

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: P640466

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

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640466
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-SA5D-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: 22595.6 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

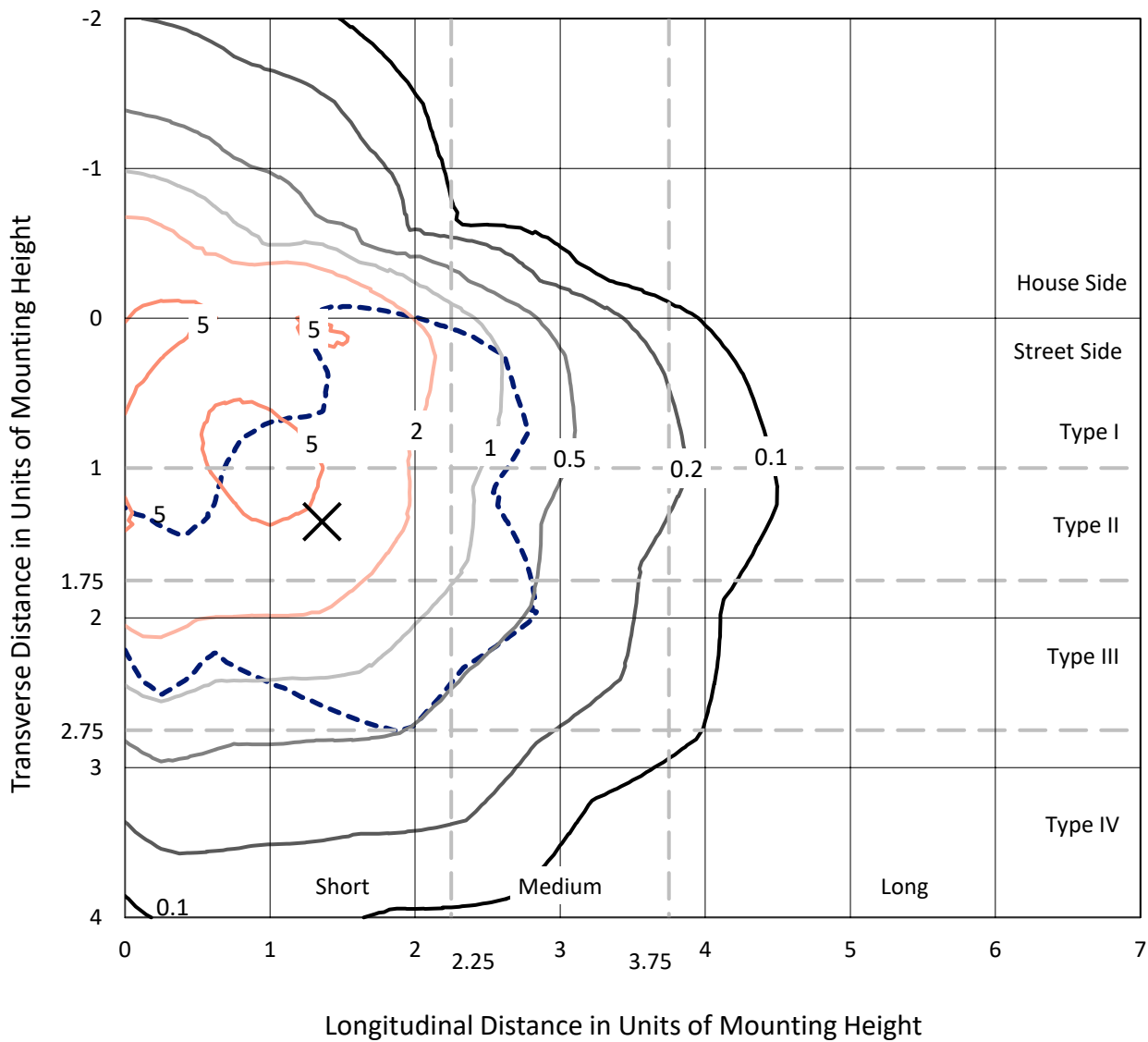
Input Watts (W): 204.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P640466
 CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

Iso-Footcandle Lines of Horizontal Illumination

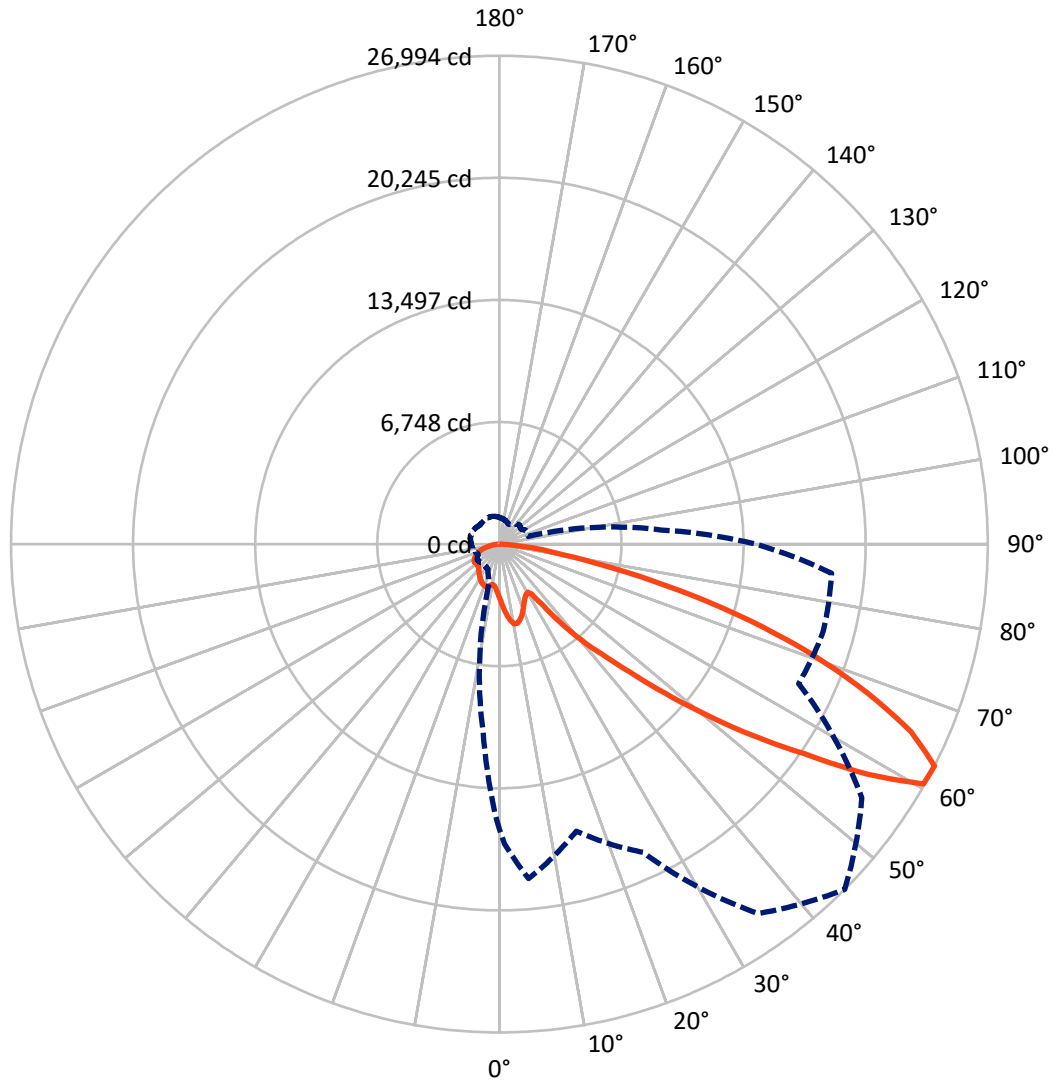
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type III - Short - N/A

REPORT NUMBER: P640466
CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

Luminous Intensity Polar Plot



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

REPORT NUMBER: P640466

CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

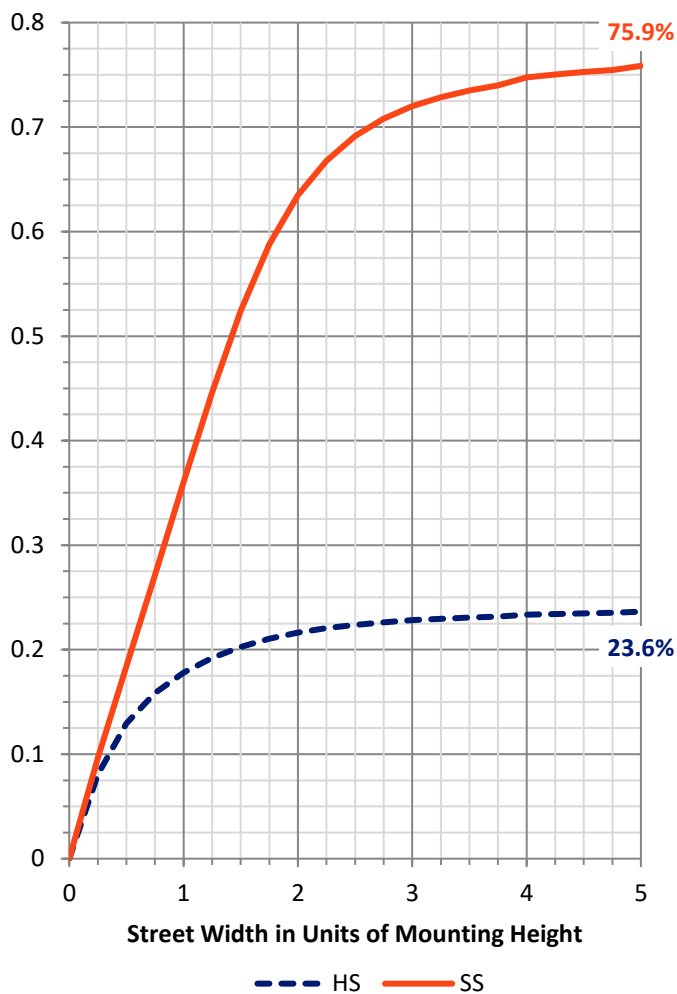
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5391.7	0.0	5391.7
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	17203.9	0.0	17203.9
	% Fixture	76.1	0.0	76.1
Total	Lumens	22595.6	0.0	22595.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.9	1.3
10°-20°	918.1	4.1
20°-30°	1426.1	6.3
30°-40°	1936.2	8.6
40°-50°	3068.7	13.6
50°-60°	5413.3	24.0
60°-70°	6023.1	26.7
70°-80°	3054.7	13.5
80°-90°	462.5	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°	22595.6	100.0
0°-180°	22595.6	100.0

Coefficient of Utilization



REPORT NUMBER: P640466

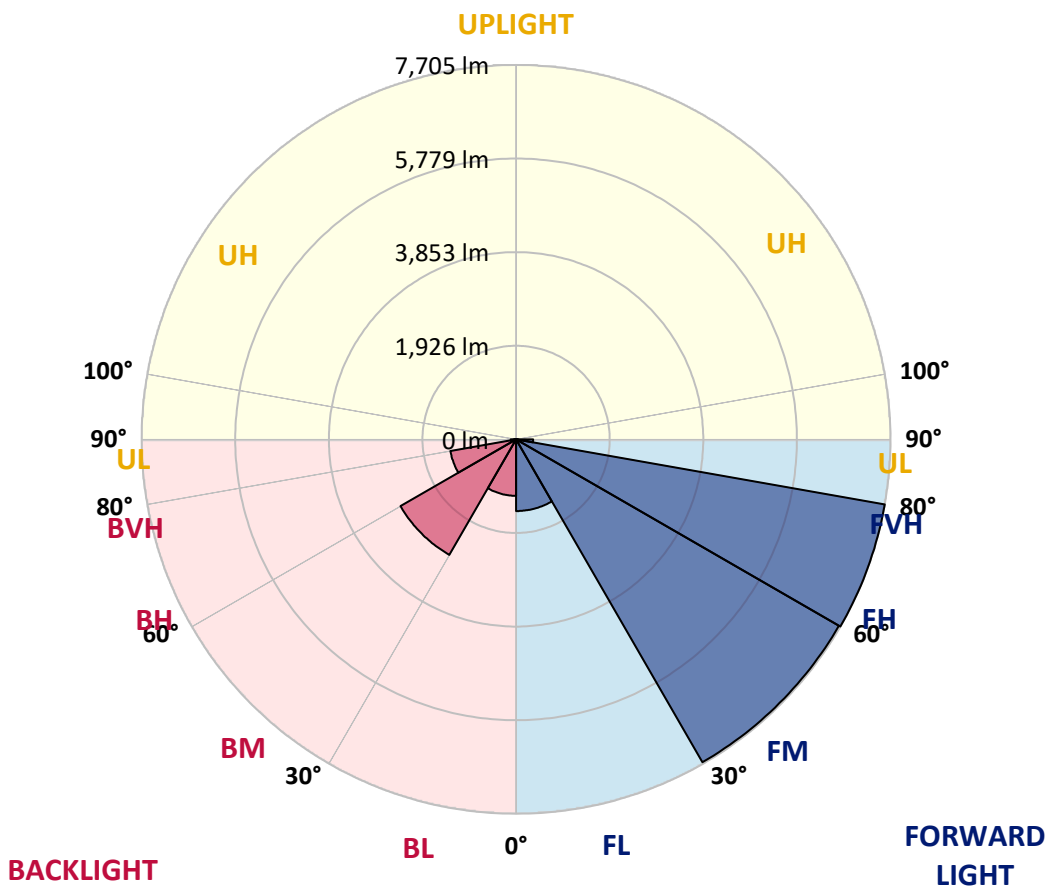
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1475.3	6.5			
FM (30°-60°)	7672.2	34.0			
FH (60°-80°)	7705.3	34.1			G4/12000
FVH (80°-90°)	351.1	1.6			G3/500
BL (0°-30°)	1161.8	5.1	B3/2500		
BM (30°-60°)	2746.0	12.2	B3/5000		
BH (60°-80°)	1372.5	6.1	B3/2500		G3/2500
BVH (80°-90°)	111.5	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: P640466
 CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	3223.0	3221.3	3253.8	3303.4	3349.6	3370.1	3404.3	3400.9	3373.5	3337.6	3325.6
5°	3476.2	3483.0	3539.5	3649.0	3770.4	3821.8	3844.0	3835.4	3785.8	3722.5	3611.3
7.5°	3705.4	3717.4	3804.6	3968.9	4119.4	4187.9	4242.6	4232.3	4160.5	4042.4	3878.2
10°	3873.1	3886.8	3991.1	4184.4	4352.1	4412.0	4482.1	4485.5	4422.2	4263.1	4095.5
12.5°	4040.7	4054.4	4151.9	4328.1	4437.6	4439.3	4480.4	4502.6	4506.0	4432.5	4264.8
15°	4215.2	4227.2	4316.2	4415.4	4410.2	4314.4	4314.4	4357.2	4451.3	4504.3	4388.0
17.5°	4364.1	4379.5	4447.9	4415.4	4263.1	4090.3	4069.8	4124.6	4288.8	4492.4	4480.4
20°	4487.2	4499.2	4536.8	4321.3	4044.1	3818.3	3779.0	3842.3	4064.7	4418.8	4550.5
22.5°	4605.3	4612.1	4591.6	4198.1	3808.1	3549.8	3501.9	3568.6	3808.1	4288.8	4610.4
25°	4745.5	4738.7	4641.2	4069.8	3592.5	3337.6	3288.0	3363.3	3613.0	4116.0	4675.4
27.5°	4908.1	4882.4	4684.0	3931.2	3426.6	3180.2	3146.0	3226.4	3459.1	3956.9	4726.7
30°	5046.6	4997.0	4690.8	3808.1	3341.0	3113.5	3093.0	3168.3	3383.8	3849.1	4791.7
32.5°	5200.6	5132.2	4730.1	3775.6	3388.9	3274.3	3301.7	3306.8	3404.3	3818.3	4889.2
35°	5421.3	5332.3	4837.9	3869.7	3881.6	4074.9	4174.2	4040.7	3714.0	3886.8	5074.0
37.5°	5754.9	5642.0	5056.9	4276.8	4899.5	5332.3	5571.8	5267.3	4654.9	4145.1	5352.9
40°	6160.3	6016.6	5337.5	5029.5	5850.7	6543.5	6969.5	6523.0	5623.1	4790.0	5744.6
42.5°	6726.6	6576.0	5881.5	5768.6	6731.7	7763.3	8319.2	7653.8	6476.8	5623.1	6372.4
45°	7713.7	7568.2	6878.8	6509.3	7763.3	9265.3	10045.4	9119.9	7344.1	6459.7	7546.0
47.5°	9537.3	9366.2	8360.3	7330.4	8940.2	11215.5	12306.9	10958.9	8245.7	7417.7	9516.8
50°	11727.0	11562.8	10219.9	8302.1	10240.4	13300.9	14818.3	13119.5	9284.1	8582.7	11872.4
52.5°	14361.5	14330.7	12873.2	9530.4	11593.6	15524.8	17605.1	15512.8	10421.7	10151.4	14541.1
55°	16736.0	17037.1	16243.3	11403.7	13341.9	18318.4	20470.5	18123.4	11964.8	12744.9	17666.6
57.5°	18015.6	18824.8	20044.5	15225.4	15884.1	21657.8	24006.6	21310.5	14616.4	17062.8	20564.6
60°	17170.5	18087.5	20297.7	18102.9	18405.7	24333.3	26925.1	23989.5	17220.1	20059.9	20400.4
62.5°	15764.3	16587.2	18552.8	16422.9	18795.7	24921.8	26993.5	24456.5	18255.1	18539.1	18427.9
65°	14096.4	14926.1	17008.0	14335.9	17555.4	23524.2	25002.2	23082.8	16395.6	16749.7	16790.7
67.5°	11881.0	12647.4	14767.0	12746.6	16002.1	21473.0	21945.2	21125.7	15098.8	15663.4	15073.2
70°	8876.9	9568.1	11439.6	10358.4	13489.1	18800.8	18419.4	18540.8	13643.0	14204.1	12590.9
72.5°	6066.2	6586.3	8190.9	8139.6	10329.3	15050.9	14518.9	15670.2	11395.1	12139.3	9598.9
75°	4242.6	4648.0	5920.8	6430.6	7807.7	11155.6	10339.6	11728.7	8899.2	9961.5	7003.7
77.5°	2603.7	2872.3	3739.6	4764.4	5022.7	7635.0	6422.1	8825.6	6249.3	7265.4	4672.0
80°	1301.9	1431.9	1816.8	2995.5	3330.8	4499.2	3546.3	5123.6	4228.9	4499.2	2584.9
82.5°	393.5	434.5	532.0	1137.6	1726.1	2590.0	2095.6	2976.7	2309.5	2109.3	1017.9
85°	104.4	118.0	147.1	337.0	605.6	928.9	708.2	1442.1	1106.8	778.4	383.2
87.5°	8.6	8.6	6.8	6.8	3.4	0.0	0.0	102.6	207.0	118.0	66.7
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: P640466
 CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	3265.8	3258.9	3188.8	3137.5	3077.6	3019.4	2959.6	2906.5	2846.6	2786.8	2769.7
5°	3529.2	3481.3	3332.5	3207.6	3084.4	2976.7	2882.6	2785.1	2706.4	2629.4	2600.3
7.5°	3761.9	3678.1	3462.5	3272.6	3101.5	2968.1	2829.5	2687.5	2576.3	2466.9	2439.5
10°	3972.3	3861.1	3589.1	3349.6	3159.7	3007.5	2844.9	2655.0	2494.2	2360.8	2324.9
12.5°	4128.0	4006.5	3698.6	3423.2	3207.6	3036.5	2875.7	2708.1	2538.7	2365.9	2326.6
15°	4251.1	4124.6	3789.3	3479.6	3209.3	2988.6	2833.0	2774.8	2721.8	2552.4	2480.5
17.5°	4350.4	4216.9	3867.9	3513.8	3163.1	2843.2	2708.1	2793.6	2928.8	2822.7	2687.5
20°	4441.0	4305.9	3927.8	3537.8	3060.5	2643.1	2567.8	2749.1	2952.7	2949.3	2827.8
22.5°	4540.3	4408.5	4015.1	3551.5	2916.8	2439.5	2484.0	2684.1	2850.1	2899.7	2824.4
25°	4666.9	4550.5	4136.5	3582.3	2754.3	2299.2	2422.4	2600.3	2738.9	2750.8	2706.4
27.5°	4814.0	4726.7	4317.9	3654.1	2596.9	2227.4	2350.5	2482.3	2608.9	2614.0	2561.0
30°	4974.8	4916.6	4485.5	3714.0	2478.8	2205.1	2258.2	2364.2	2444.6	2458.3	2412.1
32.5°	5180.1	5128.7	4634.3	3674.6	2408.7	2200.0	2172.6	2227.4	2294.1	2294.1	2258.2
35°	5462.3	5390.5	4791.7	3524.1	2323.2	2179.5	2081.9	2097.3	2126.4	2131.6	2111.0
37.5°	5862.6	5744.6	4950.8	3226.4	2182.9	2105.9	1977.6	1958.8	1969.0	1982.7	1977.6
40°	6358.8	6165.4	5183.5	2868.9	2015.2	1963.9	1869.8	1833.9	1825.3	1852.7	1863.0
42.5°	6983.2	6687.2	5433.3	2535.3	1863.0	1801.4	1743.2	1712.4	1698.7	1744.9	1772.3
45°	7980.5	7493.0	5672.8	2205.1	1777.4	1662.8	1623.5	1601.2	1608.1	1662.8	1697.0
47.5°	9703.2	8723.0	5900.3	1996.4	1770.6	1563.6	1515.7	1520.8	1539.7	1597.8	1638.9
50°	11882.7	10370.4	6052.5	1909.2	1791.1	1503.7	1440.4	1467.8	1496.9	1553.3	1601.2
52.5°	14101.5	11904.9	5871.2	1861.3	1789.4	1505.4	1370.3	1452.4	1466.1	1522.5	1573.9
55°	15627.5	12076.0	5072.3	1787.7	1762.0	1573.9	1315.5	1445.6	1454.1	1505.4	1551.6
57.5°	16209.1	11490.9	3867.9	1808.2	1679.9	1626.9	1291.6	1397.7	1459.2	1503.7	1551.6
60°	15506.0	10387.5	2350.5	1861.3	1548.2	1623.5	1307.0	1310.4	1416.5	1491.8	1539.7
62.5°	14180.2	8971.0	1650.8	1710.7	1452.4	1532.8	1342.9	1207.8	1341.2	1431.9	1474.6
65°	12661.1	7304.8	1259.1	1472.9	1406.2	1392.5	1354.9	1117.1	1238.6	1327.5	1365.2
67.5°	11078.6	5677.9	1023.0	1098.3	1271.1	1259.1	1238.6	1036.7	1117.1	1180.4	1223.2
70°	9085.7	3972.3	863.9	824.6	1089.7	1129.1	1082.9	935.8	961.4	1026.4	1060.6
72.5°	6646.2	2475.4	710.0	680.9	875.9	987.1	963.1	824.6	836.5	898.1	925.5
75°	4779.8	1416.5	569.7	561.1	668.9	845.1	797.2	710.0	723.6	769.8	788.6
77.5°	3038.2	788.6	439.7	451.6	479.0	631.3	680.9	607.3	607.3	634.7	650.1
80°	1626.9	451.6	321.6	326.7	335.3	482.4	537.2	470.4	470.4	451.6	470.4
82.5°	663.8	260.0	220.7	205.3	224.1	330.2	376.4	299.4	313.1	282.3	289.1
85°	219.0	130.0	109.5	107.8	106.1	145.4	181.3	148.8	177.9	112.9	118.0
87.5°	29.1	24.0	13.7	10.3	12.0	5.1	10.3	12.0	12.0	8.6	8.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	2757.7	2744.0	2694.4	2706.4	2697.8	2684.1	2697.8	2672.1	2692.7	2699.5	2742.3
5°	2578.1	2545.6	2497.7	2473.7	2468.6	2454.9	2456.6	2444.6	2448.0	2477.1	2525.0
7.5°	2417.3	2386.5	2348.8	2331.7	2316.3	2300.9	2299.2	2297.5	2311.2	2336.8	2383.0
10°	2300.9	2283.8	2268.4	2275.3	2268.4	2261.6	2249.6	2249.6	2271.8	2318.0	2374.5
12.5°	2300.9	2297.5	2300.9	2321.5	2319.7	2321.5	2306.1	2314.6	2376.2	2454.9	2535.3
15°	2424.1	2396.7	2396.7	2407.0	2403.6	2403.6	2403.6	2439.5	2579.8	2701.2	2786.8
17.5°	2574.6	2494.2	2460.0	2454.9	2453.2	2453.2	2460.0	2537.0	2756.0	2884.3	2933.9
20°	2679.0	2526.7	2470.3	2448.0	2449.8	2453.2	2473.7	2579.8	2821.0	2886.0	2874.0
22.5°	2697.8	2501.1	2432.6	2400.1	2405.3	2408.7	2439.5	2552.4	2732.0	2742.3	2718.3
25°	2610.6	2429.2	2355.7	2330.0	2336.8	2335.1	2362.5	2444.6	2572.9	2569.5	2555.8
27.5°	2480.5	2314.6	2259.9	2242.8	2254.7	2241.0	2249.6	2312.9	2412.1	2408.7	2403.6
30°	2347.1	2203.4	2153.8	2145.2	2160.6	2140.1	2141.8	2194.9	2263.3	2259.9	2258.2
32.5°	2213.7	2092.2	2047.7	2047.7	2063.1	2040.9	2044.3	2090.5	2136.7	2123.0	2123.0
35°	2087.1	2001.5	1965.6	1958.8	1970.8	1955.4	1962.2	2005.0	2022.1	2003.3	1991.3
37.5°	1975.9	1938.2	1902.3	1878.4	1880.1	1881.8	1902.3	1934.8	1924.6	1897.2	1881.8
40°	1873.2	1873.2	1839.0	1794.5	1789.4	1801.4	1835.6	1871.5	1842.4	1811.7	1792.8
42.5°	1799.7	1815.1	1782.6	1738.1	1727.8	1748.4	1786.0	1811.7	1777.4	1743.2	1717.6
45°	1731.3	1768.9	1746.6	1697.0	1683.4	1707.3	1755.2	1765.5	1719.3	1686.8	1668.0
47.5°	1683.4	1734.7	1719.3	1671.4	1650.8	1685.1	1734.7	1733.0	1674.8	1640.6	1625.2
50°	1649.1	1714.1	1712.4	1671.4	1649.1	1691.9	1736.4	1714.1	1650.8	1614.9	1599.5
52.5°	1621.8	1712.4	1724.4	1700.5	1685.1	1722.7	1750.1	1707.3	1633.7	1596.1	1584.1
55°	1609.8	1719.3	1727.8	1705.6	1691.9	1726.1	1750.1	1721.0	1633.7	1599.5	1589.3
57.5°	1613.2	1710.7	1712.4	1681.6	1657.7	1700.5	1738.1	1729.5	1652.6	1613.2	1601.2
60°	1592.7	1664.5	1668.0	1620.1	1592.7	1644.0	1710.7	1705.6	1644.0	1602.9	1580.7
62.5°	1524.3	1587.6	1589.3	1544.8	1505.4	1579.0	1652.6	1650.8	1594.4	1553.3	1527.7
65°	1409.6	1476.4	1493.5	1450.7	1419.9	1498.6	1575.6	1572.2	1515.7	1478.1	1452.4
67.5°	1267.6	1339.5	1372.0	1342.9	1330.9	1402.8	1474.6	1472.9	1426.7	1390.8	1368.6
70°	1094.9	1154.7	1209.5	1209.5	1200.9	1283.0	1360.0	1353.2	1310.4	1283.0	1265.9
72.5°	951.2	997.4	1014.5	1031.6	1057.2	1142.8	1207.8	1212.9	1182.1	1168.4	1182.1
75°	809.2	838.3	853.7	840.0	884.4	973.4	1058.9	1067.5	1035.0	1012.7	1017.9
77.5°	665.5	698.0	713.4	682.6	679.2	792.1	896.4	915.2	887.9	853.7	863.9
80°	480.7	523.5	549.1	528.6	521.8	571.4	715.1	735.6	710.0	682.6	698.0
82.5°	294.2	318.2	325.0	345.6	388.3	408.9	460.2	528.6	509.8	485.8	528.6
85°	116.3	138.6	154.0	174.5	203.6	241.2	284.0	338.7	307.9	297.7	350.7
87.5°	6.8	1.7	0.0	3.4	29.1	56.5	121.5	167.7	140.3	150.5	181.3
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: P640466
 CATALOG NUMBER: GWS-SA5D-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	2776.5	2821.0	2880.9	2930.5	2993.8	3053.6	3115.2	3176.8	3209.3	3223.0
5°	2579.8	2661.9	2757.7	2863.8	2986.9	3116.9	3248.7	3383.8	3469.3	3476.2
7.5°	2461.7	2579.8	2711.5	2844.9	2997.2	3176.8	3385.5	3594.2	3681.5	3705.4
10°	2499.4	2631.1	2735.4	2860.3	3028.0	3252.1	3498.4	3743.1	3844.0	3873.1
12.5°	2649.9	2675.6	2708.1	2822.7	3028.0	3317.1	3614.8	3905.6	4013.4	4040.7
15°	2774.8	2651.6	2593.5	2714.9	2986.9	3373.5	3737.9	4059.5	4189.6	4215.2
17.5°	2785.1	2572.9	2446.3	2555.8	2915.1	3412.9	3856.0	4230.6	4340.1	4364.1
20°	2680.7	2489.1	2324.9	2391.6	2817.6	3430.0	3941.5	4355.5	4463.3	4487.2
22.5°	2562.7	2420.7	2242.8	2239.3	2699.5	3448.8	4044.1	4473.5	4589.9	4605.3
25°	2451.5	2326.6	2176.0	2128.1	2562.7	3484.7	4182.7	4651.5	4740.4	4745.5
27.5°	2321.5	2225.7	2123.0	2076.8	2442.9	3553.2	4388.0	4863.6	4916.6	4908.1
30°	2203.4	2131.6	2085.4	2071.7	2367.6	3604.5	4583.0	5072.3	5075.7	5046.6
32.5°	2078.5	2051.2	2051.2	2095.6	2306.1	3592.5	4742.1	5275.9	5243.4	5200.6
35°	1967.3	1972.5	2008.4	2112.7	2203.4	3472.8	4894.4	5530.8	5482.9	5421.3
37.5°	1861.3	1900.6	1951.9	2052.9	2068.3	3294.9	5072.3	5891.7	5831.9	5754.9
40°	1770.6	1830.5	1890.3	1940.0	1924.6	3041.7	5320.3	6316.0	6249.3	6160.3
42.5°	1698.7	1756.9	1823.6	1828.8	1833.9	2778.2	5583.8	6836.0	6824.1	6726.6
45°	1652.6	1690.2	1753.5	1744.9	1828.8	2487.4	5826.7	7629.8	7787.2	7713.7
47.5°	1621.8	1650.8	1657.7	1693.6	1873.2	2227.4	6139.8	9183.2	9621.1	9537.3
50°	1604.7	1633.7	1556.8	1697.0	1880.1	2059.7	6572.6	11133.4	11838.2	11727.0
52.5°	1602.9	1596.1	1479.8	1733.0	1842.4	1957.1	6798.4	12556.7	14120.3	14361.5
55°	1606.4	1520.8	1440.4	1743.2	1767.2	1919.4	6042.3	13241.0	16226.2	16736.0
57.5°	1575.6	1438.7	1462.7	1702.2	1625.2	2020.4	4466.7	12996.4	17067.9	18015.6
60°	1517.4	1360.0	1503.7	1591.0	1479.8	1847.6	3075.9	11904.9	16195.4	17170.5
62.5°	1433.6	1305.3	1498.6	1447.3	1426.7	1512.3	2114.5	10377.2	14811.4	15764.3
65°	1339.5	1260.8	1418.2	1308.7	1320.7	1163.3	1495.2	8652.8	13158.9	14096.4
67.5°	1238.6	1233.4	1300.1	1165.0	1115.4	922.1	1089.7	6935.3	11035.9	11881.0
70°	1123.9	1161.6	1182.1	1035.0	905.0	723.6	809.2	4849.9	8141.3	8876.9
72.5°	1009.3	1012.7	1041.8	899.8	677.4	579.9	607.3	2937.3	5530.8	6066.2
75°	893.0	860.5	887.9	732.2	504.7	475.6	468.7	1815.1	3820.0	4242.6
77.5°	768.1	732.2	696.3	550.9	405.4	367.8	359.3	1017.9	2343.7	2603.7
80°	624.4	576.5	520.1	403.7	296.0	263.5	261.7	496.1	1168.4	1301.9
82.5°	485.8	395.2	379.8	251.5	183.0	160.8	171.1	189.9	352.4	393.5
85°	340.4	287.4	201.9	100.9	82.1	66.7	65.0	56.5	94.1	104.4
87.5°	189.9	124.9	65.0	12.0	13.7	15.4	12.0	8.6	8.6	8.6
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)