

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: P639971

Luminaire Tested: GWS-SA5C-830-U-SLR-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P639971
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-SA5C-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: 17910.8 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

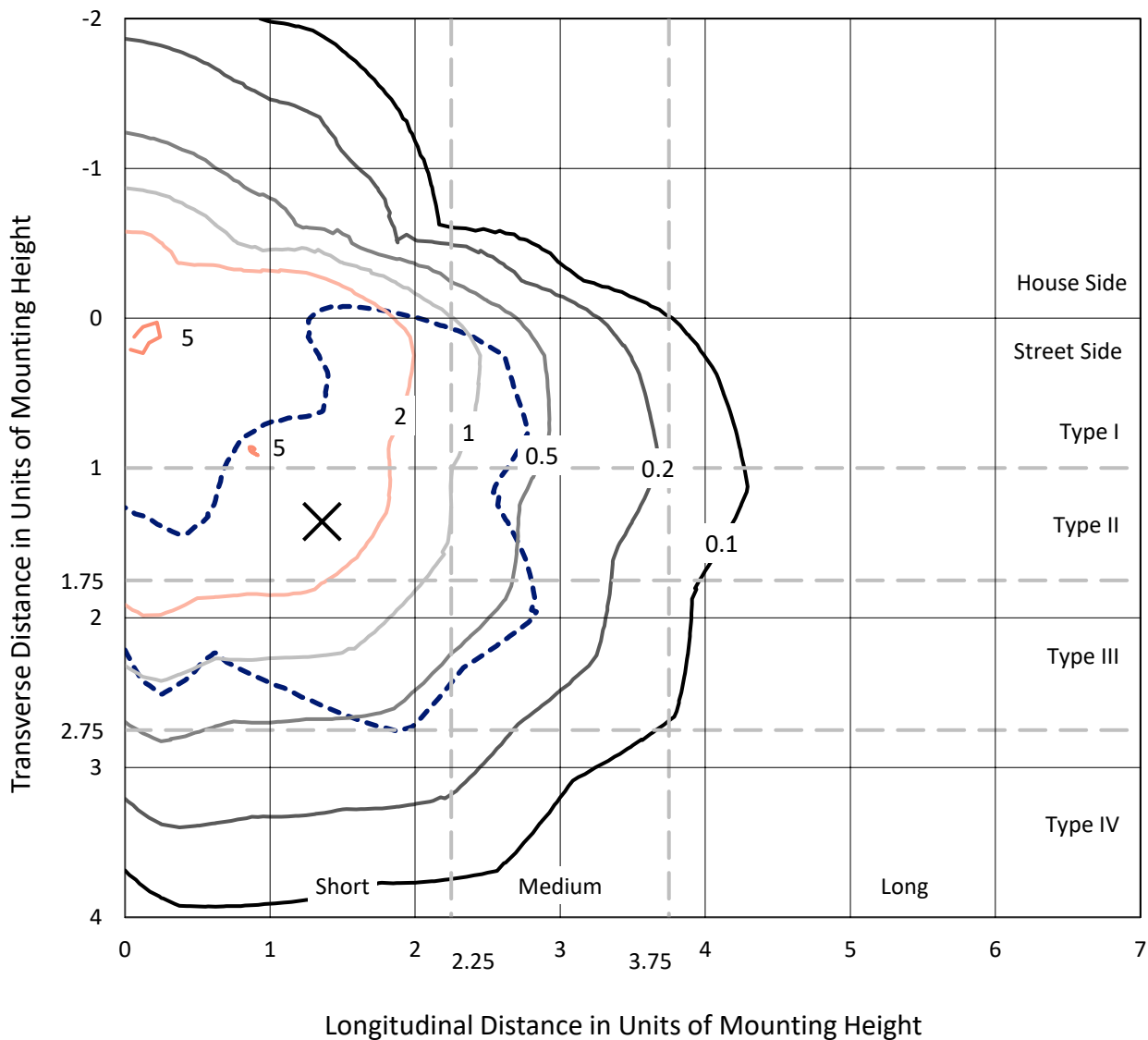
Input Watts (W): 157.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

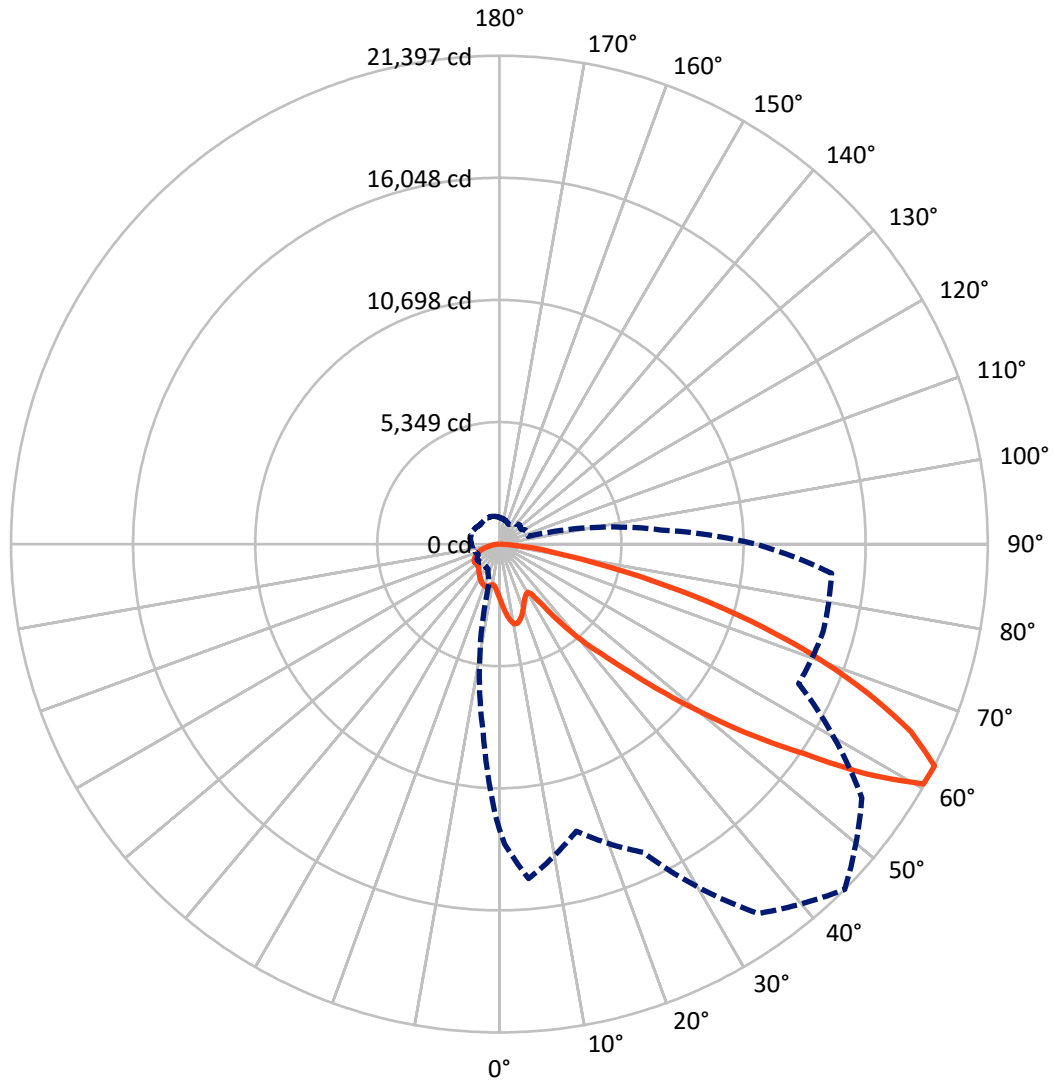
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4273.8	0.0	4273.8
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	13636.9	0.0	13636.9
	% Fixture	76.1	0.0	76.1
Total	Lumens	17910.8	0.0	17910.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.2	1.3
10°-20°	727.8	4.1
20°-30°	1130.4	6.3
30°-40°	1534.8	8.6
40°-50°	2432.5	13.6
50°-60°	4290.9	24.0
60°-70°	4774.3	26.7
70°-80°	2421.3	13.5
80°-90°	366.6	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°	17910.8	100.0
0°-180°	17910.8	100.0

Coefficient of Utilization



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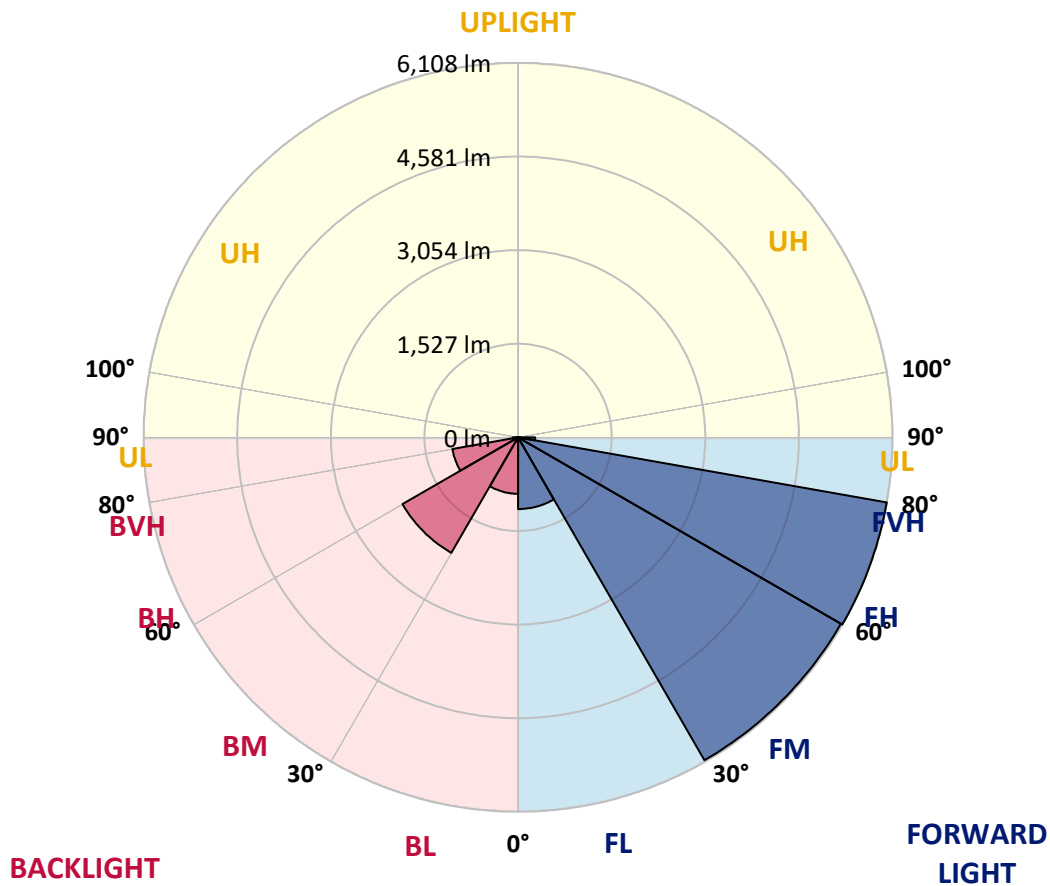
CATALOG NUMBER: GWS-SA5C-830-U-SLR-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1169.4	6.5			
FM (30°-60°)	6081.5	34.0			
FH (60°-80°)	6107.7	34.1			G3/7500
FVH (80°-90°)	278.3	1.6			G3/500
BL (0°-30°)	920.9	5.1	B2/1000		
BM (30°-60°)	2176.7	12.2	B2/2500		
BH (60°-80°)	1087.9	6.1	B3/2500		G3/2500
BVH (80°-90°)	88.3	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1
2.5°	2554.8	2553.4	2579.2	2618.5	2655.1	2671.4	2698.5	2695.8	2674.1	2645.6	2636.1
5°	2755.5	2760.9	2805.6	2892.4	2988.7	3029.4	3047.0	3040.2	3000.9	2950.7	2862.6
7.5°	2937.2	2946.7	3015.8	3146.0	3265.3	3319.6	3363.0	3354.8	3297.9	3204.3	3074.1
10°	3070.1	3080.9	3163.6	3316.9	3449.8	3497.2	3552.8	3555.5	3505.3	3379.2	3246.3
12.5°	3203.0	3213.8	3291.1	3430.8	3517.6	3518.9	3551.5	3569.1	3571.8	3513.5	3380.6
15°	3341.3	3350.8	3421.3	3499.9	3495.9	3419.9	3419.9	3453.8	3528.4	3570.4	3478.2
17.5°	3459.2	3471.4	3525.7	3499.9	3379.2	3242.3	3226.0	3269.4	3399.6	3560.9	3551.5
20°	3556.9	3566.4	3596.2	3425.3	3205.7	3026.7	2995.5	3045.7	3221.9	3502.6	3607.1
22.5°	3650.4	3655.9	3639.6	3327.7	3018.5	2813.8	2775.8	2828.7	3018.5	3399.6	3654.5
25°	3761.6	3756.2	3678.9	3226.0	2847.7	2645.6	2606.3	2666.0	2863.9	3262.6	3706.0
27.5°	3890.5	3870.1	3712.8	3116.2	2716.1	2520.9	2493.7	2557.5	2741.9	3136.5	3746.7
30°	4000.3	3961.0	3718.2	3018.5	2648.3	2468.0	2451.7	2511.4	2682.2	3051.1	3798.3
32.5°	4122.3	4068.1	3749.4	2992.8	2686.3	2595.5	2617.1	2621.2	2698.5	3026.7	3875.5
35°	4297.3	4226.8	3834.9	3067.4	3076.8	3230.1	3308.7	3203.0	2944.0	3080.9	4022.0
37.5°	4561.7	4472.2	4008.4	3390.1	3883.7	4226.8	4416.6	4175.2	3689.8	3285.7	4243.0
40°	4883.1	4769.2	4230.8	3986.7	4637.6	5186.8	5524.5	5170.6	4457.3	3796.9	4553.6
42.5°	5331.9	5212.6	4662.0	4572.5	5336.0	6153.7	6594.4	6066.9	5133.9	4457.3	5051.2
45°	6114.4	5999.1	5452.6	5159.7	6153.7	7344.3	7962.6	7229.0	5821.5	5120.4	5981.5
47.5°	7559.9	7424.3	6626.9	5810.6	7086.6	8890.2	9755.3	8686.8	6536.1	5879.8	7543.6
50°	9295.6	9165.4	8101.0	6580.8	8117.2	10543.2	11746.0	10399.4	7359.2	6803.2	9410.9
52.5°	11383.9	11359.5	10204.2	7554.5	9189.8	12306.0	13955.0	12296.5	8261.0	8046.7	11526.3
55°	13266.1	13504.8	12875.5	9039.3	10575.7	14520.4	16226.3	14365.8	9484.1	10102.5	14003.8
57.5°	14280.4	14921.8	15888.7	12068.7	12590.8	17167.4	19029.2	16892.1	11586.0	13525.1	16300.9
60°	13610.5	14337.4	16089.4	14349.6	14589.6	19288.2	21342.6	19015.7	13649.8	15900.9	16170.7
62.5°	12495.9	13148.1	14706.2	13017.9	14898.8	19754.7	21396.9	19385.9	14470.2	14695.3	14607.2
65°	11173.7	11831.4	13481.7	11363.6	13915.6	18646.8	19818.4	18297.0	12996.2	13276.9	13309.5
67.5°	9417.7	10025.2	11705.3	10103.8	12684.3	17020.9	17395.2	16745.7	11968.4	12415.9	11948.0
70°	7036.5	7584.3	9067.8	8210.8	10692.3	14902.8	14600.4	14696.7	10814.4	11259.2	9980.4
72.5°	4808.5	5220.7	6492.7	6452.0	8187.7	11930.4	11508.7	12421.3	9032.5	9622.4	7608.7
75°	3363.0	3684.3	4693.2	5097.3	6188.9	8842.7	8195.9	9297.0	7054.1	7896.2	5551.6
77.5°	2063.9	2276.8	2964.3	3776.6	3981.3	6052.0	5090.6	6995.8	4953.6	5759.1	3703.3
80°	1031.9	1135.0	1440.1	2374.4	2640.2	3566.4	2811.1	4061.3	3352.1	3566.4	2049.0
82.5°	311.9	344.4	421.7	901.8	1368.2	2053.0	1661.1	2359.5	1830.6	1672.0	806.8
85°	82.7	93.6	116.6	267.1	480.0	736.3	561.4	1143.1	877.4	617.0	303.8
87.5°	6.8	6.8	5.4	5.4	2.7	0.0	0.0	81.4	164.1	93.6	52.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1
2.5°	2588.7	2583.2	2527.6	2487.0	2439.5	2393.4	2345.9	2303.9	2256.4	2209.0	2195.4
5°	2797.5	2759.5	2641.6	2542.6	2444.9	2359.5	2284.9	2207.6	2145.2	2084.2	2061.2
7.5°	2981.9	2915.5	2744.6	2594.1	2458.5	2352.7	2242.9	2130.3	2042.2	1955.4	1933.7
10°	3148.7	3060.6	2845.0	2655.1	2504.6	2383.9	2255.1	2104.6	1977.1	1871.3	1842.9
12.5°	3272.1	3175.8	2931.7	2713.4	2542.6	2407.0	2279.5	2146.6	2012.4	1875.4	1844.2
15°	3369.7	3269.4	3003.6	2758.2	2543.9	2369.0	2245.6	2199.5	2157.5	2023.2	1966.3
17.5°	3448.4	3342.6	3066.0	2785.3	2507.3	2253.7	2146.6	2214.4	2321.5	2237.5	2130.3
20°	3520.3	3413.1	3113.5	2804.3	2425.9	2095.1	2035.4	2179.1	2340.5	2337.8	2241.5
22.5°	3598.9	3494.5	3182.6	2815.1	2312.0	1933.7	1969.0	2127.6	2259.2	2298.5	2238.8
25°	3699.3	3607.1	3278.9	2839.5	2183.2	1822.5	1920.1	2061.2	2171.0	2180.5	2145.2
27.5°	3815.9	3746.7	3422.6	2896.5	2058.5	1765.6	1863.2	1967.6	2068.0	2072.0	2030.0
30°	3943.3	3897.2	3555.5	2944.0	1964.9	1747.9	1790.0	1874.0	1937.8	1948.6	1912.0
32.5°	4106.1	4065.4	3673.5	2912.8	1909.3	1743.9	1722.2	1765.6	1818.4	1818.4	1790.0
35°	4329.8	4272.9	3798.3	2793.4	1841.5	1727.6	1650.3	1662.5	1685.6	1689.6	1673.3
37.5°	4647.1	4553.6	3924.4	2557.5	1730.3	1669.3	1567.6	1552.7	1560.8	1571.6	1567.6
40°	5040.4	4887.1	4108.8	2274.1	1597.4	1556.7	1482.1	1453.7	1446.9	1468.6	1476.7
42.5°	5535.3	5300.7	4306.8	2009.6	1476.7	1427.9	1381.8	1357.4	1346.5	1383.2	1404.9
45°	6325.9	5939.4	4496.6	1747.9	1408.9	1318.1	1286.9	1269.2	1274.7	1318.1	1345.2
47.5°	7691.4	6914.4	4677.0	1582.5	1403.5	1239.4	1201.4	1205.5	1220.4	1266.5	1299.1
50°	9419.0	8220.3	4797.7	1513.3	1419.8	1192.0	1141.8	1163.5	1186.5	1231.3	1269.2
52.5°	11177.8	9436.6	4653.9	1475.4	1418.4	1193.3	1086.2	1151.3	1162.1	1206.9	1247.6
55°	12387.4	9572.2	4020.6	1417.1	1396.7	1247.6	1042.8	1145.8	1152.6	1193.3	1229.9
57.5°	12848.4	9108.5	3066.0	1433.3	1331.6	1289.6	1023.8	1107.9	1156.7	1192.0	1229.9
60°	12291.1	8233.8	1863.2	1475.4	1227.2	1286.9	1036.0	1038.7	1122.8	1182.5	1220.4
62.5°	11240.2	7111.0	1308.6	1356.0	1151.3	1215.0	1064.5	957.4	1063.1	1135.0	1168.9
65°	10036.0	5790.3	998.0	1167.5	1114.7	1103.8	1074.0	885.5	981.8	1052.3	1082.1
67.5°	8781.7	4500.7	810.9	870.6	1007.5	998.0	981.8	821.8	885.5	935.7	969.6
70°	7201.9	3148.7	684.8	653.6	863.8	895.0	858.4	741.8	762.1	813.6	840.7
72.5°	5268.2	1962.2	562.8	539.7	694.3	782.4	763.4	653.6	663.1	711.9	733.6
75°	3788.8	1122.8	451.6	444.8	530.2	669.9	631.9	562.8	573.6	610.2	625.1
77.5°	2408.3	625.1	348.5	358.0	379.7	500.4	539.7	481.4	481.4	503.1	515.3
80°	1289.6	358.0	254.9	259.0	265.8	382.4	425.8	372.9	372.9	358.0	372.9
82.5°	526.1	206.1	174.9	162.7	177.6	261.7	298.3	237.3	248.2	223.7	229.2
85°	173.6	103.1	86.8	85.4	84.1	115.3	143.7	118.0	141.0	89.5	93.6
87.5°	23.1	19.0	10.8	8.1	9.5	4.1	8.1	9.5	9.5	6.8	6.8
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°	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1
2.5°	2185.9	2175.1	2135.8	2145.2	2138.5	2127.6	2138.5	2118.1	2134.4	2139.8	2173.7
5°	2043.5	2017.8	1979.8	1960.8	1956.8	1945.9	1947.3	1937.8	1940.5	1963.5	2001.5
7.5°	1916.1	1891.7	1861.8	1848.3	1836.1	1823.9	1822.5	1821.2	1832.0	1852.3	1889.0
10°	1823.9	1810.3	1798.1	1803.5	1798.1	1792.7	1783.2	1783.2	1800.8	1837.4	1882.2
12.5°	1823.9	1821.2	1823.9	1840.1	1838.8	1840.1	1827.9	1834.7	1883.5	1945.9	2009.6
15°	1921.5	1899.8	1899.8	1907.9	1905.2	1905.2	1905.2	1933.7	2044.9	2141.2	2209.0
17.5°	2040.8	1977.1	1950.0	1945.9	1944.6	1944.6	1950.0	2011.0	2184.6	2286.3	2325.6
20°	2123.6	2002.9	1958.1	1940.5	1941.8	1944.6	1960.8	2044.9	2236.1	2287.6	2278.1
22.5°	2138.5	1982.5	1928.3	1902.5	1906.6	1909.3	1933.7	2023.2	2165.6	2173.7	2154.7
25°	2069.3	1925.6	1867.3	1846.9	1852.3	1851.0	1872.7	1937.8	2039.5	2036.8	2025.9
27.5°	1966.3	1834.7	1791.3	1777.8	1787.3	1776.4	1783.2	1833.4	1912.0	1909.3	1905.2
30°	1860.5	1746.6	1707.2	1700.5	1712.7	1696.4	1697.8	1739.8	1794.0	1791.3	1790.0
32.5°	1754.7	1658.4	1623.2	1623.2	1635.4	1617.7	1620.5	1657.1	1693.7	1682.8	1682.8
35°	1654.4	1586.6	1558.1	1552.7	1562.2	1549.9	1555.4	1589.3	1602.8	1587.9	1578.4
37.5°	1566.2	1536.4	1507.9	1488.9	1490.3	1491.6	1507.9	1533.7	1525.5	1503.8	1491.6
40°	1484.9	1484.9	1457.7	1422.5	1418.4	1427.9	1455.0	1483.5	1460.4	1436.0	1421.1
42.5°	1426.5	1438.8	1413.0	1377.7	1369.6	1385.9	1415.7	1436.0	1408.9	1381.8	1361.5
45°	1372.3	1402.1	1384.5	1345.2	1334.3	1353.3	1391.3	1399.4	1362.8	1337.1	1322.1
47.5°	1334.3	1375.0	1362.8	1324.8	1308.6	1335.7	1375.0	1373.7	1327.6	1300.4	1288.2
50°	1307.2	1358.7	1357.4	1324.8	1307.2	1341.1	1376.4	1358.7	1308.6	1280.1	1267.9
52.5°	1285.5	1357.4	1366.9	1347.9	1335.7	1365.5	1387.2	1353.3	1295.0	1265.2	1255.7
55°	1276.0	1362.8	1369.6	1352.0	1341.1	1368.2	1387.2	1364.2	1295.0	1267.9	1259.8
57.5°	1278.7	1356.0	1357.4	1333.0	1314.0	1347.9	1377.7	1371.0	1309.9	1278.7	1269.2
60°	1262.5	1319.4	1322.1	1284.2	1262.5	1303.1	1356.0	1352.0	1303.1	1270.6	1253.0
62.5°	1208.2	1258.4	1259.8	1224.5	1193.3	1251.6	1309.9	1308.6	1263.8	1231.3	1210.9
65°	1117.4	1170.3	1183.8	1149.9	1125.5	1187.9	1248.9	1246.2	1201.4	1171.6	1151.3
67.5°	1004.8	1061.8	1087.5	1064.5	1055.0	1111.9	1168.9	1167.5	1130.9	1102.5	1084.8
70°	867.9	915.3	958.7	958.7	951.9	1017.0	1078.0	1072.6	1038.7	1017.0	1003.5
72.5°	754.0	790.6	804.1	817.7	838.0	905.8	957.4	961.4	937.0	926.2	937.0
75°	641.4	664.5	676.7	665.8	701.1	771.6	839.4	846.2	820.4	802.8	806.8
77.5°	527.5	553.3	565.5	541.1	538.3	627.8	710.6	725.5	703.8	676.7	684.8
80°	381.0	414.9	435.3	419.0	413.6	452.9	566.8	583.1	562.8	541.1	553.3
82.5°	233.2	252.2	257.6	273.9	307.8	324.1	364.8	419.0	404.1	385.1	419.0
85°	92.2	109.8	122.0	138.3	161.4	191.2	225.1	268.5	244.1	236.0	278.0
87.5°	5.4	1.4	0.0	2.7	23.1	44.7	96.3	132.9	111.2	119.3	143.7
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: P639971
 CATALOG NUMBER: GWS-SA5C-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1	2377.1
2.5°	2200.8	2236.1	2283.6	2322.9	2373.1	2420.5	2469.3	2518.2	2543.9	2554.8
5°	2044.9	2110.0	2185.9	2270.0	2367.6	2470.7	2575.1	2682.2	2750.0	2755.5
7.5°	1951.3	2044.9	2149.3	2255.1	2375.8	2518.2	2683.6	2849.0	2918.2	2937.2
10°	1981.2	2085.6	2168.3	2267.3	2400.2	2577.8	2773.1	2967.0	3047.0	3070.1
12.5°	2100.5	2120.8	2146.6	2237.5	2400.2	2629.4	2865.3	3095.8	3181.3	3203.0
15°	2199.5	2101.9	2055.7	2152.0	2367.6	2674.1	2962.9	3217.9	3320.9	3341.3
17.5°	2207.6	2039.5	1939.1	2025.9	2310.7	2705.3	3056.5	3353.5	3440.3	3459.2
20°	2124.9	1973.0	1842.9	1895.7	2233.4	2718.8	3124.3	3452.5	3537.9	3556.9
22.5°	2031.3	1918.8	1777.8	1775.0	2139.8	2733.8	3205.7	3546.0	3638.2	3650.4
25°	1943.2	1844.2	1724.9	1686.9	2031.3	2762.2	3315.5	3687.1	3757.6	3761.6
27.5°	1840.1	1764.2	1682.8	1646.2	1936.4	2816.5	3478.2	3855.2	3897.2	3890.5
30°	1746.6	1689.6	1653.0	1642.2	1876.8	2857.2	3632.8	4020.6	4023.4	4000.3
32.5°	1647.6	1625.9	1625.9	1661.1	1827.9	2847.7	3758.9	4182.0	4156.2	4122.3
35°	1559.4	1563.5	1592.0	1674.7	1746.6	2752.8	3879.6	4384.1	4346.1	4297.3
37.5°	1475.4	1506.6	1547.2	1627.2	1639.4	2611.7	4020.6	4670.2	4622.7	4561.7
40°	1403.5	1451.0	1498.4	1537.7	1525.5	2411.0	4217.3	5006.5	4953.6	4883.1
42.5°	1346.5	1392.6	1445.5	1449.6	1453.7	2202.2	4426.1	5418.7	5409.2	5331.9
45°	1309.9	1339.8	1389.9	1383.2	1449.6	1971.7	4618.7	6047.9	6172.7	6114.4
47.5°	1285.5	1308.6	1314.0	1342.5	1484.9	1765.6	4866.8	7279.2	7626.3	7559.9
50°	1272.0	1295.0	1234.0	1345.2	1490.3	1632.7	5209.9	8825.1	9383.8	9295.6
52.5°	1270.6	1265.2	1173.0	1373.7	1460.4	1551.3	5388.9	9953.3	11192.7	11383.9
55°	1273.3	1205.5	1141.8	1381.8	1400.8	1521.5	4789.5	10495.7	12862.0	13266.1
57.5°	1248.9	1140.4	1159.4	1349.3	1288.2	1601.5	3540.6	10301.8	13529.2	14280.4
60°	1202.8	1078.0	1192.0	1261.1	1173.0	1464.5	2438.2	9436.6	12837.6	13610.5
62.5°	1136.4	1034.7	1187.9	1147.2	1130.9	1198.7	1676.1	8225.7	11740.5	12495.9
65°	1061.8	999.4	1124.2	1037.4	1046.9	922.1	1185.2	6858.8	10430.6	11173.7
67.5°	981.8	977.7	1030.6	923.5	884.1	730.9	863.8	5497.4	8747.8	9417.7
70°	890.9	920.7	937.0	820.4	717.3	573.6	641.4	3844.4	6453.4	7036.5
72.5°	800.1	802.8	825.8	713.3	537.0	459.7	481.4	2328.3	4384.1	4808.5
75°	707.9	682.1	703.8	580.4	400.0	377.0	371.6	1438.8	3028.0	3363.0
77.5°	608.9	580.4	551.9	436.6	321.4	291.5	284.8	806.8	1857.8	2063.9
80°	495.0	457.0	412.2	320.0	234.6	208.8	207.5	393.3	926.2	1031.9
82.5°	385.1	313.2	301.0	199.3	145.1	127.5	135.6	150.5	279.3	311.9
85°	269.9	227.8	160.0	80.0	65.1	52.9	51.5	44.7	74.6	82.7
87.5°	150.5	99.0	51.5	9.5	10.8	12.2	9.5	6.8	6.8	6.8
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

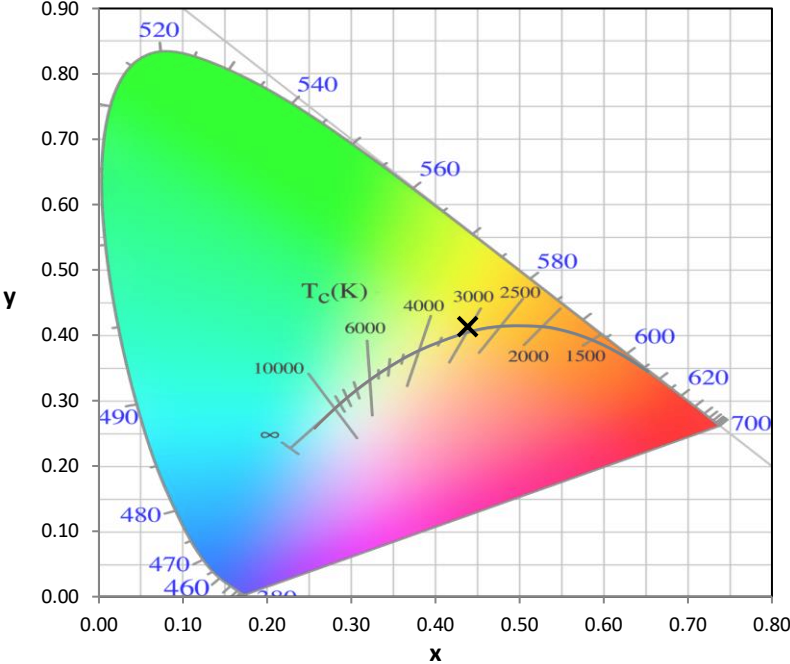
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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

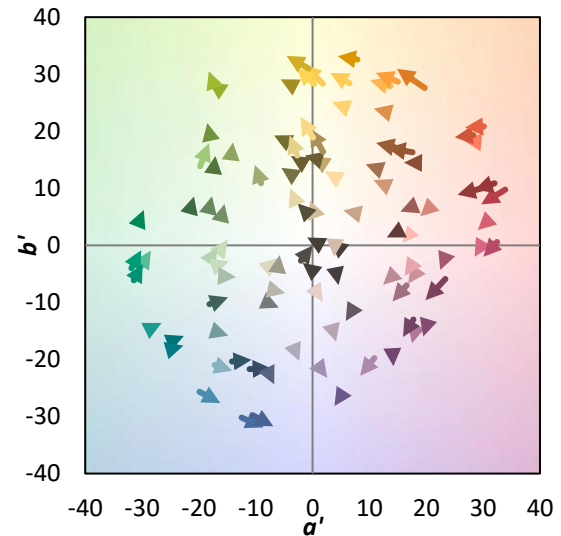
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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