

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: P641449

Luminaire Tested: GWS-SA5F-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641449
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-SA5F-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17779.2 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G2

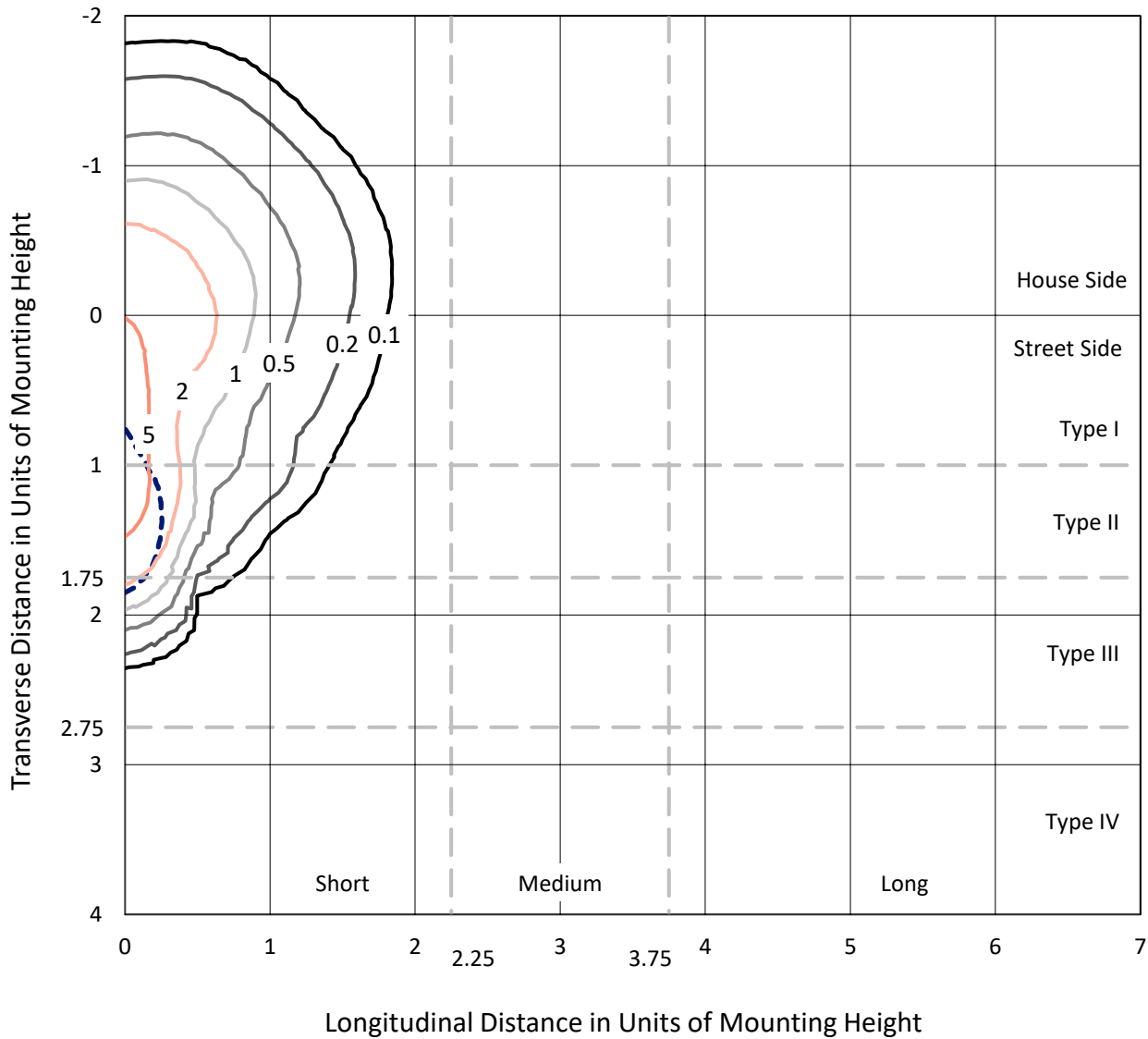
Input Watts (W): 310.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

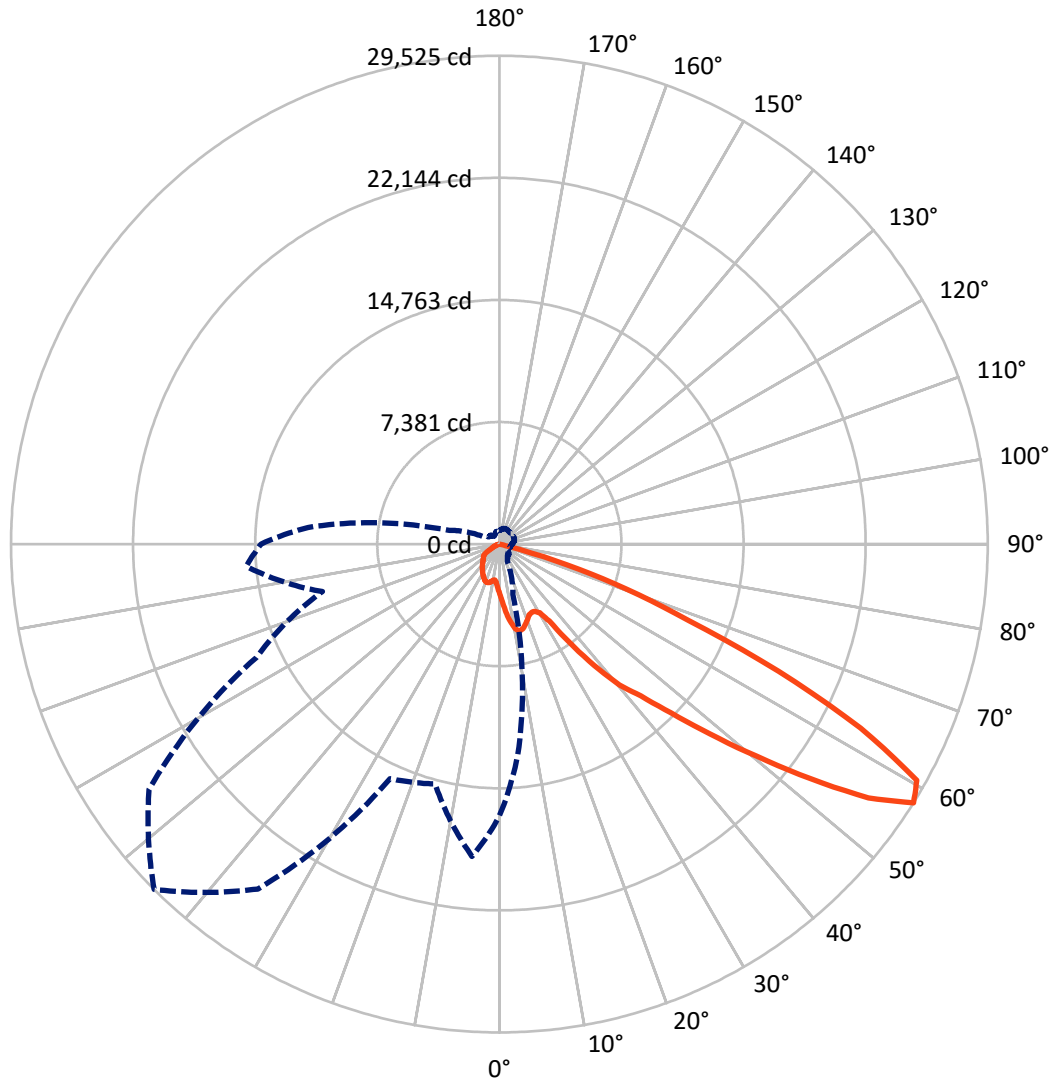
× Max cd
 - - - 1/2 Max cd



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

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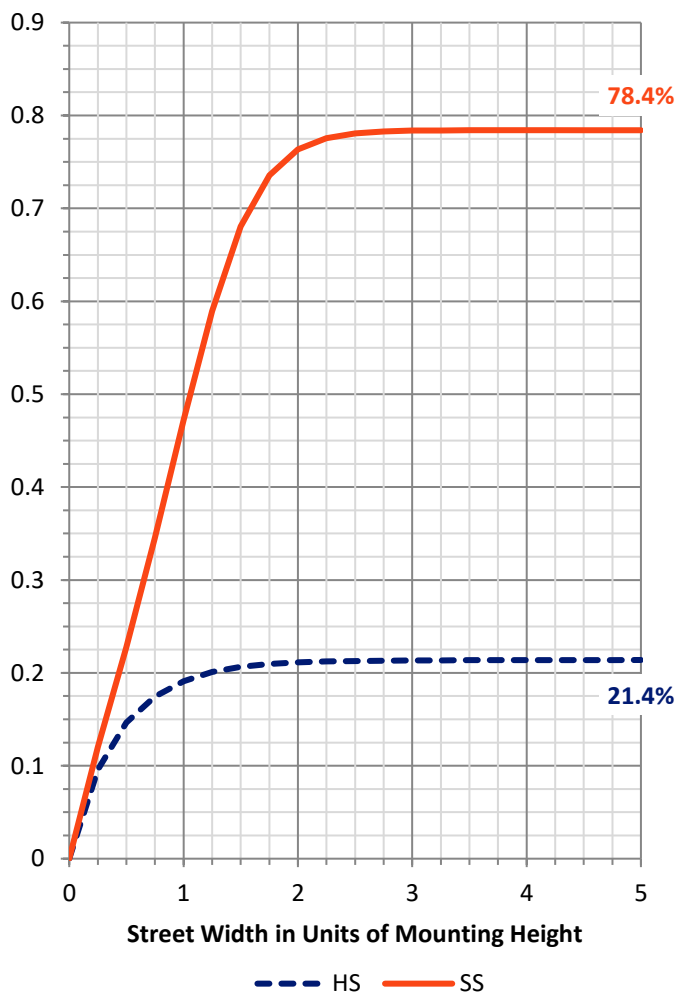
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3830.2	0.0	3830.2
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	13949.0	0.0	13949.0
	% Fixture	78.5	0.0	78.5
Total	Lumens	17779.2	0.0	17779.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.6	1.7
10°-20°	982.5	5.5
20°-30°	1594.5	9.0
30°-40°	2447.2	13.8
40°-50°	3908.3	22.0
50°-60°	5472.3	30.8
60°-70°	2805.8	15.8
70°-80°	270.1	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°	17779.2	100.0
0°-180°	17779.2	100.0

Coefficient of Utilization



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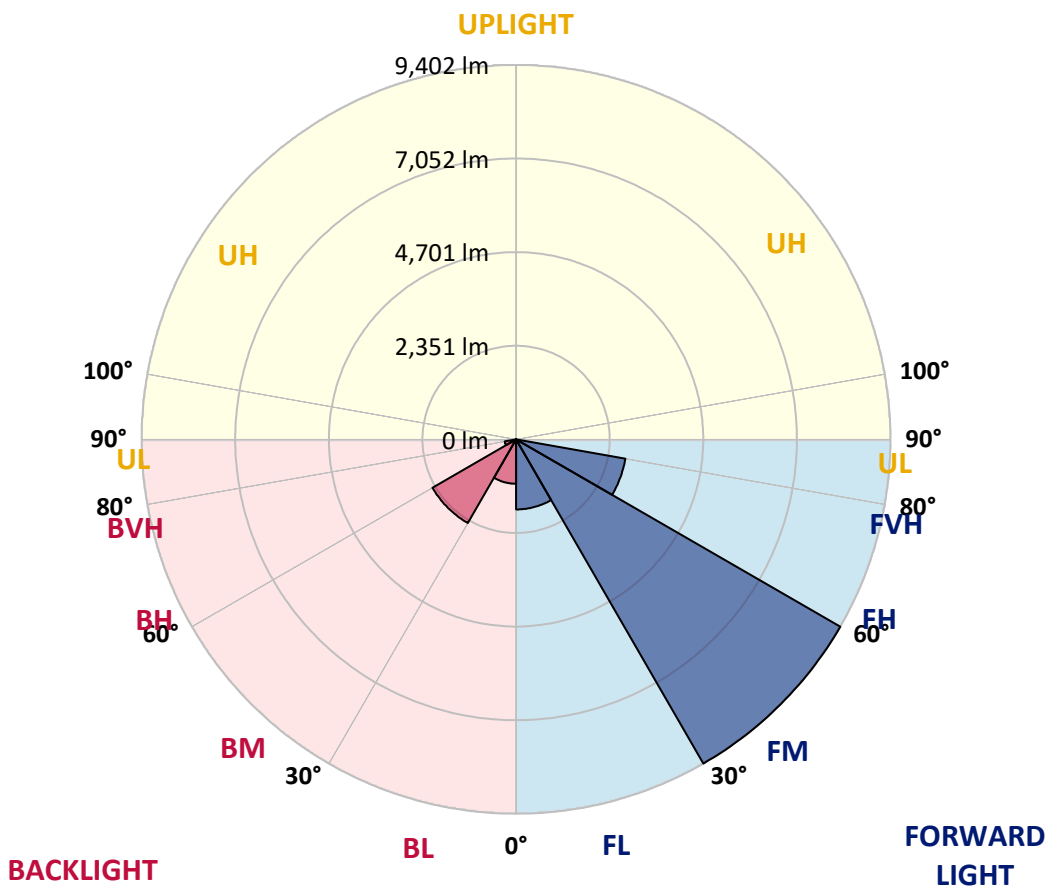
CATALOG NUMBER: GWS-SA5F-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1760.3	9.9			
FM (30°-60°)	9402.1	52.9			
FH (60°-80°)	2786.6	15.7			G2/5000
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	1115.3	6.3	B3/2500		
BM (30°-60°)	2425.6	13.6	B2/2500		
BH (60°-80°)	289.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9
2.5°	3356.1	3349.0	3325.2	3244.4	3194.5	3116.0	3059.0	2985.3	2904.5	2854.6	2804.7
5°	3712.6	3693.6	3629.4	3444.0	3301.4	3146.9	3023.3	2887.8	2742.9	2647.8	2559.8
7.5°	4054.9	4026.3	3940.8	3627.0	3410.7	3189.7	3013.8	2816.5	2612.1	2469.5	2360.2
10°	4390.0	4325.8	4190.3	3805.3	3513.0	3246.7	3040.0	2814.2	2574.1	2393.5	2272.2
12.5°	4665.7	4618.2	4432.8	3974.1	3598.5	3258.6	3004.3	2795.2	2633.5	2512.3	2400.6
15°	4903.4	4851.1	4675.2	4126.2	3672.2	3211.1	2854.6	2671.6	2697.7	2745.2	2650.2
17.5°	5122.1	5067.4	4877.3	4252.1	3700.7	3094.6	2645.4	2557.5	2702.5	2880.7	2845.1
20°	5347.9	5286.1	5053.1	4354.4	3691.2	2911.6	2433.9	2460.0	2664.4	2868.8	2887.8
22.5°	5611.7	5547.5	5276.6	4485.1	3684.1	2692.9	2250.9	2374.5	2593.1	2766.6	2799.9
25°	5961.1	5885.0	5587.9	4677.6	3703.1	2493.3	2120.1	2291.3	2471.9	2628.8	2647.8
27.5°	6422.2	6324.7	5946.8	4915.3	3743.5	2336.4	2063.1	2177.2	2317.4	2457.6	2474.3
30°	7023.5	6899.9	6358.0	5122.1	3724.5	2227.1	2025.1	2063.1	2146.3	2260.4	2262.7
32.5°	7727.1	7558.3	6819.1	5300.3	3560.5	2146.3	1972.8	1946.6	1965.6	2053.6	2070.2
35°	8554.2	8335.5	7327.8	5469.1	3261.0	1989.4	1877.7	1789.8	1782.6	1825.4	1865.8
37.5°	9502.6	9241.1	7969.5	5685.4	2906.9	1825.4	1737.5	1649.5	1611.5	1632.9	1694.7
40°	10377.2	10087.3	8639.8	5946.8	2545.6	1678.0	1573.5	1483.1	1438.0	1445.1	1521.2
42.5°	11404.0	11104.5	9459.8	6289.1	2246.1	1578.2	1402.3	1309.6	1250.2	1283.5	1371.4
45°	12963.2	12623.3	10655.3	6586.2	2008.4	1554.4	1252.6	1121.9	1093.3	1150.4	1255.0
47.5°	15092.9	14676.9	12297.7	6766.8	1806.4	1575.8	1148.0	969.7	976.9	1041.1	1145.6
50°	17205.9	16756.6	14196.8	6529.1	1640.0	1533.1	1095.7	850.9	896.1	953.1	1048.2
52.5°	18658.1	18073.4	15121.4	5842.2	1487.9	1371.4	1091.0	739.2	824.8	843.8	924.6
55°	18715.2	17995.0	14648.4	4606.3	1281.1	1157.5	1041.1	646.5	746.3	753.5	822.4
57.5°	16404.9	15753.6	12801.6	3163.6	1138.5	848.5	829.5	565.7	613.2	672.6	715.4
60°	12480.7	11926.9	9573.9	1449.9	865.2	539.5	568.1	487.2	458.7	546.7	589.5
62.5°	7643.9	7289.7	5742.4	641.7	551.4	287.6	344.6	387.4	344.6	377.9	413.6
65°	3035.2	2878.3	2179.6	273.3	225.8	145.0	156.9	225.8	242.4	266.2	299.5
67.5°	527.7	499.1	366.0	121.2	92.7	87.9	76.1	104.6	147.4	164.0	190.1
70°	68.9	66.6	59.4	49.9	47.5	42.8	33.3	66.6	99.8	104.6	121.2
72.5°	16.6	14.3	14.3	11.9	14.3	4.8	4.8	35.7	71.3	73.7	85.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	45.2	49.9	59.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9
2.5°	2764.3	2716.7	2700.1	2676.3	2645.4	2654.9	2612.1	2597.9	2619.3	2647.8	2640.7
5°	2512.3	2460.0	2424.4	2369.7	2360.2	2338.8	2324.5	2305.5	2329.3	2362.6	2369.7
7.5°	2312.7	2267.5	2231.8	2215.2	2203.3	2193.8	2165.3	2151.0	2151.0	2165.3	2177.2
10°	2227.1	2193.8	2186.7	2191.4	2210.5	2208.1	2181.9	2162.9	2139.1	2127.3	2141.5
12.5°	2345.9	2291.3	2281.8	2284.1	2307.9	2305.5	2277.0	2253.2	2248.5	2253.2	2298.4
15°	2548.0	2464.8	2403.0	2391.1	2403.0	2398.2	2376.8	2362.6	2369.7	2438.6	2514.7
17.5°	2728.6	2600.3	2488.5	2445.8	2443.4	2436.2	2414.9	2410.1	2445.8	2574.1	2685.8
20°	2780.9	2654.9	2495.7	2441.0	2429.1	2422.0	2398.2	2405.4	2450.5	2605.0	2700.1
22.5°	2712.0	2590.7	2424.4	2369.7	2360.2	2357.8	2334.0	2343.6	2381.6	2517.1	2595.5
25°	2581.2	2479.0	2305.5	2258.0	2258.0	2253.2	2231.8	2236.6	2260.4	2379.2	2455.3
27.5°	2422.0	2324.5	2179.6	2132.0	2139.1	2146.3	2120.1	2113.0	2132.0	2243.7	2288.9
30°	2239.0	2170.0	2056.0	2013.2	2010.8	2039.3	2003.7	1994.2	2020.3	2108.2	2117.8
32.5°	2060.7	2027.4	1946.6	1913.3	1915.7	1920.5	1901.5	1901.5	1925.2	1972.8	1970.4
35°	1887.2	1865.8	1851.5	1827.8	1825.4	1815.9	1815.9	1820.7	1846.8	1863.4	1832.5
37.5°	1720.8	1742.2	1758.9	1735.1	1716.1	1716.1	1716.1	1737.5	1761.2	1754.1	1701.8
40°	1573.5	1618.6	1670.9	1644.8	1599.6	1597.2	1606.7	1642.4	1678.0	1635.3	1587.7
42.5°	1447.5	1504.5	1578.2	1564.0	1514.0	1506.9	1514.0	1559.2	1587.7	1533.1	1480.8
45°	1323.9	1395.2	1483.1	1483.1	1428.5	1421.3	1423.7	1483.1	1499.8	1435.6	1369.1
47.5°	1219.3	1297.7	1390.4	1390.4	1345.3	1331.0	1342.9	1404.7	1416.6	1326.3	1264.5
50°	1119.5	1205.1	1307.3	1300.1	1269.2	1257.3	1278.7	1345.3	1331.0	1231.2	1167.0
52.5°	993.5	1083.8	1224.1	1231.2	1214.6	1216.9	1243.1	1285.9	1245.5	1124.2	1069.6
55°	879.4	972.1	1112.4	1150.4	1150.4	1148.0	1159.9	1193.2	1159.9	1014.9	948.4
57.5°	755.8	834.3	950.7	960.2	967.4	941.2	957.9	1003.0	986.4	862.8	824.8
60°	620.4	686.9	753.5	760.6	729.7	675.0	705.9	758.2	770.1	677.4	634.6
62.5°	439.7	503.9	582.3	582.3	551.4	496.8	537.2	582.3	565.7	470.6	444.5
65°	328.0	387.4	446.8	473.0	446.8	408.8	439.7	473.0	446.8	368.4	330.4
67.5°	211.5	251.9	287.6	309.0	313.7	309.0	323.2	313.7	282.8	230.6	209.2
70°	128.3	149.7	168.8	187.8	202.0	209.2	216.3	194.9	164.0	135.5	128.3
72.5°	92.7	111.7	128.3	142.6	159.2	164.0	164.0	149.7	121.2	95.1	87.9
75°	64.2	80.8	95.1	104.6	118.8	123.6	123.6	111.7	90.3	68.9	61.8
77.5°	2.4	16.6	16.6	14.3	19.0	23.8	23.8	28.5	26.1	19.0	16.6
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°	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9
2.5°	2654.9	2740.5	2764.3	2852.2	2930.6	3009.1	3104.1	3161.2	3246.7	3306.2	3339.4
5°	2393.5	2464.8	2550.3	2681.1	2816.5	2966.3	3146.9	3303.8	3501.1	3646.1	3693.6
7.5°	2203.3	2296.0	2395.8	2559.8	2745.2	2944.9	3199.2	3455.9	3757.8	3955.0	4081.0
10°	2167.7	2262.7	2395.8	2557.5	2752.4	2980.5	3291.9	3624.7	4002.6	4242.6	4385.2
12.5°	2338.8	2441.0	2498.0	2571.7	2719.1	2973.4	3372.7	3795.8	4240.3	4501.7	4653.8
15°	2590.7	2681.1	2588.4	2495.7	2590.7	2897.4	3417.9	3938.4	4449.4	4751.3	4908.2
17.5°	2764.3	2771.4	2569.4	2372.1	2398.2	2759.5	3434.5	4081.0	4672.8	4989.0	5153.0
20°	2747.6	2690.6	2486.2	2267.5	2186.7	2581.2	3415.5	4207.0	4898.6	5229.0	5390.6
22.5°	2619.3	2552.7	2379.2	2165.3	2008.4	2369.7	3382.2	4321.1	5105.4	5481.0	5633.1
25°	2464.8	2393.5	2250.9	2063.1	1894.3	2165.3	3356.1	4477.9	5366.9	5809.0	5927.8
27.5°	2284.1	2222.3	2101.1	1965.6	1846.8	2010.8	3349.0	4684.7	5683.0	6208.3	6291.5
30°	2108.2	2051.2	1956.1	1877.7	1827.8	1920.5	3325.2	4905.8	6060.9	6667.0	6757.3
32.5°	1939.5	1882.4	1823.0	1811.1	1813.5	1887.2	3244.4	5124.4	6510.1	7332.5	7399.1
35°	1794.5	1728.0	1704.2	1732.7	1785.0	1830.2	3016.2	5305.1	6992.6	8057.4	8112.1
37.5°	1656.6	1590.1	1587.7	1656.6	1713.7	1742.2	2747.6	5483.3	7643.9	8794.3	8863.2
40°	1530.7	1464.1	1487.9	1571.1	1616.2	1630.5	2422.0	5754.3	8333.2	9571.5	9533.5
42.5°	1423.7	1354.8	1369.1	1476.0	1516.4	1554.4	2122.5	5980.1	8996.3	10308.3	10296.4
45°	1319.1	1266.8	1257.3	1373.8	1409.5	1561.6	1903.8	6153.6	9849.6	11247.2	11266.2
47.5°	1216.9	1176.5	1178.9	1228.8	1316.8	1597.2	1718.4	6267.7	11087.9	12735.0	12404.7
50°	1124.2	1093.3	1119.5	1062.4	1257.3	1552.1	1559.2	6243.9	12471.2	14161.1	13498.0
52.5°	1022.0	1014.9	1026.8	888.9	1162.3	1369.1	1409.5	5927.8	13120.1	15135.6	14757.7
55°	917.5	915.1	820.0	710.7	972.1	1093.3	1207.4	4946.2	13098.7	15653.8	16112.5
57.5°	793.9	774.8	622.7	579.9	755.8	760.6	1100.5	3239.6	11608.4	14413.1	15363.8
60°	601.3	587.1	456.4	470.6	527.7	487.2	877.0	1613.9	8675.4	11228.1	12300.1
62.5°	415.9	396.9	339.9	363.7	339.9	278.1	537.2	798.6	5255.2	7090.1	8062.2
65°	304.2	282.8	232.9	199.7	159.2	159.2	204.4	306.6	2034.6	3013.8	3634.2
67.5°	187.8	178.3	137.9	99.8	97.4	104.6	107.0	152.1	328.0	522.9	639.4
70°	121.2	111.7	92.7	64.2	59.4	61.8	64.2	71.3	83.2	90.3	109.3
72.5°	83.2	78.4	66.6	35.7	28.5	30.9	33.3	33.3	40.4	38.0	45.2
75°	59.4	54.7	47.5	16.6	9.5	11.9	14.3	11.9	14.3	9.5	11.9
77.5°	16.6	16.6	11.9	2.4	0.0	2.4	4.8	4.8	2.4	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	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: P641449

CATALOG NUMBER: GWS-SA5F-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9	3020.9
2.5°	3425.0	3479.7	3501.1	3470.2	3496.3	3453.5	3436.9	3372.7	3368.0	3356.1
5°	3886.1	4009.7	4083.4	4128.6	4076.3	4019.2	3933.7	3786.3	3741.1	3712.6
7.5°	4340.1	4532.6	4658.6	4718.0	4703.7	4587.3	4432.8	4185.6	4097.7	4054.9
10°	4734.6	4969.9	5122.1	5195.7	5164.8	5062.6	4841.6	4532.6	4416.1	4390.0
12.5°	5010.4	5226.6	5331.2	5395.4	5397.8	5357.4	5148.2	4836.8	4699.0	4665.7
15°	5183.9	5276.6	5278.9	5317.0	5383.5	5473.8	5376.4	5100.7	4953.3	4903.4
17.5°	5293.2	5191.0	5086.4	5095.9	5205.3	5445.3	5545.1	5333.6	5176.7	5122.1
20°	5371.6	5048.4	4853.5	4855.9	4967.6	5331.2	5661.6	5559.4	5397.8	5347.9
22.5°	5421.5	4922.4	4644.3	4637.2	4756.0	5195.7	5768.6	5828.0	5668.7	5611.7
25°	5523.8	4863.0	4518.4	4558.8	4663.3	5153.0	5913.6	6184.5	6037.1	5961.1
27.5°	5706.8	4922.4	4506.5	4599.2	4718.0	5278.9	6165.5	6659.9	6507.8	6422.2
30°	6022.9	5145.8	4689.5	4817.8	4960.4	5609.3	6588.6	7323.0	7104.3	7023.5
32.5°	6531.5	5609.3	5255.2	5530.9	5668.7	6151.2	7223.2	8067.0	7888.7	7727.1
35°	7232.7	6667.0	6626.6	7268.3	7235.1	7178.0	8002.8	8979.7	8711.1	8554.2
37.5°	8197.7	8368.8	8668.3	9305.3	9283.9	8848.9	9027.2	9842.4	9704.6	9502.6
40°	9402.7	9766.4	10275.0	11187.7	10902.5	10355.8	10284.5	10726.6	10614.9	10377.2
42.5°	10113.4	10740.9	11710.6	12530.6	12302.5	11347.0	11266.2	11907.9	11663.1	11404.0
45°	10443.8	11534.8	13436.2	14546.2	13854.5	12005.4	11974.5	13448.1	13310.2	12963.2
47.5°	10595.9	12335.7	15456.5	17136.9	15843.9	12582.9	12471.2	15682.3	15501.7	15092.9
50°	10764.7	13441.0	17890.4	20138.9	18246.9	13236.6	13317.4	17764.4	17688.4	17205.9
52.5°	11135.4	14610.4	20887.6	23571.0	21160.9	14261.0	14769.6	19727.7	19214.3	18658.1
55°	11691.6	15884.3	24006.0	27076.8	24134.3	15637.2	16340.7	20771.1	19330.7	18715.2
57.5°	11076.0	16202.8	25852.8	29525.0	25453.5	15641.9	15012.1	18962.3	17001.5	16404.9
60°	8789.5	15073.8	25142.1	28994.9	24329.2	13890.2	11494.3	14805.3	12880.0	12480.7
62.5°	5942.1	12642.4	22133.0	24521.7	20823.4	10926.3	7470.4	9628.5	7974.3	7643.9
65°	3256.3	9431.3	17883.3	18551.1	16297.9	7632.0	3843.3	4178.5	3182.6	3035.2
67.5°	898.4	6564.8	13158.1	12307.2	11434.9	4969.9	993.5	746.3	532.4	527.7
70°	225.8	4342.5	7883.9	8126.4	7011.6	3182.6	190.1	90.3	71.3	68.9
72.5°	95.1	1868.2	3741.1	4299.7	3589.0	1473.6	68.9	26.1	21.4	16.6
75°	11.9	149.7	318.5	482.5	330.4	159.2	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

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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

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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			

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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



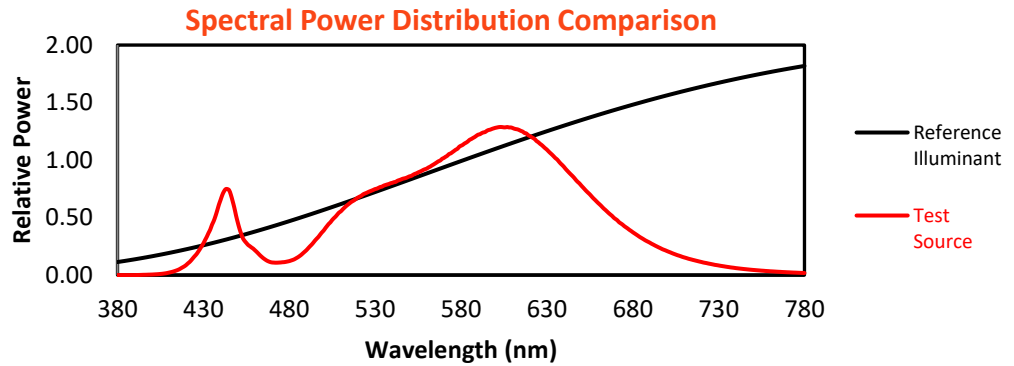
Melanopic Lumens: NR

M/P: 2.32

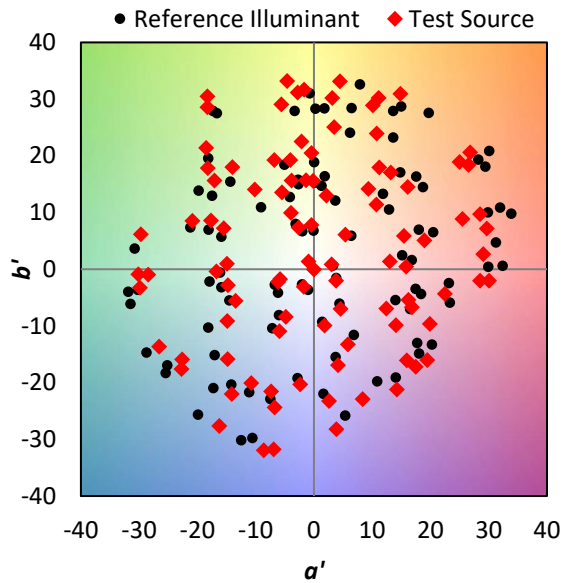
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

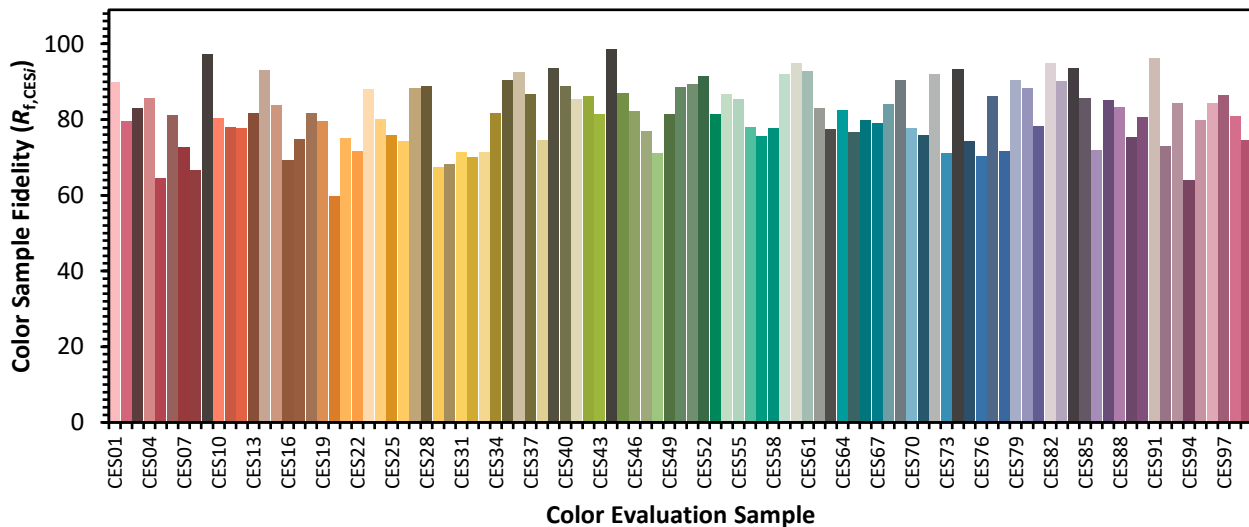


Color Vector Graphics



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)