

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: P629578

Luminaire Tested: GWS-SA1B-830-U-SLR-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P629578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA1B-830-U-SLR-W  
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

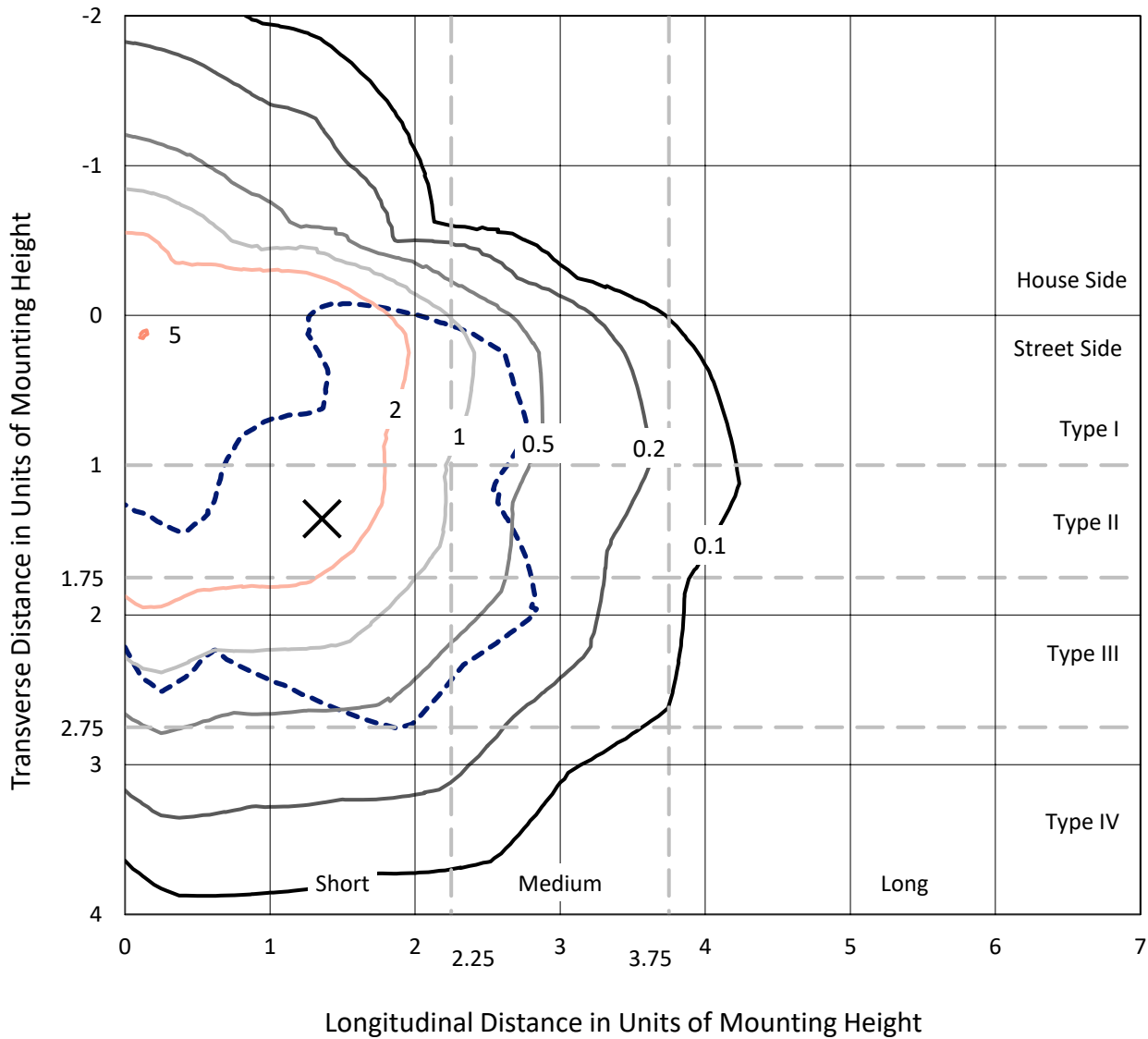
Lumens per Lamp: N/A  
Luminaire Lumens: 2695.8 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 25  
Input Voltage (V): 120  
Input Current (Ain): 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

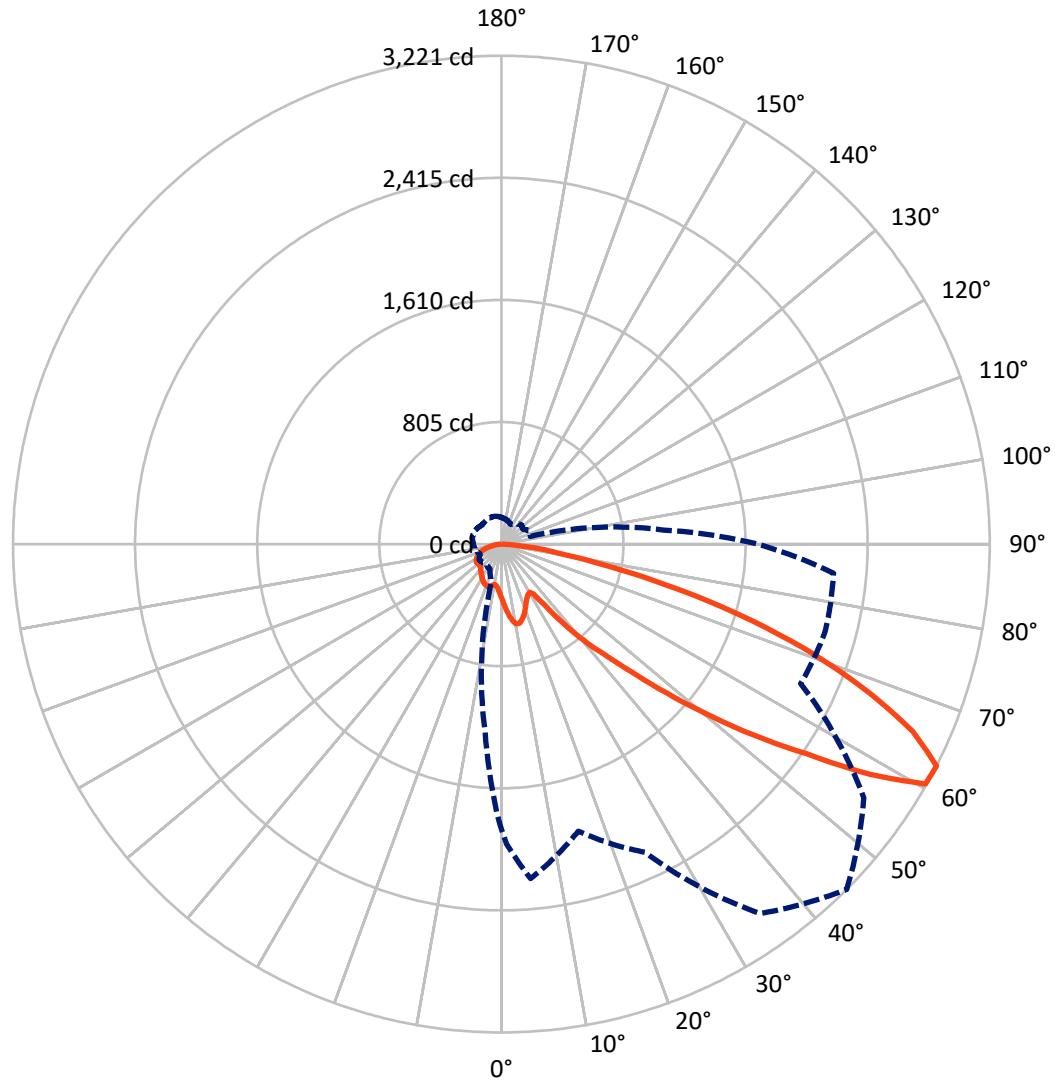
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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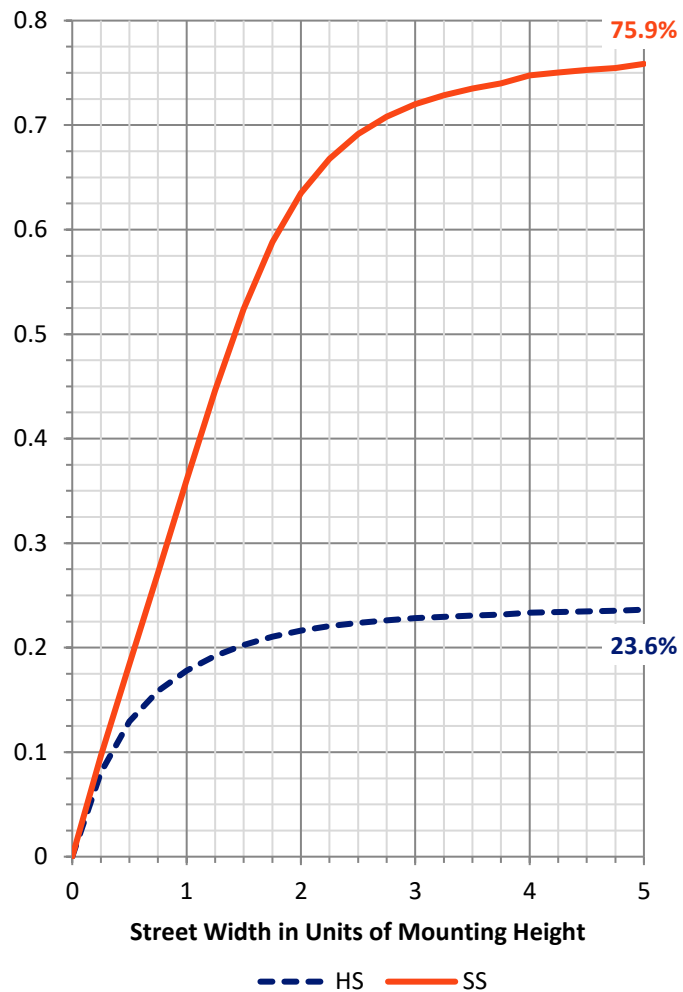
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	643.3	0.0	643.3
	% Fixture	23.9	0.0	23.9
<b>Street Side</b>	Lumens	2052.5	0.0	2052.5
	% Fixture	76.1	0.0	76.1
<b>Total</b>	Lumens	2695.8	0.0	2695.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	1.3
10°-20°	109.5	4.1
20°-30°	170.1	6.3
30°-40°	231.0	8.6
40°-50°	366.1	13.6
50°-60°	645.8	24.0
60°-70°	718.6	26.7
70°-80°	364.4	13.5
80°-90°	55.2	2.0
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°	2695.8	100.0
0°-180°	2695.8	100.0

**Coefficient of Utilization**



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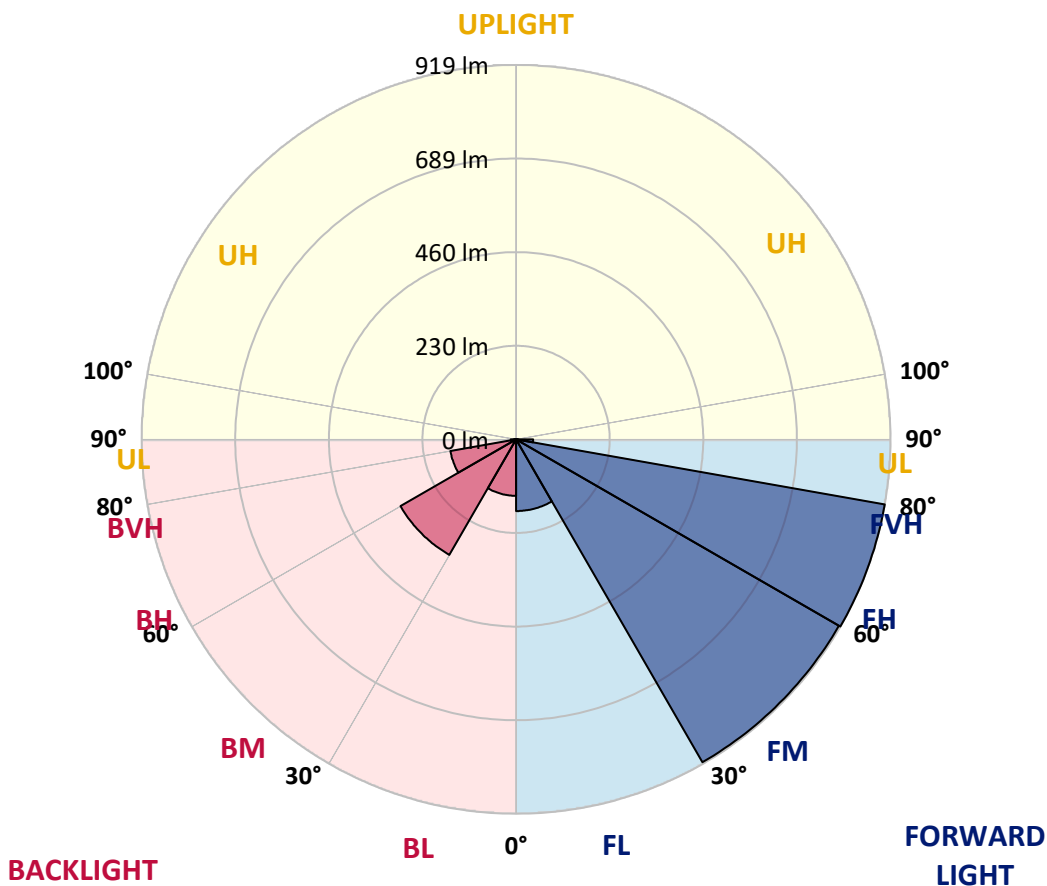
CATALOG NUMBER: GWS-SA1B-830-U-SLR-W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	176.0	6.5			
FM (30°-60°)	915.3	34.0			
FH (60°-80°)	919.3	34.1			G1/1800
FVH (80°-90°)	41.9	1.6			G1/100
BL (0°-30°)	138.6	5.1	B1/500		
BM (30°-60°)	327.6	12.2	B1/1000		
BH (60°-80°)	163.7	6.1	B1/500		G1/500
BVH (80°-90°)	13.3	0.5			G1/100
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	384.5	384.3	388.2	394.1	399.6	402.1	406.2	405.8	402.5	398.2	396.8
5°	414.7	415.5	422.3	435.3	449.8	456.0	458.6	457.6	451.7	444.1	430.9
7.5°	442.1	443.5	453.9	473.5	491.5	499.6	506.2	504.9	496.4	482.3	462.7
10°	462.1	463.7	476.2	499.2	519.2	526.4	534.7	535.2	527.6	508.6	488.6
12.5°	482.1	483.7	495.4	516.4	529.4	529.6	534.5	537.2	537.6	528.8	508.8
15°	502.9	504.3	514.9	526.8	526.2	514.7	514.7	519.8	531.1	537.4	523.5
17.5°	520.7	522.5	530.7	526.8	508.6	488.0	485.6	492.1	511.7	536.0	534.5
20°	535.4	536.8	541.3	515.6	482.5	455.6	450.9	458.4	484.9	527.2	542.9
22.5°	549.4	550.3	547.8	500.9	454.3	423.5	417.8	425.8	454.3	511.7	550.1
25°	566.2	565.4	553.7	485.6	428.6	398.2	392.3	401.3	431.1	491.1	557.8
27.5°	585.6	582.5	558.8	469.0	408.8	379.4	375.3	384.9	412.7	472.1	563.9
30°	602.1	596.2	559.6	454.3	398.6	371.5	369.0	378.0	403.7	459.2	571.7
32.5°	620.5	612.3	564.3	450.4	404.3	390.6	393.9	394.5	406.2	455.6	583.3
35°	646.8	636.2	577.2	461.7	463.1	486.2	498.0	482.1	443.1	463.7	605.4
37.5°	686.6	673.1	603.3	510.3	584.5	636.2	664.8	628.4	555.4	494.5	638.6
40°	735.0	717.8	636.8	600.1	698.0	780.7	831.5	778.2	670.9	571.5	685.4
42.5°	802.5	784.6	701.7	688.2	803.1	926.2	992.5	913.1	772.7	670.9	760.3
45°	920.3	902.9	820.7	776.6	926.2	1105.4	1198.5	1088.1	876.2	770.7	900.3
47.5°	1137.9	1117.4	997.4	874.6	1066.6	1338.1	1468.3	1307.5	983.8	885.0	1135.4
50°	1399.1	1379.5	1219.3	990.5	1221.7	1586.9	1767.9	1565.2	1107.7	1024.0	1416.5
52.5°	1713.4	1709.7	1535.9	1137.0	1383.2	1852.2	2100.4	1850.8	1243.4	1211.1	1734.9
55°	1996.7	2032.6	1937.9	1360.5	1591.8	2185.5	2442.3	2162.2	1427.5	1520.5	2107.7
57.5°	2149.4	2245.9	2391.4	1816.5	1895.1	2583.9	2864.1	2542.5	1743.8	2035.7	2453.5
60°	2048.6	2158.0	2421.6	2159.8	2195.9	2903.1	3212.3	2862.1	2054.5	2393.3	2433.9
62.5°	1880.8	1979.0	2213.5	1959.4	2242.4	2973.3	3220.5	2917.8	2178.0	2211.8	2198.6
65°	1681.8	1780.8	2029.2	1710.4	2094.5	2806.6	2982.9	2753.9	1956.1	1998.3	2003.2
67.5°	1417.5	1508.9	1761.8	1520.8	1909.2	2561.9	2618.2	2520.4	1801.4	1868.7	1798.3
70°	1059.1	1141.5	1364.8	1235.8	1609.3	2243.1	2197.5	2212.0	1627.7	1694.6	1502.2
72.5°	723.7	785.8	977.2	971.1	1232.4	1795.7	1732.2	1869.6	1359.5	1448.3	1145.2
75°	506.2	554.5	706.4	767.2	931.5	1330.9	1233.6	1399.3	1061.7	1188.5	835.6
77.5°	310.6	342.7	446.2	568.4	599.2	910.9	766.2	1053.0	745.6	866.8	557.4
80°	155.3	170.8	216.8	357.4	397.4	536.8	423.1	611.3	504.5	536.8	308.4
82.5°	46.9	51.8	63.5	135.7	205.9	309.0	250.0	355.1	275.5	251.7	121.4
85°	12.5	14.1	17.6	40.2	72.3	110.8	84.5	172.1	132.1	92.9	45.7
87.5°	1.0	1.0	0.8	0.8	0.4	0.0	0.0	12.2	24.7	14.1	8.0
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	389.6	388.8	380.4	374.3	367.2	360.2	353.1	346.8	339.6	332.5	330.4
5°	421.1	415.3	397.6	382.7	368.0	355.1	343.9	332.3	322.9	313.7	310.2
7.5°	448.8	438.8	413.1	390.4	370.0	354.1	337.6	320.6	307.4	294.3	291.0
10°	473.9	460.7	428.2	399.6	377.0	358.8	339.4	316.8	297.6	281.7	277.4
12.5°	492.5	478.0	441.3	408.4	382.7	362.3	343.1	323.1	302.9	282.3	277.6
15°	507.2	492.1	452.1	415.1	382.9	356.6	338.0	331.1	324.7	304.5	295.9
17.5°	519.0	503.1	461.5	419.2	377.4	339.2	323.1	333.3	349.4	336.8	320.6
20°	529.8	513.7	468.6	422.1	365.1	315.3	306.4	328.0	352.3	351.9	337.4
22.5°	541.7	526.0	479.0	423.7	348.0	291.0	296.4	320.2	340.0	345.9	337.0
25°	556.8	542.9	493.5	427.4	328.6	274.3	289.0	310.2	326.8	328.2	322.9
27.5°	574.3	563.9	515.1	436.0	309.8	265.7	280.4	296.1	311.3	311.9	305.5
30°	593.5	586.6	535.2	443.1	295.7	263.1	269.4	282.1	291.7	293.3	287.8
32.5°	618.0	611.9	552.9	438.4	287.4	262.5	259.2	265.7	273.7	273.7	269.4
35°	651.7	643.1	571.7	420.4	277.2	260.0	248.4	250.2	253.7	254.3	251.9
37.5°	699.5	685.4	590.7	384.9	260.4	251.2	235.9	233.7	234.9	236.6	235.9
40°	758.6	735.6	618.4	342.3	240.4	234.3	223.1	218.8	217.8	221.0	222.3
42.5°	833.1	797.8	648.2	302.5	222.3	214.9	208.0	204.3	202.7	208.2	211.4
45°	952.1	894.0	676.8	263.1	212.1	198.4	193.7	191.0	191.9	198.4	202.5
47.5°	1157.7	1040.7	703.9	238.2	211.2	186.5	180.8	181.4	183.7	190.6	195.5
50°	1417.7	1237.3	722.1	227.8	213.7	179.4	171.9	175.1	178.6	185.3	191.0
52.5°	1682.4	1420.3	700.5	222.1	213.5	179.6	163.5	173.3	174.9	181.6	187.8
55°	1864.5	1440.7	605.2	213.3	210.2	187.8	157.0	172.5	173.5	179.6	185.1
57.5°	1933.8	1370.9	461.5	215.7	200.4	194.1	154.1	166.7	174.1	179.4	185.1
60°	1850.0	1239.3	280.4	222.1	184.7	193.7	155.9	156.3	169.0	178.0	183.7
62.5°	1691.8	1070.3	197.0	204.1	173.3	182.9	160.2	144.1	160.0	170.8	175.9
65°	1510.5	871.5	150.2	175.7	167.8	166.1	161.6	133.3	147.8	158.4	162.9
67.5°	1321.8	677.4	122.1	131.0	151.6	150.2	147.8	123.7	133.3	140.8	145.9
70°	1084.0	473.9	103.1	98.4	130.0	134.7	129.2	111.6	114.7	122.5	126.5
72.5°	792.9	295.3	84.7	81.2	104.5	117.8	114.9	98.4	99.8	107.2	110.4
75°	570.3	169.0	68.0	66.9	79.8	100.8	95.1	84.7	86.3	91.8	94.1
77.5°	362.5	94.1	52.5	53.9	57.1	75.3	81.2	72.5	72.5	75.7	77.6
80°	194.1	53.9	38.4	39.0	40.0	57.6	64.1	56.1	56.1	53.9	56.1
82.5°	79.2	31.0	26.3	24.5	26.7	39.4	44.9	35.7	37.4	33.7	34.5
85°	26.1	15.5	13.1	12.9	12.7	17.3	21.6	17.8	21.2	13.5	14.1
87.5°	3.5	2.9	1.6	1.2	1.4	0.6	1.2	1.4	1.4	1.0	1.0
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	329.0	327.4	321.5	322.9	321.9	320.2	321.9	318.8	321.3	322.1	327.2
5°	307.6	303.7	298.0	295.1	294.5	292.9	293.1	291.7	292.1	295.5	301.3
7.5°	288.4	284.7	280.2	278.2	276.4	274.5	274.3	274.1	275.7	278.8	284.3
10°	274.5	272.5	270.6	271.5	270.6	269.8	268.4	268.4	271.0	276.6	283.3
12.5°	274.5	274.1	274.5	277.0	276.8	277.0	275.1	276.1	283.5	292.9	302.5
15°	289.2	285.9	285.9	287.2	286.8	286.8	286.8	291.0	307.8	322.3	332.5
17.5°	307.2	297.6	293.5	292.9	292.7	292.7	293.5	302.7	328.8	344.1	350.0
20°	319.6	301.5	294.7	292.1	292.3	292.7	295.1	307.8	336.6	344.3	342.9
22.5°	321.9	298.4	290.2	286.4	287.0	287.4	291.0	304.5	325.9	327.2	324.3
25°	311.5	289.8	281.0	278.0	278.8	278.6	281.9	291.7	307.0	306.6	304.9
27.5°	295.9	276.1	269.6	267.6	269.0	267.4	268.4	275.9	287.8	287.4	286.8
30°	280.0	262.9	257.0	255.9	257.8	255.3	255.5	261.9	270.0	269.6	269.4
32.5°	264.1	249.6	244.3	244.3	246.1	243.5	243.9	249.4	254.9	253.3	253.3
35°	249.0	238.8	234.5	233.7	235.1	233.3	234.1	239.2	241.2	239.0	237.6
37.5°	235.7	231.2	227.0	224.1	224.3	224.5	227.0	230.8	229.6	226.3	224.5
40°	223.5	223.5	219.4	214.1	213.5	214.9	219.0	223.3	219.8	216.1	213.9
42.5°	214.7	216.6	212.7	207.4	206.1	208.6	213.1	216.1	212.1	208.0	204.9
45°	206.5	211.0	208.4	202.5	200.8	203.7	209.4	210.6	205.1	201.2	199.0
47.5°	200.8	207.0	205.1	199.4	197.0	201.0	207.0	206.8	199.8	195.7	193.9
50°	196.8	204.5	204.3	199.4	196.8	201.9	207.2	204.5	197.0	192.7	190.8
52.5°	193.5	204.3	205.7	202.9	201.0	205.5	208.8	203.7	194.9	190.4	189.0
55°	192.1	205.1	206.1	203.5	201.9	205.9	208.8	205.3	194.9	190.8	189.6
57.5°	192.5	204.1	204.3	200.6	197.8	202.9	207.4	206.3	197.2	192.5	191.0
60°	190.0	198.6	199.0	193.3	190.0	196.1	204.1	203.5	196.1	191.2	188.6
62.5°	181.9	189.4	189.6	184.3	179.6	188.4	197.2	197.0	190.2	185.3	182.3
65°	168.2	176.1	178.2	173.1	169.4	178.8	188.0	187.6	180.8	176.3	173.3
67.5°	151.2	159.8	163.7	160.2	158.8	167.4	175.9	175.7	170.2	165.9	163.3
70°	130.6	137.8	144.3	144.3	143.3	153.1	162.3	161.4	156.3	153.1	151.0
72.5°	113.5	119.0	121.0	123.1	126.1	136.3	144.1	144.7	141.0	139.4	141.0
75°	96.5	100.0	101.8	100.2	105.5	116.1	126.3	127.4	123.5	120.8	121.4
77.5°	79.4	83.3	85.1	81.4	81.0	94.5	106.9	109.2	105.9	101.8	103.1
80°	57.4	62.5	65.5	63.1	62.3	68.2	85.3	87.8	84.7	81.4	83.3
82.5°	35.1	38.0	38.8	41.2	46.3	48.8	54.9	63.1	60.8	58.0	63.1
85°	13.9	16.5	18.4	20.8	24.3	28.8	33.9	40.4	36.7	35.5	41.8
87.5°	0.8	0.2	0.0	0.4	3.5	6.7	14.5	20.0	16.7	18.0	21.6
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°	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8	357.8
2.5°	331.3	336.6	343.7	349.6	357.2	364.3	371.7	379.0	382.9	384.5
5°	307.8	317.6	329.0	341.7	356.4	371.9	387.6	403.7	413.9	414.7
7.5°	293.7	307.8	323.5	339.4	357.6	379.0	403.9	428.8	439.2	442.1
10°	298.2	313.9	326.4	341.3	361.3	388.0	417.4	446.6	458.6	462.1
12.5°	316.2	319.2	323.1	336.8	361.3	395.8	431.3	466.0	478.8	482.1
15°	331.1	316.4	309.4	323.9	356.4	402.5	446.0	484.3	499.8	502.9
17.5°	332.3	307.0	291.9	304.9	347.8	407.2	460.0	504.7	517.8	520.7
20°	319.8	297.0	277.4	285.3	336.2	409.2	470.2	519.6	532.5	535.4
22.5°	305.7	288.8	267.6	267.2	322.1	411.5	482.5	533.7	547.6	549.4
25°	292.5	277.6	259.6	253.9	305.7	415.8	499.0	554.9	565.6	566.2
27.5°	277.0	265.5	253.3	247.8	291.5	423.9	523.5	580.3	586.6	585.6
30°	262.9	254.3	248.8	247.2	282.5	430.0	546.8	605.2	605.6	602.1
32.5°	248.0	244.7	244.7	250.0	275.1	428.6	565.8	629.4	625.6	620.5
35°	234.7	235.3	239.6	252.1	262.9	414.3	583.9	659.9	654.1	646.8
37.5°	222.1	226.8	232.9	244.9	246.8	393.1	605.2	702.9	695.8	686.6
40°	211.2	218.4	225.5	231.4	229.6	362.9	634.8	753.5	745.6	735.0
42.5°	202.7	209.6	217.6	218.2	218.8	331.5	666.2	815.6	814.2	802.5
45°	197.2	201.7	209.2	208.2	218.2	296.8	695.2	910.3	929.1	920.3
47.5°	193.5	197.0	197.8	202.1	223.5	265.7	732.5	1095.6	1147.9	1137.9
50°	191.4	194.9	185.7	202.5	224.3	245.7	784.2	1328.3	1412.4	1399.1
52.5°	191.2	190.4	176.5	206.8	219.8	233.5	811.1	1498.1	1684.6	1713.4
55°	191.7	181.4	171.9	208.0	210.8	229.0	720.9	1579.7	1935.9	1996.7
57.5°	188.0	171.6	174.5	203.1	193.9	241.0	532.9	1550.5	2036.3	2149.4
60°	181.0	162.3	179.4	189.8	176.5	220.4	367.0	1420.3	1932.2	2048.6
62.5°	171.0	155.7	178.8	172.7	170.2	180.4	252.3	1238.1	1767.1	1880.8
65°	159.8	150.4	169.2	156.1	157.6	138.8	178.4	1032.3	1569.9	1681.8
67.5°	147.8	147.2	155.1	139.0	133.1	110.0	130.0	827.4	1316.7	1417.5
70°	134.1	138.6	141.0	123.5	108.0	86.3	96.5	578.6	971.3	1059.1
72.5°	120.4	120.8	124.3	107.4	80.8	69.2	72.5	350.4	659.9	723.7
75°	106.5	102.7	105.9	87.4	60.2	56.7	55.9	216.6	455.8	506.2
77.5°	91.6	87.4	83.1	65.7	48.4	43.9	42.9	121.4	279.6	310.6
80°	74.5	68.8	62.0	48.2	35.3	31.4	31.2	59.2	139.4	155.3
82.5°	58.0	47.1	45.3	30.0	21.8	19.2	20.4	22.7	42.0	46.9
85°	40.6	34.3	24.1	12.0	9.8	8.0	7.8	6.7	11.2	12.5
87.5°	22.7	14.9	7.8	1.4	1.6	1.8	1.4	1.0	1.0	1.0
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**

$\lambda$ (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**

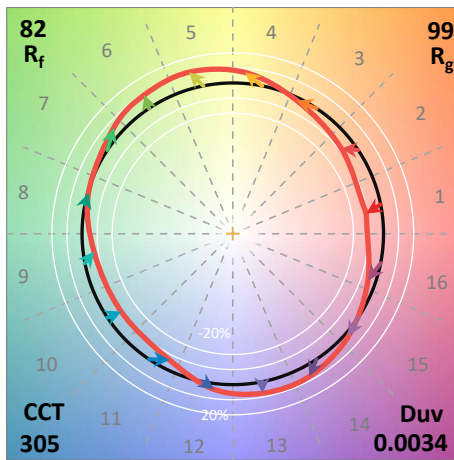
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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)