

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: P642938

Luminaire Tested: GWS-SA6D-830-U-SLR-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642938  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-42)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA6D-830-U-SLR-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

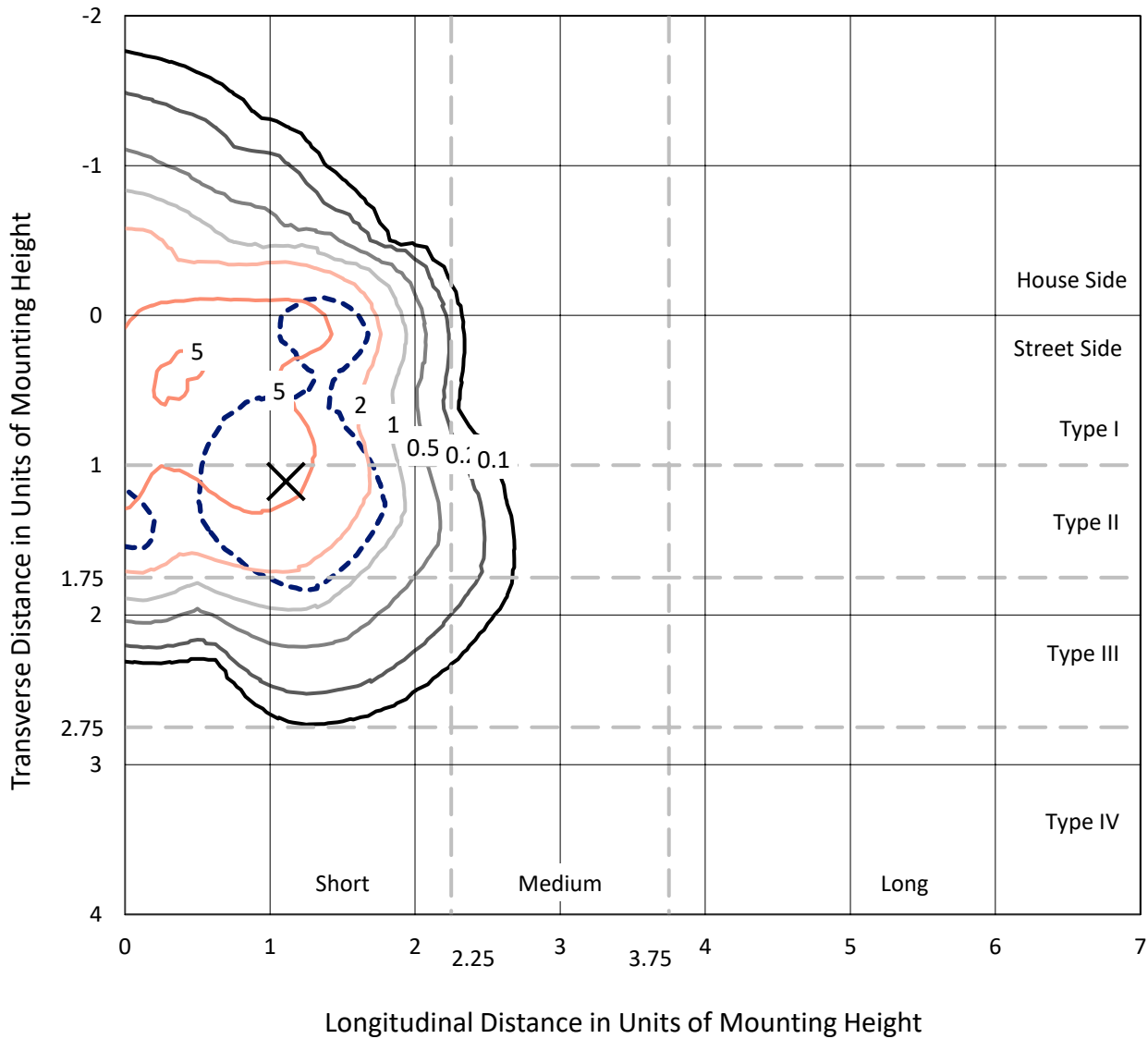
Lumens per Lamp: N/A  
Luminaire Lumens: 15181.3 lumens  
Efficiency: N/A  
Efficacy: 61.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 245.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

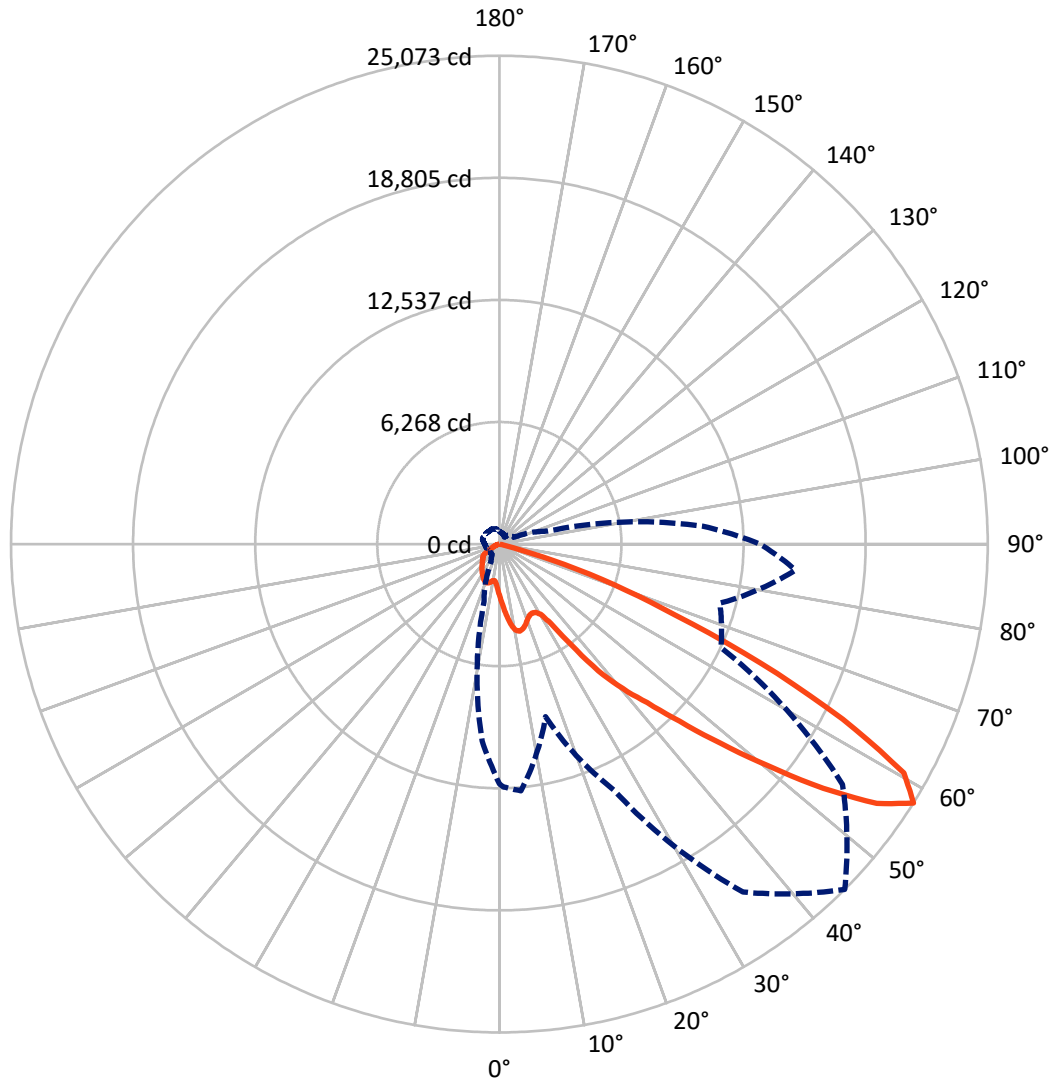
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3399.5	0.0	3399.5
	% Fixture	22.4	0.0	22.4
<b>Street Side</b>	Lumens	11781.8	0.0	11781.8
	% Fixture	77.6	0.0	77.6
<b>Total</b>	Lumens	15181.3	0.0	15181.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.5	1.7
10°-20°	849.2	5.6
20°-30°	1379.4	9.1
30°-40°	2131.4	14.0
40°-50°	3417.7	22.5
50°-60°	4671.1	30.8
60°-70°	2262.3	14.9
70°-80°	207.2	1.4
80°-90°	0.6	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°	15181.3	100.0
0°-180°	15181.3	100.0

**Coefficient of Utilization**



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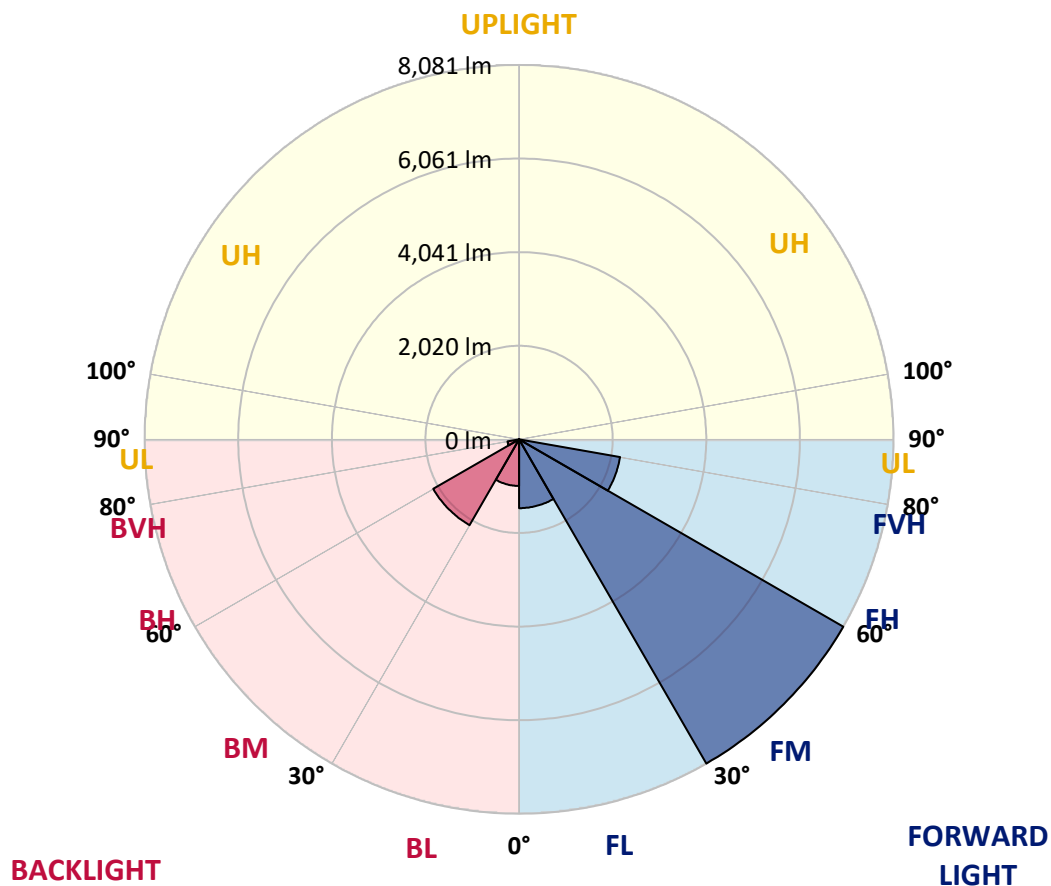
CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSBK

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1485.2	9.8			
FM (30°-60°)	8081.3	53.2			
FH (60°-80°)	2214.7	14.6			G2/5000
FVH (80°-90°)	0.6	0.0			G0/10
BL (0°-30°)	1005.9	6.6	B3/2500		
BM (30°-60°)	2138.8	14.1	B2/2500		
BH (60°-80°)	254.8	1.7	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3
2.5°	2890.6	2909.0	2939.6	3004.9	3060.0	3096.7	3113.0	3108.9	3086.5	3070.1	3037.5
5°	3200.7	3200.7	3259.9	3408.8	3523.0	3594.4	3631.1	3608.7	3563.8	3492.4	3382.3
7.5°	3472.0	3482.2	3582.2	3794.3	3967.7	4069.7	4128.9	4116.7	4037.1	3900.4	3680.1
10°	3684.2	3696.4	3829.0	4088.1	4292.1	4396.1	4483.8	4492.0	4404.3	4222.7	3969.8
12.5°	3890.2	3902.5	4041.2	4290.0	4469.6	4512.4	4589.9	4620.5	4598.1	4469.6	4206.4
15°	4112.6	4141.1	4259.5	4445.1	4520.6	4469.6	4520.6	4575.6	4651.1	4638.9	4402.2
17.5°	4330.8	4351.2	4471.6	4536.9	4453.2	4320.6	4345.1	4410.4	4581.8	4749.0	4596.0
20°	4532.8	4561.4	4661.3	4575.6	4322.7	4116.7	4118.7	4204.4	4465.5	4816.4	4793.9
22.5°	4745.0	4787.8	4859.2	4618.5	4202.3	3955.5	3965.7	4043.2	4373.7	4879.6	5018.3
25°	5022.4	5063.2	5110.1	4724.6	4163.6	3875.9	3914.7	3986.1	4373.7	4987.7	5295.8
27.5°	5397.8	5426.3	5428.4	4922.4	4230.9	3888.2	3969.8	4051.4	4504.2	5204.0	5667.0
30°	5869.0	5913.9	5854.7	5230.5	4441.0	4051.4	4171.7	4273.7	4785.8	5569.1	6213.7
32.5°	6442.2	6505.5	6425.9	5687.4	4879.6	4614.4	4832.7	4891.8	5234.6	6097.5	6833.9
35°	7115.4	7168.4	7082.8	6319.8	5903.7	5952.6	6348.4	6272.9	6136.2	6748.2	7558.1
37.5°	7853.9	7902.8	7737.6	7278.6	7417.3	7629.5	8261.9	8002.8	7562.2	7586.6	8343.5
40°	8531.1	8584.2	8325.1	8321.0	8606.6	8994.2	9757.2	9400.2	8800.4	8684.1	9079.9
42.5°	9232.9	9269.6	9035.0	8875.9	9524.6	10322.2	11130.1	10648.6	9620.5	9494.0	10002.0
45°	10234.5	10312.0	9893.8	9149.3	10350.8	11850.2	12976.2	12035.8	10179.4	10077.4	11413.6
47.5°	11707.4	11764.5	10911.8	9320.6	11119.9	13753.5	15283.4	13835.1	10671.1	10438.5	13343.4
50°	12925.2	12964.0	11848.1	9508.3	11937.9	15805.7	17912.9	15968.9	11223.9	11036.2	15144.7
52.5°	13822.8	13969.7	13078.2	9893.8	13012.9	18218.9	20824.0	18496.4	12086.8	12190.8	16638.0
55°	14008.5	14208.4	13918.7	10130.5	13959.5	20677.1	23512.7	20758.7	12947.7	13066.0	17139.8
57.5°	12311.2	12470.3	12711.0	9175.8	13937.1	21803.2	25073.2	21509.4	12556.0	11717.6	15261.0
60°	9222.7	9332.8	9769.4	7013.4	12817.1	20807.7	23857.4	20232.4	10979.1	8941.2	11627.8
62.5°	5469.2	5518.1	6070.9	4543.0	10638.4	17919.1	19785.6	17458.0	8676.0	6013.8	7121.5
65°	2099.1	2078.7	2501.0	2241.9	7823.3	14273.6	14716.3	13308.7	5952.6	2756.0	2715.2
67.5°	324.4	310.1	418.2	663.0	5642.5	9891.8	9710.2	9591.9	3729.1	642.6	561.0
70°	73.4	73.4	89.8	195.8	3447.5	5811.9	6219.9	5930.2	2386.8	136.7	73.4
72.5°	34.7	34.7	42.8	83.6	1248.5	2394.9	2790.7	2747.8	775.2	44.9	26.5
75°	12.2	14.3	14.3	18.4	75.5	124.4	285.6	204.0	49.0	0.0	0.0
77.5°	4.1	4.1	4.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.0	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3
2.5°	2966.1	2951.8	2898.8	2827.4	2758.0	2696.8	2633.6	2558.1	2503.0	2439.8	2419.4
5°	3296.6	3206.8	3062.0	2911.0	2772.3	2654.0	2539.8	2417.4	2327.6	2237.8	2207.2
7.5°	3576.1	3443.5	3208.9	2982.4	2792.7	2625.4	2460.2	2292.9	2162.4	2056.3	2023.6
10°	3827.0	3674.0	3359.8	3080.3	2841.7	2647.9	2448.0	2237.8	2068.5	1942.0	1911.4
12.5°	4043.2	3865.7	3488.3	3153.8	2862.1	2639.7	2445.9	2278.6	2125.6	1980.8	1942.0
15°	4224.8	4028.9	3596.5	3202.7	2831.5	2537.7	2368.4	2341.9	2329.6	2170.5	2095.0
17.5°	4402.2	4181.9	3684.2	3225.2	2745.8	2358.2	2235.8	2356.2	2484.7	2380.6	2284.8
20°	4587.9	4337.0	3773.9	3229.3	2603.0	2156.2	2135.8	2325.6	2488.8	2456.1	2366.4
22.5°	4806.2	4530.8	3886.1	3227.2	2423.5	1984.9	2062.4	2266.4	2399.0	2397.0	2325.6
25°	5122.4	4775.6	4037.1	3239.5	2227.6	1852.3	1980.8	2166.4	2274.6	2270.5	2211.3
27.5°	5461.0	5067.3	4232.9	3270.1	2060.4	1774.8	1884.9	2029.8	2123.6	2119.5	2068.5
30°	5936.3	5403.9	4420.6	3272.1	1940.0	1734.0	1778.9	1878.8	1968.6	1958.4	1919.6
32.5°	6513.6	5783.3	4577.7	3155.8	1864.5	1695.2	1668.7	1719.7	1789.1	1774.8	1764.6
35°	7211.3	6234.1	4712.3	2900.8	1748.3	1617.7	1546.3	1556.5	1605.5	1613.6	1609.5
37.5°	8006.9	6770.6	4879.6	2564.2	1591.2	1505.5	1409.6	1401.5	1430.0	1456.5	1476.9
40°	8792.3	7374.5	5106.0	2223.6	1448.4	1362.7	1270.9	1250.5	1262.7	1309.7	1352.5
42.5°	9675.6	8074.2	5350.8	1931.8	1350.5	1205.6	1117.9	1079.1	1113.8	1189.3	1240.3
45°	10948.5	9055.4	5589.5	1699.3	1309.7	1066.9	948.6	944.5	983.3	1081.2	1138.3
47.5°	12735.5	10324.3	5746.6	1517.7	1307.6	958.8	818.0	842.5	887.4	983.3	1048.5
50°	14477.6	11913.4	5573.2	1379.0	1264.8	887.4	720.1	769.1	813.9	897.6	964.9
52.5°	15528.2	12768.2	4898.0	1248.5	1132.2	854.7	624.2	709.9	718.1	793.5	864.9
55°	15418.1	12215.3	3751.5	1046.5	936.3	807.8	524.3	640.5	644.6	701.7	762.9
57.5°	13382.2	10487.5	2576.5	848.6	703.8	667.1	432.5	540.6	579.4	614.0	658.9
60°	9973.4	7651.9	1148.5	689.5	446.8	450.8	369.2	408.0	467.2	508.0	546.7
62.5°	5877.1	4402.2	467.2	414.1	246.8	283.6	297.8	297.8	334.6	365.2	389.6
65°	2221.5	1540.2	189.7	208.1	128.5	132.6	175.4	216.2	244.8	271.3	304.0
67.5°	389.6	269.3	97.9	77.5	75.5	67.3	89.8	140.8	157.1	177.5	191.8
70°	65.3	55.1	40.8	38.8	34.7	36.7	59.2	100.0	110.2	116.3	122.4
72.5°	18.4	16.3	12.2	10.2	8.2	10.2	36.7	77.5	81.6	85.7	91.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	14.3	55.1	59.2	61.2	67.3
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	16.3	20.4	16.3
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





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**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3
2.5°	2407.2	2366.4	2343.9	2331.7	2331.7	2315.4	2297.0	2290.9	2317.4	2317.4	2362.3
5°	2168.5	2135.8	2099.1	2076.7	2042.0	2048.1	2027.7	2025.7	2052.2	2064.4	2111.4
7.5°	2003.2	1962.4	1940.0	1925.7	1907.4	1899.2	1880.8	1874.7	1889.0	1909.4	1954.3
10°	1893.1	1887.0	1884.9	1895.1	1895.1	1884.9	1868.6	1858.4	1862.5	1901.2	1952.2
12.5°	1921.6	1933.9	1938.0	1954.3	1962.4	1954.3	1942.0	1946.1	1972.6	2044.0	2119.5
15°	2046.1	2035.9	2031.8	2040.0	2046.1	2037.9	2033.8	2064.4	2156.2	2258.2	2343.9
17.5°	2178.7	2113.4	2084.8	2084.8	2088.9	2084.8	2088.9	2148.1	2297.0	2399.0	2462.2
20°	2246.0	2125.6	2080.8	2070.6	2078.7	2080.8	2095.0	2162.4	2325.6	2397.0	2411.2
22.5°	2225.6	2074.6	2023.6	2015.5	2023.6	2031.8	2046.1	2103.2	2256.2	2292.9	2286.8
25°	2123.6	1974.7	1933.9	1933.9	1952.2	1950.2	1956.3	1997.1	2123.6	2146.0	2135.8
27.5°	1995.1	1854.3	1819.7	1840.0	1856.4	1852.3	1854.3	1889.0	1982.8	1989.0	1978.8
30°	1864.5	1742.1	1709.5	1734.0	1756.4	1752.3	1754.4	1789.1	1848.2	1842.1	1827.8
32.5°	1731.9	1642.2	1617.7	1632.0	1666.7	1662.6	1670.7	1707.5	1729.9	1703.4	1687.1
35°	1609.5	1562.6	1544.3	1552.4	1578.9	1585.1	1599.3	1623.8	1623.8	1591.2	1562.6
37.5°	1495.3	1489.2	1476.9	1466.7	1491.2	1509.6	1530.0	1558.5	1517.7	1470.8	1444.3
40°	1389.2	1415.7	1399.4	1372.9	1387.2	1413.7	1454.5	1476.9	1428.0	1381.1	1336.2
42.5°	1291.3	1336.2	1330.1	1297.4	1309.7	1334.1	1381.1	1399.4	1342.3	1289.3	1246.4
45°	1197.5	1260.7	1264.8	1224.0	1236.2	1260.7	1315.8	1321.9	1248.5	1191.3	1160.7
47.5°	1115.9	1185.2	1187.3	1156.7	1160.7	1195.4	1246.4	1248.5	1164.8	1111.8	1073.0
50°	1038.3	1117.9	1124.0	1097.5	1101.6	1142.4	1185.2	1177.1	1087.3	1032.2	997.5
52.5°	944.5	1052.6	1066.9	1054.7	1071.0	1103.6	1130.1	1101.6	997.5	942.5	911.9
55°	842.5	983.3	1013.9	1005.7	1024.1	1050.6	1056.7	1038.3	907.8	852.7	824.1
57.5°	724.2	809.9	862.9	846.6	860.9	887.4	905.7	891.5	793.5	750.7	726.2
60°	599.8	656.9	669.1	642.6	630.3	677.3	720.1	701.7	618.1	591.6	563.0
62.5°	438.6	503.9	512.0	477.4	463.1	514.1	550.8	532.4	440.6	412.1	389.6
65°	350.9	412.1	428.4	395.8	387.6	426.4	448.8	403.9	338.6	308.0	283.6
67.5°	230.5	279.5	322.3	320.3	304.0	316.2	299.9	263.2	216.2	199.9	183.6
70°	142.8	171.4	197.9	208.1	206.0	202.0	179.5	153.0	138.7	132.6	124.4
72.5°	110.2	138.7	159.1	165.2	167.3	161.2	142.8	118.3	104.0	95.9	89.8
75°	81.6	104.0	120.4	128.5	132.6	128.5	110.2	93.8	79.6	73.4	67.3
77.5°	28.6	34.7	42.8	46.9	44.9	42.8	38.8	38.8	30.6	28.6	24.5
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: P642938

CATALOG NUMBER: GWS-SA6D-830-U-SLR-W-GRSBK

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3	2668.3
2.5°	2413.3	2450.0	2517.3	2578.5	2643.8	2711.1	2784.6	2860.0	2894.7	2890.6
5°	2182.8	2262.3	2372.5	2492.8	2627.5	2772.3	2933.5	3098.7	3170.1	3200.7
7.5°	2037.9	2150.1	2295.0	2448.0	2625.4	2831.5	3074.2	3333.3	3437.3	3472.0
10°	2056.3	2186.8	2307.2	2456.1	2645.8	2913.1	3215.0	3523.0	3645.4	3684.2
12.5°	2205.2	2233.8	2266.4	2388.8	2627.5	2974.3	3343.5	3710.7	3851.5	3890.2
15°	2339.8	2207.2	2146.0	2258.2	2562.2	3017.1	3474.1	3912.7	4067.7	4112.6
17.5°	2346.0	2146.0	2009.4	2097.1	2456.1	3035.5	3602.6	4118.7	4288.0	4330.8
20°	2270.5	2078.7	1903.3	1905.3	2311.3	3031.4	3708.7	4304.3	4494.0	4532.8
22.5°	2160.3	1999.2	1817.6	1754.4	2156.2	3023.2	3824.9	4502.2	4708.2	4745.0
25°	2037.9	1897.2	1736.0	1640.1	2001.2	3031.4	3988.1	4761.3	4987.7	5022.4
27.5°	1905.3	1785.0	1672.8	1595.3	1870.6	3062.0	4184.0	5091.8	5361.0	5397.8
30°	1766.6	1676.9	1632.0	1585.1	1789.1	3070.1	4396.1	5477.3	5818.0	5869.0
32.5°	1629.9	1581.0	1583.0	1591.2	1711.5	3013.0	4589.9	5905.7	6360.6	6442.2
35°	1503.5	1489.2	1530.0	1570.8	1599.3	2866.2	4759.2	6411.6	7031.8	7115.4
37.5°	1395.3	1407.6	1458.6	1499.4	1476.9	2658.1	4983.6	7044.0	7782.5	7853.9
40°	1291.3	1321.9	1381.1	1399.4	1383.1	2415.3	5252.9	7654.0	8433.2	8531.1
42.5°	1195.4	1217.9	1301.5	1305.6	1356.6	2168.5	5512.0	8310.8	9181.9	9232.9
45°	1117.9	1113.8	1199.5	1226.0	1391.3	1895.1	5764.9	9186.0	10161.1	10234.5
47.5°	1042.4	1038.3	1058.7	1179.1	1405.5	1642.2	6015.9	10467.1	11580.9	11707.4
50°	971.0	977.1	913.9	1156.7	1328.0	1448.4	6130.1	11652.3	12872.2	12925.2
52.5°	907.8	885.3	775.2	1083.2	1162.8	1264.8	5805.7	12190.8	13671.9	13822.8
55°	818.0	693.6	638.5	879.2	918.0	1103.6	4755.2	11878.7	13741.2	14008.5
57.5°	699.7	544.7	542.6	648.7	648.7	1024.1	3045.7	10148.8	11842.0	12311.2
60°	538.6	422.3	448.8	450.8	416.2	746.6	1709.5	7352.0	8755.5	9222.7
62.5°	383.5	322.3	338.6	269.3	238.7	373.3	820.1	4232.9	5403.9	5469.2
65°	257.0	218.3	177.5	148.9	146.9	159.1	338.6	1530.0	1860.4	2099.1
67.5°	169.3	132.6	93.8	93.8	106.1	106.1	128.5	253.0	355.0	324.4
70°	110.2	91.8	59.2	57.1	69.4	69.4	65.3	69.4	73.4	73.4
72.5°	81.6	69.4	34.7	30.6	38.8	40.8	36.7	34.7	34.7	34.7
75°	61.2	49.0	20.4	14.3	18.4	24.5	20.4	14.3	14.3	12.2
77.5°	24.5	18.4	8.2	6.1	10.2	14.3	12.2	6.1	4.1	4.1
80°	2.0	4.1	4.1	4.1	6.1	8.2	10.2	4.1	2.0	2.0
82.5°	0.0	2.0	2.0	2.0	4.1	6.1	8.2	4.1	2.0	2.0
85°	0.0	0.0	0.0	0.0	4.1	6.1	4.1	2.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	2.0	6.1	4.1	2.0	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

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CIE 1931 Chromaticity Diagram



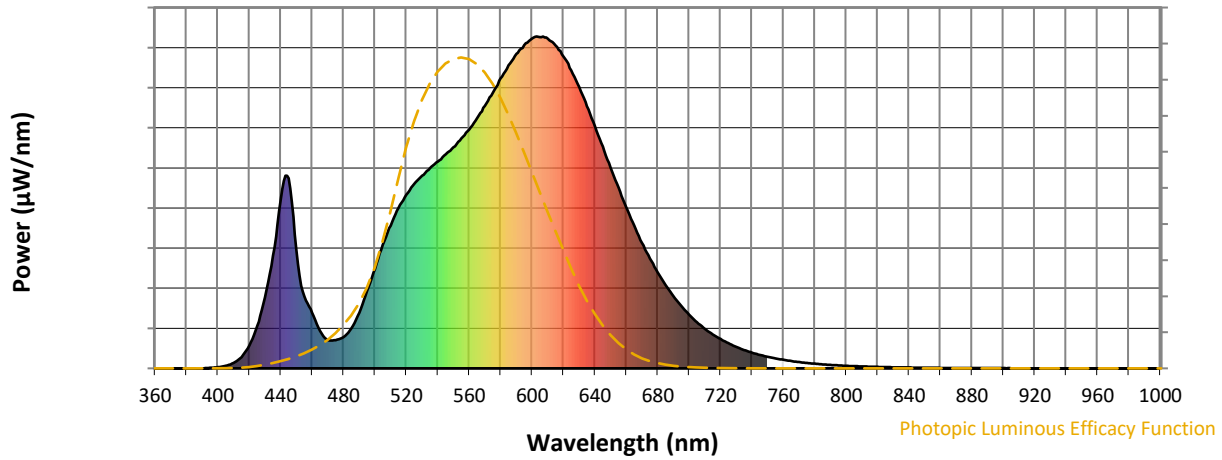
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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**

$\lambda$ (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

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.32**

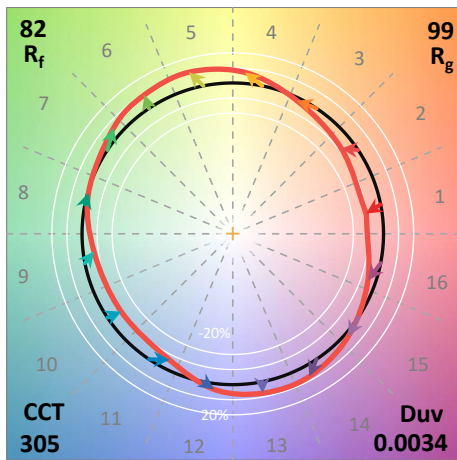
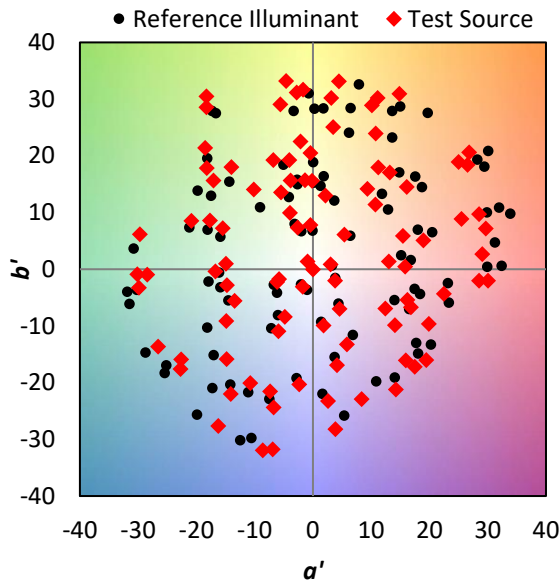
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)