

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: P643429

Luminaire Tested: GWS-SA6E-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P643429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SAGE-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (96) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19068.2 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G2

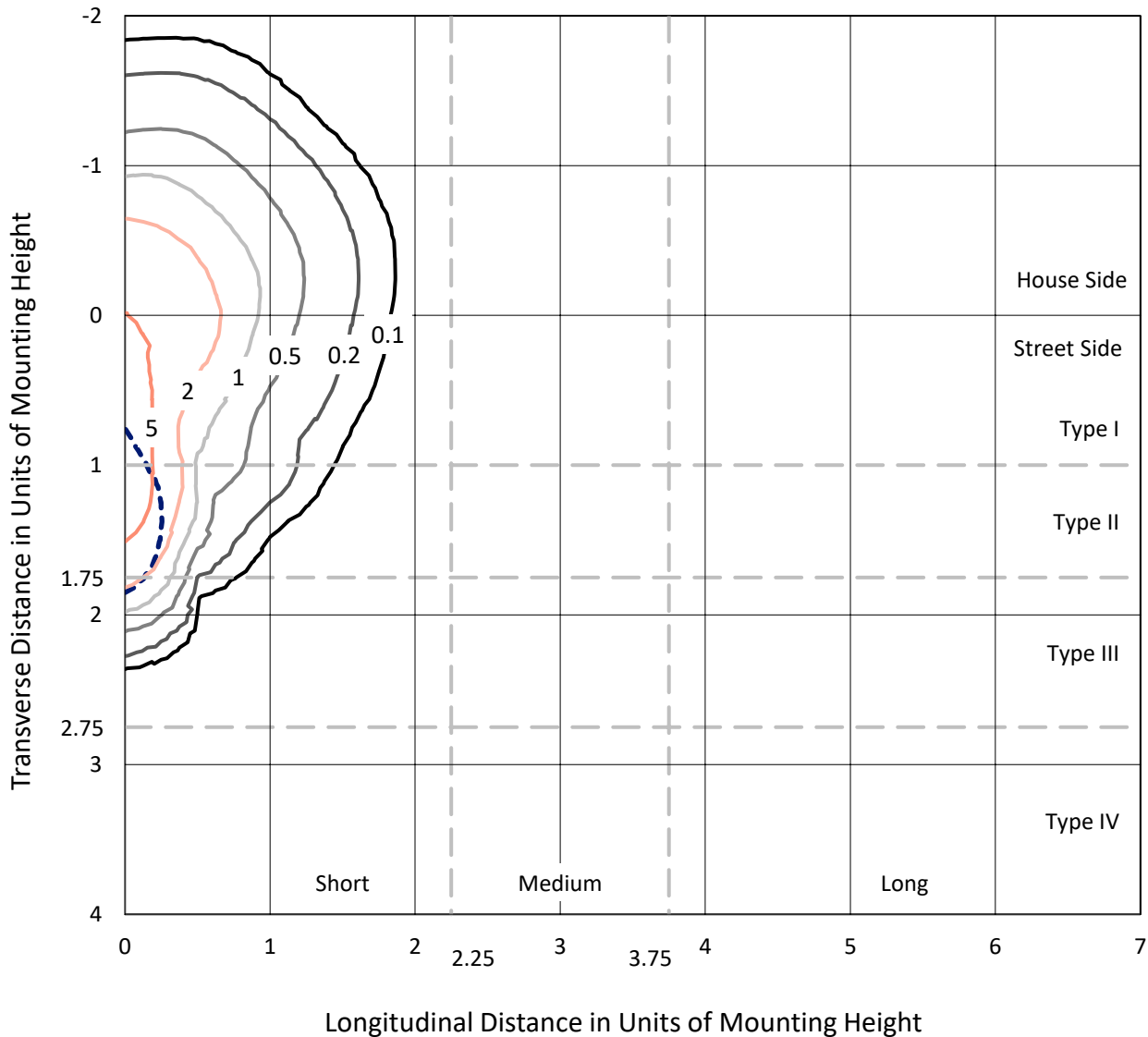
Input Watts (W): 323.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P643429
 CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

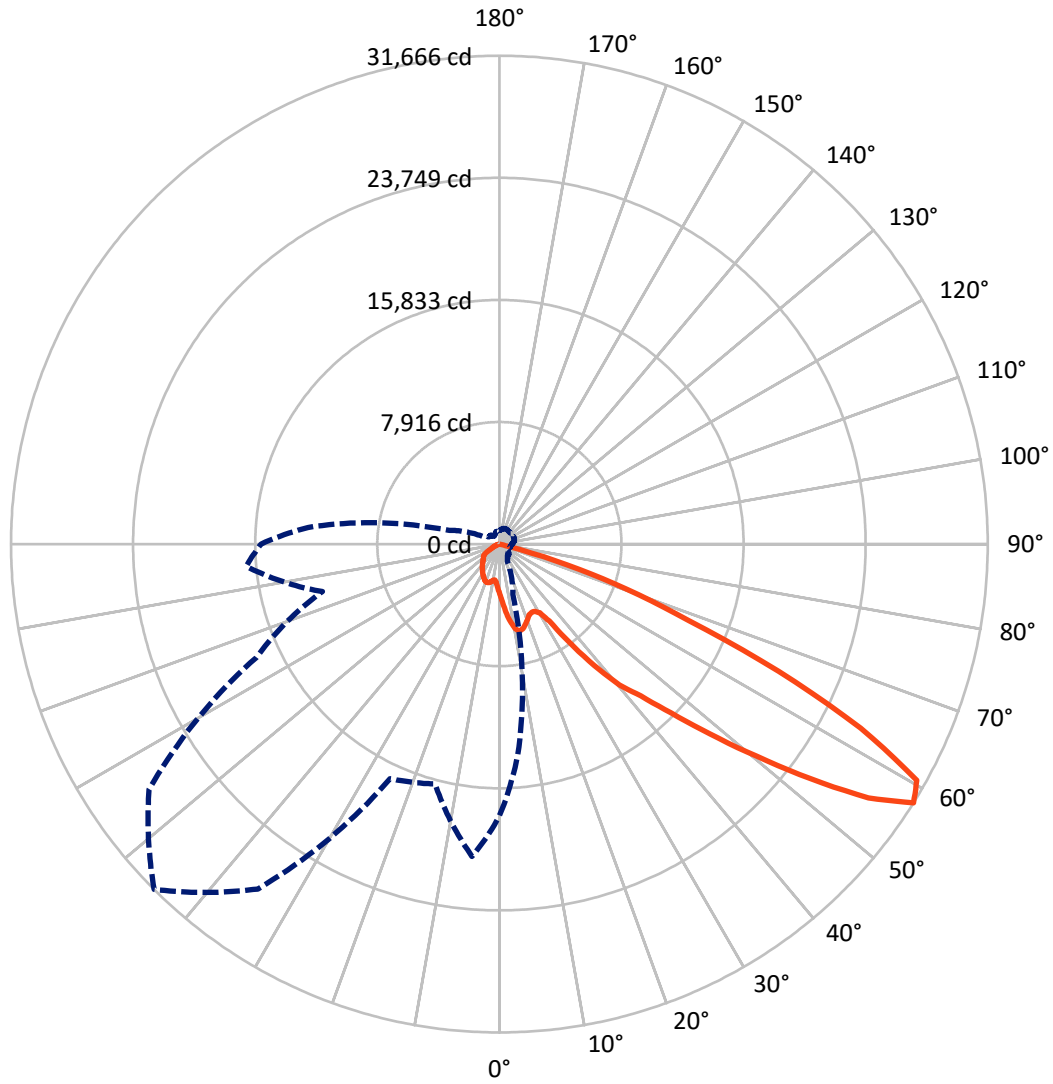
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Short - N/A

REPORT NUMBER: P643429
CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P643429

CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

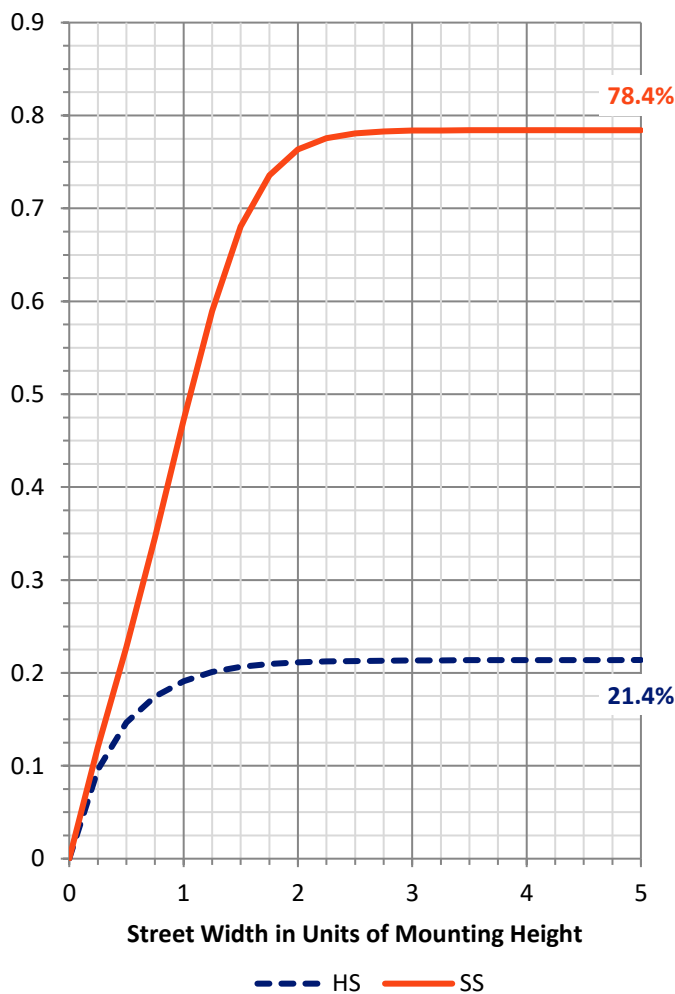
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4107.9	0.0	4107.9
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	14960.3	0.0	14960.3
	% Fixture	78.5	0.0	78.5
Total	Lumens	19068.2	0.0	19068.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.2	1.7
10°-20°	1053.7	5.5
20°-30°	1710.1	9.0
30°-40°	2624.6	13.8
40°-50°	4191.6	22.0
50°-60°	5869.0	30.8
60°-70°	3009.2	15.8
70°-80°	289.7	1.5
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	19068.2	100.0
0°-180°	19068.2	100.0

Coefficient of Utilization

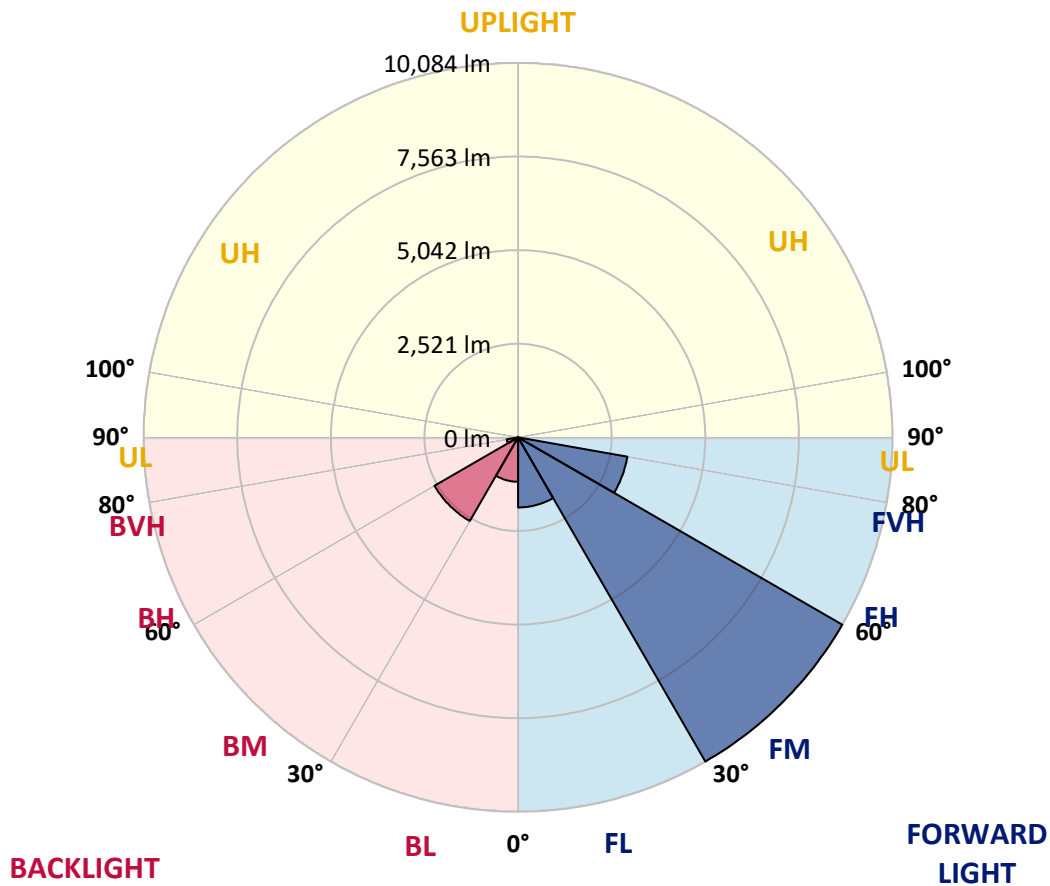


REPORT NUMBER: P643429
 CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1887.9	9.9			
FM (30°-60°)	10083.7	52.9			
FH (60°-80°)	2988.7	15.7			G2/5000
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	1196.2	6.3	B3/2500		
BM (30°-60°)	2601.5	13.6	B3/5000		
BH (60°-80°)	310.2	1.6	B1/500		G1/500
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type III Short





REPORT NUMBER: P643429

CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0
2.5°	3599.4	3591.8	3566.3	3479.6	3426.1	3341.9	3280.8	3201.7	3115.1	3061.5	3008.0
5°	3981.8	3961.4	3892.6	3693.7	3540.8	3375.1	3242.5	3097.2	2941.7	2839.8	2745.4
7.5°	4348.8	4318.3	4226.5	3890.0	3658.0	3421.0	3232.3	3020.7	2801.5	2648.6	2531.3
10°	4708.3	4639.5	4494.2	4081.2	3767.6	3482.1	3260.4	3018.2	2760.7	2567.0	2437.0
12.5°	5004.0	4953.0	4754.2	4262.2	3859.4	3494.9	3222.1	2997.8	2824.5	2694.5	2574.6
15°	5258.9	5202.8	5014.2	4425.3	3938.4	3443.9	3061.5	2865.2	2893.3	2944.3	2842.3
17.5°	5493.4	5434.8	5230.9	4560.4	3969.0	3319.0	2837.2	2742.9	2898.4	3089.6	3051.3
20°	5735.6	5669.3	5419.5	4670.0	3958.8	3122.7	2610.3	2638.4	2857.6	3076.8	3097.2
22.5°	6018.5	5949.7	5659.1	4810.2	3951.2	2888.2	2414.0	2546.6	2781.1	2967.2	3002.9
25°	6393.3	6311.7	5993.1	5016.7	3971.6	2674.1	2273.8	2457.4	2651.1	2819.4	2839.8
27.5°	6887.8	6783.3	6378.0	5271.6	4014.9	2505.8	2212.7	2335.0	2485.4	2635.8	2653.7
30°	7532.7	7400.2	6819.0	5493.4	3994.5	2388.6	2171.9	2212.7	2301.9	2424.2	2426.8
32.5°	8287.3	8106.3	7313.5	5684.6	3818.6	2301.9	2115.8	2087.8	2108.1	2202.5	2220.3
35°	9174.4	8939.9	7859.0	5865.6	3497.4	2133.6	2013.8	1919.5	1911.9	1957.7	2001.1
37.5°	10191.5	9911.1	8547.3	6097.6	3117.6	1957.7	1863.4	1769.1	1728.3	1751.3	1817.5
40°	11129.6	10818.6	9266.2	6378.0	2730.1	1799.7	1687.5	1590.7	1542.2	1549.9	1631.5
42.5°	12230.8	11909.6	10145.6	6745.1	2408.9	1692.6	1504.0	1404.6	1340.9	1376.5	1470.9
45°	13903.1	13538.5	11427.8	7063.7	2154.0	1667.1	1343.4	1203.2	1172.6	1233.8	1346.0
47.5°	16187.1	15741.0	13189.3	7257.4	1937.4	1690.1	1231.2	1040.1	1047.7	1116.5	1228.7
50°	18453.3	17971.5	15226.1	7002.5	1758.9	1644.2	1175.2	912.6	961.0	1022.2	1124.2
52.5°	20010.8	19383.7	16217.7	6265.8	1595.8	1470.9	1170.1	792.8	884.6	904.9	991.6
55°	20072.0	19299.6	15710.4	4940.3	1374.0	1241.4	1116.5	693.4	800.4	808.1	882.0
57.5°	17594.2	16895.8	13729.7	3392.9	1221.0	910.0	889.7	606.7	657.7	721.4	767.3
60°	13385.6	12791.6	10268.0	1555.0	927.9	578.7	609.2	522.6	492.0	586.3	632.2
62.5°	8198.1	7818.2	6158.7	688.3	591.4	308.4	369.6	415.5	369.6	405.3	443.6
65°	3255.3	3087.0	2337.6	293.2	242.2	155.5	168.2	242.2	260.0	285.5	321.2
67.5°	565.9	535.3	392.6	130.0	99.4	94.3	81.6	112.2	158.0	175.9	203.9
70°	73.9	71.4	63.7	53.5	51.0	45.9	35.7	71.4	107.1	112.2	130.0
72.5°	17.8	15.3	15.3	12.7	15.3	5.1	5.1	38.2	76.5	79.0	91.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	48.4	53.5	63.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P643429

CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0
2.5°	2964.7	2913.7	2895.8	2870.3	2837.2	2847.4	2801.5	2786.2	2809.2	2839.8	2832.1
5°	2694.5	2638.4	2600.1	2541.5	2531.3	2508.4	2493.1	2472.7	2498.2	2533.9	2541.5
7.5°	2480.3	2431.9	2393.7	2375.8	2363.1	2352.9	2322.3	2307.0	2307.0	2322.3	2335.0
10°	2388.6	2352.9	2345.2	2350.3	2370.7	2368.2	2340.1	2319.7	2294.2	2281.5	2296.8
12.5°	2516.0	2457.4	2447.2	2449.7	2475.2	2472.7	2442.1	2416.6	2411.5	2416.6	2465.0
15°	2732.7	2643.5	2577.2	2564.4	2577.2	2572.1	2549.2	2533.9	2541.5	2615.4	2697.0
17.5°	2926.4	2788.8	2669.0	2623.1	2620.5	2612.9	2589.9	2584.8	2623.1	2760.7	2880.5
20°	2982.5	2847.4	2676.6	2618.0	2605.2	2597.6	2572.1	2579.7	2628.2	2793.9	2895.8
22.5°	2908.6	2778.6	2600.1	2541.5	2531.3	2528.8	2503.3	2513.5	2554.2	2699.5	2783.7
25°	2768.4	2658.8	2472.7	2421.7	2421.7	2416.6	2393.7	2398.8	2424.2	2551.7	2633.3
27.5°	2597.6	2493.1	2337.6	2286.6	2294.2	2301.9	2273.8	2266.2	2286.6	2406.4	2454.8
30°	2401.3	2327.4	2205.0	2159.1	2156.6	2187.2	2148.9	2138.7	2166.8	2261.1	2271.3
32.5°	2210.1	2174.4	2087.8	2052.1	2054.6	2059.7	2039.3	2039.3	2064.8	2115.8	2113.2
35°	2024.0	2001.1	1985.8	1960.3	1957.7	1947.6	1947.6	1952.6	1980.7	1998.5	1965.4
37.5°	1845.6	1868.5	1886.4	1860.9	1840.5	1840.5	1840.5	1863.4	1888.9	1881.3	1825.2
40°	1687.5	1736.0	1792.1	1764.0	1715.6	1713.0	1723.2	1761.5	1799.7	1753.8	1702.8
42.5°	1552.4	1613.6	1692.6	1677.3	1623.8	1616.2	1623.8	1672.2	1702.8	1644.2	1588.1
45°	1419.9	1496.4	1590.7	1590.7	1532.0	1524.4	1526.9	1590.7	1608.5	1539.7	1468.3
47.5°	1307.7	1391.8	1491.3	1491.3	1442.8	1427.5	1440.3	1506.5	1519.3	1422.4	1356.1
50°	1200.6	1292.4	1402.0	1394.4	1361.2	1348.5	1371.4	1442.8	1427.5	1320.5	1251.6
52.5°	1065.5	1162.4	1312.8	1320.5	1302.6	1305.2	1333.2	1379.1	1335.8	1205.7	1147.1
55°	943.2	1042.6	1193.0	1233.8	1233.8	1231.2	1244.0	1279.7	1244.0	1088.5	1017.1
57.5°	810.6	894.8	1019.7	1029.9	1037.5	1009.5	1027.3	1075.7	1057.9	925.3	884.6
60°	665.3	736.7	808.1	815.7	782.6	724.0	757.1	813.2	825.9	726.5	680.6
62.5°	471.6	540.4	624.5	624.5	591.4	532.8	576.1	624.5	606.7	504.7	476.7
65°	351.8	415.5	479.2	507.3	479.2	438.5	471.6	507.3	479.2	395.1	354.3
67.5°	226.9	270.2	308.4	331.4	336.5	331.4	346.7	336.5	303.3	247.3	224.3
70°	137.7	160.6	181.0	201.4	216.7	224.3	232.0	209.0	175.9	145.3	137.7
72.5°	99.4	119.8	137.7	152.9	170.8	175.9	175.9	160.6	130.0	102.0	94.3
75°	68.8	86.7	102.0	112.2	127.5	132.6	132.6	119.8	96.9	73.9	66.3
77.5°	2.5	17.8	17.8	15.3	20.4	25.5	25.5	30.6	28.0	20.4	17.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P643429

CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0
2.5°	2847.4	2939.2	2964.7	3059.0	3143.1	3227.2	3329.2	3390.4	3482.1	3545.9	3581.6
5°	2567.0	2643.5	2735.2	2875.4	3020.7	3181.3	3375.1	3543.3	3754.9	3910.4	3961.4
7.5°	2363.1	2462.5	2569.5	2745.4	2944.3	3158.4	3431.2	3706.5	4030.2	4241.8	4376.9
10°	2324.8	2426.8	2569.5	2742.9	2951.9	3196.6	3530.6	3887.5	4292.8	4550.2	4703.2
12.5°	2508.4	2618.0	2679.2	2758.2	2916.2	3189.0	3617.2	4071.0	4547.7	4828.1	4991.2
15°	2778.6	2875.4	2776.0	2676.6	2778.6	3107.4	3665.7	4223.9	4772.0	5095.8	5264.0
17.5°	2964.7	2972.3	2755.6	2544.1	2572.1	2959.6	3683.5	4376.9	5011.6	5350.7	5526.6
20°	2946.8	2885.6	2666.4	2431.9	2345.2	2768.4	3663.1	4512.0	5253.8	5608.1	5781.5
22.5°	2809.2	2737.8	2551.7	2322.3	2154.0	2541.5	3627.4	4634.4	5475.6	5878.3	6041.5
25°	2643.5	2567.0	2414.0	2212.7	2031.7	2322.3	3599.4	4802.6	5756.0	6230.1	6357.6
27.5°	2449.7	2383.5	2253.4	2108.1	1980.7	2156.6	3591.8	5024.4	6095.0	6658.4	6747.6
30°	2261.1	2199.9	2098.0	2013.8	1960.3	2059.7	3566.3	5261.4	6500.3	7150.4	7247.2
32.5°	2080.1	2018.9	1955.2	1942.5	1945.0	2024.0	3479.6	5496.0	6982.1	7864.1	7935.5
35°	1924.6	1853.2	1827.7	1858.3	1914.4	1962.8	3234.9	5689.7	7499.6	8641.6	8700.2
37.5°	1776.8	1705.4	1702.8	1776.8	1837.9	1868.5	2946.8	5880.9	8198.1	9431.9	9505.8
40°	1641.7	1570.3	1595.8	1685.0	1733.4	1748.7	2597.6	6171.5	8937.3	10265.4	10224.6
42.5°	1526.9	1453.0	1468.3	1583.0	1626.4	1667.1	2276.4	6413.7	9648.5	11055.7	11042.9
45°	1414.8	1358.7	1348.5	1473.4	1511.6	1674.8	2041.9	6599.7	10563.7	12062.6	12083.0
47.5°	1305.2	1261.8	1264.4	1317.9	1412.2	1713.0	1843.0	6722.1	11891.8	13658.3	13304.0
50°	1205.7	1172.6	1200.6	1139.5	1348.5	1664.6	1672.2	6696.6	13375.4	15187.8	14476.6
52.5°	1096.1	1088.5	1101.2	953.4	1246.5	1468.3	1511.6	6357.6	14071.3	16233.0	15827.7
55°	984.0	981.4	879.5	762.2	1042.6	1172.6	1295.0	5304.8	14048.4	16788.7	17280.7
57.5°	851.4	831.0	667.9	622.0	810.6	815.7	1180.3	3474.5	12450.0	15458.0	16477.7
60°	644.9	629.6	489.4	504.7	565.9	522.6	940.6	1730.9	9304.4	12042.2	13191.9
62.5°	446.1	425.7	364.5	390.0	364.5	298.3	576.1	856.5	5636.2	7604.1	8646.7
65°	326.3	303.3	249.8	214.1	170.8	170.8	219.2	328.8	2182.1	3232.3	3897.7
67.5°	201.4	191.2	147.9	107.1	104.5	112.2	114.7	163.1	351.8	560.8	685.7
70°	130.0	119.8	99.4	68.8	63.7	66.3	68.8	76.5	89.2	96.9	117.3
72.5°	89.2	84.1	71.4	38.2	30.6	33.1	35.7	35.7	43.3	40.8	48.4
75°	63.7	58.6	51.0	17.8	10.2	12.7	15.3	12.7	15.3	10.2	12.7
77.5°	17.8	17.8	12.7	2.5	0.0	2.5	5.1	5.1	2.5	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P643429

CATALOG NUMBER: GWS-SA6E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0	3240.0
2.5°	3673.3	3732.0	3754.9	3721.8	3749.8	3703.9	3686.1	3617.2	3612.1	3599.4
5°	4167.9	4300.4	4379.4	4427.9	4371.8	4310.6	4218.8	4060.8	4012.4	3981.8
7.5°	4654.7	4861.2	4996.3	5060.1	5044.8	4919.9	4754.2	4489.1	4394.7	4348.8
10°	5077.9	5330.3	5493.4	5572.4	5539.3	5429.7	5192.6	4861.2	4736.3	4708.3
12.5°	5373.6	5605.6	5717.7	5786.6	5789.1	5745.8	5521.5	5187.5	5039.7	5004.0
15°	5559.7	5659.1	5661.7	5702.4	5773.8	5870.7	5766.2	5470.5	5312.4	5258.9
17.5°	5677.0	5567.3	5455.2	5465.4	5582.6	5840.1	5947.2	5720.3	5552.0	5493.4
20°	5761.1	5414.4	5205.4	5207.9	5327.7	5717.7	6072.1	5962.5	5789.1	5735.6
22.5°	5814.6	5279.3	4981.0	4973.4	5100.8	5572.4	6186.8	6250.5	6079.7	6018.5
25°	5924.2	5215.6	4845.9	4889.3	5001.4	5526.6	6342.3	6632.9	6474.8	6393.3
27.5°	6120.5	5279.3	4833.2	4932.6	5060.1	5661.7	6612.5	7142.7	6979.6	6887.8
30°	6459.5	5518.9	5029.5	5167.1	5320.1	6016.0	7066.2	7853.9	7619.4	7532.7
32.5°	7005.1	6016.0	5636.2	5931.9	6079.7	6597.2	7746.9	8651.8	8460.6	8287.3
35°	7757.1	7150.4	7107.0	7795.3	7759.6	7698.4	8583.0	9630.7	9342.6	9174.4
37.5°	8792.0	8975.6	9296.8	9979.9	9957.0	9490.5	9681.7	10556.0	10408.2	10191.5
40°	10084.4	10474.5	11020.0	11998.8	11693.0	11106.6	11030.2	11504.3	11384.5	11129.6
42.5°	10846.6	11519.6	12559.7	13439.1	13194.4	12169.6	12083.0	12771.2	12508.7	12230.8
45°	11201.0	12371.0	14410.3	15600.8	14859.0	12875.8	12842.6	14423.1	14275.2	13903.1
47.5°	11364.1	13230.1	16577.1	18379.4	16992.6	13495.2	13375.4	16819.3	16625.6	16187.1
50°	11545.1	14415.4	19187.5	21598.9	19569.8	14196.2	14282.9	19052.3	18970.8	18453.3
52.5°	11942.8	15669.6	22401.9	25279.9	22695.1	15294.9	15840.4	21157.9	20607.3	20010.8
55°	12539.3	17036.0	25746.4	29039.9	25884.1	16770.9	17525.4	22277.0	20732.2	20072.0
57.5°	11879.0	17377.6	27727.1	31665.5	27298.8	16776.0	16100.4	20337.1	18234.1	17594.2
60°	9426.8	16166.7	26964.9	31097.1	26093.1	14897.2	12327.7	15878.7	13813.8	13385.6
62.5°	6372.9	13558.9	23737.7	26299.6	22333.1	11718.4	8012.0	10326.6	8552.4	8198.1
65°	3492.3	10115.0	19179.8	19896.1	17479.5	8185.3	4122.0	4481.4	3413.3	3255.3
67.5°	963.6	7040.8	14112.1	13199.5	12264.0	5330.3	1065.5	800.4	571.0	565.9
70°	242.2	4657.3	8455.5	8715.5	7520.0	3413.3	203.9	96.9	76.5	73.9
72.5°	102.0	2003.6	4012.4	4611.4	3849.2	1580.5	73.9	28.0	22.9	17.8
75°	12.7	160.6	341.6	517.5	354.3	170.8	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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

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



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

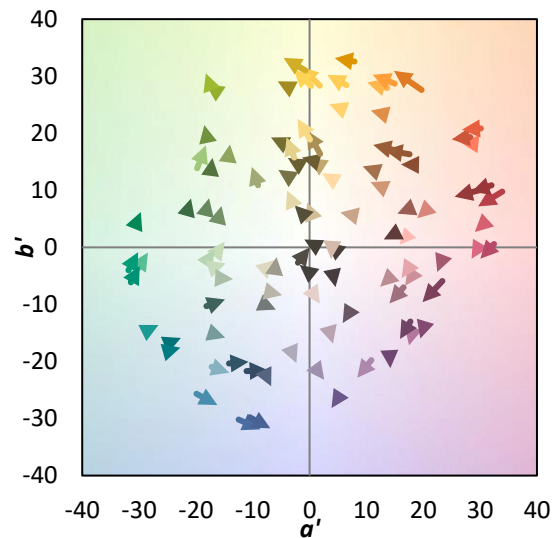
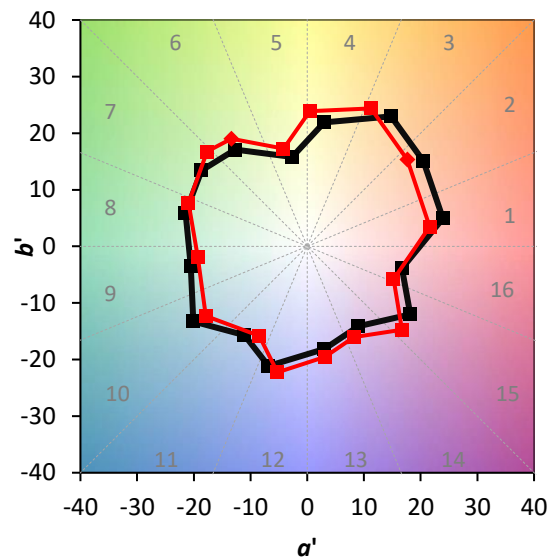
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

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)