

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: P639471

Luminaire Tested: GWS-SA5B-830-U-SLL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P639471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA5B-830-U-SLL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8540.2 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

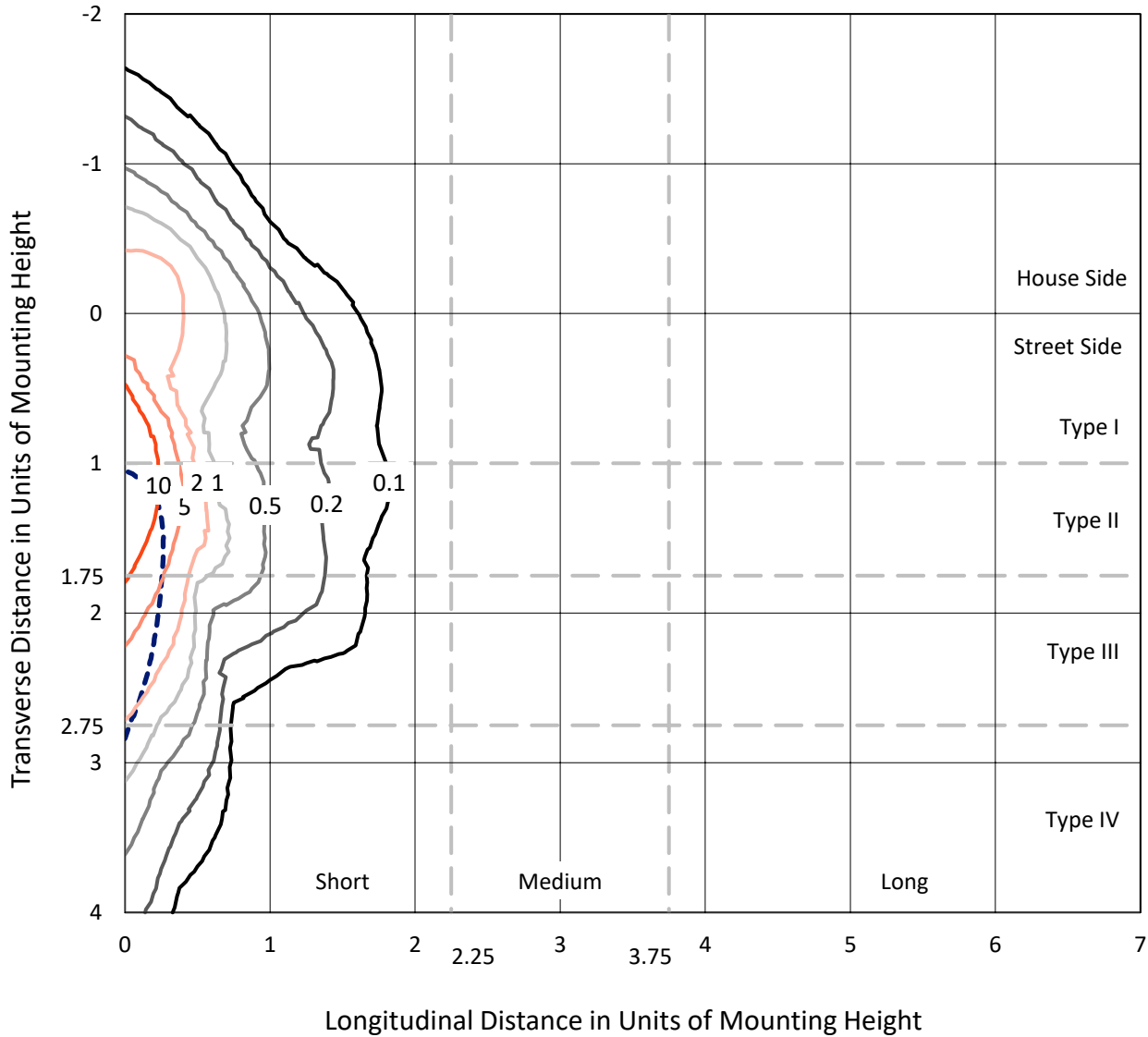
Input Watts (W): 115.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

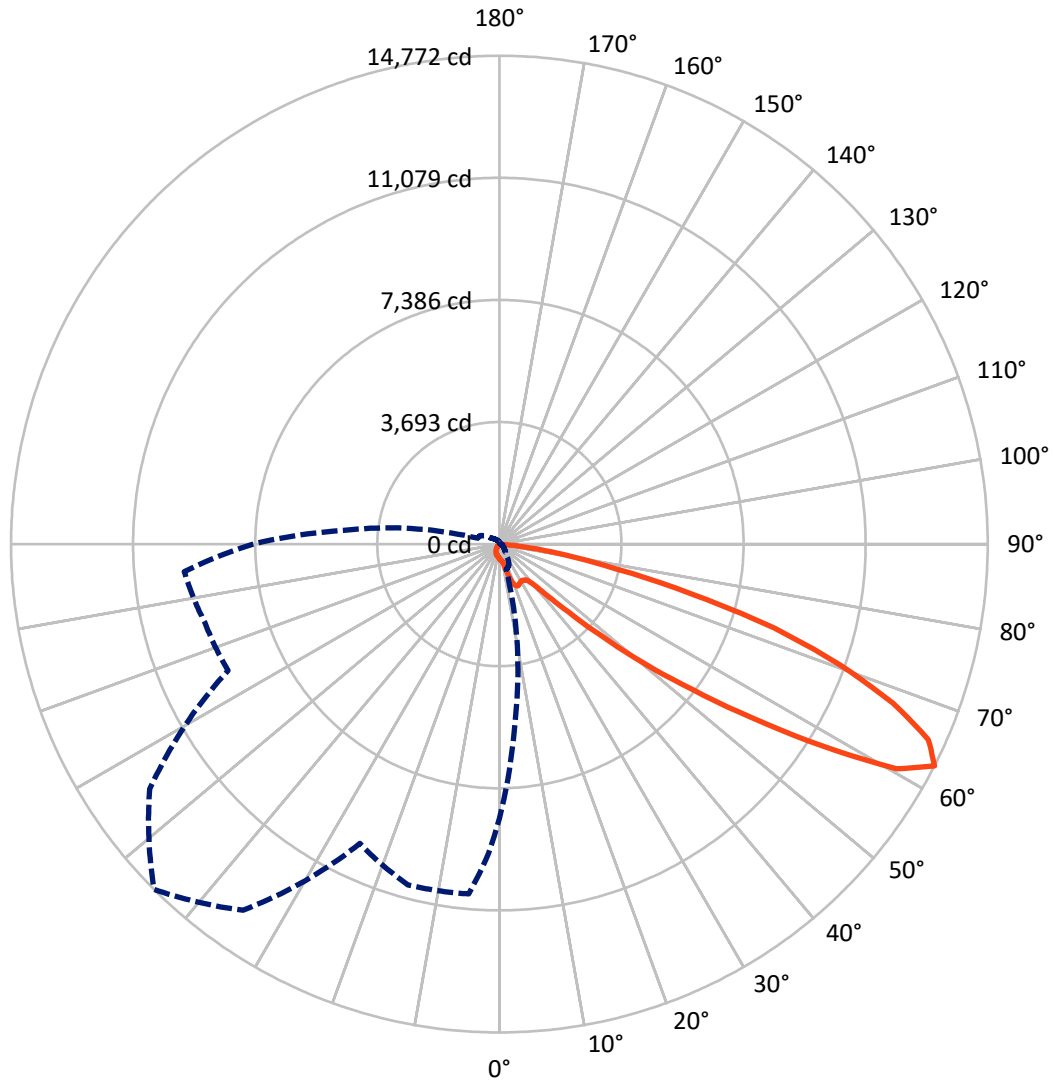
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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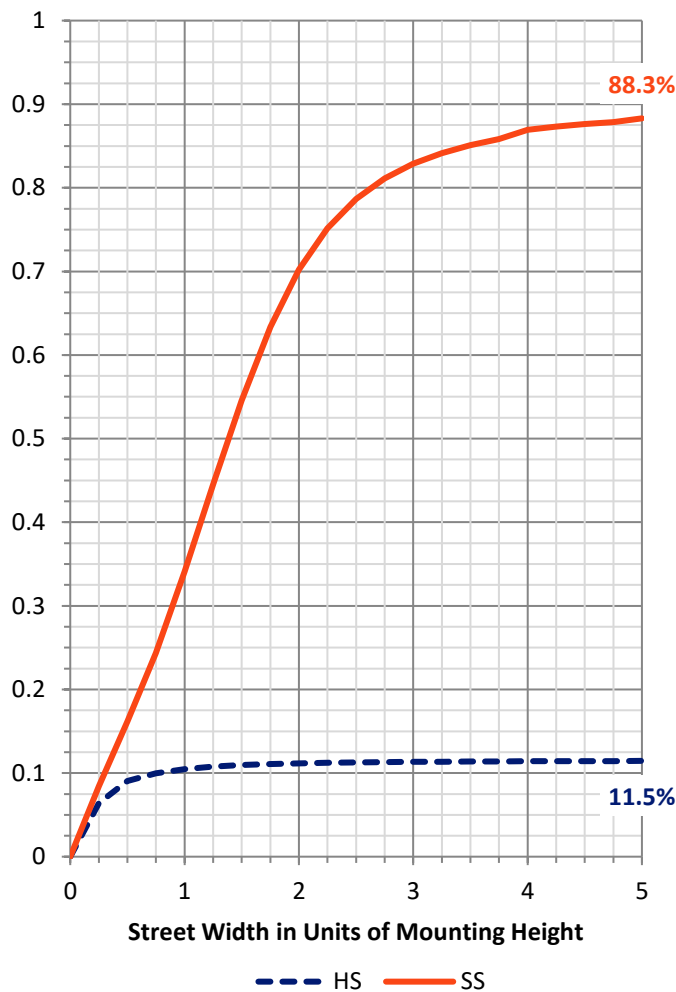
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	992.3	0.0	992.3
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	7547.9	0.0	7547.9
	% Fixture	88.4	0.0	88.4
Total	Lumens	8540.2	0.0	8540.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	0.4
10°-20°	131.1	1.5
20°-30°	296.2	3.5
30°-40°	510.2	6.0
40°-50°	962.4	11.3
50°-60°	2148.8	25.2
60°-70°	2874.0	33.7
70°-80°	1441.2	16.9
80°-90°	138.1	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°	8540.2	100.0
0°-180°	8540.2	100.0

Coefficient of Utilization

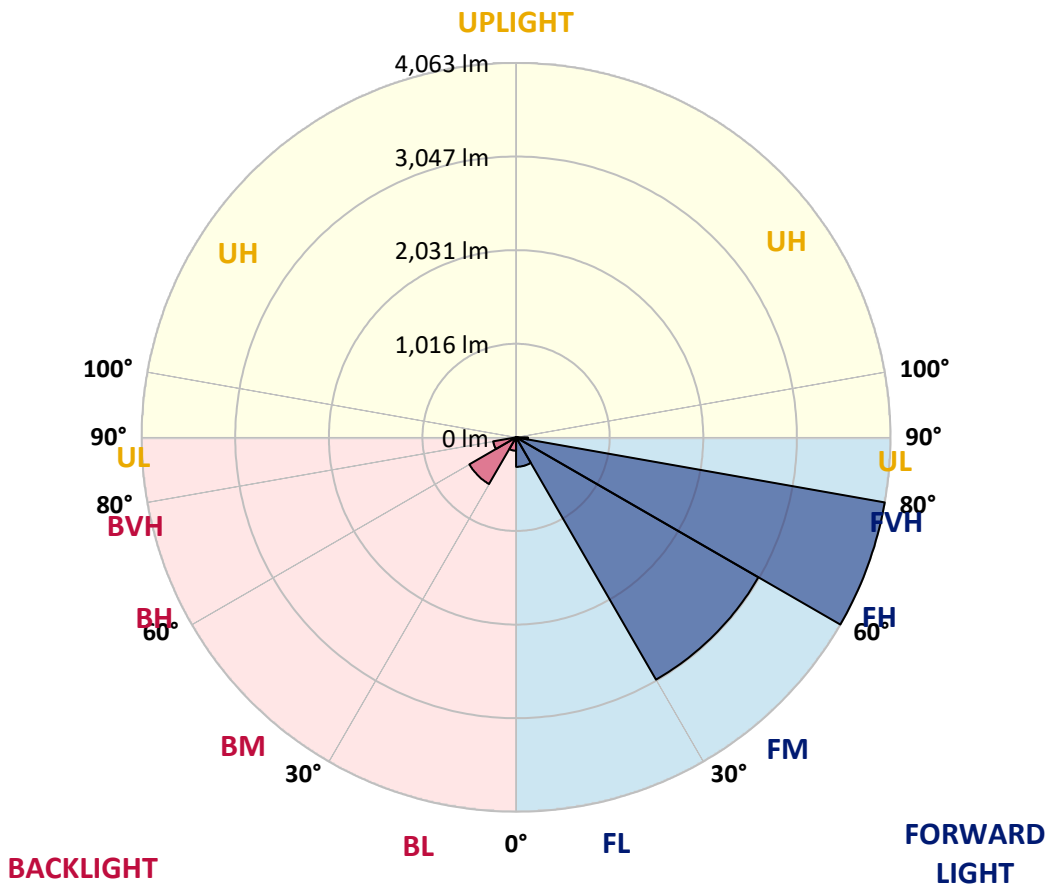


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	319.8	3.7			
FM (30°-60°)	3036.3	35.6			
FH (60°-80°)	4062.9	47.6			G2/5000
FVH (80°-90°)	128.9	1.5			G2/225
BL (0°-30°)	145.6	1.7	B1/500		
BM (30°-60°)	585.1	6.9	B1/1000		
BH (60°-80°)	252.3	3.0	B1/500		G1/500
BVH (80°-90°)	9.2	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9
2.5°	437.9	436.8	434.8	428.8	423.7	420.7	414.6	414.6	413.6	411.6	407.5
5°	423.7	419.6	415.6	404.5	392.3	385.3	377.2	376.2	376.2	374.1	373.1
7.5°	401.4	397.4	392.3	374.1	363.0	355.9	348.9	347.9	344.8	344.8	344.8
10°	389.3	383.2	375.2	354.9	343.8	337.7	332.7	329.7	327.6	324.6	323.6
12.5°	415.6	404.5	387.3	350.9	335.7	327.6	321.6	319.5	313.5	309.4	306.4
15°	497.5	470.2	435.8	360.0	332.7	320.6	312.5	308.4	303.4	296.3	291.2
17.5°	632.0	592.6	534.9	389.3	329.7	314.5	304.4	297.3	290.2	282.1	276.1
20°	818.1	759.4	690.7	442.9	329.7	307.4	295.3	286.2	276.1	267.0	259.9
22.5°	1054.7	996.0	878.7	533.9	333.7	298.3	284.1	272.0	259.9	251.8	243.7
25°	1319.6	1236.7	1127.5	644.1	344.8	286.2	271.0	258.9	247.7	237.6	228.5
27.5°	1614.9	1524.9	1379.3	800.9	369.1	274.0	256.8	245.7	235.6	225.5	213.4
30°	1886.9	1833.3	1684.7	989.0	408.5	265.9	245.7	235.6	225.5	212.4	201.2
32.5°	2213.5	2118.5	1996.1	1203.3	461.1	257.9	236.6	222.5	214.4	202.2	190.1
35°	2542.2	2461.3	2300.5	1467.3	519.8	249.8	225.5	212.4	205.3	191.1	178.0
37.5°	2880.9	2862.7	2704.0	1759.5	577.4	240.7	212.4	204.3	197.2	181.0	165.8
40°	3214.6	3181.2	3034.6	2093.2	612.8	230.6	201.2	196.2	188.1	169.9	152.7
42.5°	3534.2	3508.9	3366.3	2412.7	607.7	221.5	190.1	184.0	178.0	159.8	138.5
45°	3926.5	3885.0	3705.0	2649.4	556.2	231.6	179.0	168.9	167.9	150.7	124.4
47.5°	4660.6	4524.1	4218.7	2831.4	504.6	257.9	166.8	154.7	161.8	141.6	110.2
50°	5689.0	5528.2	5086.4	2972.9	503.6	292.2	164.8	141.6	156.7	134.5	98.1
52.5°	6722.5	6439.3	5902.4	3048.8	541.0	317.5	183.0	128.4	150.7	127.4	89.0
55°	7712.4	7124.9	6244.2	2798.0	570.3	344.8	216.4	121.3	139.5	119.3	83.9
57.5°	8655.9	7676.0	6392.8	2213.5	668.4	355.9	236.6	124.4	123.4	109.2	79.9
60°	8785.3	7649.8	6092.5	1287.3	737.2	336.7	228.5	138.5	108.2	97.1	72.8
62.5°	8295.9	7141.1	5407.9	802.9	684.6	329.7	203.3	157.7	98.1	86.0	63.7
65°	7552.7	6343.3	4509.0	517.7	518.7	366.1	178.0	154.7	92.0	75.8	54.6
67.5°	6390.8	5308.8	3552.4	346.8	293.2	312.5	155.7	106.2	90.0	64.7	42.5
70°	4664.7	3778.9	2312.6	231.6	174.9	249.8	130.4	75.8	84.9	53.6	30.3
72.5°	3409.8	2539.1	1291.3	151.7	99.1	145.6	96.1	54.6	65.7	39.4	21.2
75°	2454.2	1747.4	737.2	97.1	65.7	79.9	62.7	37.4	42.5	31.3	19.2
77.5°	1181.1	851.4	334.7	53.6	44.5	40.4	33.4	23.3	26.3	28.3	17.2
80°	44.5	33.4	25.3	26.3	28.3	18.2	15.2	12.1	15.2	19.2	9.1
82.5°	0.0	0.0	0.0	3.0	4.0	5.1	6.1	5.1	6.1	7.1	1.0
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°	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9
2.5°	410.5	408.5	410.5	412.6	414.6	416.6	413.6	415.6	417.6	412.6	414.6
5°	378.2	377.2	383.2	386.3	390.3	392.3	390.3	390.3	389.3	383.2	383.2
7.5°	349.9	350.9	355.9	363.0	368.1	371.1	369.1	368.1	365.0	355.9	355.9
10°	328.6	328.6	336.7	342.8	349.9	352.9	350.9	347.9	344.8	335.7	334.7
12.5°	311.5	311.5	317.5	327.6	335.7	339.8	338.8	334.7	329.7	320.6	319.5
15°	295.3	294.3	303.4	312.5	323.6	328.6	326.6	323.6	314.5	306.4	304.4
17.5°	279.1	278.1	286.2	298.3	310.4	317.5	316.5	309.4	301.3	291.2	289.2
20°	262.9	260.9	271.0	283.1	295.3	302.3	300.3	294.3	284.1	274.0	272.0
22.5°	246.7	245.7	252.8	262.9	274.0	280.1	279.1	274.0	263.9	254.8	254.8
25°	228.5	228.5	233.6	240.7	248.8	251.8	252.8	250.8	244.7	239.7	239.7
27.5°	213.4	210.3	212.4	214.4	218.4	223.5	223.5	225.5	226.5	224.5	225.5
30°	201.2	196.2	193.1	189.1	187.1	189.1	191.1	198.2	205.3	209.3	211.3
32.5°	187.1	181.0	172.9	161.8	154.7	152.7	158.8	171.9	185.1	194.2	199.2
35°	172.9	164.8	149.7	133.5	124.4	121.3	128.4	143.6	162.8	179.0	186.1
37.5°	158.8	147.6	126.4	107.2	97.1	95.1	102.1	118.3	140.6	162.8	171.9
40°	142.6	129.4	104.2	83.9	75.8	73.8	79.9	96.1	119.3	144.6	158.8
42.5°	126.4	110.2	83.9	66.7	58.6	58.6	66.7	78.9	100.1	127.4	144.6
45°	110.2	93.0	68.8	53.6	48.5	49.5	54.6	66.7	83.9	112.2	128.4
47.5°	95.1	79.9	56.6	44.5	40.4	41.5	47.5	57.6	71.8	97.1	114.3
50°	81.9	67.8	49.5	37.4	34.4	36.4	42.5	51.6	63.7	86.0	100.1
52.5°	73.8	60.7	45.5	32.4	30.3	32.4	38.4	46.5	57.6	75.8	90.0
55°	69.8	59.7	45.5	29.3	26.3	28.3	34.4	42.5	51.6	68.8	80.9
57.5°	68.8	61.7	48.5	26.3	22.2	24.3	30.3	38.4	47.5	62.7	72.8
60°	64.7	58.6	47.5	21.2	17.2	20.2	25.3	33.4	43.5	58.6	67.8
62.5°	56.6	51.6	41.5	17.2	13.1	15.2	21.2	29.3	39.4	53.6	63.7
65°	46.5	41.5	32.4	11.1	8.1	10.1	16.2	25.3	34.4	48.5	57.6
67.5°	34.4	29.3	22.2	7.1	4.0	7.1	13.1	21.2	31.3	43.5	52.6
70°	21.2	17.2	12.1	4.0	3.0	6.1	12.1	20.2	28.3	40.4	49.5
72.5°	12.1	8.1	5.1	2.0	3.0	6.1	12.1	20.2	27.3	38.4	46.5
75°	9.1	5.1	2.0	1.0	2.0	5.1	11.1	18.2	26.3	36.4	44.5
77.5°	6.1	3.0	1.0	0.0	1.0	4.0	10.1	17.2	24.3	34.4	42.5
80°	1.0	0.0	0.0	0.0	0.0	3.0	9.1	15.2	22.2	30.3	37.4
82.5°	0.0	0.0	0.0	0.0	0.0	1.0	7.1	13.1	19.2	25.3	30.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	4.0	10.1	15.2	19.2	21.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	10.1	12.1	14.2
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°	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9
2.5°	413.6	419.6	419.6	423.7	428.8	437.9	442.9	450.0	455.0	460.1	462.1
5°	382.2	383.2	384.3	386.3	392.3	402.5	411.6	422.7	435.8	445.9	452.0
7.5°	355.9	355.9	355.9	359.0	365.0	372.1	381.2	396.4	411.6	423.7	433.8
10°	333.7	336.7	337.7	342.8	349.9	359.0	369.1	382.2	399.4	415.6	433.8
12.5°	319.5	322.6	327.6	332.7	339.8	349.9	361.0	378.2	413.6	447.0	485.4
15°	306.4	310.4	316.5	323.6	331.7	342.8	354.9	390.3	473.2	535.9	596.6
17.5°	292.2	298.3	306.4	313.5	323.6	335.7	350.9	419.6	582.5	686.6	789.7
20°	274.0	282.1	291.2	302.3	314.5	328.6	350.9	480.3	740.2	889.9	1026.4
22.5°	256.8	264.9	276.1	290.2	304.4	318.5	355.9	572.3	943.5	1132.5	1305.5
25°	242.7	252.8	263.9	276.1	292.2	308.4	368.1	701.8	1188.2	1431.9	1554.2
27.5°	229.5	241.7	252.8	262.9	277.1	295.3	395.4	874.7	1477.4	1725.1	1821.2
30°	216.4	230.6	241.7	251.8	265.9	285.2	436.8	1095.1	1798.9	2039.6	2049.7
32.5°	205.3	218.4	231.6	241.7	254.8	277.1	494.5	1353.0	2128.6	2361.2	2266.1
35°	193.1	208.3	220.4	231.6	245.7	270.0	561.2	1631.1	2461.3	2656.4	2481.5
37.5°	181.0	198.2	213.4	221.5	235.6	262.9	609.8	1921.3	2801.0	2944.6	2670.6
40°	169.9	189.1	206.3	214.4	221.5	253.8	616.8	2218.6	3145.9	3228.8	2848.6
42.5°	157.7	179.0	194.2	205.3	211.3	247.7	574.4	2469.4	3435.1	3511.9	3081.1
45°	144.6	169.9	182.0	190.1	202.2	251.8	519.8	2663.5	3765.7	3898.2	3464.4
47.5°	131.5	159.8	169.9	175.9	192.1	276.1	499.5	2792.9	4310.8	4585.8	4110.5
50°	119.3	150.7	161.8	160.8	190.1	307.4	521.8	2891.0	5129.8	5453.4	4996.4
52.5°	106.2	140.6	153.7	149.7	205.3	331.7	566.3	2968.9	5759.8	6470.7	6186.5
55°	95.1	129.4	141.6	140.6	233.6	349.9	600.7	2558.3	6020.7	7416.2	7527.4
57.5°	87.0	117.3	127.4	144.6	251.8	349.9	694.7	1816.1	6025.8	8111.9	9307.1
60°	79.9	106.2	113.3	158.8	244.7	331.7	687.6	1112.3	5553.5	8064.3	10253.6
62.5°	73.8	96.1	105.2	162.8	216.4	328.6	620.9	689.6	4736.5	7450.5	9567.0
65°	68.8	88.0	101.1	149.7	196.2	351.9	418.6	495.5	3841.6	6750.8	8779.3
67.5°	63.7	80.9	107.2	122.4	178.0	314.5	302.3	351.9	3015.4	5983.3	8056.3
70°	59.7	76.9	113.3	100.1	155.7	245.7	214.4	267.0	2308.6	4992.3	7038.0
72.5°	56.6	71.8	95.1	78.9	126.4	190.1	149.7	194.2	1508.7	3897.2	5737.6
75°	53.6	65.7	69.8	63.7	94.0	124.4	113.3	130.4	899.0	2848.6	4353.2
77.5°	52.6	61.7	56.6	51.6	63.7	73.8	86.0	88.0	438.9	1424.8	2281.3
80°	46.5	55.6	48.5	42.5	43.5	48.5	63.7	58.6	100.1	362.0	608.7
82.5°	36.4	43.5	40.4	35.4	35.4	35.4	42.5	39.4	32.4	162.8	275.0
85°	25.3	30.3	30.3	28.3	27.3	27.3	26.3	25.3	9.1	10.1	15.2
87.5°	17.2	21.2	22.2	21.2	18.2	16.2	14.2	12.1	4.0	0.0	2.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9	442.9
2.5°	469.2	472.2	472.2	468.2	465.2	457.1	449.0	440.9	438.9	437.9
5°	469.2	481.3	487.4	486.4	479.3	466.2	449.0	430.8	425.7	423.7
7.5°	462.1	485.4	503.6	506.6	493.5	470.2	438.9	411.6	404.5	401.4
10°	478.3	523.8	560.2	565.3	550.1	504.6	454.0	407.5	396.4	389.3
12.5°	565.3	640.1	684.6	705.8	676.5	618.9	534.9	452.0	426.7	415.6
15°	741.2	847.4	932.3	932.3	905.0	802.9	696.7	562.2	527.8	497.5
17.5°	966.7	1100.2	1175.0	1166.9	1125.5	1053.7	926.3	733.1	663.3	632.0
20°	1223.6	1303.4	1320.6	1315.6	1297.4	1255.9	1167.9	960.6	866.6	818.1
22.5°	1446.0	1424.8	1399.5	1379.3	1374.2	1386.4	1374.2	1214.5	1140.6	1054.7
25°	1596.7	1476.4	1400.5	1364.1	1381.3	1451.1	1526.9	1467.3	1408.6	1319.6
27.5°	1678.6	1470.3	1361.1	1323.7	1353.0	1452.1	1616.9	1718.0	1657.4	1614.9
30°	1723.1	1465.2	1335.8	1299.4	1343.9	1468.3	1679.6	1952.6	1954.7	1886.9
32.5°	1786.8	1497.6	1340.9	1307.5	1367.1	1516.8	1758.5	2191.3	2249.9	2213.5
35°	1858.6	1547.1	1364.1	1333.8	1407.6	1581.5	1846.5	2431.9	2554.3	2542.2
37.5°	1926.3	1602.8	1418.7	1389.4	1469.3	1637.1	1931.4	2668.6	2838.4	2880.9
40°	1997.1	1680.6	1586.6	1614.9	1659.4	1725.1	2007.2	2873.8	3150.9	3214.6
42.5°	2164.0	1950.6	2094.2	2147.8	2153.9	2018.4	2173.1	3136.8	3458.3	3534.2
45°	2536.1	2430.9	2842.5	2918.3	2878.9	2468.3	2572.5	3516.0	3888.1	3926.5
47.5°	3006.3	3054.8	3866.8	4128.7	3892.1	2999.2	3056.9	4313.8	4674.8	4660.6
50°	3554.4	3783.9	5029.7	5647.6	5081.3	3688.9	3615.1	5294.7	5732.5	5689.0
52.5°	4202.6	4631.3	6427.2	7304.9	6769.0	4464.5	4434.1	6594.1	6861.0	6722.5
55°	5018.6	5449.4	8035.0	9261.6	8499.2	5410.9	5515.1	8100.7	8152.3	7712.4
57.5°	6236.1	6516.2	9930.0	11505.5	10305.2	6697.2	7452.6	10106.0	9489.1	8655.9
60°	8446.6	7888.4	11761.3	13800.9	12226.5	8506.2	10007.9	11294.1	9934.1	8785.3
62.5°	9216.1	9053.3	12908.0	14771.7	13518.8	9991.7	10672.2	10620.7	9357.7	8295.9
65°	8050.2	8763.1	12702.7	14259.0	13352.9	9747.0	9577.1	9877.4	8708.5	7552.7
67.5°	7436.4	8081.5	11925.1	12844.3	12433.8	8916.8	8536.6	8454.7	7311.0	6390.8
70°	6817.5	7456.6	10797.6	10911.9	10720.8	7563.8	7064.3	6515.2	5464.5	4664.7
72.5°	6073.3	6425.2	9233.3	8691.3	8474.9	5940.8	5835.7	4906.4	4096.4	3409.8
75°	5296.7	5194.6	7198.8	5965.1	6126.9	4622.2	4928.6	3602.9	3001.3	2454.2
77.5°	3852.7	3776.8	4821.4	3623.1	4012.5	3027.5	2720.1	1437.9	1369.2	1181.1
80°	2149.8	2591.7	2603.8	2030.5	2533.1	1973.9	680.5	47.5	30.3	44.5
82.5°	999.1	1114.3	1411.6	941.4	1445.0	977.8	140.6	0.0	0.0	0.0
85°	323.6	473.2	396.4	138.5	349.9	330.7	23.3	0.0	0.0	0.0
87.5°	19.2	39.4	10.1	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

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



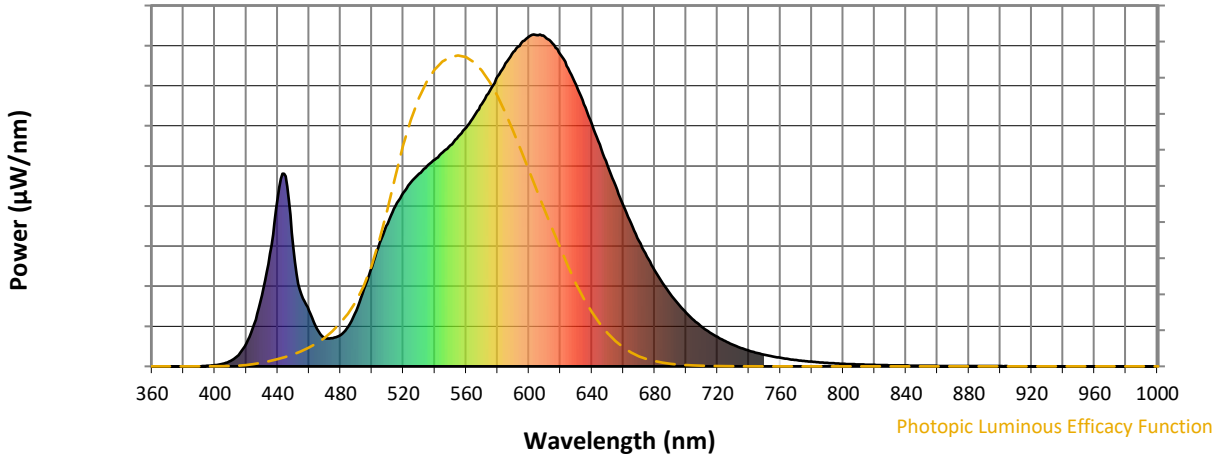
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

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

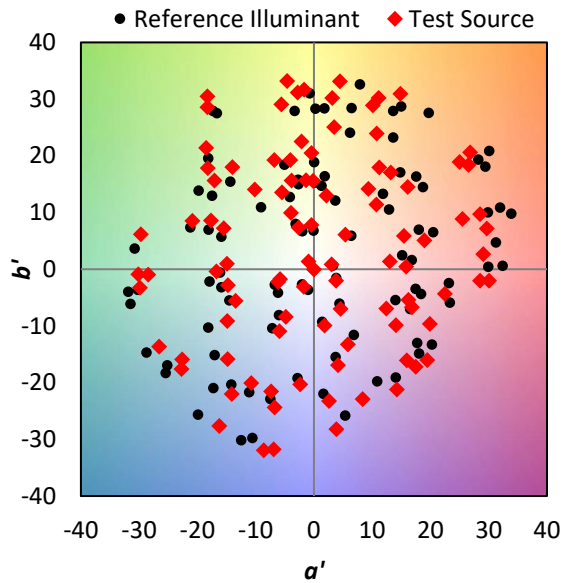
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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