

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: P633529

Luminaire Tested: GWS-SA2E-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P633529
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-SA2E-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6215.3 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

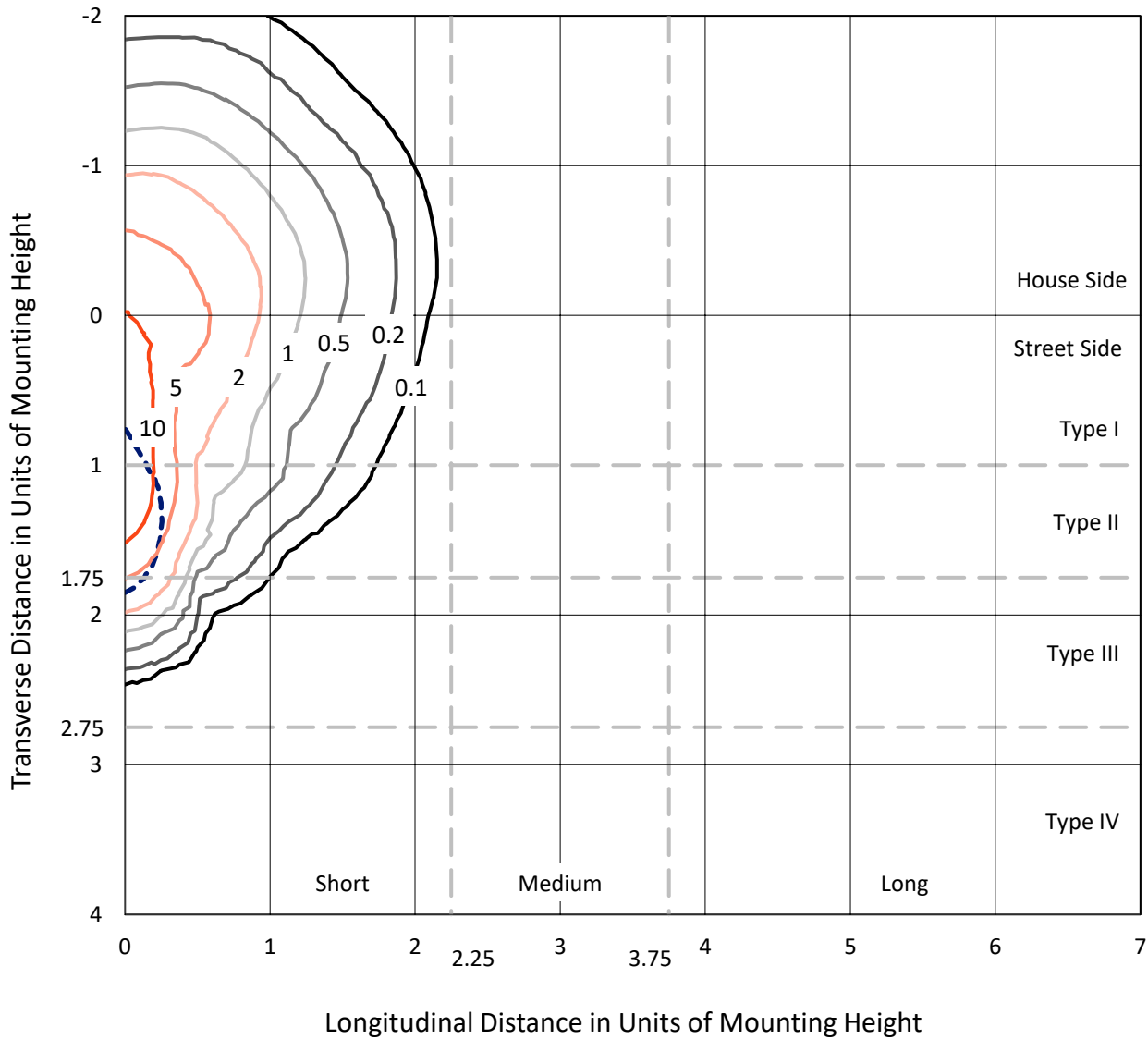
Input Watts (W): 108.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

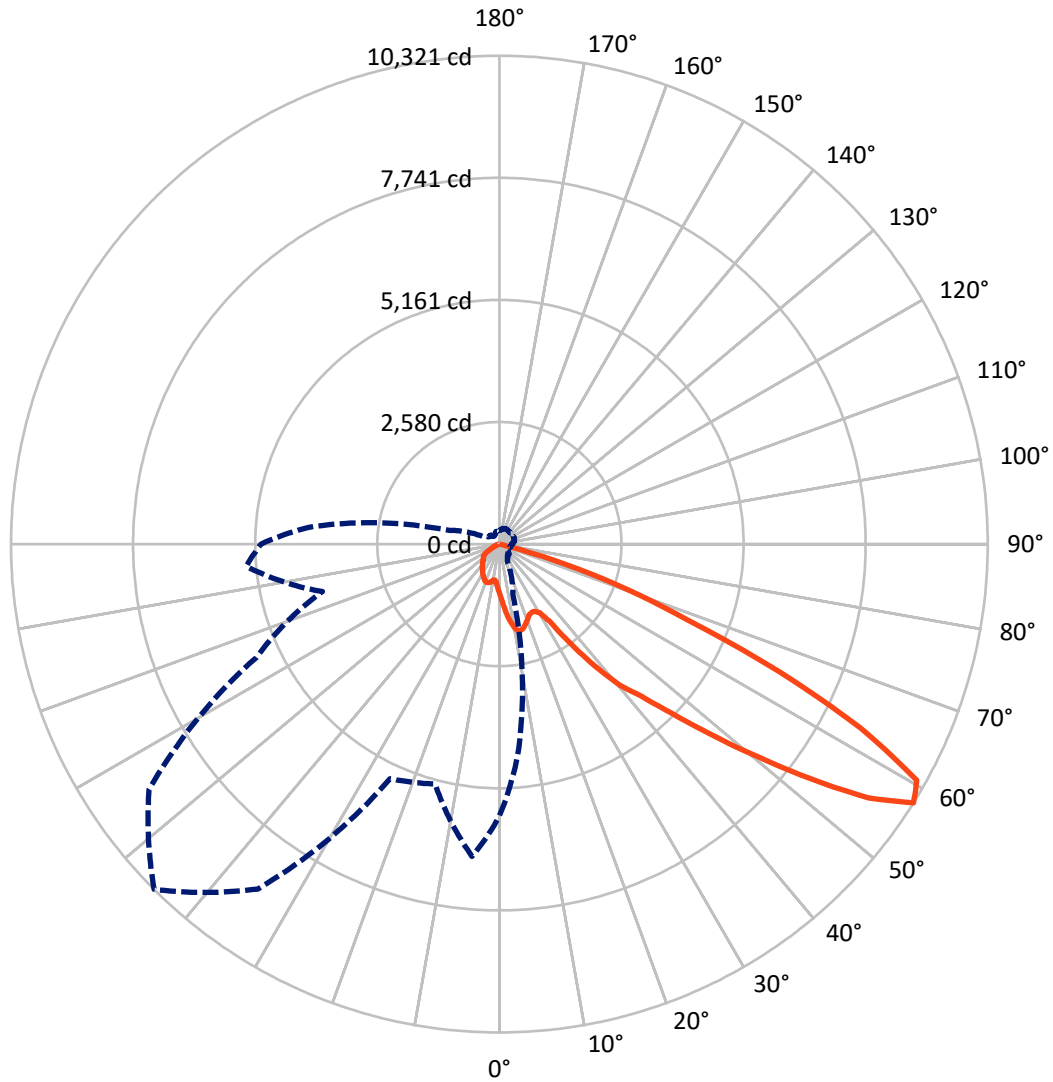
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.6 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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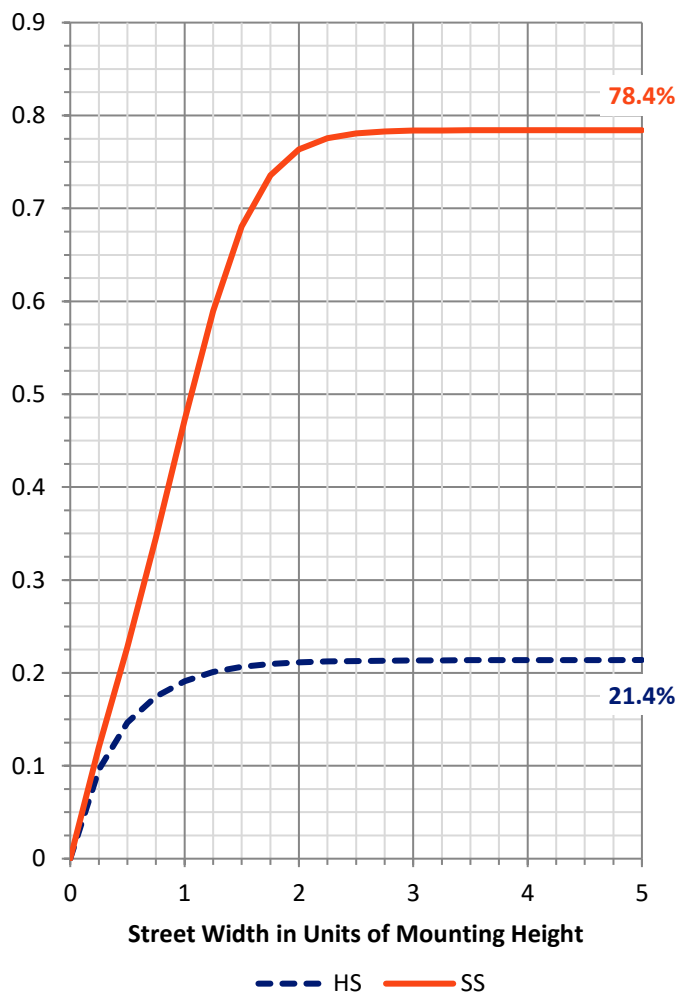
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1339.0	0.0	1339.0
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	4876.3	0.0	4876.3
	% Fixture	78.5	0.0	78.5
Total	Lumens	6215.3	0.0	6215.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	1.7
10°-20°	343.5	5.5
20°-30°	557.4	9.0
30°-40°	855.5	13.8
40°-50°	1366.3	22.0
50°-60°	1913.0	30.8
60°-70°	980.9	15.8
70°-80°	94.4	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°	6215.3	100.0
0°-180°	6215.3	100.0

Coefficient of Utilization



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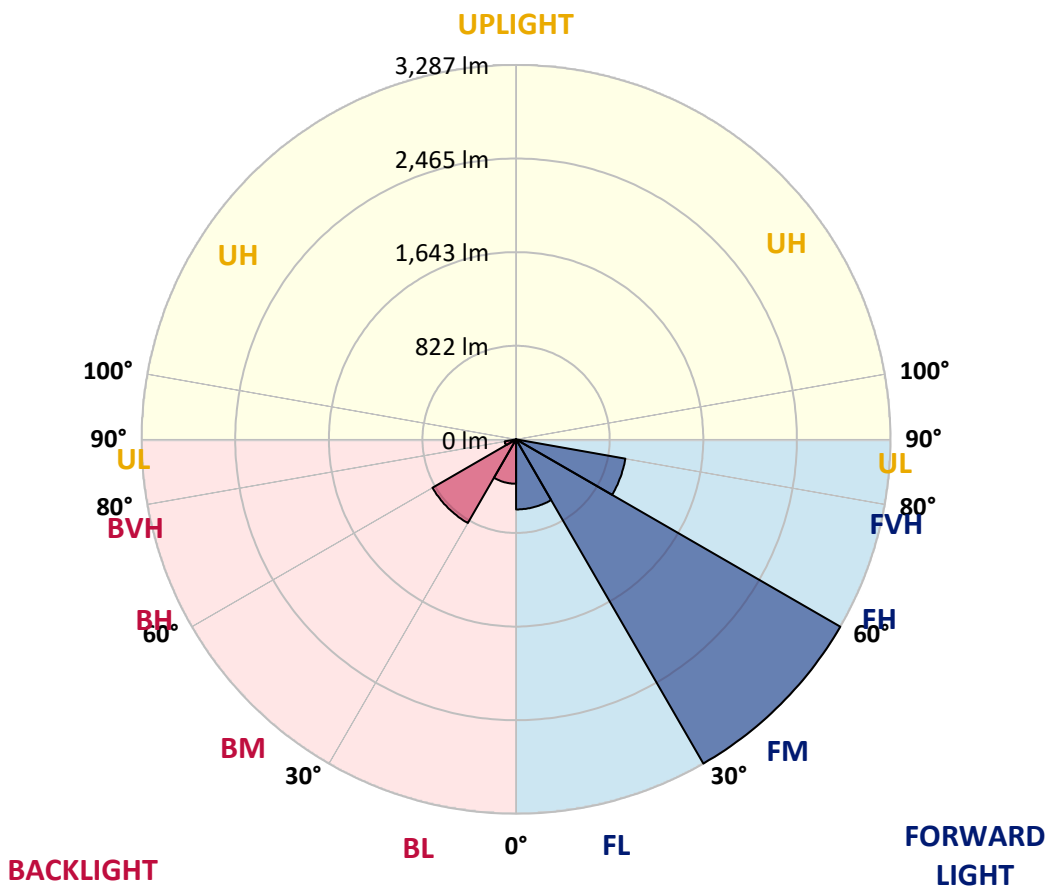
CATALOG NUMBER: GWS-SA2E-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	615.4	9.9			
FM (30°-60°)	3286.8	52.9			
FH (60°-80°)	974.2	15.7			G1/1800
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	389.9	6.3	B1/500		
BM (30°-60°)	848.0	13.6	B1/1000		
BH (60°-80°)	101.1	1.6	B0/110		G0/110
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: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1
2.5°	1173.2	1170.7	1162.4	1134.2	1116.7	1089.3	1069.4	1043.6	1015.4	997.9	980.5
5°	1297.9	1291.2	1268.8	1204.0	1154.1	1100.1	1056.9	1009.5	958.9	925.6	894.9
7.5°	1417.5	1407.5	1377.6	1268.0	1192.3	1115.1	1053.6	984.6	913.2	863.3	825.1
10°	1534.7	1512.2	1464.9	1330.3	1228.1	1135.0	1062.7	983.8	899.9	836.7	794.3
12.5°	1631.1	1614.4	1549.6	1389.3	1258.0	1139.2	1050.3	977.1	920.6	878.3	839.2
15°	1714.1	1695.9	1634.4	1442.4	1283.7	1122.5	997.9	933.9	943.1	959.7	926.5
17.5°	1790.6	1771.5	1705.0	1486.5	1293.7	1081.8	924.8	894.0	944.7	1007.0	994.6
20°	1869.5	1847.9	1766.5	1522.2	1290.4	1017.9	850.8	860.0	931.4	1002.9	1009.5
22.5°	1961.8	1939.3	1844.6	1567.9	1287.9	941.4	786.9	830.1	906.5	967.2	978.8
25°	2083.9	2057.3	1953.4	1635.2	1294.5	871.6	741.2	801.0	864.1	919.0	925.6
27.5°	2245.1	2211.0	2078.9	1718.3	1308.7	816.8	721.2	761.1	810.1	859.1	865.0
30°	2455.3	2412.1	2222.7	1790.6	1302.0	778.6	707.9	721.2	750.3	790.2	791.0
32.5°	2701.2	2642.3	2383.8	1852.9	1244.7	750.3	689.6	680.5	687.2	717.9	723.7
35°	2990.4	2914.0	2561.7	1911.9	1140.0	695.5	656.4	625.7	623.2	638.1	652.3
37.5°	3321.9	3230.5	2786.0	1987.5	1016.2	638.1	607.4	576.6	563.3	570.8	592.4
40°	3627.7	3526.3	3020.3	2078.9	889.9	586.6	550.1	518.5	502.7	505.2	531.8
42.5°	3986.6	3882.0	3307.0	2198.6	785.2	551.7	490.2	457.8	437.1	448.7	479.4
45°	4531.7	4412.9	3724.9	2302.4	702.1	543.4	437.9	392.2	382.2	402.2	438.7
47.5°	5276.2	5130.8	4299.1	2365.6	631.5	550.9	401.3	339.0	341.5	363.9	400.5
50°	6014.9	5857.8	4963.0	2282.5	573.3	535.9	383.0	297.5	313.2	333.2	366.4
52.5°	6522.6	6318.1	5286.2	2042.3	520.1	479.4	381.4	258.4	288.3	295.0	323.2
55°	6542.5	6290.7	5120.8	1610.3	447.9	404.6	363.9	226.0	260.9	263.4	287.5
57.5°	5734.9	5507.2	4475.2	1105.9	398.0	296.6	290.0	197.8	214.4	235.1	250.1
60°	4363.0	4169.4	3346.9	506.8	302.4	188.6	198.6	170.3	160.4	191.1	206.1
62.5°	2672.2	2548.4	2007.4	224.3	192.8	100.5	120.5	135.4	120.5	132.1	144.6
65°	1061.1	1006.2	761.9	95.6	78.9	50.7	54.8	78.9	84.8	93.1	104.7
67.5°	184.5	174.5	128.0	42.4	32.4	30.7	26.6	36.6	51.5	57.3	66.5
70°	24.1	23.3	20.8	17.4	16.6	15.0	11.6	23.3	34.9	36.6	42.4
72.5°	5.8	5.0	5.0	4.2	5.0	1.7	1.7	12.5	24.9	25.8	29.9
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	15.8	17.4	20.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1
2.5°	966.3	949.7	943.9	935.6	924.8	928.1	913.2	908.2	915.6	925.6	923.1
5°	878.3	860.0	847.5	828.4	825.1	817.6	812.6	806.0	814.3	825.9	828.4
7.5°	808.5	792.7	780.2	774.4	770.2	766.9	756.9	752.0	752.0	756.9	761.1
10°	778.6	766.9	764.4	766.1	772.7	771.9	762.8	756.1	747.8	743.7	748.6
12.5°	820.1	801.0	797.7	798.5	806.8	806.0	796.0	787.7	786.0	787.7	803.5
15°	890.7	861.6	840.0	835.9	840.0	838.4	830.9	825.9	828.4	852.5	879.1
17.5°	953.9	909.0	870.0	855.0	854.2	851.7	844.2	842.5	855.0	899.9	938.9
20°	972.2	928.1	872.4	853.3	849.2	846.7	838.4	840.9	856.7	910.7	943.9
22.5°	948.1	905.7	847.5	828.4	825.1	824.3	815.9	819.3	832.6	879.9	907.3
25°	902.4	866.6	806.0	789.4	789.4	787.7	780.2	781.9	790.2	831.7	858.3
27.5°	846.7	812.6	761.9	745.3	747.8	750.3	741.2	738.7	745.3	784.4	800.2
30°	782.7	758.6	718.7	703.8	702.9	712.9	700.4	697.1	706.3	737.0	740.3
32.5°	720.4	708.8	680.5	668.9	669.7	671.4	664.7	664.7	673.0	689.6	688.8
35°	659.7	652.3	647.3	639.0	638.1	634.8	634.8	636.5	645.6	651.4	640.6
37.5°	601.6	609.0	614.9	606.6	599.9	599.9	599.9	607.4	615.7	613.2	594.9
40°	550.1	565.8	584.1	575.0	559.2	558.4	561.7	574.2	586.6	571.7	555.0
42.5°	506.0	526.0	551.7	546.7	529.3	526.8	529.3	545.1	555.0	535.9	517.6
45°	462.8	487.7	518.5	518.5	499.4	496.9	497.7	518.5	524.3	501.9	478.6
47.5°	426.3	453.7	486.1	486.1	470.3	465.3	469.5	491.1	495.2	463.6	442.0
50°	391.4	421.3	457.0	454.5	443.7	439.5	447.0	470.3	465.3	430.4	408.0
52.5°	347.3	378.9	427.9	430.4	424.6	425.4	434.6	449.5	435.4	393.0	373.9
55°	307.4	339.8	388.9	402.2	402.2	401.3	405.5	417.1	405.5	354.8	331.5
57.5°	264.2	291.6	332.4	335.7	338.2	329.0	334.9	350.6	344.8	301.6	288.3
60°	216.9	240.1	263.4	265.9	255.1	236.0	246.8	265.1	269.2	236.8	221.8
62.5°	153.7	176.2	203.6	203.6	192.8	173.7	187.8	203.6	197.8	164.5	155.4
65°	114.7	135.4	156.2	165.3	156.2	142.9	153.7	165.3	156.2	128.8	115.5
67.5°	73.9	88.1	100.5	108.0	109.7	108.0	113.0	109.7	98.9	80.6	73.1
70°	44.9	52.3	59.0	65.6	70.6	73.1	75.6	68.1	57.3	47.4	44.9
72.5°	32.4	39.1	44.9	49.9	55.7	57.3	57.3	52.3	42.4	33.2	30.7
75°	22.4	28.3	33.2	36.6	41.5	43.2	43.2	39.1	31.6	24.1	21.6
77.5°	0.8	5.8	5.8	5.0	6.6	8.3	8.3	10.0	9.1	6.6	5.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1
2.5°	928.1	958.0	966.3	997.1	1024.5	1051.9	1085.2	1105.1	1135.0	1155.8	1167.4
5°	836.7	861.6	891.6	937.3	984.6	1037.0	1100.1	1154.9	1223.9	1274.6	1291.2
7.5°	770.2	802.6	837.5	894.9	959.7	1029.5	1118.4	1208.1	1313.6	1382.6	1426.7
10°	757.8	791.0	837.5	894.0	962.2	1041.9	1150.8	1267.1	1399.2	1483.2	1533.0
12.5°	817.6	853.3	873.3	899.0	950.5	1039.5	1179.0	1326.9	1482.3	1573.7	1626.9
15°	905.7	937.3	904.8	872.4	905.7	1012.9	1194.8	1376.8	1555.4	1661.0	1715.8
17.5°	966.3	968.8	898.2	829.2	838.4	964.7	1200.6	1426.7	1633.5	1744.1	1801.4
20°	960.5	940.6	869.1	792.7	764.4	902.4	1194.0	1470.7	1712.5	1828.0	1884.5
22.5°	915.6	892.4	831.7	756.9	702.1	828.4	1182.4	1510.6	1784.8	1916.1	1969.2
25°	861.6	836.7	786.9	721.2	662.2	756.9	1173.2	1565.4	1876.2	2030.7	2072.3
27.5°	798.5	776.9	734.5	687.2	645.6	702.9	1170.7	1637.7	1986.7	2170.3	2199.4
30°	737.0	717.1	683.8	656.4	639.0	671.4	1162.4	1715.0	2118.8	2330.7	2362.2
32.5°	678.0	658.1	637.3	633.1	634.0	659.7	1134.2	1791.4	2275.8	2563.3	2586.6
35°	627.3	604.1	595.8	605.7	624.0	639.8	1054.4	1854.6	2444.5	2816.7	2835.9
37.5°	579.1	555.9	555.0	579.1	599.1	609.0	960.5	1916.9	2672.2	3074.3	3098.4
40°	535.1	511.8	520.1	549.2	565.0	570.0	846.7	2011.6	2913.1	3346.0	3332.7
42.5°	497.7	473.6	478.6	516.0	530.1	543.4	742.0	2090.5	3144.9	3603.6	3599.5
45°	461.1	442.9	439.5	480.3	492.7	545.9	665.5	2151.2	3443.2	3931.8	3938.5
47.5°	425.4	411.3	412.1	429.6	460.3	558.4	600.7	2191.1	3876.1	4452.0	4336.5
50°	393.0	382.2	391.4	371.4	439.5	542.6	545.1	2182.8	4359.7	4950.5	4718.7
52.5°	357.3	354.8	358.9	310.8	406.3	478.6	492.7	2072.3	4586.6	5291.2	5159.0
55°	320.7	319.9	286.7	248.4	339.8	382.2	422.1	1729.1	4579.1	5472.3	5632.7
57.5°	277.5	270.9	217.7	202.7	264.2	265.9	384.7	1132.5	4058.1	5038.6	5370.9
60°	210.2	205.2	159.5	164.5	184.5	170.3	306.6	564.2	3032.8	3925.2	4299.9
62.5°	145.4	138.8	118.8	127.1	118.8	97.2	187.8	279.2	1837.1	2478.6	2818.4
65°	106.4	98.9	81.4	69.8	55.7	55.7	71.5	107.2	711.2	1053.6	1270.4
67.5°	65.6	62.3	48.2	34.9	34.1	36.6	37.4	53.2	114.7	182.8	223.5
70°	42.4	39.1	32.4	22.4	20.8	21.6	22.4	24.9	29.1	31.6	38.2
72.5°	29.1	27.4	23.3	12.5	10.0	10.8	11.6	11.6	14.1	13.3	15.8
75°	20.8	19.1	16.6	5.8	3.3	4.2	5.0	4.2	5.0	3.3	4.2
77.5°	5.8	5.8	4.2	0.8	0.0	0.8	1.7	1.7	0.8	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	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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CATALOG NUMBER: GWS-SA2E-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1	1056.1
2.5°	1197.3	1216.4	1223.9	1213.1	1222.3	1207.3	1201.5	1179.0	1177.4	1173.2
5°	1358.5	1401.7	1427.5	1443.3	1425.0	1405.0	1375.1	1323.6	1307.8	1297.9
7.5°	1517.2	1584.5	1628.6	1649.3	1644.3	1603.6	1549.6	1463.2	1432.5	1417.5
10°	1655.1	1737.4	1790.6	1816.3	1805.5	1769.8	1692.5	1584.5	1543.8	1534.7
12.5°	1751.5	1827.1	1863.7	1886.1	1887.0	1872.8	1799.7	1690.9	1642.7	1631.1
15°	1812.2	1844.6	1845.4	1858.7	1882.0	1913.6	1879.5	1783.1	1731.6	1714.1
17.5°	1850.4	1814.7	1778.1	1781.4	1819.7	1903.6	1938.5	1864.5	1809.7	1790.6
20°	1877.8	1764.8	1696.7	1697.5	1736.6	1863.7	1979.2	1943.5	1887.0	1869.5
22.5°	1895.3	1720.8	1623.6	1621.1	1662.6	1816.3	2016.6	2037.4	1981.7	1961.8
25°	1931.0	1700.0	1579.5	1593.7	1630.2	1801.4	2067.3	2162.0	2110.5	2083.9
27.5°	1995.0	1720.8	1575.4	1607.8	1649.3	1845.4	2155.3	2328.2	2275.0	2245.1
30°	2105.5	1798.9	1639.4	1684.2	1734.1	1960.9	2303.2	2560.0	2483.6	2455.3
32.5°	2283.3	1960.9	1837.1	1933.5	1981.7	2150.4	2525.1	2820.1	2757.8	2701.2
35°	2528.4	2330.7	2316.5	2540.9	2529.3	2509.3	2797.6	3139.1	3045.2	2990.4
37.5°	2865.8	2925.6	3030.3	3253.0	3245.5	3093.4	3155.8	3440.7	3392.6	3321.9
40°	3287.0	3414.2	3592.0	3911.0	3811.3	3620.2	3595.3	3749.8	3710.8	3627.7
42.5°	3535.5	3754.8	4093.8	4380.5	4300.7	3966.7	3938.5	4162.8	4077.2	3986.6
45°	3651.0	4032.3	4697.1	5085.1	4843.3	4196.9	4186.1	4701.2	4653.0	4531.7
47.5°	3704.1	4312.4	5403.3	5990.8	5538.8	4398.8	4359.7	5482.3	5419.1	5276.2
50°	3763.1	4698.7	6254.2	7040.2	6378.8	4627.3	4655.5	6210.1	6183.5	6014.9
52.5°	3892.8	5107.5	7301.9	8240.0	7397.5	4985.4	5163.2	6896.5	6717.0	6522.6
55°	4087.2	5552.9	8392.1	9465.6	8436.9	5466.5	5712.4	7261.2	6757.7	6542.5
57.5°	3872.0	5664.2	9037.7	10321.4	8898.1	5468.1	5248.0	6628.9	5943.4	5734.9
60°	3072.7	5269.6	8789.2	10136.1	8505.1	4855.8	4018.2	5175.7	4502.6	4363.0
62.5°	2077.2	4419.5	7737.3	8572.4	7279.5	3819.6	2611.5	3366.0	2787.7	2672.2
65°	1138.3	3297.0	6251.7	6485.2	5697.5	2668.0	1343.6	1460.7	1112.6	1061.1
67.5°	314.1	2294.9	4599.9	4302.4	3997.5	1737.4	347.3	260.9	186.1	184.5
70°	78.9	1518.1	2756.1	2840.8	2451.1	1112.6	66.5	31.6	24.9	24.1
72.5°	33.2	653.1	1307.8	1503.1	1254.7	515.2	24.1	9.1	7.5	5.8
75°	4.2	52.3	111.3	168.7	115.5	55.7	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

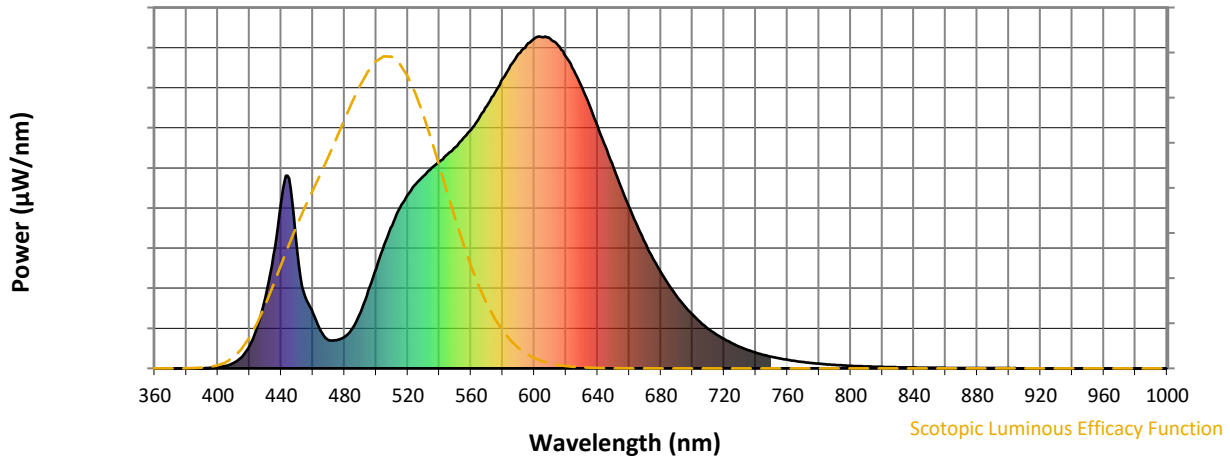


Photopic Lumens: NR

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			

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

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

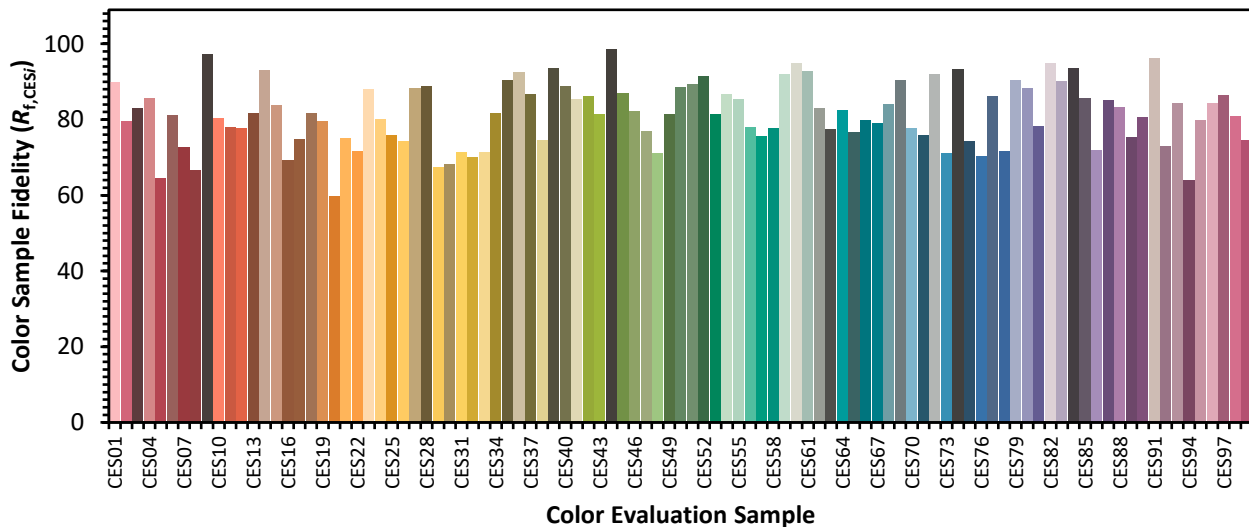


Color Vector Graphics



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)