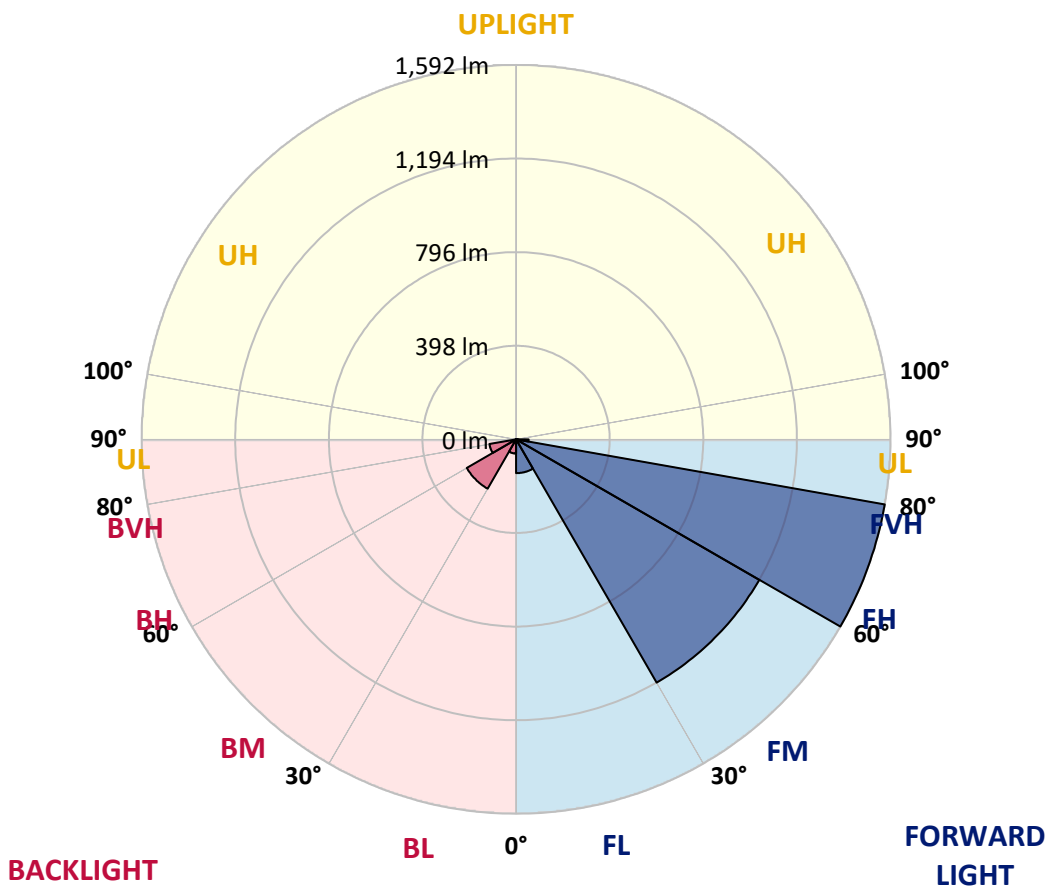


REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	143.7	4.2			
FM (30°-60°)	1194.2	35.1			
FH (60°-80°)	1591.6	46.8			G1/1800
FVH (80°-90°)	52.9	1.6			G1/100
BL (0°-30°)	60.2	1.8	B0/110		
BM (30°-60°)	242.1	7.1	B1/1000		
BH (60°-80°)	115.0	3.4	B1/500		G1/500
BVH (80°-90°)	2.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type IV Short





REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8
2.5°	180.4	181.2	182.0	184.7	186.7	188.2	188.6	187.5	184.7	182.0	178.0
5°	174.9	175.7	178.4	185.9	193.4	199.2	201.2	200.0	193.4	184.7	175.7
7.5°	174.5	176.1	182.7	198.5	214.6	226.8	229.9	227.2	214.6	197.3	178.8
10°	188.6	191.4	201.2	229.5	259.0	280.6	289.2	277.5	257.4	226.0	195.7
12.5°	225.6	230.3	249.2	290.4	336.0	364.7	376.5	361.9	330.5	284.9	237.0
15°	283.7	290.8	319.1	380.8	434.7	460.2	464.1	455.9	419.3	369.0	304.6
17.5°	365.9	376.1	420.1	483.0	521.9	530.9	529.8	521.1	494.4	459.8	398.9
20°	464.1	476.3	519.5	571.4	575.3	564.7	558.8	553.7	544.7	538.8	491.2
22.5°	563.2	578.1	623.3	636.3	600.9	570.2	555.7	559.6	573.0	602.1	582.8
25°	661.8	676.0	718.4	683.4	612.7	561.6	543.1	552.6	584.4	647.3	672.0
27.5°	777.0	787.6	812.7	715.6	614.6	554.5	536.4	551.0	589.9	675.6	769.9
30°	896.8	903.1	890.9	724.3	608.0	543.9	529.8	551.0	599.3	694.4	843.4
32.5°	984.8	986.0	946.3	725.1	604.4	535.3	523.5	548.6	608.4	710.1	914.5
35°	1075.6	1069.7	999.4	736.9	613.9	538.4	528.2	555.3	622.5	728.6	977.0
37.5°	1167.6	1157.0	1058.7	756.1	638.2	572.6	566.3	589.5	645.3	754.2	1045.8
40°	1261.9	1247.4	1120.4	785.2	692.5	688.9	710.5	707.8	707.8	786.8	1116.5
42.5°	1377.1	1360.2	1211.6	867.3	819.0	898.0	956.9	920.4	852.8	861.8	1208.5
45°	1529.1	1514.6	1369.6	1024.5	1017.5	1199.0	1278.4	1206.1	1037.9	1035.2	1362.1
47.5°	1772.4	1769.7	1621.5	1206.9	1260.3	1582.2	1735.5	1596.4	1248.9	1218.7	1652.9
50°	2114.3	2106.1	1935.5	1420.7	1549.2	2056.9	2330.5	2098.6	1504.0	1432.9	2042.4
52.5°	2499.5	2508.1	2375.3	1654.1	1856.1	2585.1	2965.9	2673.9	1781.1	1705.2	2532.5
55°	2862.2	2911.7	2876.7	1927.3	2156.0	3168.3	3663.9	3305.1	2124.1	2061.7	3081.9
57.5°	3145.9	3285.5	3530.7	2324.2	2508.5	3850.6	4443.2	3989.3	2524.6	2640.5	3829.8
60°	3161.7	3346.4	3915.8	3154.6	2962.0	4435.8	5221.4	4657.8	3154.2	3623.4	4415.7
62.5°	2924.7	3122.7	3665.1	3531.9	3456.0	4933.7	5620.6	5145.1	3773.6	4199.2	4242.0
65°	2653.5	2853.5	3385.3	3103.9	3398.6	4912.5	5519.2	5156.5	3829.8	3807.7	3931.1
67.5°	2243.6	2423.2	2904.6	2747.4	3132.6	4675.5	5050.8	4831.5	3528.3	3561.3	3616.4
70°	1637.6	1810.5	2257.4	2265.2	2735.6	4248.3	4339.9	4309.6	3249.3	3284.3	3127.1
72.5°	1182.9	1328.7	1714.3	1857.7	2183.9	3562.5	3499.2	3616.0	2787.9	2925.1	2511.6
75°	850.4	959.7	1257.6	1616.0	1731.1	2645.7	2505.0	2800.5	2236.9	2518.7	1888.3
77.5°	345.1	383.6	494.8	1088.6	1137.7	1779.9	1533.5	2034.1	1594.8	1654.9	915.3
80°	14.1	15.7	20.4	562.0	780.1	1001.4	820.6	1087.4	1053.2	666.5	216.1
82.5°	1.6	1.6	3.5	161.9	341.5	552.6	386.7	626.4	533.3	282.6	98.2
85°	0.4	0.4	0.8	18.5	80.2	88.4	52.3	192.2	248.0	115.5	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.5	3.9	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



REPORT NUMBER: P632050

CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8
2.5°	178.0	176.1	173.7	171.3	170.2	167.0	165.8	165.1	164.3	164.7	164.7
5°	172.1	167.8	162.7	157.6	154.8	151.7	150.1	149.3	149.7	151.3	151.3
7.5°	171.3	163.1	152.1	145.4	142.3	139.9	138.3	137.5	137.9	139.9	140.7
10°	184.3	169.8	150.1	138.7	135.2	132.8	131.3	130.1	129.3	130.9	131.3
12.5°	212.2	192.2	159.6	137.9	131.7	128.5	127.3	125.0	123.8	124.6	125.0
15°	270.0	235.4	178.4	141.1	128.5	125.0	123.0	121.0	119.1	118.7	119.1
17.5°	345.4	295.9	207.1	148.6	126.2	121.8	119.1	116.3	113.6	113.2	112.8
20°	439.0	370.2	247.2	160.3	124.2	119.1	115.1	111.2	107.7	106.5	106.5
22.5°	524.3	459.8	298.7	174.9	121.4	115.1	110.4	105.7	101.8	99.8	99.4
25°	628.4	554.9	360.4	191.8	117.5	110.0	104.9	100.2	96.3	93.9	93.1
27.5°	733.3	655.1	430.3	213.8	112.8	104.9	100.2	95.9	91.6	88.8	88.0
30°	835.1	763.2	508.9	241.3	109.3	99.8	95.9	91.6	87.6	83.3	82.1
32.5°	944.4	873.6	597.0	272.0	106.5	96.3	92.0	88.0	82.9	79.0	77.0
35°	1049.7	987.6	694.0	301.8	103.8	93.1	88.4	84.5	79.0	74.7	71.9
37.5°	1155.8	1103.5	795.4	319.9	99.8	88.8	84.5	81.4	75.1	70.0	66.8
40°	1268.2	1223.4	905.1	312.4	96.3	84.1	81.7	78.2	71.1	65.2	61.3
42.5°	1391.6	1337.8	1016.7	283.7	93.1	80.2	77.8	74.3	67.6	60.5	55.4
45°	1546.8	1463.1	1108.2	240.5	94.7	76.2	71.5	70.7	64.5	55.4	49.1
47.5°	1813.7	1655.7	1179.4	212.6	105.3	71.9	66.4	68.4	61.7	50.3	43.2
50°	2222.0	1974.8	1245.8	210.6	121.4	70.0	61.7	66.8	58.9	45.2	38.1
52.5°	2611.1	2299.0	1288.2	227.9	135.6	75.1	57.0	64.8	57.0	41.7	34.6
55°	2983.2	2486.1	1212.4	240.5	148.9	90.4	53.4	61.7	54.6	39.7	33.4
57.5°	3384.5	2569.4	954.6	266.1	158.4	103.4	54.2	57.0	51.5	38.5	33.0
60°	3504.3	2462.9	576.1	299.5	153.3	107.3	60.1	50.7	47.2	36.2	31.8
62.5°	3318.1	2210.2	339.9	272.7	148.9	101.4	68.8	46.8	42.8	33.0	29.5
65°	3039.4	1867.1	221.6	230.3	158.0	90.4	73.1	44.8	38.9	29.9	25.9
67.5°	2721.1	1504.0	155.2	136.0	145.8	81.4	61.7	44.4	35.0	25.2	21.2
70°	2292.0	1126.3	109.3	90.0	121.4	72.3	47.9	43.2	30.7	20.4	16.5
72.5°	1770.8	705.0	81.4	58.2	86.5	58.9	38.1	36.5	24.8	16.9	12.6
75°	1305.9	402.0	57.4	42.1	57.0	44.8	28.3	25.9	21.2	16.1	11.4
77.5°	681.8	201.2	35.8	32.2	32.6	27.9	20.4	18.9	19.6	16.1	10.6
80°	130.9	40.1	21.6	23.6	17.7	17.7	14.9	15.7	17.3	13.0	9.0
82.5°	54.6	8.6	11.8	13.4	11.0	12.2	12.2	12.6	12.2	9.4	6.7
85°	0.0	0.0	5.1	5.5	7.5	7.5	6.3	6.3	6.3	5.5	3.9
87.5°	0.0	0.0	0.0	0.0	0.4	1.2	2.4	2.8	3.1	2.4	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8
2.5°	164.3	163.5	164.7	165.5	166.2	166.2	165.5	164.7	163.5	164.7	163.5
5°	151.7	152.9	154.8	155.6	156.4	154.8	154.1	151.7	149.7	150.1	149.3
7.5°	141.9	143.1	145.4	147.0	147.0	146.2	143.8	141.5	138.3	138.3	137.9
10°	132.8	134.4	137.2	139.1	139.9	139.1	136.8	133.6	130.9	130.9	129.7
12.5°	125.4	127.3	130.5	133.2	134.0	133.2	130.9	127.7	124.6	124.6	123.8
15°	119.1	121.4	125.0	128.1	129.3	128.1	125.4	121.4	118.3	118.7	117.5
17.5°	113.2	115.1	119.9	123.4	124.6	123.4	119.9	114.8	111.6	112.4	111.6
20°	106.5	108.9	113.6	117.5	118.7	117.5	113.6	108.1	104.9	104.9	105.3
22.5°	99.4	101.8	106.5	109.3	110.8	109.6	105.7	100.6	97.5	97.5	97.9
25°	93.1	94.3	97.9	100.6	101.0	99.8	96.7	92.7	90.4	91.6	92.0
27.5°	87.2	87.2	88.8	90.4	90.0	88.8	87.6	84.5	84.1	85.3	86.5
30°	81.0	79.0	78.2	77.0	76.6	76.2	77.4	77.4	78.2	79.8	81.0
32.5°	75.5	71.5	68.0	64.5	62.5	64.1	67.2	70.0	72.7	75.1	76.2
35°	69.2	62.9	57.0	52.3	49.1	51.5	56.6	61.7	66.4	69.6	71.5
37.5°	62.9	53.8	46.8	40.9	38.5	40.5	46.0	53.1	60.1	64.1	66.8
40°	56.2	44.8	36.5	31.8	29.5	31.4	36.9	44.0	53.4	58.6	62.1
42.5°	49.5	36.9	29.5	24.8	23.6	24.8	29.1	36.2	46.4	52.7	57.4
45°	42.8	30.7	23.6	20.0	18.9	20.0	23.6	29.5	39.7	46.8	52.3
47.5°	36.9	25.9	19.6	16.5	15.7	16.9	19.6	24.8	33.4	40.5	46.8
50°	32.2	22.8	16.9	14.1	13.4	14.5	16.9	20.8	28.3	34.6	41.3
52.5°	29.1	21.2	14.9	12.2	11.8	12.6	14.5	17.7	24.0	29.5	35.8
55°	28.3	21.2	13.8	11.0	10.6	11.4	13.0	15.3	20.8	25.5	31.0
57.5°	29.1	22.8	13.0	9.4	9.0	9.8	11.4	13.4	18.1	22.0	27.1
60°	29.1	23.2	11.4	7.5	7.1	7.9	9.4	11.8	16.1	19.3	23.6
62.5°	26.3	21.2	9.4	5.9	5.1	5.9	7.9	9.8	14.1	17.3	20.8
65°	22.8	18.1	7.9	4.3	3.5	4.3	6.3	8.3	12.2	14.9	18.9
67.5°	18.5	13.8	5.9	3.1	2.4	3.1	4.7	6.7	10.2	13.0	16.9
70°	13.8	9.8	4.7	2.8	2.4	2.8	4.3	6.3	9.0	11.8	15.7
72.5°	10.2	6.7	3.9	2.8	2.0	2.8	3.9	5.9	8.6	11.4	14.9
75°	8.6	5.5	3.5	2.4	2.0	2.4	3.5	5.5	7.9	10.6	14.1
77.5°	8.3	5.1	3.1	2.0	1.6	2.0	3.1	4.7	7.1	9.8	13.8
80°	7.1	4.3	2.8	1.6	1.2	1.6	2.8	3.9	5.5	7.5	10.6
82.5°	5.5	3.5	2.0	0.8	0.4	0.8	2.0	2.4	3.5	4.3	6.3
85°	3.5	2.0	0.8	0.0	0.0	0.0	0.8	1.6	1.6	2.0	3.1
87.5°	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P632050
 CATALOG NUMBER: GWS-SA2B-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8	176.8
2.5°	165.8	166.2	167.0	168.2	171.0	173.3	175.7	178.8	180.4	180.4
5°	150.1	150.5	150.9	152.5	156.4	159.6	164.7	171.0	174.1	174.9
7.5°	137.9	138.7	139.5	140.7	144.6	148.9	155.6	167.4	173.3	174.5
10°	130.9	132.0	133.6	136.0	139.5	144.2	155.6	176.8	186.7	188.6
12.5°	125.4	127.3	128.9	131.7	136.0	143.4	166.2	203.6	220.9	225.6
15°	119.9	122.2	124.6	127.3	132.0	146.2	186.7	251.5	280.2	283.7
17.5°	114.4	117.1	120.3	123.4	129.3	152.9	218.9	317.9	358.0	365.9
20°	108.1	111.6	115.9	119.9	126.5	163.5	263.7	396.9	447.2	464.1
22.5°	101.4	105.7	110.8	115.9	123.4	176.5	317.9	481.8	552.2	563.2
25°	95.9	100.2	104.9	110.0	118.3	192.2	383.6	587.1	651.2	661.8
27.5°	90.8	95.1	99.4	104.1	113.2	212.6	462.6	699.1	766.0	777.0
30°	85.3	90.4	94.7	99.4	108.5	237.8	553.7	823.3	886.6	896.8
32.5°	80.6	85.7	90.0	94.7	104.9	265.3	649.6	933.4	984.8	984.8
35°	76.6	82.1	85.3	91.6	102.2	283.0	740.4	1038.3	1077.2	1075.6
37.5°	72.3	79.0	81.4	85.7	98.6	284.9	825.7	1149.1	1177.8	1167.6
40°	68.0	75.1	78.6	81.0	94.7	268.8	919.2	1250.9	1275.3	1261.9
42.5°	64.1	69.6	74.7	77.4	92.4	240.5	994.3	1359.8	1388.8	1377.1
45°	60.1	64.8	68.0	73.1	93.9	220.9	1058.7	1486.7	1537.8	1529.1
47.5°	56.2	60.1	62.1	70.0	104.5	211.8	1098.0	1683.2	1779.5	1772.4
50°	51.9	56.6	56.6	69.2	120.3	215.0	1132.2	1967.7	2116.7	2114.3
52.5°	47.6	52.7	51.9	75.1	132.4	229.5	1171.1	2218.9	2477.8	2499.5
55°	43.2	47.9	48.7	86.9	139.5	242.1	1020.6	2324.6	2786.3	2862.2
57.5°	38.5	41.3	50.7	95.9	137.2	278.6	699.1	2343.8	2983.2	3145.9
60°	33.4	35.8	57.4	93.9	129.7	257.4	440.2	2170.9	2955.3	3161.7
62.5°	29.1	33.0	60.5	82.9	132.0	223.2	280.6	1850.2	2689.3	2924.7
65°	25.5	31.8	55.0	75.1	133.6	151.3	189.4	1505.2	2429.5	2653.5
67.5°	22.8	35.4	45.2	66.8	114.8	106.5	130.1	1169.6	2042.8	2243.6
70°	20.8	36.2	36.9	57.4	88.8	68.4	85.7	787.2	1408.1	1637.6
72.5°	18.9	26.7	27.9	46.0	57.4	41.7	55.4	450.4	1026.5	1182.9
75°	18.1	18.1	19.3	29.9	31.8	30.3	35.8	268.8	736.1	850.4
77.5°	16.9	13.8	12.2	19.3	17.3	21.6	21.2	119.5	319.1	345.1
80°	13.4	9.8	8.3	12.2	11.8	14.5	12.6	9.8	14.5	14.1
82.5°	8.3	6.3	5.9	7.5	6.7	7.5	5.9	1.6	1.6	1.6
85°	3.9	3.5	3.1	3.1	3.5	3.1	2.4	0.8	0.4	0.4
87.5°	2.0	2.0	1.6	1.2	1.6	1.6	1.2	0.4	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

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.

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
 Rf: 81.5
 Rg: 99.2

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



Test Conditions

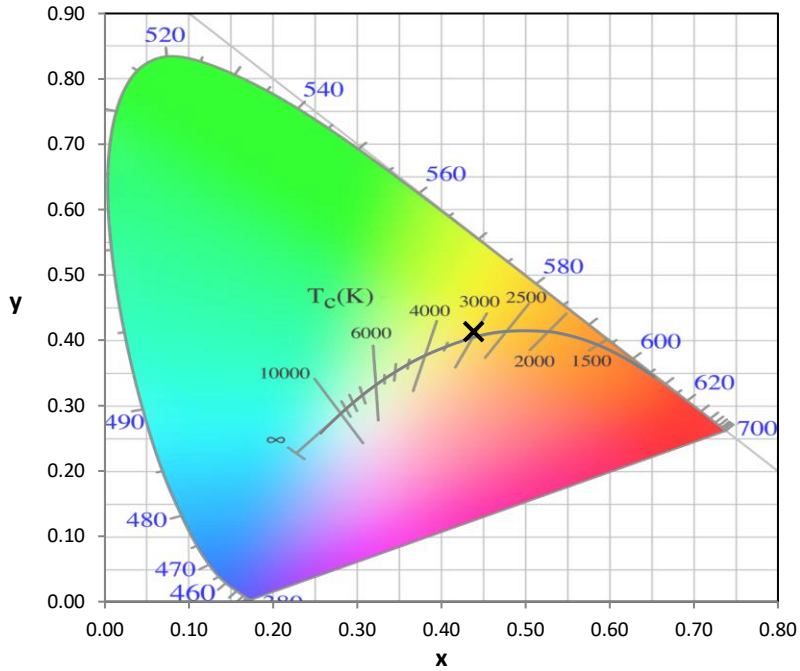
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

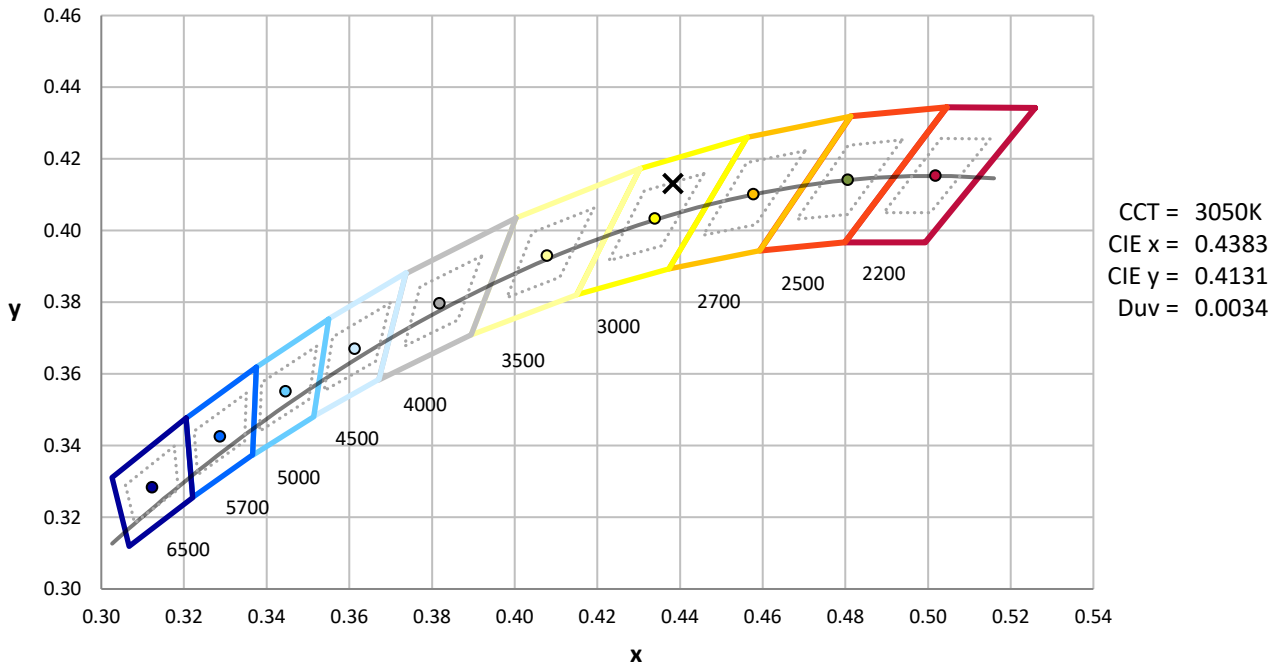
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



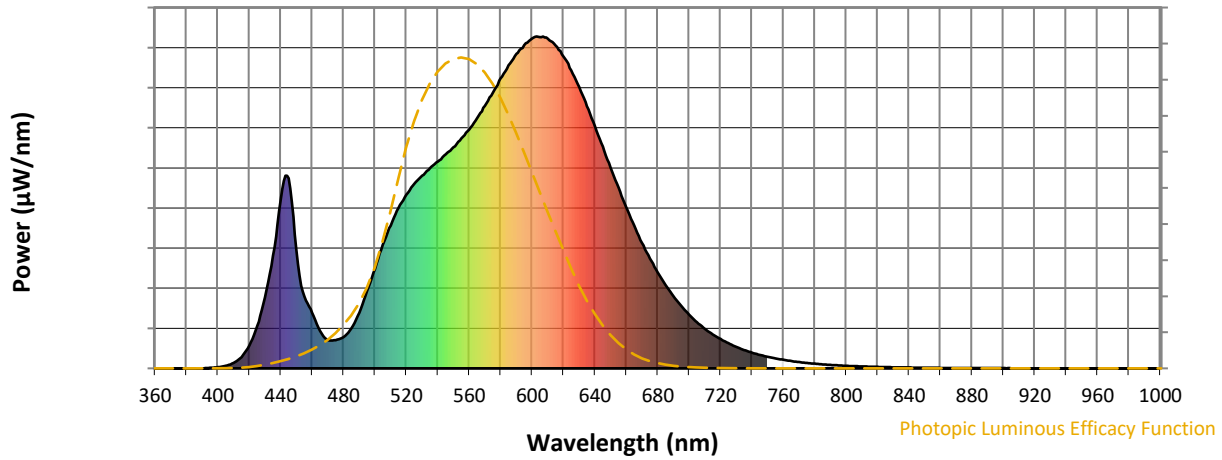
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

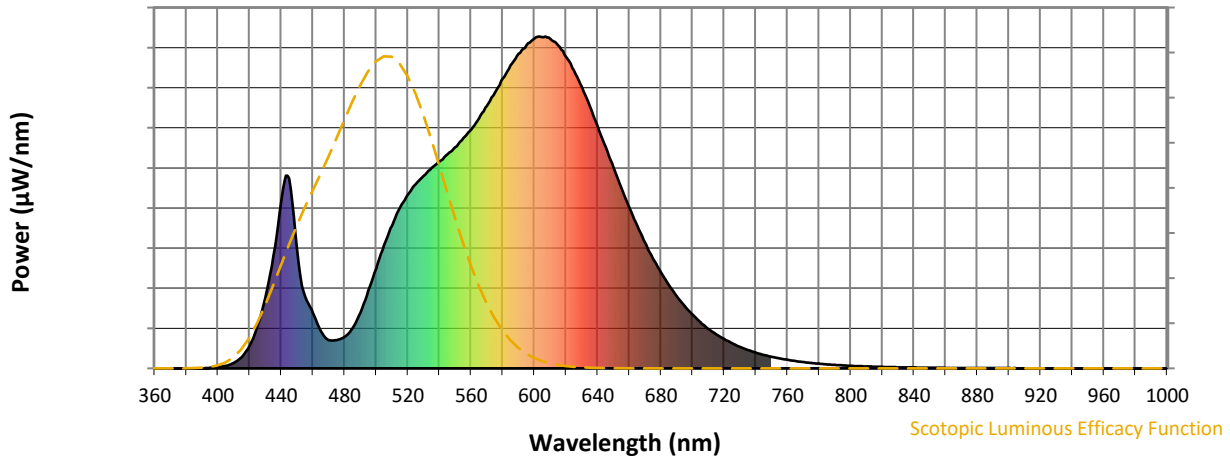


Photopic Lumens: NR

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



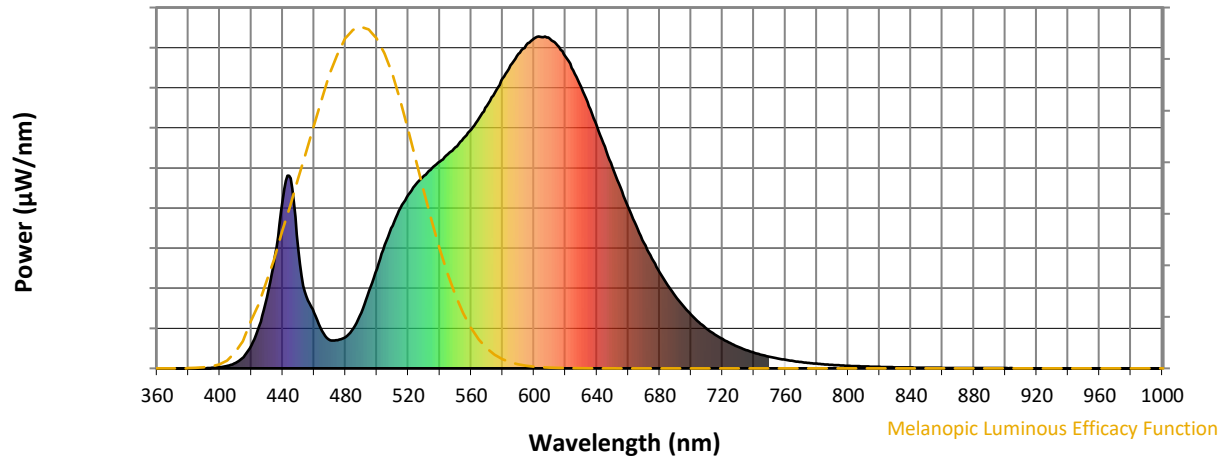
Scotopic Lumens: NR

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

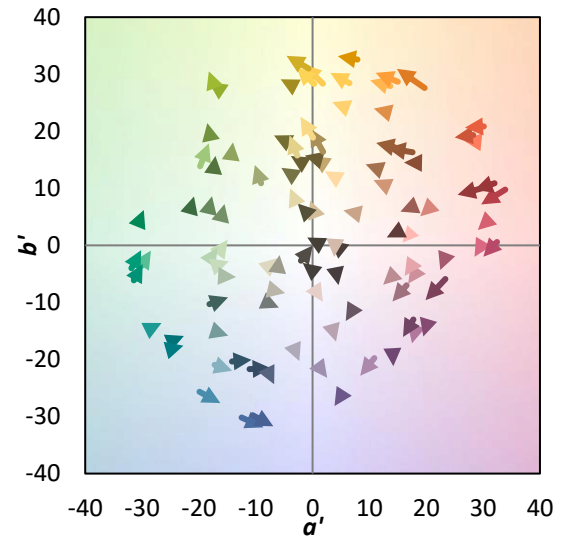
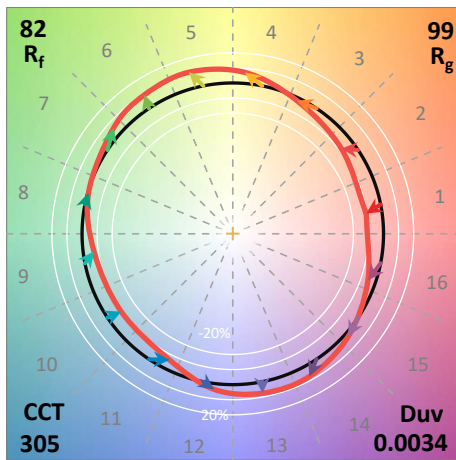
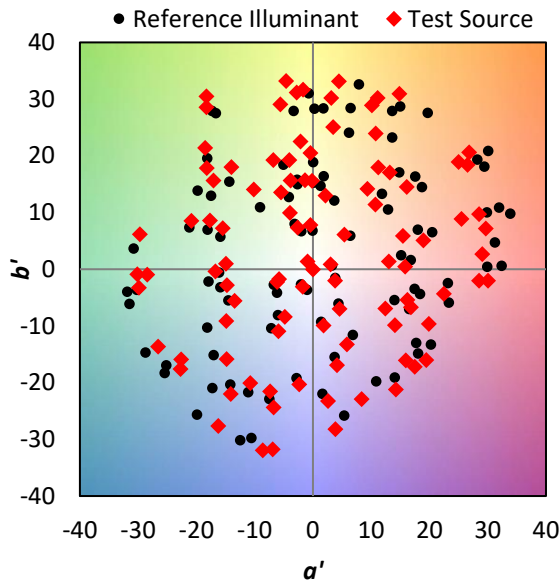
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

Summary

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

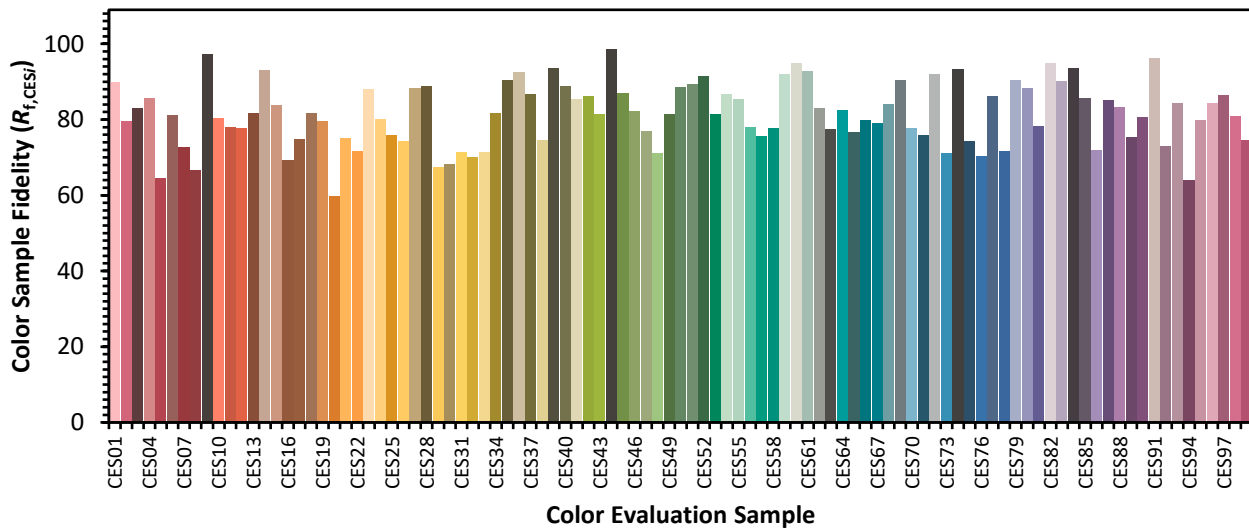


Color Vector Graphics

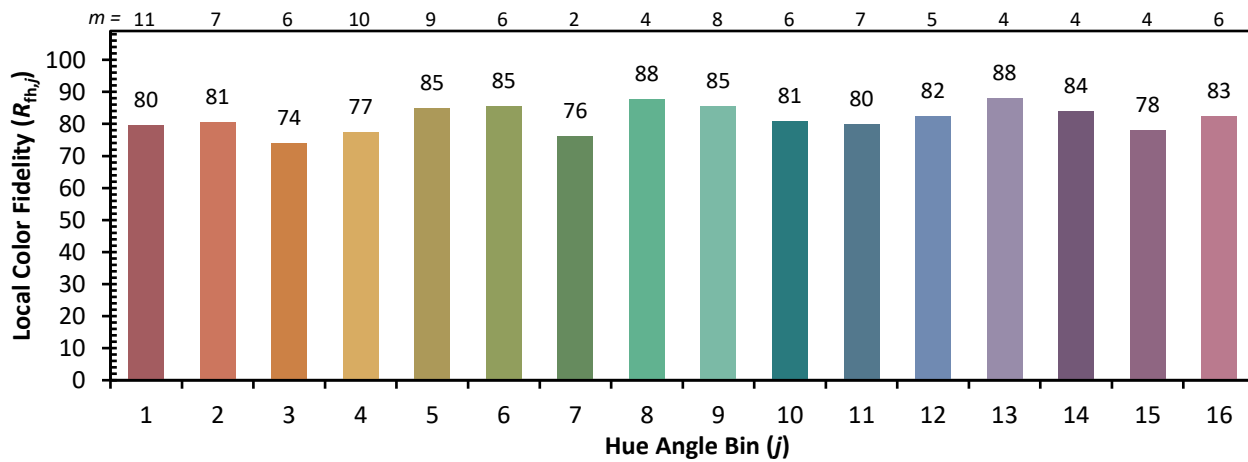
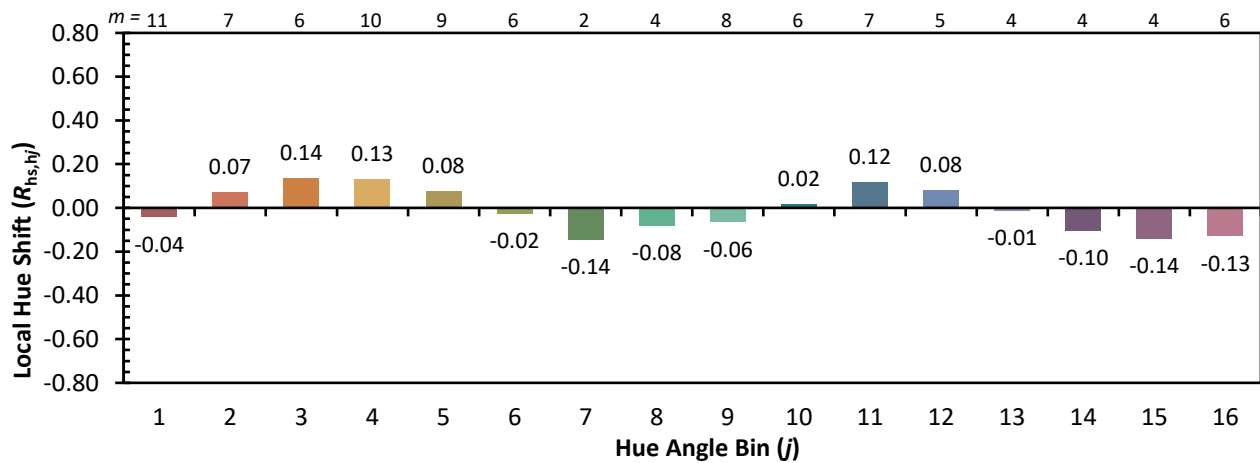
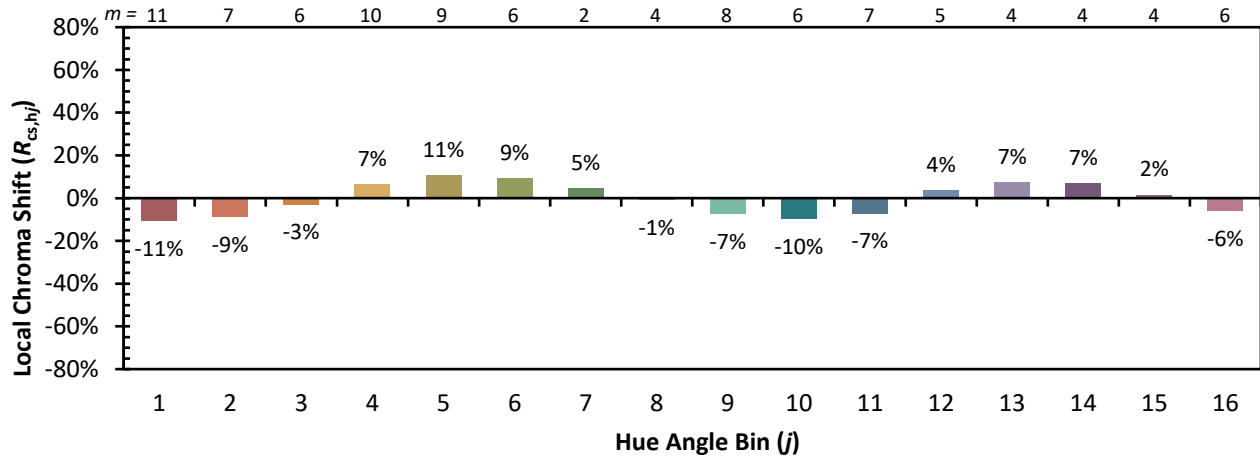


Individual Sample Fidelity Index ($R_{f,i}$)

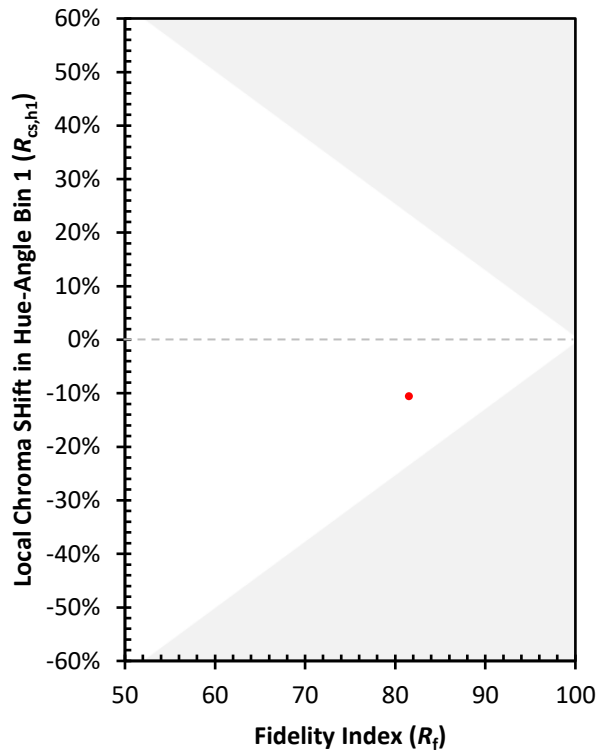
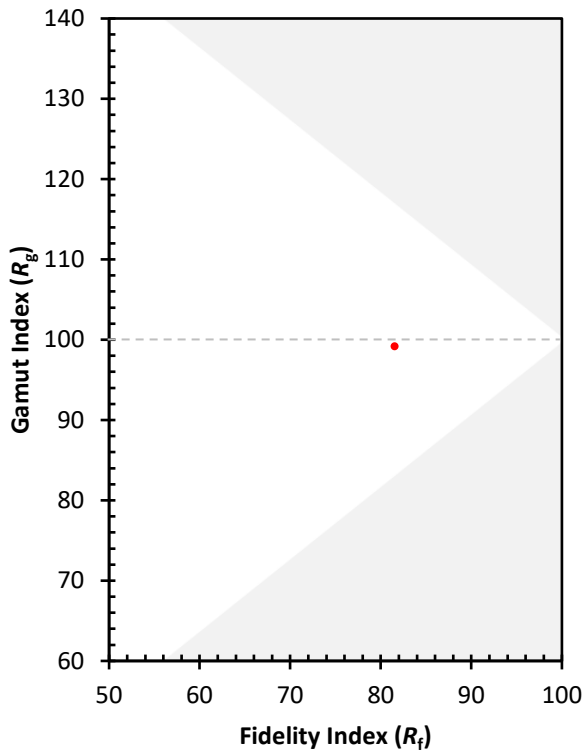
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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