

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: P640961

Luminaire Tested: GWS-SA5E-830-U-SLR-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640961  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA5E-830-U-SLR-W  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS  
Light Source: (80) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

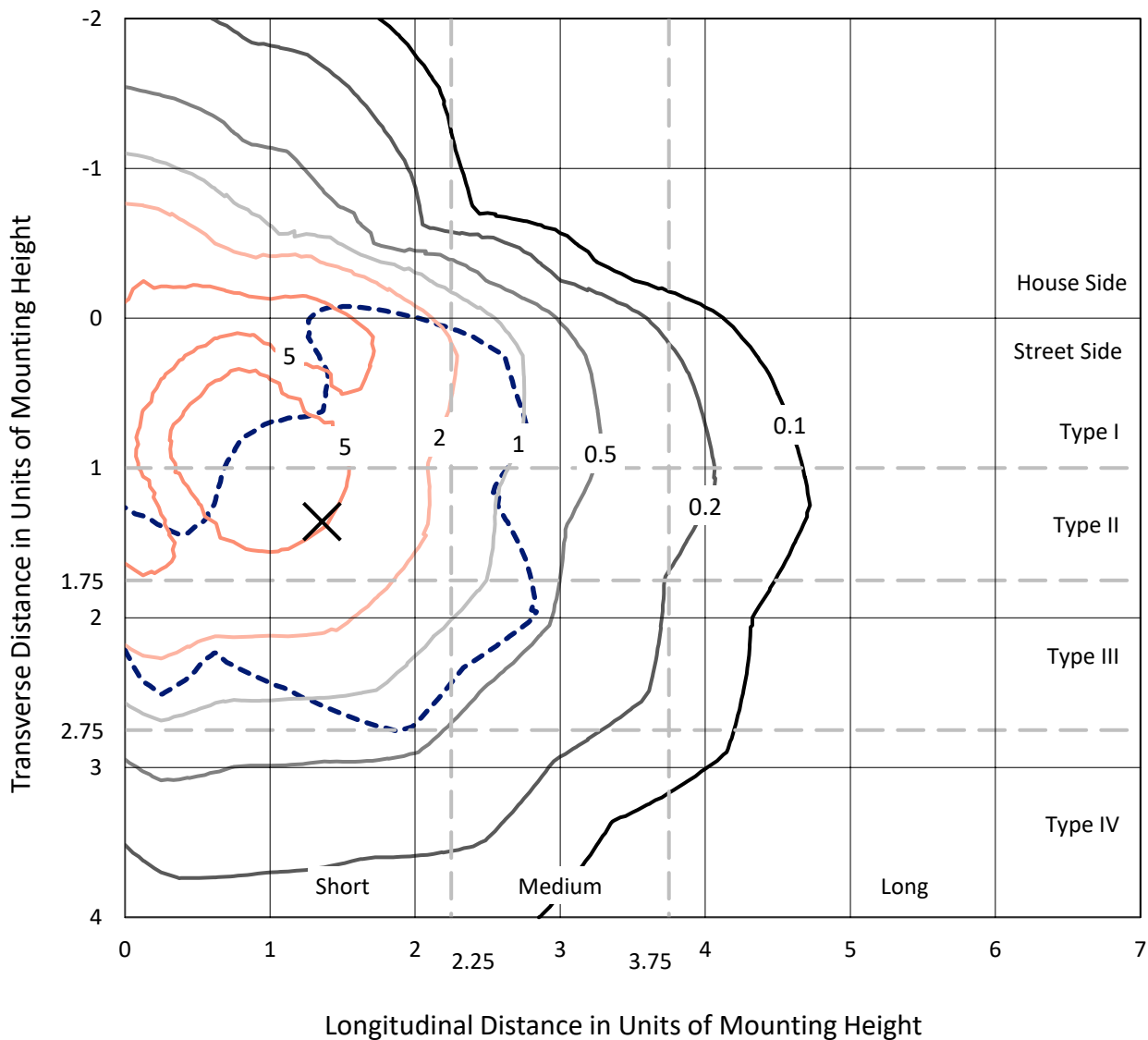
Lumens per Lamp: N/A  
Luminaire Lumens: 28236.6 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 269.6  
Input Voltage (V): 120  
Input Current (Ain): 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



REPORT NUMBER: P640961  
 CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

### Iso-Footcandle Lines of Horizontal Illumination

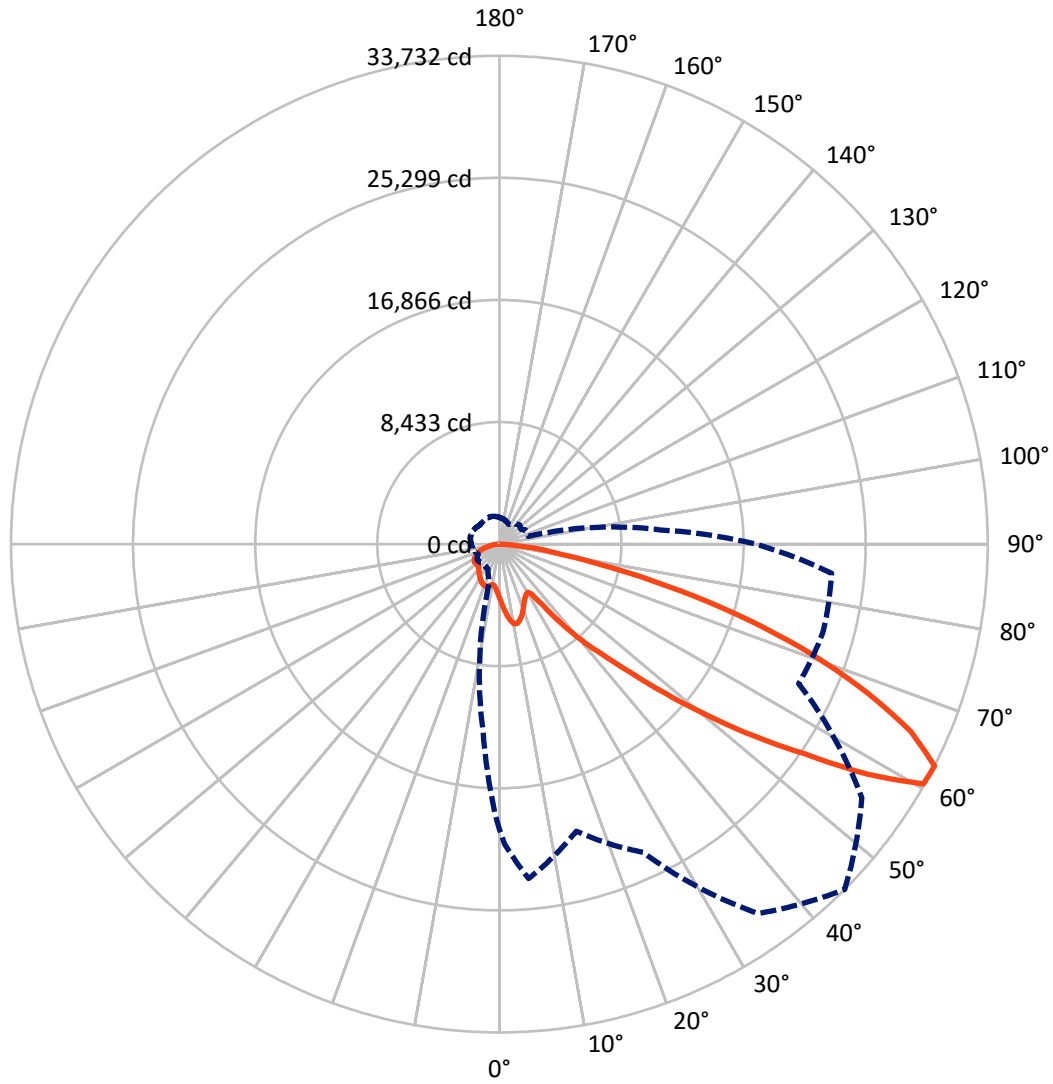
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc  
 Type III - Short - N/A

REPORT NUMBER: P640961  
CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P640961

CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6737.8	0.0	6737.8
	% Fixture	23.9	0.0	23.9
<b>Street Side</b>	Lumens	21498.8	0.0	21498.8
	% Fixture	76.1	0.0	76.1
<b>Total</b>	Lumens	28236.6	0.0	28236.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	366.0	1.3
10°-20°	1147.3	4.1
20°-30°	1782.1	6.3
30°-40°	2419.6	8.6
40°-50°	3834.9	13.6
50°-60°	6764.7	24.0
60°-70°	7526.7	26.7
70°-80°	3817.3	13.5
80°-90°	578.0	2.0
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°	28236.6	100.0
0°-180°	28236.6	100.0

**Coefficient of Utilization**



REPORT NUMBER: P640961

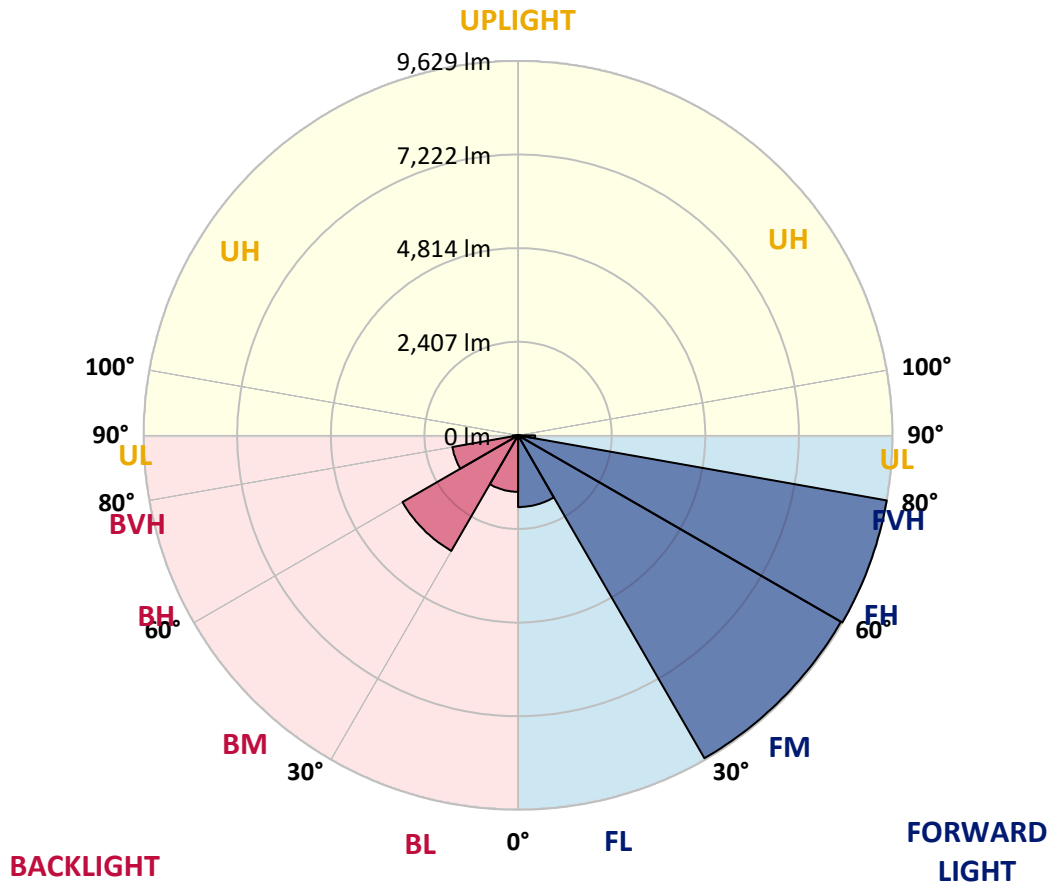
CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1843.6	6.5			
FM (30°-60°)	9587.5	34.0			
FH (60°-80°)	9628.9	34.1			G4/12000
FVH (80°-90°)	438.7	1.6			G3/500
BL (0°-30°)	1451.8	5.1	B3/2500		
BM (30°-60°)	3431.6	12.2	B3/5000		
BH (60°-80°)	1715.1	6.1	B3/2500		G3/2500
BVH (80°-90°)	139.3	0.5			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 III Short





REPORT NUMBER: P640961  
 CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6
2.5°	4027.6	4025.5	4066.1	4128.1	4185.8	4211.5	4254.2	4250.0	4215.8	4170.9	4155.9
5°	4344.0	4352.6	4423.1	4559.9	4711.7	4775.9	4803.6	4793.0	4731.0	4651.9	4512.9
7.5°	4630.5	4645.5	4754.5	4959.7	5147.8	5233.3	5301.8	5288.9	5199.1	5051.6	4846.4
10°	4840.0	4857.1	4987.5	5229.1	5438.6	5513.4	5601.1	5605.3	5526.2	5327.4	5117.9
12.5°	5049.5	5066.6	5188.5	5408.6	5545.5	5547.6	5598.9	5626.7	5631.0	5539.1	5329.5
15°	5267.6	5282.5	5393.7	5517.7	5511.3	5391.5	5391.5	5445.0	5562.6	5628.8	5483.5
17.5°	5453.5	5472.8	5558.3	5517.7	5327.4	5111.5	5085.8	5154.2	5359.5	5613.9	5598.9
20°	5607.5	5622.4	5669.5	5400.1	5053.8	4771.6	4722.4	4801.5	5079.4	5522.0	5686.6
22.5°	5755.0	5763.5	5737.9	5246.2	4758.8	4435.9	4376.1	4459.5	4758.8	5359.5	5761.4
25°	5930.3	5921.7	5799.9	5085.8	4489.4	4170.9	4108.9	4202.9	4515.0	5143.6	5842.6
27.5°	6133.4	6101.3	5853.3	4912.7	4282.0	3974.2	3931.4	4031.9	4322.6	4944.7	5906.8
30°	6306.5	6244.5	5861.9	4758.8	4175.1	3890.8	3865.2	3959.2	4228.6	4810.1	5988.0
32.5°	6498.9	6413.4	5911.0	4718.1	4235.0	4091.8	4126.0	4132.4	4254.2	4771.6	6109.8
35°	6774.7	6663.5	6045.7	4835.7	4850.7	5092.3	5216.2	5049.5	4641.2	4857.1	6340.7
37.5°	7191.6	7050.5	6319.4	5344.5	6122.7	6663.5	6962.8	6582.3	5817.0	5179.9	6689.2
40°	7698.2	7518.7	6670.0	6285.1	7311.3	8177.1	8709.4	8151.5	7027.0	5985.9	7178.8
42.5°	8405.9	8217.7	7349.8	7208.7	8412.3	9701.4	10396.1	9564.5	8093.7	7027.0	7963.3
45°	9639.4	9457.7	8596.1	8134.4	9701.4	11578.4	12553.2	11396.6	9177.6	8072.4	9429.9
47.5°	11918.3	11704.5	10447.5	9160.5	11172.2	14015.5	15379.4	13694.8	10304.2	9269.5	11892.6
50°	14654.7	14449.4	12771.3	10374.8	12796.9	16621.4	18517.7	16394.8	11601.9	10725.4	14836.4
52.5°	17946.9	17908.4	16087.0	11909.7	14487.9	19400.6	22000.2	19385.6	13023.5	12685.7	18171.3
55°	20914.2	21290.4	20298.5	14250.6	16672.7	22891.6	25581.0	22647.9	14951.8	15926.7	22077.1
57.5°	22513.2	23524.4	25048.7	19026.5	19849.5	27064.6	29999.8	26630.6	18265.4	21322.5	25698.6
60°	21457.2	22603.0	25365.1	22622.3	23000.7	30408.1	33646.9	29978.4	21519.2	25067.9	25493.3
62.5°	19699.9	20728.2	23184.5	20522.9	23488.1	31143.6	33732.4	30562.1	22812.5	23167.4	23028.4
65°	17615.5	18652.4	21254.1	17914.8	21938.2	29397.0	31244.0	28845.4	20488.7	20931.3	20982.6
67.5°	14847.1	15804.8	18453.5	15928.8	19997.0	26833.7	27423.8	26399.8	18868.3	19573.7	18836.2
70°	11093.1	11956.7	14295.5	12944.4	16856.6	23494.5	23017.8	23169.5	17049.0	17750.2	15734.3
72.5°	7580.7	8230.6	10235.8	10171.7	12908.1	18808.4	18143.6	19582.3	14239.9	15169.9	11995.2
75°	5301.8	5808.4	7398.9	8036.0	9756.9	13940.6	12920.9	14656.8	11120.9	12448.4	8752.2
77.5°	3253.7	3589.4	4673.2	5953.8	6276.6	9541.0	8025.3	11028.9	7809.4	9079.3	5838.3
80°	1626.9	1789.3	2270.3	3743.3	4162.3	5622.4	4431.7	6402.7	5284.7	5622.4	3230.2
82.5°	491.7	543.0	664.9	1421.6	2157.0	3236.6	2618.8	3719.8	2886.0	2635.9	1272.0
85°	130.4	147.5	183.9	421.1	756.8	1160.8	885.1	1802.2	1383.2	972.7	478.9
87.5°	10.7	10.7	8.6	8.6	4.3	0.0	0.0	128.3	258.7	147.5	83.4
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: P640961  
 CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6
2.5°	4081.1	4072.5	3984.9	3920.7	3845.9	3773.2	3698.4	3632.1	3557.3	3482.5	3461.1
5°	4410.3	4350.4	4164.4	4008.4	3854.5	3719.8	3602.2	3480.3	3382.0	3285.8	3249.5
7.5°	4701.0	4596.3	4326.9	4089.6	3875.8	3709.1	3535.9	3358.5	3219.5	3082.7	3048.5
10°	4964.0	4825.0	4485.1	4185.8	3948.5	3758.3	3555.2	3317.9	3116.9	2950.2	2905.3
12.5°	5158.5	5006.7	4621.9	4277.7	4008.4	3794.6	3593.7	3384.1	3172.5	2956.6	2907.4
15°	5312.4	5154.2	4735.2	4348.3	4010.5	3734.7	3540.2	3467.5	3401.2	3189.6	3099.8
17.5°	5436.4	5269.7	4833.6	4391.1	3952.8	3553.0	3384.1	3491.0	3659.9	3527.4	3358.5
20°	5549.7	5380.9	4908.4	4421.0	3824.5	3302.9	3208.8	3435.5	3689.9	3685.6	3533.8
22.5°	5673.7	5509.1	5017.4	4438.1	3645.0	3048.5	3104.1	3354.2	3561.6	3623.6	3529.5
25°	5831.9	5686.6	5169.2	4476.6	3441.9	2873.2	3027.1	3249.5	3422.6	3437.6	3382.0
27.5°	6015.8	5906.8	5395.8	4566.4	3245.2	2783.4	2937.3	3102.0	3260.2	3266.6	3200.3
30°	6216.7	6144.1	5605.3	4641.2	3097.7	2755.6	2821.9	2954.4	3054.9	3072.0	3014.3
32.5°	6473.3	6409.1	5791.3	4592.0	3010.0	2749.2	2715.0	2783.4	2866.8	2866.8	2821.9
35°	6826.0	6736.2	5988.0	4403.9	2903.1	2723.6	2601.7	2620.9	2657.3	2663.7	2638.1
37.5°	7326.3	7178.8	6186.8	4031.9	2727.8	2631.6	2471.3	2447.8	2460.6	2477.7	2471.3
40°	7946.2	7704.7	6477.6	3585.1	2518.3	2454.2	2336.6	2291.7	2281.0	2315.2	2328.1
42.5°	8726.5	8356.7	6789.7	3168.2	2328.1	2251.1	2178.4	2139.9	2122.8	2180.6	2214.8
45°	9972.9	9363.6	7089.0	2755.6	2221.2	2077.9	2028.8	2001.0	2009.5	2077.9	2120.7
47.5°	12125.6	10900.7	7373.3	2494.8	2212.6	1954.0	1894.1	1900.5	1924.0	1996.7	2048.0
50°	14849.2	12959.4	7563.6	2385.8	2238.3	1879.1	1800.0	1834.2	1870.6	1941.1	2001.0
52.5°	17621.9	14877.0	7336.9	2325.9	2236.1	1881.3	1712.4	1815.0	1832.1	1902.6	1966.8
55°	19528.9	15090.8	6338.6	2234.0	2201.9	1966.8	1644.0	1806.4	1817.1	1881.3	1939.0
57.5°	20255.7	14359.6	4833.6	2259.7	2099.3	2033.1	1614.0	1746.6	1823.5	1879.1	1939.0
60°	19377.1	12980.8	2937.3	2325.9	1934.7	2028.8	1633.3	1637.6	1770.1	1864.2	1924.0
62.5°	17720.3	11210.7	2063.0	2137.8	1815.0	1915.5	1678.2	1509.3	1676.0	1789.3	1842.8
65°	15821.9	9128.4	1573.4	1840.7	1757.3	1740.2	1693.1	1396.0	1547.8	1658.9	1706.0
67.5°	13844.4	7095.4	1278.4	1372.5	1588.4	1573.4	1547.8	1295.5	1396.0	1475.1	1528.5
70°	11353.9	4964.0	1079.6	1030.4	1361.8	1411.0	1353.2	1169.4	1201.4	1282.7	1325.4
72.5°	8305.4	3093.4	887.2	850.8	1094.6	1233.5	1203.6	1030.4	1045.4	1122.3	1156.6
75°	5973.0	1770.1	711.9	701.2	835.9	1056.1	996.2	887.2	904.3	962.0	985.5
77.5°	3796.7	985.5	549.4	564.4	598.6	788.9	850.8	758.9	758.9	793.1	812.4
80°	2033.1	564.4	401.9	408.3	419.0	602.9	671.3	587.9	587.9	564.4	587.9
82.5°	829.5	324.9	275.8	256.5	280.1	412.6	470.3	374.1	391.2	352.7	361.3
85°	273.6	162.5	136.8	134.7	132.5	181.7	226.6	186.0	222.3	141.1	147.5
87.5°	36.3	29.9	17.1	12.8	15.0	6.4	12.8	15.0	15.0	10.7	10.7
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: P640961  
 CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6
2.5°	3446.1	3429.0	3367.0	3382.0	3371.3	3354.2	3371.3	3339.3	3364.9	3373.5	3426.9
5°	3221.7	3181.1	3121.2	3091.3	3084.9	3067.8	3069.9	3054.9	3059.2	3095.5	3155.4
7.5°	3020.7	2982.2	2935.2	2913.8	2894.6	2875.3	2873.2	2871.1	2888.2	2920.2	2978.0
10°	2875.3	2854.0	2834.7	2843.3	2834.7	2826.2	2811.2	2811.2	2839.0	2896.7	2967.3
12.5°	2875.3	2871.1	2875.3	2901.0	2898.9	2901.0	2881.8	2892.5	2969.4	3067.8	3168.2
15°	3029.3	2995.1	2995.1	3007.9	3003.6	3003.6	3003.6	3048.5	3223.8	3375.6	3482.5
17.5°	3217.4	3116.9	3074.2	3067.8	3065.6	3065.6	3074.2	3170.4	3444.0	3604.3	3666.3
20°	3347.8	3157.5	3087.0	3059.2	3061.3	3065.6	3091.3	3223.8	3525.2	3606.5	3591.5
22.5°	3371.3	3125.5	3040.0	2999.3	3005.8	3010.0	3048.5	3189.6	3414.1	3426.9	3397.0
25°	3262.3	3035.7	2943.8	2911.7	2920.2	2918.1	2952.3	3054.9	3215.3	3211.0	3193.9
27.5°	3099.8	2892.5	2824.0	2802.7	2817.6	2800.5	2811.2	2890.3	3014.3	3010.0	3003.6
30°	2933.1	2753.5	2691.5	2680.8	2700.0	2674.4	2676.5	2742.8	2828.3	2824.0	2821.9
32.5°	2766.3	2614.5	2559.0	2559.0	2578.2	2550.4	2554.7	2612.4	2670.1	2653.0	2653.0
35°	2608.1	2501.2	2456.3	2447.8	2462.8	2443.5	2452.1	2505.5	2526.9	2503.4	2488.4
37.5°	2469.2	2422.1	2377.2	2347.3	2349.4	2351.6	2377.2	2417.9	2405.0	2370.8	2351.6
40°	2340.9	2340.9	2298.1	2242.6	2236.1	2251.1	2293.9	2338.8	2302.4	2263.9	2240.4
42.5°	2249.0	2268.2	2227.6	2172.0	2159.2	2184.8	2231.9	2263.9	2221.2	2178.4	2146.4
45°	2163.5	2210.5	2182.7	2120.7	2103.6	2133.5	2193.4	2206.2	2148.5	2107.9	2084.4
47.5°	2103.6	2167.7	2148.5	2088.6	2063.0	2105.7	2167.7	2165.6	2092.9	2050.2	2030.9
50°	2060.8	2142.1	2139.9	2088.6	2060.8	2114.3	2169.9	2142.1	2063.0	2018.1	1998.8
52.5°	2026.6	2139.9	2154.9	2125.0	2105.7	2152.8	2187.0	2133.5	2041.6	1994.6	1979.6
55°	2011.7	2148.5	2159.2	2131.4	2114.3	2157.0	2187.0	2150.6	2041.6	1998.8	1986.0
57.5°	2016.0	2137.8	2139.9	2101.5	2071.5	2125.0	2172.0	2161.3	2065.1	2016.0	2001.0
60°	1990.3	2080.1	2084.4	2024.5	1990.3	2054.4	2137.8	2131.4	2054.4	2003.1	1975.3
62.5°	1904.8	1983.9	1986.0	1930.4	1881.3	1973.2	2065.1	2063.0	1992.4	1941.1	1909.1
65°	1761.6	1844.9	1866.3	1812.9	1774.4	1872.7	1968.9	1964.6	1894.1	1847.1	1815.0
67.5°	1584.1	1673.9	1714.5	1678.2	1663.2	1753.0	1842.8	1840.7	1782.9	1738.0	1710.2
70°	1368.2	1443.0	1511.4	1511.4	1500.7	1603.4	1699.6	1691.0	1637.6	1603.4	1582.0
72.5°	1188.6	1246.3	1267.7	1289.1	1321.2	1428.1	1509.3	1515.7	1477.2	1460.1	1477.2
75°	1011.2	1047.5	1066.8	1049.7	1105.2	1216.4	1323.3	1334.0	1293.4	1265.6	1272.0
77.5°	831.6	872.2	891.5	853.0	848.7	989.8	1120.2	1143.7	1109.5	1066.8	1079.6
80°	600.7	654.2	686.2	660.6	652.0	714.0	893.6	919.3	887.2	853.0	872.2
82.5°	367.7	397.6	406.2	431.8	485.3	510.9	575.1	660.6	637.1	607.1	660.6
85°	145.4	173.2	192.4	218.1	254.4	301.4	354.9	423.3	384.8	372.0	438.3
87.5°	8.6	2.1	0.0	4.3	36.3	70.5	151.8	209.5	175.3	188.1	226.6
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: P640961  
 CATALOG NUMBER: GWS-SA5E-830-U-SLR-W

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6	3747.6
2.5°	3469.7	3525.2	3600.1	3662.1	3741.2	3816.0	3892.9	3969.9	4010.5	4027.6
5°	3223.8	3326.4	3446.1	3578.7	3732.6	3895.1	4059.7	4228.6	4335.5	4344.0
7.5°	3076.3	3223.8	3388.4	3555.2	3745.4	3969.9	4230.7	4491.5	4600.6	4630.5
10°	3123.3	3287.9	3418.4	3574.4	3783.9	4064.0	4371.8	4677.5	4803.6	4840.0
12.5°	3311.5	3343.5	3384.1	3527.4	3783.9	4145.2	4517.2	4880.6	5015.3	5049.5
15°	3467.5	3313.6	3240.9	3392.7	3732.6	4215.8	4671.1	5073.0	5235.5	5267.6
17.5°	3480.3	3215.3	3057.1	3193.9	3642.8	4264.9	4818.6	5286.8	5423.6	5453.5
20°	3349.9	3110.5	2905.3	2988.7	3521.0	4286.3	4925.5	5442.9	5577.5	5607.5
22.5°	3202.4	3025.0	2802.7	2798.4	3373.5	4309.8	5053.8	5590.4	5735.7	5755.0
25°	3063.5	2907.4	2719.3	2659.4	3202.4	4354.7	5226.9	5812.7	5923.9	5930.3
27.5°	2901.0	2781.3	2653.0	2595.3	3052.8	4440.2	5483.5	6077.8	6144.1	6133.4
30°	2753.5	2663.7	2606.0	2588.9	2958.7	4504.4	5727.2	6338.6	6342.9	6306.5
32.5°	2597.4	2563.2	2563.2	2618.8	2881.8	4489.4	5926.0	6593.0	6552.4	6498.9
35°	2458.5	2464.9	2509.8	2640.2	2753.5	4339.7	6116.3	6911.5	6851.7	6774.7
37.5°	2325.9	2375.1	2439.2	2565.4	2584.6	4117.4	6338.6	7362.6	7287.8	7191.6
40°	2212.6	2287.5	2362.3	2424.3	2405.0	3801.0	6648.6	7892.8	7809.4	7698.2
42.5°	2122.8	2195.5	2278.9	2285.3	2291.7	3471.8	6977.8	8542.7	8527.7	8405.9
45°	2065.1	2112.2	2191.3	2180.6	2285.3	3108.4	7281.4	9534.6	9731.3	9639.4
47.5°	2026.6	2063.0	2071.5	2116.4	2340.9	2783.4	7672.6	11475.7	12023.0	11918.3
50°	2005.3	2041.6	1945.4	2120.7	2349.4	2573.9	8213.4	13912.8	14793.6	14654.7
52.5°	2003.1	1994.6	1849.2	2165.6	2302.4	2445.6	8495.6	15691.5	17645.4	17946.9
55°	2007.4	1900.5	1800.0	2178.4	2208.4	2398.6	7550.7	16546.6	20277.1	20914.2
57.5°	1968.9	1797.9	1827.8	2127.1	2030.9	2524.7	5581.8	16240.9	21328.9	22513.2
60°	1896.2	1699.6	1879.1	1988.2	1849.2	2308.8	3843.8	14877.0	20238.6	21457.2
62.5°	1791.5	1631.1	1872.7	1808.6	1782.9	1889.8	2642.3	12967.9	18509.1	19699.9
65°	1673.9	1575.6	1772.2	1635.4	1650.4	1453.7	1868.4	10813.0	16444.0	17615.5
67.5°	1547.8	1541.4	1624.7	1455.8	1393.8	1152.3	1361.8	8666.7	13791.0	14847.1
70°	1404.5	1451.6	1477.2	1293.4	1130.9	904.3	1011.2	6060.7	10173.8	11093.1
72.5°	1261.3	1265.6	1301.9	1124.5	846.6	724.7	758.9	3670.6	6911.5	7580.7
75°	1115.9	1075.3	1109.5	915.0	630.7	594.3	585.8	2268.2	4773.7	5301.8
77.5°	959.9	915.0	870.1	688.4	506.7	459.6	448.9	1272.0	2928.8	3253.7
80°	780.3	720.4	649.9	504.5	369.8	329.2	327.1	620.0	1460.1	1626.9
82.5°	607.1	493.8	474.6	314.3	228.7	201.0	213.8	237.3	440.4	491.7
85°	425.4	359.2	252.3	126.1	102.6	83.4	81.2	70.5	117.6	130.4
87.5°	237.3	156.1	81.2	15.0	17.1	19.2	15.0	10.7	10.7	10.7
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

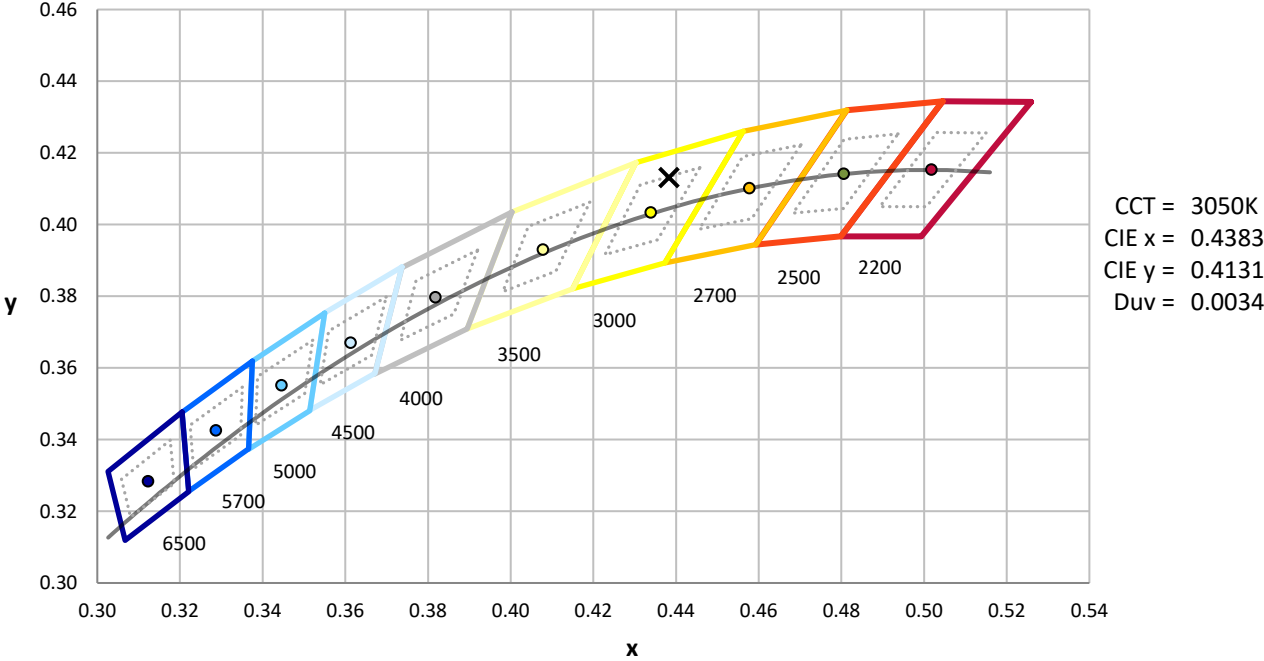
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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 <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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**

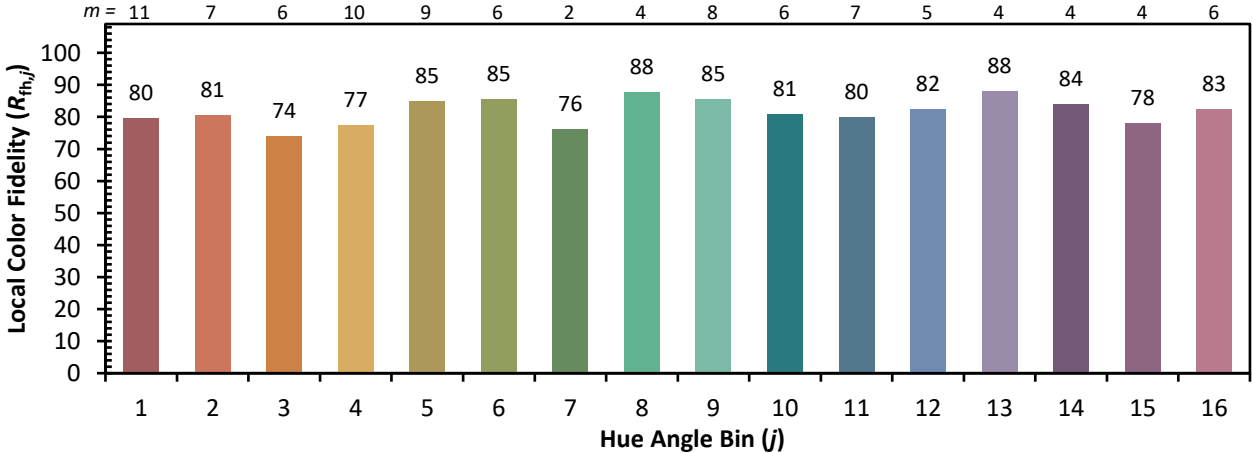


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

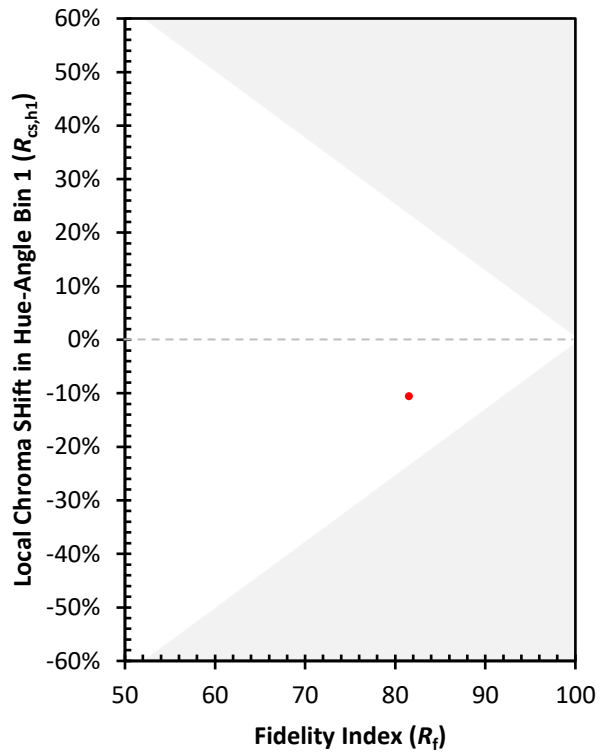
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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