

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: P640956

Luminaire Tested: GWS-SA5E-830-U-SLL-W-HSS

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640956  
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-SA5E-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**

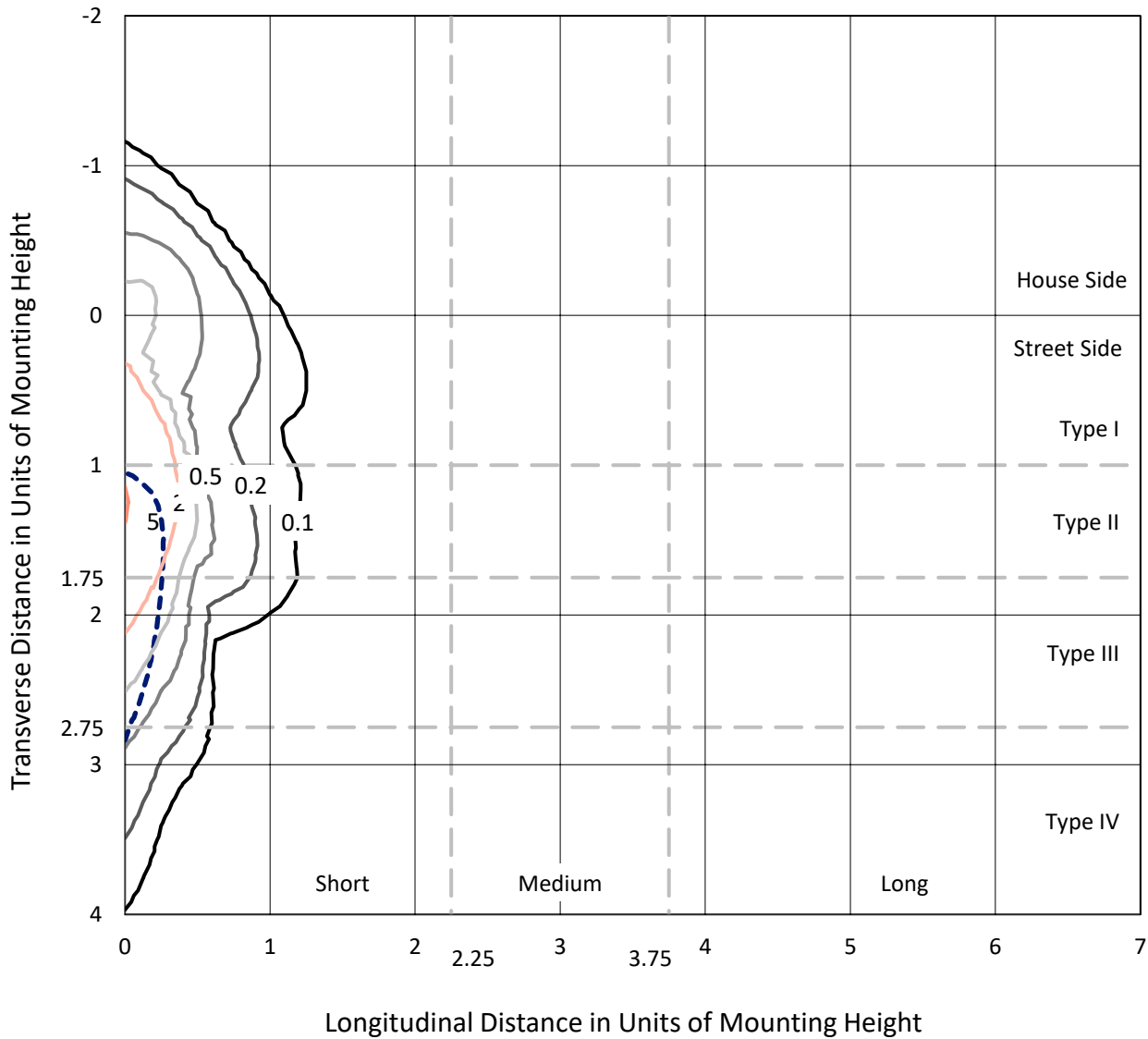
Lumens per Lamp: N/A  
Luminaire Lumens: 18056.2 lumens  
Efficiency: N/A  
Efficacy: 67.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 269.6  
Input Voltage (V): 120  
Input Current (Ain): 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

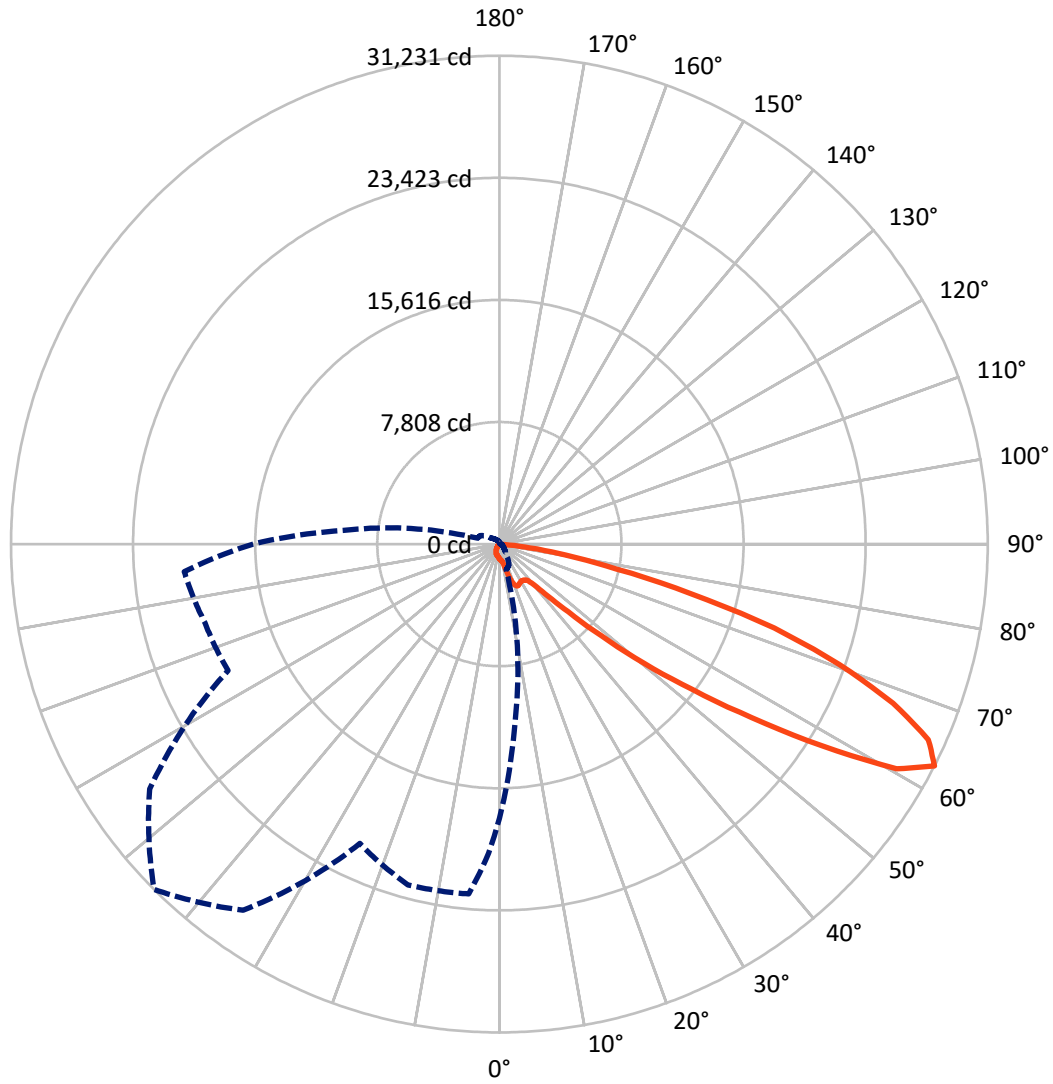
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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
<b>House Side</b>	Lumens	2097.9	0.0	2097.9
	% Fixture	11.6	0.0	11.6
<b>Street Side</b>	Lumens	15958.3	0.0	15958.3
	% Fixture	88.4	0.0	88.4
<b>Total</b>	Lumens	18056.2	0.0	18056.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	0.4
10°-20°	277.2	1.5
20°-30°	626.1	3.5
30°-40°	1078.7	6.0
40°-50°	2034.8	11.3
50°-60°	4543.1	25.2
60°-70°	6076.3	33.7
70°-80°	3047.1	16.9
80°-90°	292.1	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°	18056.2	100.0
0°-180°	18056.2	100.0

**Coefficient of Utilization**



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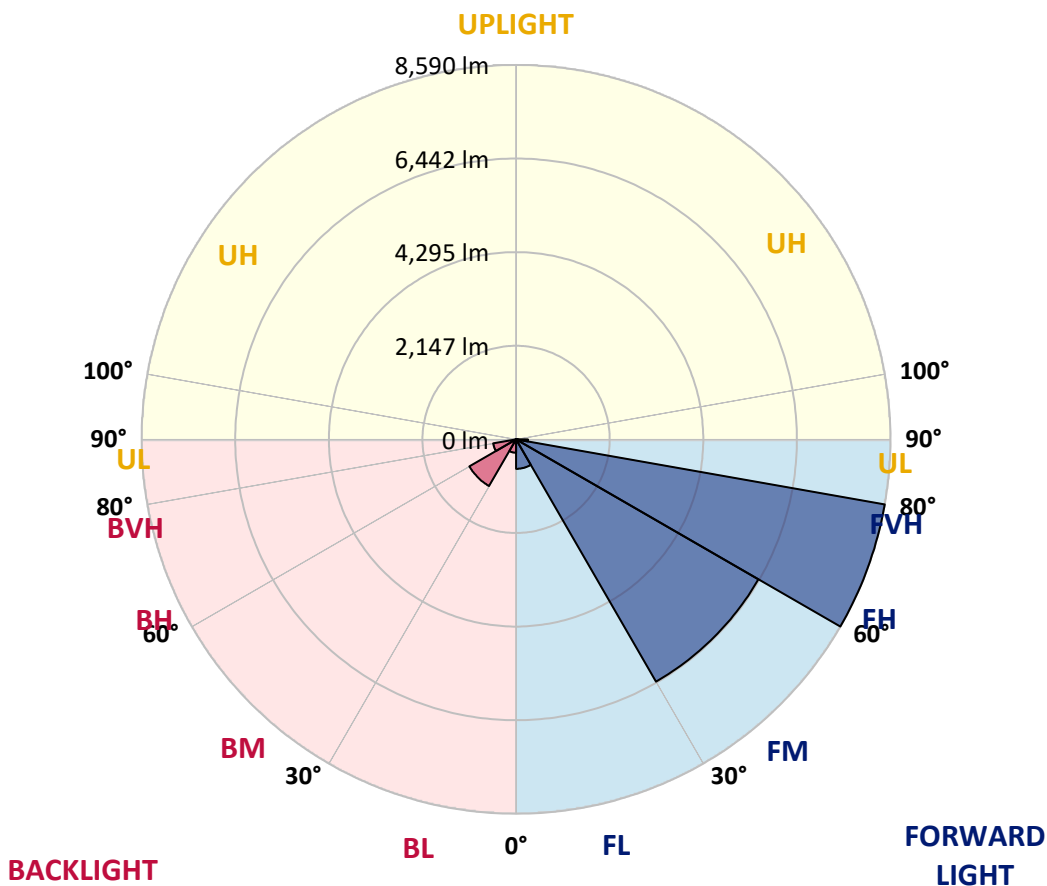
CATALOG NUMBER: GWS-SA5E-830-U-SLL-W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	676.2	3.7			
FM (30°-60°)	6419.5	35.6			
FH (60°-80°)	8589.9	47.6			G4/12000
FVH (80°-90°)	272.6	1.5			G3/500
BL (0°-30°)	307.9	1.7	B1/500		
BM (30°-60°)	1237.0	6.9	B2/2500		
BH (60°-80°)	533.5	3.0	B2/1000		G2/1000
BVH (80°-90°)	19.4	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	925.7	923.6	919.3	906.5	895.8	889.4	876.6	876.6	874.4	870.1	861.6
5°	895.8	887.2	878.7	855.2	829.5	814.6	797.5	795.3	795.3	791.0	788.9
7.5°	848.8	840.2	829.5	791.0	767.5	752.6	737.6	735.5	729.0	729.0	729.0
10°	823.1	810.3	793.2	750.4	726.9	714.1	703.4	697.0	692.7	686.3	684.1
12.5°	878.7	855.2	818.8	741.9	709.8	692.7	679.9	675.6	662.8	654.2	647.8
15°	1051.9	994.1	921.5	761.1	703.4	677.7	660.6	652.1	641.4	626.4	615.7
17.5°	1336.2	1252.8	1131.0	823.1	697.0	664.9	643.5	628.6	613.6	596.5	583.7
20°	1729.6	1605.6	1460.2	936.4	697.0	649.9	624.3	605.0	583.7	564.4	549.5
22.5°	2229.9	2105.9	1857.9	1128.8	705.5	630.7	600.8	575.1	549.5	532.3	515.2
25°	2790.0	2614.7	2383.8	1361.9	729.0	605.0	573.0	547.3	523.8	502.4	483.2
27.5°	3414.3	3224.0	2916.2	1693.3	780.4	579.4	543.0	519.5	498.1	476.8	451.1
30°	3989.4	3876.1	3561.8	2090.9	863.7	562.3	519.5	498.1	476.8	449.0	425.5
32.5°	4680.0	4479.0	4220.3	2544.2	974.9	545.2	500.3	470.3	453.2	427.6	401.9
35°	5374.8	5203.8	4863.8	3102.2	1098.9	528.1	476.8	449.0	434.0	404.1	376.3
37.5°	6091.0	6052.5	5716.9	3720.0	1220.8	508.8	449.0	431.9	416.9	382.7	350.6
40°	6796.5	6726.0	6416.0	4425.5	1295.6	487.5	425.5	414.8	397.7	359.2	322.8
42.5°	7472.1	7418.7	7117.2	5101.1	1284.9	468.2	401.9	389.1	376.3	337.8	292.9
45°	8301.6	8214.0	7833.4	5601.4	1175.9	489.6	378.4	357.0	354.9	318.6	263.0
47.5°	9853.8	9565.2	8919.5	5986.2	1066.8	545.2	352.8	327.1	342.1	299.3	233.0
50°	12028.1	11688.2	10753.9	6285.6	1064.7	617.9	348.5	299.3	331.4	284.3	207.4
52.5°	14213.1	13614.4	12479.2	6445.9	1143.8	671.3	387.0	271.5	318.6	269.4	188.1
55°	16306.1	15064.0	13201.8	5915.7	1205.8	729.0	457.5	256.6	295.0	252.3	177.4
57.5°	18300.8	16229.2	13516.1	4680.0	1413.2	752.6	500.3	263.0	260.8	230.9	168.9
60°	18574.5	16173.6	12881.1	2721.6	1558.6	711.9	483.2	292.9	228.8	205.2	153.9
62.5°	17539.7	15098.2	11433.7	1697.5	1447.4	697.0	429.7	333.5	207.4	181.7	134.7
65°	15968.3	13411.3	9533.1	1094.6	1096.8	773.9	376.3	327.1	194.6	160.3	115.4
67.5°	13511.8	11224.2	7510.6	733.3	620.0	660.6	329.2	224.5	190.3	136.8	89.8
70°	9862.3	7989.5	4889.5	489.6	369.9	528.1	275.8	160.3	179.6	113.3	64.1
72.5°	7209.2	5368.4	2730.2	320.7	209.5	307.9	203.1	115.4	139.0	83.4	44.9
75°	5188.8	3694.4	1558.6	205.2	139.0	168.9	132.6	79.1	89.8	66.3	40.6
77.5°	2497.1	1800.2	707.7	113.3	94.1	85.5	70.6	49.2	55.6	59.9	36.3
80°	94.1	70.6	53.4	55.6	59.9	38.5	32.1	25.7	32.1	40.6	19.2
82.5°	0.0	0.0	0.0	6.4	8.6	10.7	12.8	10.7	12.8	15.0	2.1
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°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	868.0	863.7	868.0	872.3	876.6	880.8	874.4	878.7	883.0	872.3	876.6
5°	799.6	797.5	810.3	816.7	825.2	829.5	825.2	825.2	823.1	810.3	810.3
7.5°	739.7	741.9	752.6	767.5	778.2	784.6	780.4	778.2	771.8	752.6	752.6
10°	694.8	694.8	711.9	724.8	739.7	746.1	741.9	735.5	729.0	709.8	707.7
12.5°	658.5	658.5	671.3	692.7	709.8	718.3	716.2	707.7	697.0	677.7	675.6
15°	624.3	622.1	641.4	660.6	684.1	694.8	690.6	684.1	664.9	647.8	643.5
17.5°	590.1	587.9	605.0	630.7	656.3	671.3	669.2	654.2	637.1	615.7	611.5
20°	555.9	551.6	573.0	598.6	624.3	639.2	635.0	622.1	600.8	579.4	575.1
22.5°	521.7	519.5	534.5	555.9	579.4	592.2	590.1	579.4	558.0	538.8	538.8
25°	483.2	483.2	493.9	508.8	525.9	532.3	534.5	530.2	517.4	506.7	506.7
27.5°	451.1	444.7	449.0	453.2	461.8	472.5	472.5	476.8	478.9	474.6	476.8
30°	425.5	414.8	408.3	399.8	395.5	399.8	404.1	419.0	434.0	442.6	446.8
32.5°	395.5	382.7	365.6	342.1	327.1	322.8	335.7	363.5	391.2	410.5	421.2
35°	365.6	348.5	316.4	282.2	263.0	256.6	271.5	303.6	344.2	378.4	393.4
37.5°	335.7	312.1	267.2	226.6	205.2	201.0	215.9	250.1	297.2	344.2	363.5
40°	301.5	273.7	220.2	177.4	160.3	156.1	168.9	203.1	252.3	305.7	335.7
42.5°	267.2	233.0	177.4	141.1	124.0	124.0	141.1	166.8	211.7	269.4	305.7
45°	233.0	196.7	145.4	113.3	102.6	104.8	115.4	141.1	177.4	237.3	271.5
47.5°	201.0	168.9	119.7	94.1	85.5	87.7	100.5	121.9	151.8	205.2	241.6
50°	173.2	143.2	104.8	79.1	72.7	77.0	89.8	109.0	134.7	181.7	211.7
52.5°	156.1	128.3	96.2	68.4	64.1	68.4	81.2	98.3	121.9	160.3	190.3
55°	147.5	126.1	96.2	62.0	55.6	59.9	72.7	89.8	109.0	145.4	171.0
57.5°	145.4	130.4	102.6	55.6	47.0	51.3	64.1	81.2	100.5	132.6	153.9
60°	136.8	124.0	100.5	44.9	36.3	42.8	53.4	70.6	91.9	124.0	143.2
62.5°	119.7	109.0	87.7	36.3	27.8	32.1	44.9	62.0	83.4	113.3	134.7
65°	98.3	87.7	68.4	23.5	17.1	21.4	34.2	53.4	72.7	102.6	121.9
67.5°	72.7	62.0	47.0	15.0	8.6	15.0	27.8	44.9	66.3	91.9	111.2
70°	44.9	36.3	25.7	8.6	6.4	12.8	25.7	42.8	59.9	85.5	104.8
72.5°	25.7	17.1	10.7	4.3	6.4	12.8	25.7	42.8	57.7	81.2	98.3
75°	19.2	10.7	4.3	2.1	4.3	10.7	23.5	38.5	55.6	77.0	94.1
77.5°	12.8	6.4	2.1	0.0	2.1	8.6	21.4	36.3	51.3	72.7	89.8
80°	2.1	0.0	0.0	0.0	0.0	6.4	19.2	32.1	47.0	64.1	79.1
82.5°	0.0	0.0	0.0	0.0	0.0	2.1	15.0	27.8	40.6	53.4	64.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	8.6	21.4	32.1	40.6	44.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	21.4	25.7	29.9
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°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	874.4	887.2	887.2	895.8	906.5	925.7	936.4	951.4	962.1	972.8	977.0
5°	808.1	810.3	812.4	816.7	829.5	850.9	870.1	893.7	921.5	942.8	955.7
7.5°	752.6	752.6	752.6	759.0	771.8	786.8	806.0	838.1	870.1	895.8	917.2
10°	705.5	711.9	714.1	724.8	739.7	759.0	780.4	808.1	844.5	878.7	917.2
12.5°	675.6	682.0	692.7	703.4	718.3	739.7	763.2	799.6	874.4	945.0	1026.2
15°	647.8	656.3	669.2	684.1	701.2	724.8	750.4	825.2	1000.6	1133.1	1261.4
17.5°	617.9	630.7	647.8	662.8	684.1	709.8	741.9	887.2	1231.5	1451.7	1669.7
20°	579.4	596.5	615.7	639.2	664.9	694.8	741.9	1015.5	1565.0	1881.4	2170.0
22.5°	543.0	560.1	583.7	613.6	643.5	673.5	752.6	1210.1	1994.7	2394.5	2760.1
25°	513.1	534.5	558.0	583.7	617.9	652.1	778.2	1483.7	2512.1	3027.3	3286.0
27.5°	485.3	511.0	534.5	555.9	585.8	624.3	835.9	1849.3	3123.5	3647.3	3850.4
30°	457.5	487.5	511.0	532.3	562.3	602.9	923.6	2315.4	3803.4	4312.2	4333.6
32.5°	434.0	461.8	489.6	511.0	538.8	585.8	1045.5	2860.6	4500.4	4992.1	4791.1
35°	408.3	440.4	466.1	489.6	519.5	570.8	1186.6	3448.5	5203.8	5616.4	5246.5
37.5°	382.7	419.0	451.1	468.2	498.1	555.9	1289.2	4062.1	5922.1	6225.7	5646.3
40°	359.2	399.8	436.1	453.2	468.2	536.6	1304.1	4690.7	6651.2	6826.5	6022.6
42.5°	333.5	378.4	410.5	434.0	446.8	523.8	1214.4	5220.9	7262.6	7425.1	6514.3
45°	305.7	359.2	384.8	401.9	427.6	532.3	1098.9	5631.4	7961.7	8241.8	7324.6
47.5°	277.9	337.8	359.2	372.0	406.2	583.7	1056.1	5905.0	9114.1	9695.6	8690.8
50°	252.3	318.6	342.1	339.9	401.9	649.9	1103.2	6112.4	10845.8	11529.9	10563.6
52.5°	224.5	297.2	325.0	316.4	434.0	701.2	1197.2	6277.0	12177.7	13680.7	13080.0
55°	201.0	273.7	299.3	297.2	493.9	739.7	1269.9	5409.0	12729.3	15679.7	15914.9
57.5°	183.9	248.0	269.4	305.7	532.3	739.7	1468.8	3839.8	12740.0	17150.6	19677.7
60°	168.9	224.5	239.4	335.7	517.4	701.2	1453.8	2351.7	11741.6	17050.1	21678.8
62.5°	156.1	203.1	222.3	344.2	457.5	694.8	1312.7	1458.1	10014.1	15752.4	20227.1
65°	145.4	186.0	213.8	316.4	414.8	744.0	885.1	1047.6	8122.1	14272.9	18561.6
67.5°	134.7	171.0	226.6	258.7	376.3	664.9	639.2	744.0	6375.4	12650.2	17033.0
70°	126.1	162.5	239.4	211.7	329.2	519.5	453.2	564.4	4880.9	10555.0	14880.1
72.5°	119.7	151.8	201.0	166.8	267.2	401.9	316.4	410.5	3189.8	8239.6	12130.7
75°	113.3	139.0	147.5	134.7	198.8	263.0	239.4	275.8	1900.6	6022.6	9203.9
77.5°	111.2	130.4	119.7	109.0	134.7	156.1	181.7	186.0	927.9	3012.4	4823.2
80°	98.3	117.6	102.6	89.8	91.9	102.6	134.7	124.0	211.7	765.4	1287.0
82.5°	77.0	91.9	85.5	74.8	74.8	74.8	89.8	83.4	68.4	344.2	581.5
85°	53.4	64.1	64.1	59.9	57.7	57.7	55.6	53.4	19.2	21.4	32.1
87.5°	36.3	44.9	47.0	44.9	38.5	34.2	29.9	25.7	8.6	0.0	4.3
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-SA5E-830-U-SLL-W-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	992.0	998.4	998.4	989.9	983.5	966.4	949.2	932.1	927.9	925.7
5°	992.0	1017.7	1030.5	1028.4	1013.4	985.6	949.2	910.8	900.1	895.8
7.5°	977.0	1026.2	1064.7	1071.1	1043.3	994.1	927.9	870.1	855.2	848.8
10°	1011.2	1107.5	1184.4	1195.1	1163.0	1066.8	959.9	861.6	838.1	823.1
12.5°	1195.1	1353.3	1447.4	1492.3	1430.3	1308.4	1131.0	955.7	902.2	878.7
15°	1567.1	1791.6	1971.2	1971.2	1913.5	1697.5	1473.0	1188.7	1116.0	1051.9
17.5°	2043.9	2326.1	2484.3	2467.2	2379.5	2227.7	1958.4	1550.0	1402.5	1336.2
20°	2586.9	2755.8	2792.2	2781.5	2743.0	2655.3	2469.3	2031.0	1832.2	1729.6
22.5°	3057.3	3012.4	2958.9	2916.2	2905.5	2931.1	2905.5	2567.7	2411.6	2229.9
25°	3375.8	3121.4	2961.1	2884.1	2920.4	3068.0	3228.3	3102.2	2978.2	2790.0
27.5°	3549.0	3108.6	2877.7	2798.6	2860.6	3070.1	3418.6	3632.4	3504.1	3414.3
30°	3643.1	3097.9	2824.2	2747.3	2841.3	3104.3	3551.1	4128.4	4132.7	3989.4
32.5°	3777.8	3166.3	2834.9	2764.4	2890.5	3206.9	3717.9	4632.9	4756.9	4680.0
35°	3929.5	3271.1	2884.1	2820.0	2976.0	3343.7	3903.9	5141.8	5400.5	5374.8
37.5°	4072.8	3388.6	2999.5	2937.5	3106.4	3461.3	4083.5	5642.0	6001.2	6091.0
40°	4222.4	3553.3	3354.4	3414.3	3508.4	3647.3	4243.8	6076.0	6661.8	6796.5
42.5°	4575.2	4124.1	4427.7	4541.0	4553.8	4267.3	4594.4	6631.9	7311.8	7472.1
45°	5362.0	5139.6	6009.8	6170.1	6086.7	5218.7	5438.9	7433.6	8220.4	8301.6
47.5°	6356.1	6458.7	8175.5	8729.2	8229.0	6341.1	6463.0	9120.5	9883.7	9853.8
50°	7514.9	8000.2	10634.1	11940.4	10743.2	7799.2	7643.2	11194.3	12120.0	12028.1
52.5°	8885.3	9791.8	13588.8	15444.5	14311.4	9439.0	9374.9	13941.5	14506.0	14213.1
55°	10610.6	11521.4	16988.1	19581.5	17969.4	11440.2	11660.4	17127.1	17236.1	16306.1
57.5°	13184.7	13776.9	20994.6	24325.6	21787.8	14159.6	15756.7	21366.6	20062.5	18300.8
60°	17858.3	16678.1	24866.5	29178.7	25849.9	17984.4	21159.3	23878.7	21003.2	18574.5
62.5°	19485.2	19141.0	27290.9	31231.1	28582.2	21125.0	22563.9	22454.8	19784.6	17539.7
65°	17020.2	18527.4	26856.9	30147.2	28231.6	20607.7	20248.5	20883.5	18412.0	15968.3
67.5°	15722.5	17086.5	25212.8	27156.2	26288.2	18852.4	18048.5	17875.4	15457.4	13511.8
70°	14414.0	15765.2	22829.0	23070.6	22666.5	15991.8	14935.7	13774.8	11553.5	9862.3
72.5°	12840.5	13584.5	19521.6	18375.6	17918.1	12560.4	12338.1	10373.3	8660.8	7209.2
75°	11198.6	10982.6	15220.0	12611.7	12953.8	9772.6	10420.4	7617.5	6345.4	5188.8
77.5°	8145.6	7985.2	10193.7	7660.3	8483.4	6401.0	5751.1	3040.2	2894.8	2497.1
80°	4545.3	5479.6	5505.2	4293.0	5355.6	4173.3	1438.8	100.5	64.1	94.1
82.5°	2112.3	2356.0	2984.6	1990.4	3055.1	2067.4	297.2	0.0	0.0	0.0
85°	684.1	1000.6	838.1	292.9	739.7	699.1	49.2	0.0	0.0	0.0
87.5°	40.6	83.4	21.4	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**

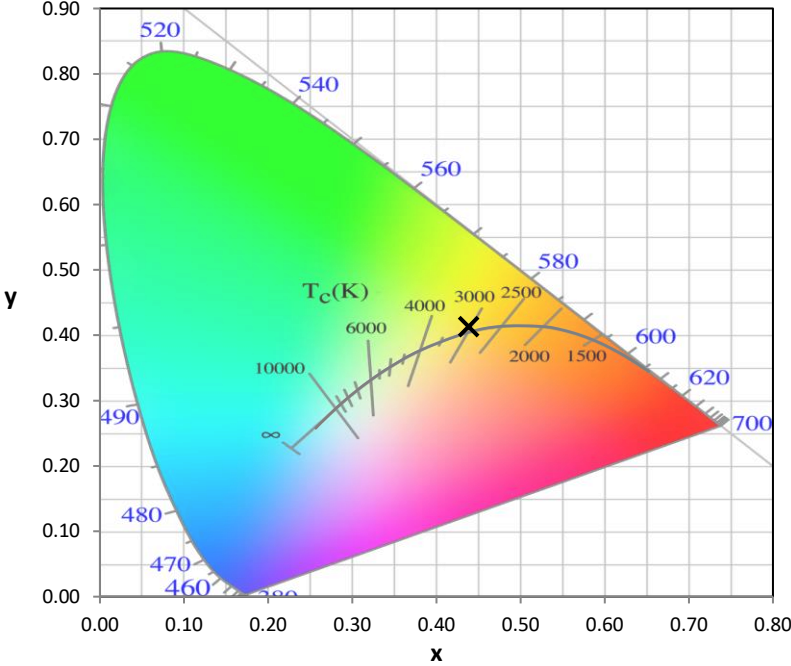
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

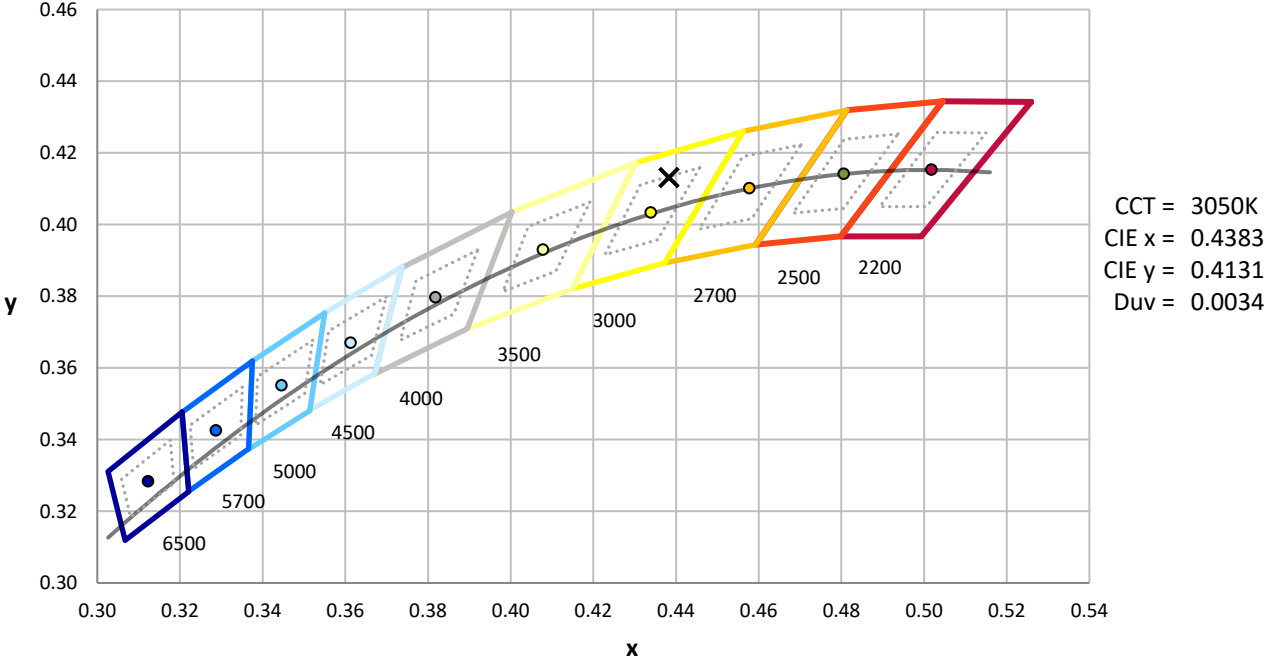
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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



CCT = 3050K  
 CIE x = 0.4383  
 CIE y = 0.4131  
 Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.27**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			



REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

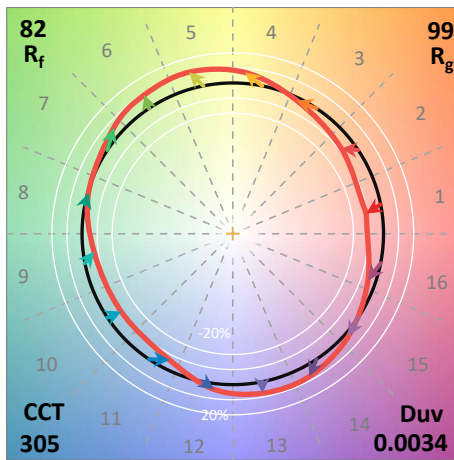
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

**Summary**

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



**Color Vector Graphics**



**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)