

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: P634519

Luminaire Tested: GWS-SA3B-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634519
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-38)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3B-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4430.7 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

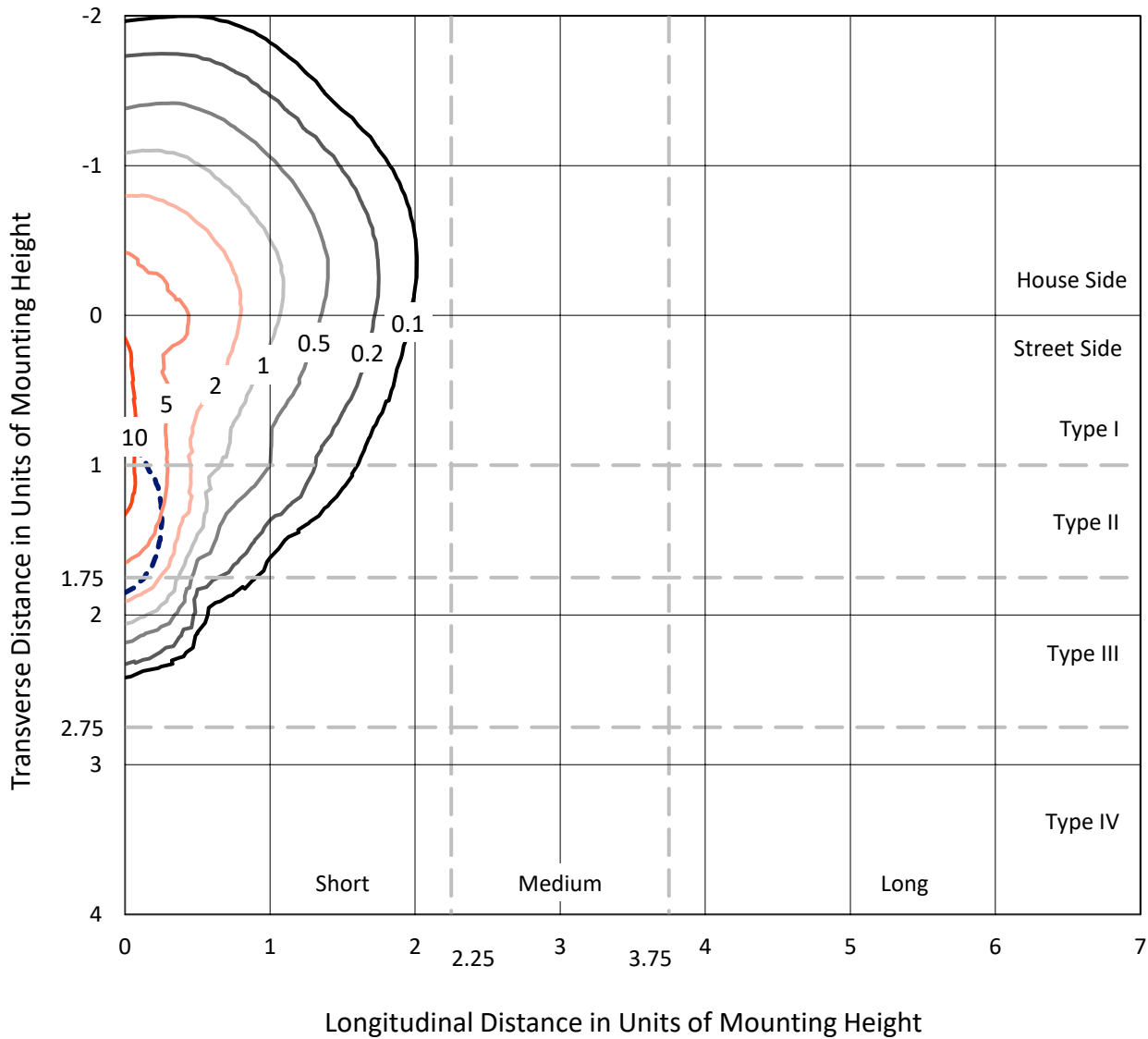
Input Watts (W): 68.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

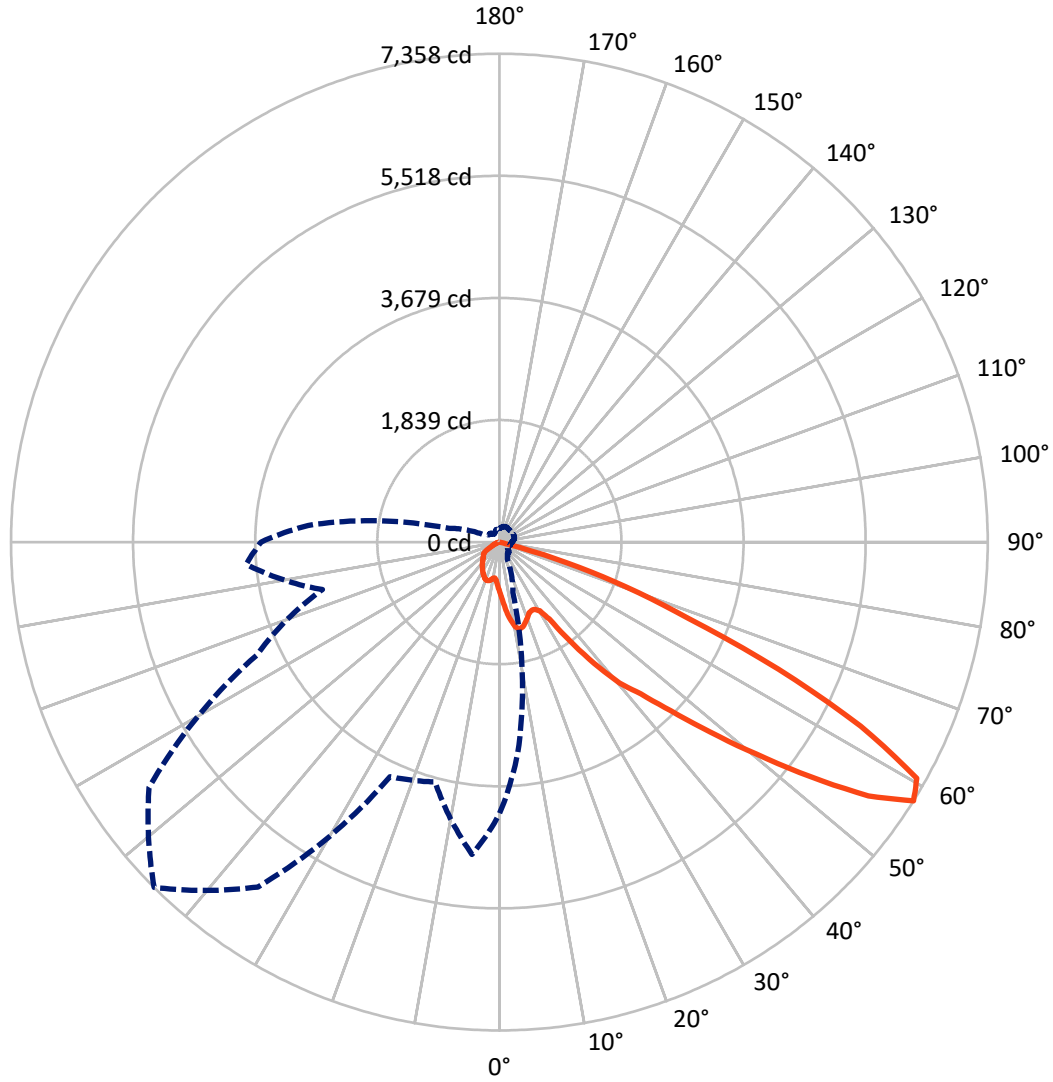
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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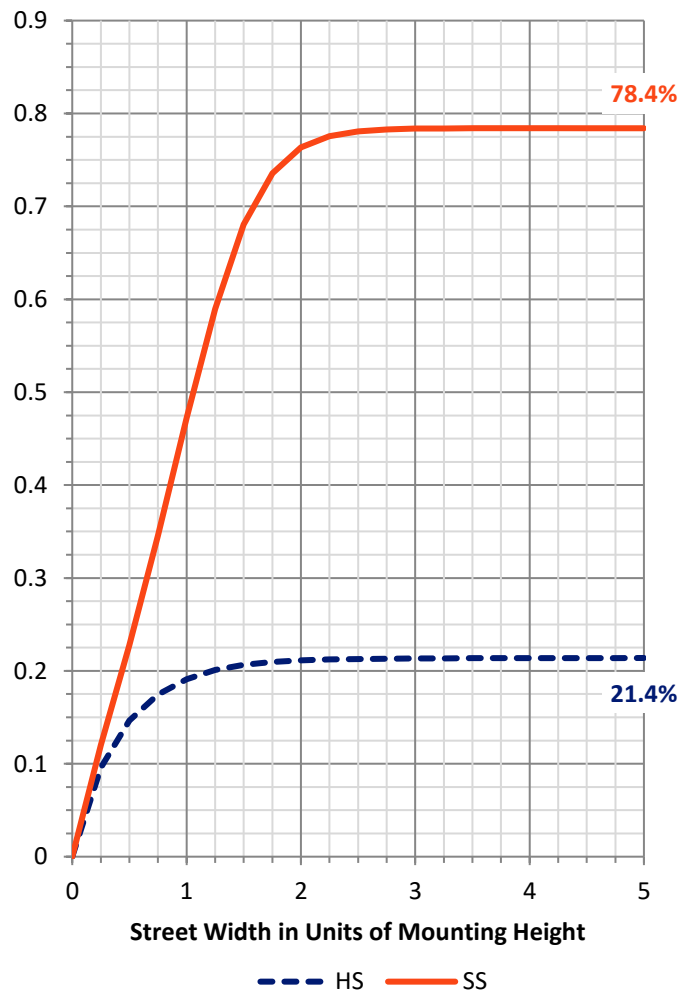
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	954.5	0.0	954.5
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	3476.2	0.0	3476.2
	% Fixture	78.5	0.0	78.5
Total	Lumens	4430.7	0.0	4430.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	1.7
10°-20°	244.8	5.5
20°-30°	397.4	9.0
30°-40°	609.8	13.8
40°-50°	974.0	22.0
50°-60°	1363.7	30.8
60°-70°	699.2	15.8
70°-80°	67.3	1.5
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4430.7	100.0
0°-180°	4430.7	100.0

Coefficient of Utilization



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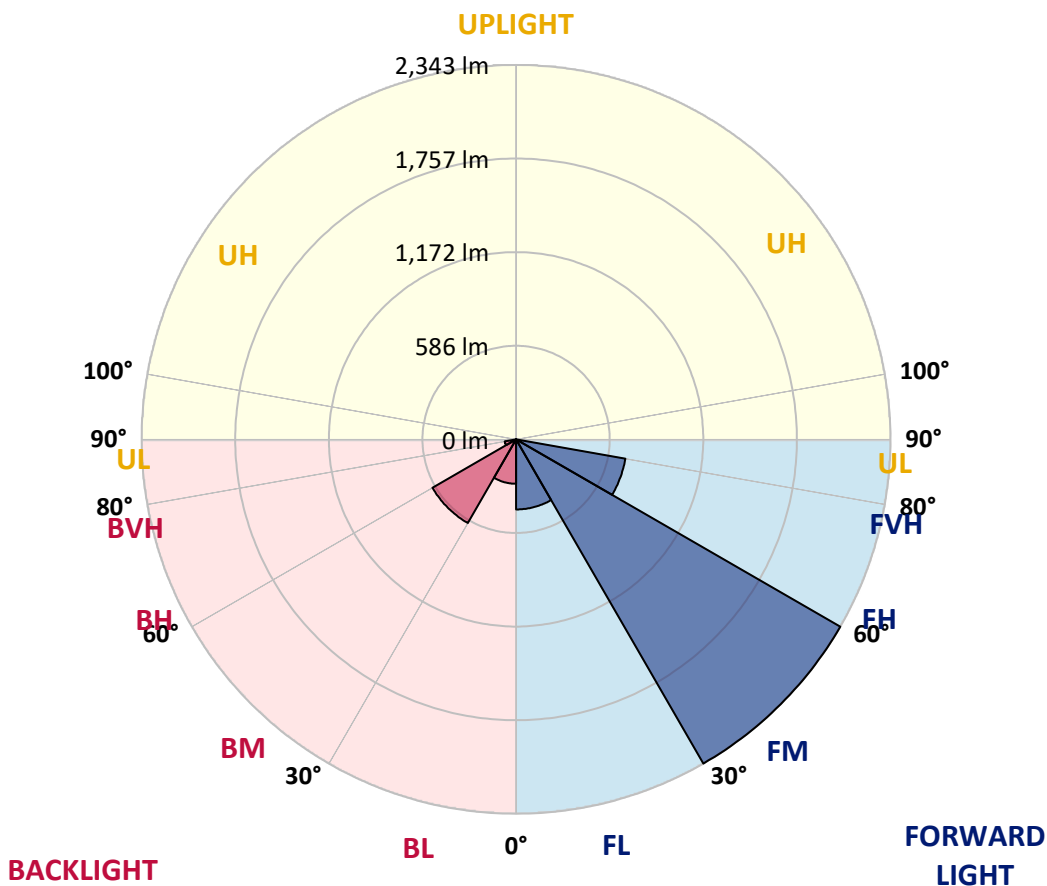
CATALOG NUMBER: GWS-SA3B-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	438.7	9.9			
FM (30°-60°)	2343.1	52.9			
FH (60°-80°)	694.5	15.7			G1/1800
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	277.9	6.3	B1/500		
BM (30°-60°)	604.5	13.6	B1/1000		
BH (60°-80°)	72.1	1.6	B0/110		G0/110
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8
2.5°	836.4	834.6	828.7	808.5	796.1	776.5	762.3	744.0	723.8	711.4	698.9
5°	925.2	920.5	904.5	858.3	822.7	784.2	753.4	719.7	683.5	659.8	637.9
7.5°	1010.5	1003.4	982.1	903.9	850.0	794.9	751.1	701.9	651.0	615.4	588.2
10°	1094.0	1078.0	1044.3	948.3	875.5	809.1	757.6	701.3	641.5	596.5	566.3
12.5°	1162.7	1150.9	1104.7	990.4	896.8	812.1	748.7	696.6	656.3	626.1	598.2
15°	1222.0	1208.9	1165.1	1028.3	915.1	800.2	711.4	665.8	672.3	684.1	660.4
17.5°	1276.5	1262.8	1215.4	1059.7	922.2	771.2	659.3	637.3	673.5	717.9	709.0
20°	1332.7	1317.3	1259.3	1085.1	919.9	725.6	606.5	613.1	664.0	714.9	719.7
22.5°	1398.5	1382.5	1315.0	1117.7	918.1	671.1	560.9	591.7	646.2	689.5	697.8
25°	1485.5	1466.6	1392.5	1165.7	922.8	621.3	528.4	571.0	616.0	655.1	659.8
27.5°	1600.5	1576.2	1482.0	1224.9	932.9	582.3	514.1	542.6	577.5	612.5	616.6
30°	1750.3	1719.5	1584.5	1276.5	928.2	555.0	504.7	514.1	534.9	563.3	563.9
32.5°	1925.6	1883.6	1699.4	1320.9	887.3	534.9	491.6	485.1	489.9	511.8	515.9
35°	2131.8	2077.3	1826.1	1362.9	812.7	495.8	467.9	446.0	444.2	454.9	465.0
37.5°	2368.1	2302.9	1986.1	1416.8	724.4	454.9	433.0	411.1	401.6	406.9	422.3
40°	2586.1	2513.8	2153.1	1482.0	634.4	418.2	392.1	369.6	358.4	360.1	379.1
42.5°	2842.0	2767.3	2357.4	1567.3	559.7	393.3	349.5	326.4	311.6	319.9	341.8
45°	3230.5	3145.8	2655.4	1641.3	500.5	387.4	312.2	279.6	272.5	286.7	312.7
47.5°	3761.2	3657.6	3064.7	1686.3	450.2	392.7	286.1	241.7	243.4	259.4	285.5
50°	4287.8	4175.9	3537.9	1627.1	408.7	382.0	273.1	212.1	223.3	237.5	261.2
52.5°	4649.7	4504.0	3768.4	1455.9	370.8	341.8	271.9	184.2	205.5	210.3	230.4
55°	4663.9	4484.5	3650.5	1147.9	319.3	288.5	259.4	161.1	186.0	187.8	204.9
57.5°	4088.2	3925.9	3190.2	788.4	283.7	211.5	206.7	141.0	152.8	167.6	178.3
60°	3110.3	2972.3	2385.9	361.3	215.6	134.5	141.6	121.4	114.3	136.2	146.9
62.5°	1904.9	1816.7	1431.1	159.9	137.4	71.7	85.9	96.5	85.9	94.2	103.1
65°	756.4	717.3	543.2	68.1	56.3	36.1	39.1	56.3	60.4	66.3	74.6
67.5°	131.5	124.4	91.2	30.2	23.1	21.9	19.0	26.1	36.7	40.9	47.4
70°	17.2	16.6	14.8	12.4	11.8	10.7	8.3	16.6	24.9	26.1	30.2
72.5°	4.1	3.6	3.6	3.0	3.6	1.2	1.2	8.9	17.8	18.4	21.3
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	11.3	12.4	14.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8
2.5°	688.9	677.0	672.9	667.0	659.3	661.6	651.0	647.4	652.7	659.8	658.1
5°	626.1	613.1	604.2	590.5	588.2	582.8	579.3	574.6	580.5	588.8	590.5
7.5°	576.3	565.1	556.2	552.0	549.1	546.7	539.6	536.1	536.1	539.6	542.6
10°	555.0	546.7	544.9	546.1	550.9	550.3	543.8	539.0	533.1	530.1	533.7
12.5°	584.6	571.0	568.6	569.2	575.1	574.6	567.4	561.5	560.3	561.5	572.8
15°	635.0	614.2	598.8	595.9	598.8	597.7	592.3	588.8	590.5	607.7	626.7
17.5°	680.0	648.0	620.2	609.5	608.9	607.1	601.8	600.6	609.5	641.5	669.3
20°	693.0	661.6	621.9	608.3	605.4	603.6	597.7	599.4	610.7	649.2	672.9
22.5°	675.8	645.6	604.2	590.5	588.2	587.6	581.7	584.0	593.5	627.3	646.8
25°	643.3	617.8	574.6	562.7	562.7	561.5	556.2	557.4	563.3	592.9	611.9
27.5°	603.6	579.3	543.2	531.3	533.1	534.9	528.4	526.6	531.3	559.2	570.4
30°	558.0	540.8	512.4	501.7	501.1	508.2	499.3	497.0	503.5	525.4	527.8
32.5°	513.5	505.3	485.1	476.8	477.4	478.6	473.9	473.9	479.8	491.6	491.0
35°	470.3	465.0	461.4	455.5	454.9	452.5	452.5	453.7	460.2	464.4	456.7
37.5°	428.8	434.2	438.3	432.4	427.7	427.7	427.7	433.0	438.9	437.1	424.1
40°	392.1	403.4	416.4	409.9	398.6	398.0	400.4	409.3	418.2	407.5	395.7
42.5°	360.7	374.9	393.3	389.7	377.3	375.5	377.3	388.6	395.7	382.0	369.0
45°	329.9	347.7	369.6	369.6	356.0	354.2	354.8	369.6	373.8	357.8	341.2
47.5°	303.9	323.4	346.5	346.5	335.3	331.7	334.7	350.1	353.0	330.5	315.1
50°	279.0	300.3	325.8	324.0	316.3	313.3	318.7	335.3	331.7	306.8	290.8
52.5°	247.6	270.1	305.0	306.8	302.7	303.3	309.8	320.4	310.4	280.2	266.5
55°	219.2	242.3	277.2	286.7	286.7	286.1	289.1	297.3	289.1	252.9	236.3
57.5°	188.4	207.9	236.9	239.3	241.1	234.6	238.7	250.0	245.8	215.0	205.5
60°	154.6	171.2	187.8	189.5	181.8	168.2	175.9	189.0	191.9	168.8	158.2
62.5°	109.6	125.6	145.1	145.1	137.4	123.8	133.9	145.1	141.0	117.3	110.8
65°	81.7	96.5	111.4	117.9	111.4	101.9	109.6	117.9	111.4	91.8	82.3
67.5°	52.7	62.8	71.7	77.0	78.2	77.0	80.6	78.2	70.5	57.5	52.1
70°	32.0	37.3	42.1	46.8	50.3	52.1	53.9	48.6	40.9	33.8	32.0
72.5°	23.1	27.8	32.0	35.5	39.7	40.9	40.9	37.3	30.2	23.7	21.9
75°	16.0	20.1	23.7	26.1	29.6	30.8	30.8	27.8	22.5	17.2	15.4
77.5°	0.6	4.1	4.1	3.6	4.7	5.9	5.9	7.1	6.5	4.7	4.1
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8
2.5°	661.6	682.9	688.9	710.8	730.3	749.9	773.6	787.8	809.1	823.9	832.2
5°	596.5	614.2	635.6	668.1	701.9	739.2	784.2	823.3	872.5	908.6	920.5
7.5°	549.1	572.2	597.1	637.9	684.1	733.9	797.3	861.2	936.5	985.6	1017.0
10°	540.2	563.9	597.1	637.3	685.9	742.8	820.4	903.3	997.5	1057.3	1092.8
12.5°	582.8	608.3	622.5	640.9	677.6	741.0	840.5	945.9	1056.7	1121.9	1159.8
15°	645.6	668.1	645.0	621.9	645.6	722.0	851.8	981.5	1108.8	1184.1	1223.1
17.5°	688.9	690.6	640.3	591.1	597.7	687.7	855.9	1017.0	1164.5	1243.3	1284.2
20°	684.7	670.5	619.6	565.1	544.9	643.3	851.2	1048.4	1220.8	1303.1	1343.4
22.5°	652.7	636.2	592.9	539.6	500.5	590.5	842.9	1076.8	1272.3	1365.9	1403.8
25°	614.2	596.5	560.9	514.1	472.1	539.6	836.4	1115.9	1337.5	1447.6	1477.3
27.5°	569.2	553.8	523.6	489.9	460.2	501.1	834.6	1167.5	1416.2	1547.1	1567.9
30°	525.4	511.2	487.5	467.9	455.5	478.6	828.7	1222.6	1510.4	1661.5	1684.0
32.5°	483.3	469.1	454.3	451.3	451.9	470.3	808.5	1277.0	1622.4	1827.3	1843.9
35°	447.2	430.6	424.7	431.8	444.8	456.1	751.7	1322.1	1742.6	2008.0	2021.6
37.5°	412.8	396.3	395.7	412.8	427.1	434.2	684.7	1366.5	1904.9	2191.6	2208.8
40°	381.5	364.9	370.8	391.5	402.8	406.3	603.6	1434.0	2076.7	2385.3	2375.8
42.5°	354.8	337.6	341.2	367.8	377.9	387.4	528.9	1490.3	2241.9	2568.9	2565.9
45°	328.7	315.7	313.3	342.4	351.2	389.2	474.5	1533.5	2454.6	2802.9	2807.6
47.5°	303.3	293.2	293.8	306.2	328.1	398.0	428.2	1562.0	2763.2	3173.7	3091.3
50°	280.2	272.5	279.0	264.8	313.3	386.8	388.6	1556.0	3107.9	3529.1	3363.8
52.5°	254.7	252.9	255.9	221.5	289.6	341.2	351.2	1477.3	3269.6	3771.9	3677.7
55°	228.6	228.0	204.4	177.1	242.3	272.5	300.9	1232.6	3264.3	3901.0	4015.4
57.5°	197.8	193.1	155.2	144.5	188.4	189.5	274.2	807.3	2892.9	3591.8	3828.8
60°	149.9	146.3	113.7	117.3	131.5	121.4	218.6	402.2	2162.0	2798.1	3065.3
62.5°	103.7	98.9	84.7	90.6	84.7	69.3	133.9	199.0	1309.6	1766.9	2009.2
65°	75.8	70.5	58.0	49.8	39.7	39.7	50.9	76.4	507.0	751.1	905.7
67.5°	46.8	44.4	34.4	24.9	24.3	26.1	26.7	37.9	81.7	130.3	159.3
70°	30.2	27.8	23.1	16.0	14.8	15.4	16.0	17.8	20.7	22.5	27.2
72.5°	20.7	19.5	16.6	8.9	7.1	7.7	8.3	8.3	10.1	9.5	11.3
75°	14.8	13.6	11.8	4.1	2.4	3.0	3.6	3.0	3.6	2.4	3.0
77.5°	4.1	4.1	3.0	0.6	0.0	0.6	1.2	1.2	0.6	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: GWS-SA3B-830-U-SLL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8	752.8
2.5°	853.5	867.2	872.5	864.8	871.3	860.6	856.5	840.5	839.3	836.4
5°	968.4	999.2	1017.6	1028.9	1015.8	1001.6	980.3	943.6	932.3	925.2
7.5°	1081.6	1129.6	1161.0	1175.8	1172.2	1143.2	1104.7	1043.1	1021.2	1010.5
10°	1179.9	1238.5	1276.5	1294.8	1287.1	1261.6	1206.6	1129.6	1100.5	1094.0
12.5°	1248.6	1302.5	1328.6	1344.6	1345.2	1335.1	1283.0	1205.4	1171.0	1162.7
15°	1291.9	1315.0	1315.5	1325.0	1341.6	1364.1	1339.8	1271.1	1234.4	1222.0
17.5°	1319.1	1293.6	1267.6	1269.9	1297.2	1357.0	1381.9	1329.2	1290.1	1276.5
20°	1338.6	1258.1	1209.5	1210.1	1238.0	1328.6	1410.9	1385.4	1345.2	1332.7
22.5°	1351.1	1226.7	1157.4	1155.6	1185.2	1294.8	1437.6	1452.4	1412.7	1398.5
25°	1376.6	1211.9	1126.0	1136.1	1162.1	1284.2	1473.7	1541.2	1504.5	1485.5
27.5°	1422.2	1226.7	1123.0	1146.1	1175.8	1315.5	1536.5	1659.7	1621.8	1600.5
30°	1500.9	1282.4	1168.7	1200.6	1236.2	1397.9	1641.9	1824.9	1770.5	1750.3
32.5°	1627.7	1397.9	1309.6	1378.3	1412.7	1532.9	1800.1	2010.3	1965.9	1925.6
35°	1802.4	1661.5	1651.4	1811.3	1803.0	1788.8	1994.3	2237.8	2170.9	2131.8
37.5°	2042.9	2085.6	2160.2	2318.9	2313.6	2205.2	2249.6	2452.8	2418.5	2368.1
40°	2343.2	2433.9	2560.6	2788.1	2717.0	2580.7	2563.0	2673.2	2645.3	2586.1
42.5°	2520.3	2676.7	2918.4	3122.7	3065.9	2827.7	2807.6	2967.5	2906.5	2842.0
45°	2602.7	2874.5	3348.4	3625.0	3452.6	2991.8	2984.1	3351.4	3317.0	3230.5
47.5°	2640.6	3074.2	3851.9	4270.6	3948.4	3135.8	3107.9	3908.1	3863.1	3761.2
50°	2682.6	3349.6	4458.4	5018.7	4547.3	3298.6	3318.8	4427.0	4408.1	4287.8
52.5°	2775.0	3641.0	5205.3	5874.1	5273.4	3553.9	3680.7	4916.3	4788.3	4649.7
55°	2913.6	3958.5	5982.5	6747.7	6014.4	3896.9	4072.2	5176.3	4817.4	4663.9
57.5°	2760.2	4037.9	6442.7	7357.8	6343.2	3898.1	3741.1	4725.5	4236.9	4088.2
60°	2190.4	3756.5	6265.6	7225.7	6063.0	3461.5	2864.5	3689.6	3209.8	3110.3
62.5°	1480.8	3150.6	5515.7	6111.0	5189.3	2722.9	1861.7	2399.5	1987.2	1904.9
65°	811.5	2350.3	4456.6	4623.1	4061.6	1901.9	957.8	1041.3	793.1	756.4
67.5°	223.9	1636.0	3279.1	3067.0	2849.7	1238.5	247.6	186.0	132.7	131.5
70°	56.3	1082.2	1964.7	2025.1	1747.4	793.1	47.4	22.5	17.8	17.2
72.5°	23.7	465.6	932.3	1071.5	894.4	367.2	17.2	6.5	5.3	4.1
75°	3.0	37.3	79.4	120.2	82.3	39.7	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u': 0.2476
 CIE v': 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 Rf: 81.5
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



Test Conditions

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

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Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



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



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

Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

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

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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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

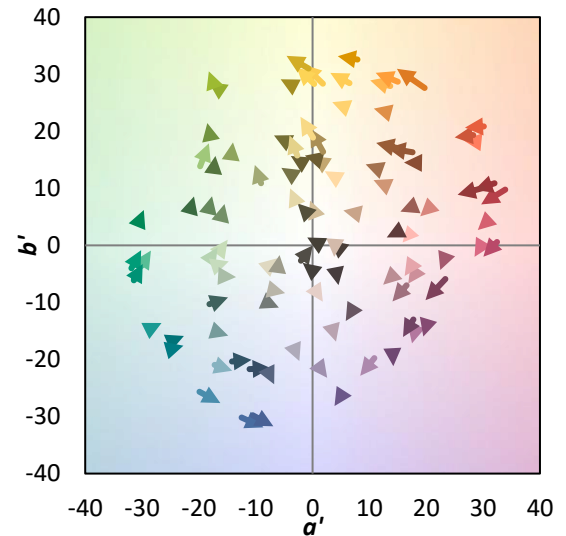
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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