

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324626

Luminaire Tested: **GLEON-SA2A-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324626
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA2A-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5617 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

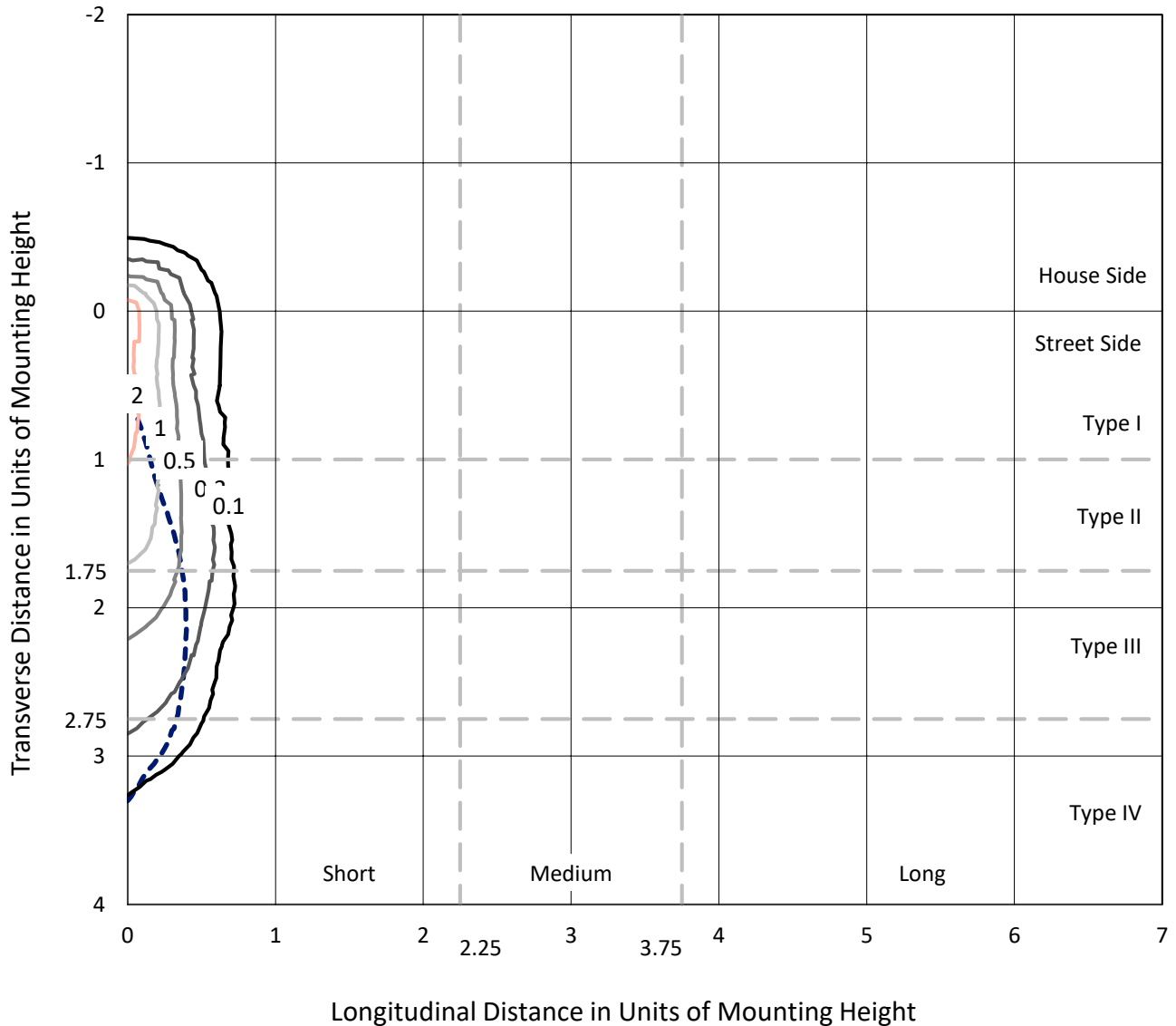




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Iso-Footcandle Lines of Horizontal Illumination

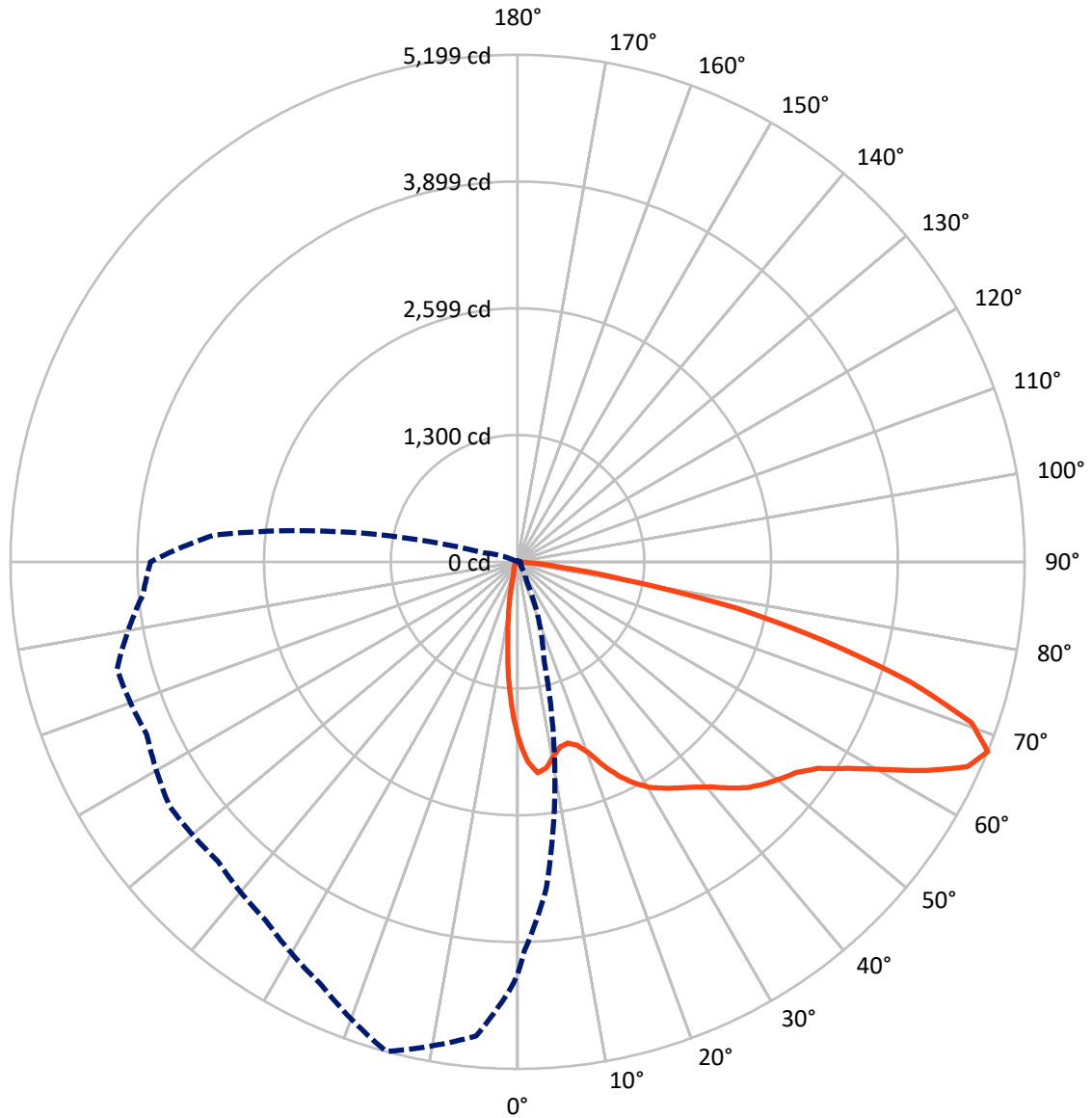
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 345-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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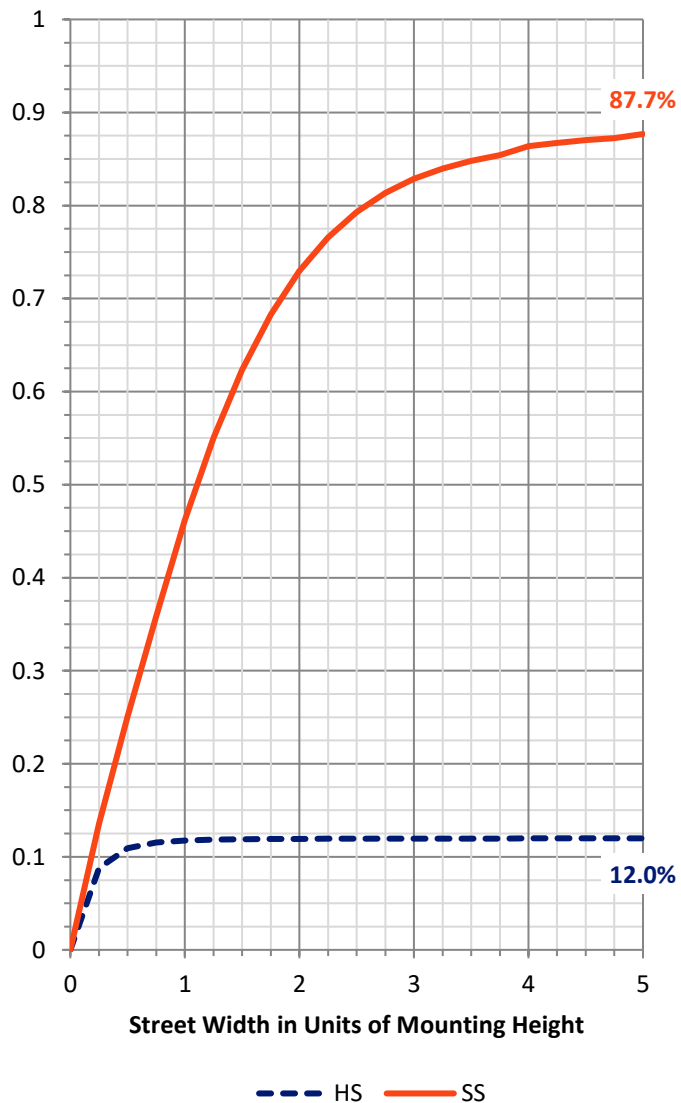
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	679.8	0.0	679.8
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	4937.2	0.0	4937.2
	% Fixture	87.9	0.0	87.9
Total	Lumens	5617.0	0.0	5617.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	2.5
10°-20°	279.5	5.0
20°-30°	396.9	7.1
30°-40°	586.3	10.4
40°-50°	845.5	15.1
50°-60°	1187.0	21.1
60°-70°	1383.7	24.6
70°-80°	707.4	12.6
80°-90°	90.3	1.6
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°	5617.0	100.0
0°-180°	5617.0	100.0

Coefficient of Utilization

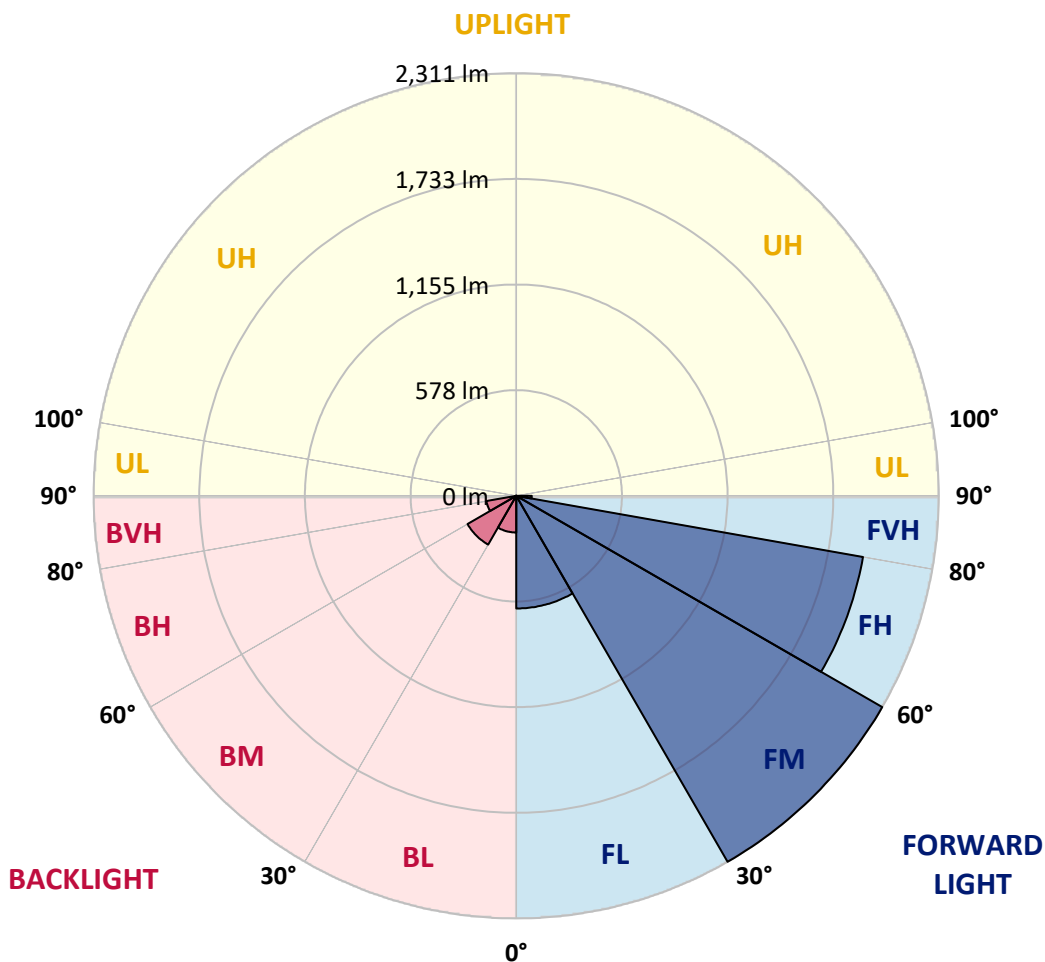


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	616.1	11.0			
FM (30°-60°)	2310.9	41.1			
FH (60°-80°)	1925.3	34.3			G2/5000
FVH (80°-90°)	84.8	1.5			G1/100
BL (0°-30°)	200.8	3.6	B1/500		
BM (30°-60°)	307.9	5.5	B1/1000		
BH (60°-80°)	165.7	2.9	B1/500		G1/500
BVH (80°-90°)	5.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7
2.5°	2003.5	1988.1	1971.0	1915.4	1863.8	1804.7	1756.5	1723.0	1681.0	1626.4	1612.6
5°	1989.1	1972.6	1919.1	1795.4	1687.1	1581.7	1480.1	1420.5	1346.5	1271.4	1252.8
7.5°	1844.6	1827.3	1750.2	1580.7	1434.8	1282.6	1150.6	1068.9	985.4	916.7	880.3
10°	1694.3	1675.4	1588.6	1382.9	1203.3	1065.7	968.9	890.9	811.9	738.4	679.9
12.5°	1590.8	1566.0	1471.8	1238.7	1082.2	988.8	898.4	805.0	698.0	619.2	554.8
15°	1547.4	1519.2	1419.7	1183.1	1039.4	929.8	811.9	697.2	571.9	481.6	422.6
17.5°	1580.9	1544.2	1437.5	1179.4	985.6	836.4	687.3	552.7	416.7	325.4	283.4
20°	1694.8	1646.6	1511.2	1178.3	920.5	725.4	536.5	384.3	274.6	220.9	198.8
22.5°	1874.2	1810.6	1617.1	1186.8	853.1	608.8	387.4	261.0	206.2	178.3	165.3
25°	2090.8	2017.1	1769.6	1216.9	794.1	495.5	281.5	206.2	174.0	153.5	142.6
27.5°	2296.7	2236.9	1962.2	1260.3	748.3	403.9	228.6	174.8	148.8	135.2	126.4
30°	2502.4	2427.1	2160.0	1311.9	693.2	341.9	200.9	159.4	133.3	118.9	113.4
32.5°	2652.0	2589.5	2314.8	1349.1	634.4	301.5	179.6	145.8	124.5	109.9	101.7
35°	2827.9	2757.1	2447.6	1357.4	596.6	275.9	161.5	131.2	108.0	95.0	86.2
37.5°	3017.9	2929.8	2600.9	1339.3	567.1	263.4	148.0	124.5	100.9	87.5	78.2
40°	3228.1	3128.6	2748.1	1313.2	538.1	259.2	137.6	119.5	95.3	81.7	72.1
42.5°	3449.5	3332.1	2875.5	1285.8	519.7	244.5	136.5	114.4	91.0	76.4	66.8
45°	3635.5	3516.6	3006.4	1276.8	506.7	228.6	141.0	111.0	88.1	72.1	62.8
47.5°	3783.7	3671.2	3140.6	1297.0	499.2	213.9	128.5	115.5	86.5	68.4	59.3
50°	3960.7	3833.2	3329.5	1357.4	488.3	199.3	116.3	132.3	86.5	66.0	56.4
52.5°	4182.6	4056.5	3540.2	1451.1	466.5	179.1	104.6	132.5	87.3	62.8	52.7
55°	4461.8	4370.2	3841.2	1553.8	431.6	149.3	90.5	113.9	84.1	56.9	49.2
57.5°	4729.5	4654.7	4115.6	1624.0	385.1	116.6	78.8	91.8	76.9	50.0	43.9
59°	4802.6	4720.9	4216.1	1627.2	350.2	101.7	72.9	75.8	75.3	46.8	40.7
60°	4802.6	4715.9	4245.1	1610.2	324.9	93.4	69.2	67.6	78.5	44.7	38.9
62.5°	4715.6	4593.7	4150.9	1495.0	265.0	79.6	60.4	55.9	70.5	40.2	34.3
65°	4534.7	4357.2	3830.0	1286.6	236.3	72.9	52.2	45.8	49.0	35.4	30.1
67.5°	4232.9	3992.4	3367.3	1039.4	224.9	71.0	45.0	38.9	37.0	30.3	26.3
70°	3701.5	3434.6	2805.5	817.2	215.0	70.3	37.8	32.7	29.8	25.5	22.4
72.5°	2694.0	2415.7	1991.8	638.9	209.2	71.8	30.3	27.4	24.5	20.0	17.3
75°	1541.0	1358.7	1119.5	422.0	178.3	68.7	23.4	22.9	17.6	14.4	12.0
77.5°	796.2	772.0	670.8	162.1	85.4	30.1	15.4	13.3	10.4	8.8	7.2
80°	343.5	339.8	294.0	46.8	22.6	16.8	8.8	5.6	4.8	3.7	2.9
82.5°	118.7	118.7	104.6	15.7	10.1	8.2	1.1	0.0	0.0	0.0	0.0
85°	23.9	26.9	18.9	0.0	3.5	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°	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7
2.5°	1595.8	1563.6	1561.5	1541.3	1516.0	1504.5	1497.9	1509.6	1524.0	1525.6	1547.1
5°	1238.7	1204.9	1219.0	1183.1	1190.3	1183.1	1171.4	1173.5	1179.9	1159.9	1184.7
7.5°	869.9	844.3	860.6	851.0	863.8	868.8	861.6	851.0	819.6	815.9	837.4
10°	655.7	626.7	609.4	591.3	595.3	603.5	600.9	593.1	573.2	574.3	595.0
12.5°	526.9	494.4	460.1	415.7	404.7	410.9	404.7	400.2	381.1	382.7	401.0
15°	399.7	373.1	337.2	301.5	282.1	283.9	266.9	254.9	243.0	228.6	239.8
17.5°	269.8	253.6	243.0	232.3	209.2	203.8	182.3	159.1	150.1	143.4	148.2
20°	191.1	182.3	178.0	177.5	164.2	157.5	136.5	122.1	117.6	116.3	119.2
22.5°	159.7	153.3	147.2	143.7	137.0	129.3	113.4	106.2	103.0	101.4	103.5
25°	138.9	134.1	127.7	121.9	119.2	111.0	99.5	94.2	92.1	90.5	91.5
27.5°	123.5	119.2	111.8	108.0	105.9	98.7	88.9	84.6	82.8	82.2	82.0
30°	111.2	107.2	100.3	96.1	92.3	86.0	80.1	75.8	74.0	73.4	72.9
32.5°	99.0	95.8	91.3	87.0	83.0	77.2	72.1	68.7	65.7	65.2	64.9
35°	83.6	80.4	78.0	77.7	74.0	68.4	64.7	60.1	57.7	56.9	57.2
37.5°	74.2	70.0	64.7	66.5	65.5	61.5	56.4	51.9	49.5	49.0	49.0
40°	68.4	63.9	57.7	54.6	57.7	56.9	49.0	44.4	42.0	41.8	41.2
42.5°	62.8	58.3	51.4	46.0	47.6	50.0	42.3	38.1	35.7	35.1	34.3
45°	58.8	54.0	46.3	40.2	37.0	42.0	36.2	30.9	29.5	28.5	27.9
47.5°	55.1	50.6	41.8	34.9	29.5	30.3	29.0	25.3	23.7	22.6	22.4
50°	51.9	47.1	37.8	29.8	24.5	22.4	23.4	20.0	18.6	17.6	17.0
52.5°	48.2	43.6	33.5	25.8	20.5	17.6	17.8	15.7	14.4	13.6	13.3
55°	45.2	40.7	30.1	22.6	18.1	14.4	12.8	12.2	11.4	10.9	10.6
57.5°	41.2	37.0	26.6	19.2	15.4	11.7	9.8	9.8	9.6	9.0	8.8
59°	38.9	35.1	24.5	17.3	14.1	10.1	8.8	9.0	8.8	8.2	8.0
60°	37.0	33.5	22.9	16.0	13.3	9.3	8.0	8.5	8.2	7.7	7.5
62.5°	32.7	30.3	19.7	13.3	11.7	7.5	6.7	7.2	7.2	6.9	6.7
65°	28.7	26.1	16.8	11.2	10.9	6.4	5.3	6.4	6.7	6.1	5.6
67.5°	25.0	22.4	14.6	9.0	10.1	5.1	4.0	5.3	7.2	5.6	5.1
70°	21.3	18.6	11.4	7.2	10.6	3.5	3.2	4.8	8.5	6.1	4.8
72.5°	16.5	14.4	8.0	5.3	11.4	2.4	2.4	4.0	9.6	6.7	4.5
75°	11.4	9.3	4.8	3.2	9.3	1.6	1.6	3.7	9.0	6.1	4.3
77.5°	6.7	5.1	1.6	0.3	4.8	0.0	0.3	2.7	6.4	3.7	1.9
80°	2.4	1.1	0.0	0.0	2.9	0.0	0.0	0.0	0.5	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°	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7
2.5°	1552.7	1588.6	1620.8	1669.5	1727.3	1793.8	1851.0	1912.5	1970.2	1994.2	2010.7
5°	1189.7	1234.2	1286.1	1357.7	1452.9	1570.3	1680.2	1804.4	1938.0	2004.8	2067.6
7.5°	841.2	886.4	950.8	1026.9	1142.1	1281.8	1425.5	1597.2	1778.1	1883.7	1987.8
10°	604.9	660.5	720.6	824.7	941.7	1074.3	1222.2	1413.8	1615.5	1732.6	1857.9
12.5°	411.7	475.0	566.0	682.6	820.1	950.0	1078.5	1261.3	1495.5	1611.5	1745.9
15°	246.9	282.1	378.4	513.3	682.0	843.8	984.6	1167.9	1417.5	1559.6	1699.3
17.5°	152.2	168.4	220.9	331.6	508.8	713.4	906.3	1136.3	1428.7	1601.7	1751.2
20°	121.3	127.7	144.5	195.9	337.2	569.7	818.3	1129.9	1520.0	1732.9	1893.3
22.5°	105.4	111.5	122.7	142.4	212.1	426.6	734.7	1135.7	1650.9	1929.5	2116.9
25°	92.9	98.2	108.8	125.1	155.4	300.4	645.3	1161.8	1821.5	2173.5	2372.6
27.5°	83.0	87.5	97.4	112.3	133.3	209.7	543.9	1193.5	2023.7	2423.1	2619.5
30°	74.0	78.0	86.7	100.6	115.8	161.3	432.7	1215.0	2226.2	2619.5	2795.9
32.5°	66.3	69.2	77.2	88.9	100.6	128.5	328.9	1211.6	2376.6	2782.9	2922.9
35°	58.3	61.2	68.1	78.2	87.5	106.2	258.7	1146.9	2507.5	2952.4	3068.2
37.5°	49.5	53.2	59.9	68.9	75.3	93.4	209.2	1068.9	2640.3	3146.1	3230.2
40°	42.0	45.8	51.6	61.5	65.5	88.6	160.7	973.9	2789.6	3362.7	3408.0
42.5°	34.9	38.3	44.4	53.0	61.7	76.4	118.9	865.4	2933.0	3548.0	3570.0
45°	28.2	31.7	38.1	46.6	66.0	63.3	92.1	749.1	3048.7	3702.0	3709.2
47.5°	22.4	25.5	32.2	43.9	61.5	50.6	65.7	657.8	3145.9	3822.3	3803.4
50°	17.3	20.0	26.9	50.3	53.8	41.8	49.8	627.5	3232.9	3896.8	3847.9
52.5°	13.6	16.0	22.1	47.1	41.8	34.6	41.8	655.9	3352.1	3958.6	3872.9
55°	10.9	13.3	17.3	26.9	28.5	29.3	35.7	682.6	3557.8	4103.3	4020.6
57.5°	9.0	11.4	14.1	18.9	21.6	24.7	31.7	685.5	3800.2	4343.9	4265.6
59°	8.2	10.4	12.8	16.8	18.9	22.6	29.8	669.5	3885.6	4431.4	4392.3
60°	7.7	9.8	12.0	15.4	17.6	21.3	28.7	654.3	3889.4	4428.2	4446.3
62.5°	6.7	8.8	10.6	13.0	14.9	18.1	25.8	598.2	3731.8	4283.2	4413.9
65°	5.9	7.7	9.6	11.2	12.8	16.2	23.4	495.8	3462.8	4049.3	4191.7
67.5°	5.3	6.7	8.8	9.8	11.4	14.4	20.8	353.4	3126.7	3763.2	3855.6
70°	4.8	6.4	8.0	9.0	10.4	12.5	17.8	203.0	2640.3	3344.4	3410.1
72.5°	4.5	6.1	7.2	8.5	9.3	11.2	16.2	95.5	1933.2	2679.1	2850.8
75°	4.0	5.6	6.7	8.0	8.8	10.1	13.8	45.8	1285.8	1938.8	2133.9
77.5°	2.4	4.5	6.1	7.2	7.7	8.8	11.4	26.3	820.7	1342.0	1580.7
80°	0.0	1.6	4.5	6.1	6.7	7.5	8.8	20.8	439.1	766.6	920.2
82.5°	0.0	0.0	3.2	4.8	4.5	5.1	6.7	13.0	198.0	501.1	564.7
85°	0.0	0.0	1.1	3.7	3.2	2.4	4.5	4.5	43.4	253.6	316.4
87.5°	0.0	0.0	0.0	0.3	1.6	1.1	1.9	0.5	0.3	18.9	76.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7	1829.7
2.5°	2068.4	2088.1	2121.4	2137.1	2129.4	2096.6	2057.5	2017.6	1994.2	2003.5
5°	2195.6	2297.0	2355.5	2375.0	2342.5	2269.1	2173.0	2046.3	2001.4	1989.1
7.5°	2195.6	2386.4	2507.2	2528.5	2456.1	2312.2	2132.0	1934.3	1868.6	1844.6
10°	2118.4	2378.2	2546.6	2580.4	2479.3	2264.0	2022.7	1797.0	1719.0	1694.3
12.5°	2031.4	2311.1	2488.6	2535.2	2452.1	2216.1	1946.8	1704.1	1612.3	1590.8
15°	1977.9	2228.6	2375.5	2409.3	2374.2	2188.2	1928.7	1676.2	1568.1	1547.4
17.5°	1997.1	2164.8	2217.7	2237.4	2261.1	2178.3	1977.9	1737.4	1600.6	1580.9
20°	2069.2	2097.4	2070.0	2094.8	2158.6	2187.9	2095.3	1885.3	1721.2	1694.8
22.5°	2191.6	2062.6	1985.7	1995.5	2073.2	2219.6	2274.7	2096.6	1907.2	1874.2
25°	2334.3	2090.8	1938.8	1930.0	2009.9	2261.3	2438.6	2326.5	2127.2	2090.8
27.5°	2513.6	2154.1	1929.3	1920.5	1987.8	2300.5	2574.8	2553.8	2359.0	2296.7
30°	2652.0	2216.4	1957.7	1937.5	2009.9	2327.6	2684.2	2746.7	2543.7	2502.4
32.5°	2751.2	2289.8	2004.0	1974.8	2072.1	2374.4	2768.5	2923.4	2714.5	2652.0
35°	2826.8	2369.7	2078.8	2030.6	2157.8	2445.5	2847.6	3111.5	2896.3	2827.9
37.5°	2897.6	2481.7	2195.6	2138.1	2292.2	2559.9	2931.1	3325.0	3099.6	3017.9
40°	2996.3	2608.6	2375.8	2324.7	2518.1	2715.9	3035.4	3547.4	3330.8	3228.1
42.5°	3095.0	2744.9	2560.2	2574.0	2799.9	2905.3	3170.1	3782.7	3559.1	3449.5
45°	3185.3	2885.4	2822.8	2886.7	3061.5	3113.1	3303.9	3918.6	3741.4	3635.5
47.5°	3265.6	3061.0	3083.9	3253.9	3359.0	3301.3	3404.0	4036.0	3877.1	3783.7
50°	3359.0	3288.2	3427.9	3668.5	3701.5	3471.6	3495.0	4174.9	4035.7	3960.7
52.5°	3461.2	3527.7	3809.0	4021.1	4010.4	3656.5	3586.5	4330.6	4253.1	4182.6
55°	3577.2	3721.2	4144.6	4351.1	4342.0	3863.0	3738.2	4523.0	4525.6	4461.8
57.5°	3749.4	3887.8	4372.3	4618.0	4633.1	4101.5	3995.3	4738.5	4772.0	4729.5
59°	3872.9	3995.8	4462.6	4729.5	4791.2	4285.9	4183.1	4863.6	4841.5	4802.6
60°	3964.4	4064.5	4507.3	4787.7	4883.0	4410.9	4321.8	4937.0	4849.7	4802.6
62.5°	4190.9	4214.0	4587.9	4853.7	4988.6	4688.7	4711.9	5062.1	4792.5	4715.6
65°	4296.5	4308.5	4586.8	4735.6	4886.5	4905.1	5065.8	5065.8	4652.8	4534.7
67.5°	4252.3	4194.6	4359.3	4343.9	4494.5	4776.6	5198.9	4880.1	4385.7	4232.9
70°	3893.1	3670.9	3597.7	3604.4	3719.6	4154.7	4935.4	4333.5	3880.1	3701.5
72.5°	3239.3	2706.3	2525.6	2731.8	2761.9	3193.0	4206.0	3263.5	2861.4	2694.0
75°	2605.4	1907.7	1613.9	1831.6	1882.7	2336.7	3253.6	2032.5	1671.4	1541.0
77.5°	1871.8	1369.4	1158.1	1142.9	1208.9	1481.9	2308.7	1022.9	853.1	796.2
80°	1063.3	901.3	970.5	915.7	948.9	926.6	1096.9	448.7	367.5	343.5
82.5°	641.8	532.7	576.9	480.3	607.8	529.3	422.6	143.7	124.8	118.7
85°	417.5	291.1	151.7	101.7	209.4	338.2	94.5	39.1	30.1	23.9
87.5°	144.0	74.2	7.5	3.2	22.4	63.1	3.5	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



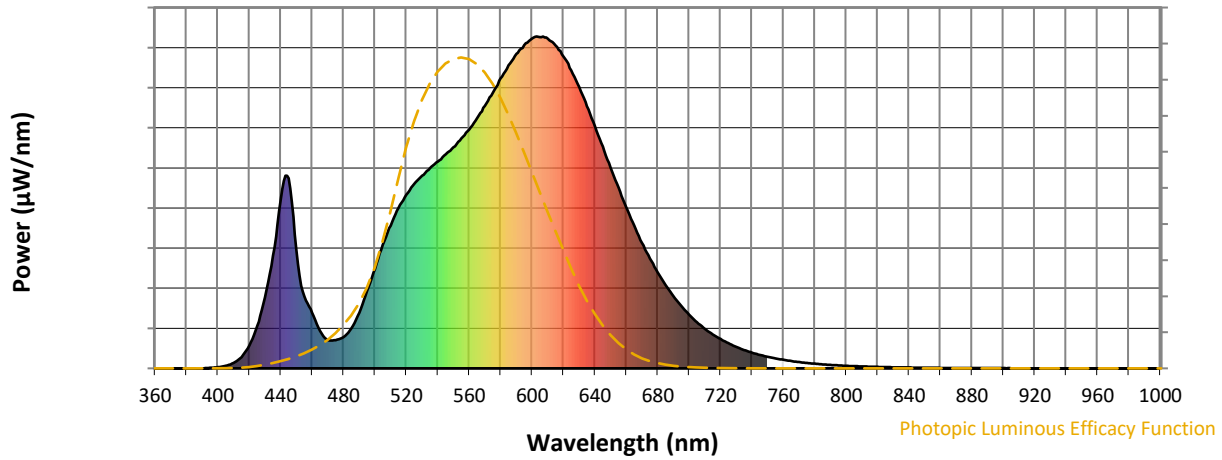
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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)