

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: P632045

Luminaire Tested: GWS-SA2B-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P632045
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2B-830-U-SLL-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4267.3 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

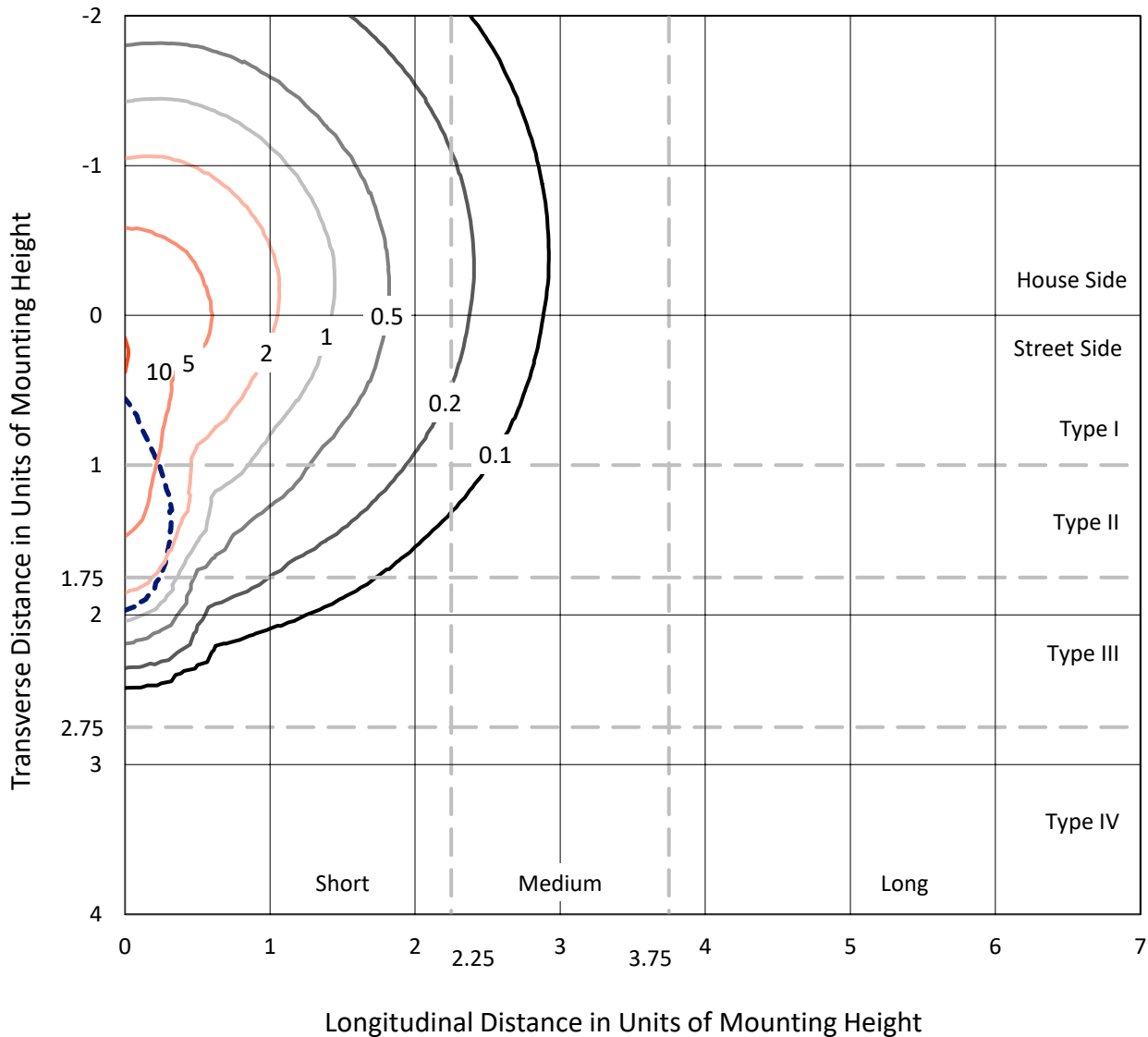
Input Watts (W): 46.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

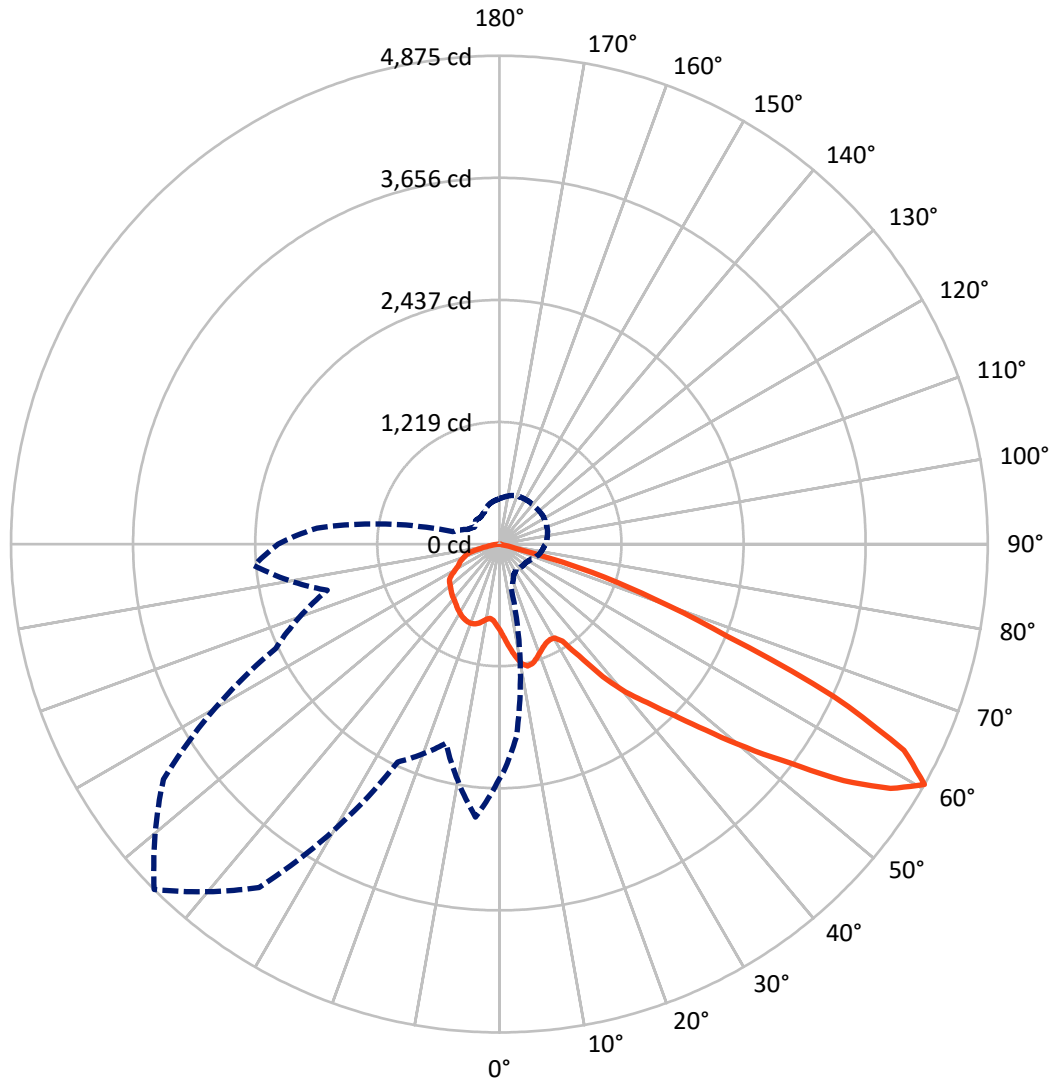
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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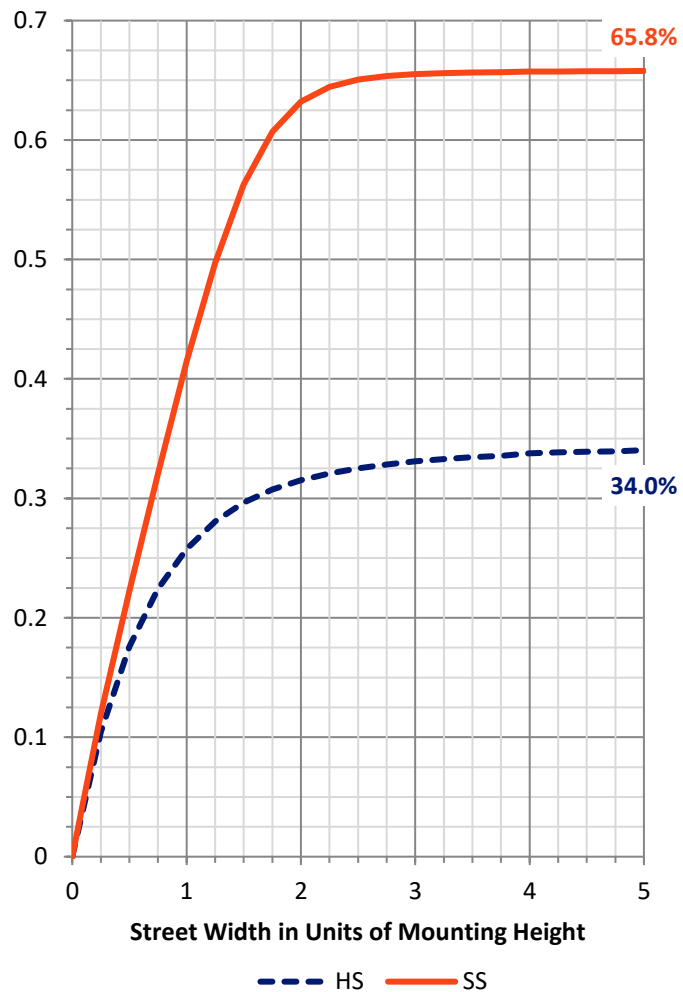
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1459.8	0.0	1459.8
	% Fixture	34.2	0.0	34.2
Street Side	Lumens	2807.5	0.0	2807.5
	% Fixture	65.8	0.0	65.8
Total	Lumens	4267.3	0.0	4267.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	2.0
10°-20°	269.7	6.3
20°-30°	439.2	10.3
30°-40°	617.0	14.5
40°-50°	844.4	19.8
50°-60°	1083.3	25.4
60°-70°	729.4	17.1
70°-80°	182.4	4.3
80°-90°	17.8	0.4
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°	4267.3	100.0
0°-180°	4267.3	100.0

Coefficient of Utilization



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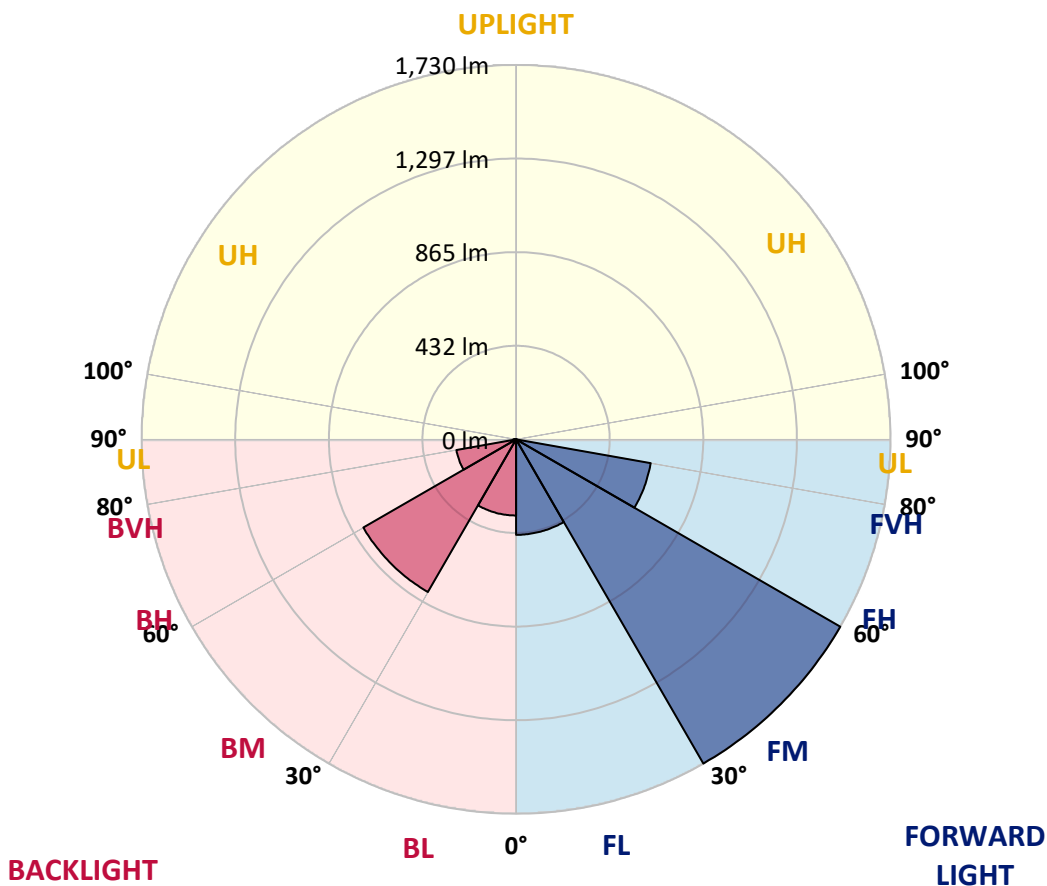
CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	441.1	10.3			
FM (30°-60°)	1730.0	40.5			
FH (60°-80°)	631.7	14.8			G0/660
FVH (80°-90°)	4.6	0.1			G0/10
BL (0°-30°)	351.9	8.2	B1/500		
BM (30°-60°)	814.7	19.1	B1/1000		
BH (60°-80°)	280.1	6.6	B1/500		G1/500
BVH (80°-90°)	13.2	0.3			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°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7
2.5°	910.6	908.6	906.7	891.3	887.4	876.4	868.5	858.7	844.6	836.7	830.0
5°	967.6	964.4	953.8	922.4	901.9	879.5	861.1	840.6	819.0	804.9	793.9
7.5°	1021.4	1020.6	1002.5	950.7	917.7	885.4	860.3	830.4	799.4	778.1	764.0
10°	1071.3	1065.4	1043.8	976.2	933.0	896.0	868.9	835.9	799.8	771.1	752.2
12.5°	1115.3	1107.9	1078.0	999.8	946.3	900.8	871.3	844.2	820.2	796.2	774.6
15°	1151.5	1142.4	1112.2	1021.8	958.1	898.0	856.7	835.5	843.8	854.4	830.4
17.5°	1185.3	1175.9	1138.9	1037.9	961.7	881.1	821.0	811.9	853.6	901.9	890.9
20°	1213.6	1203.0	1160.1	1045.8	955.4	848.9	774.6	790.3	845.3	903.1	920.8
22.5°	1244.2	1235.6	1184.1	1057.2	947.5	804.5	735.7	774.2	831.2	881.9	908.6
25°	1293.4	1282.8	1221.4	1077.2	943.6	762.8	707.8	758.5	811.5	857.5	878.4
27.5°	1364.5	1344.8	1272.5	1112.2	947.9	723.5	690.1	739.2	788.8	828.1	844.9
30°	1441.9	1418.3	1329.1	1148.3	954.2	699.5	680.7	717.2	753.8	793.1	811.5
32.5°	1533.5	1512.7	1389.6	1175.5	940.8	688.5	673.6	693.3	722.3	753.8	769.1
35°	1642.7	1605.4	1455.7	1197.5	897.6	672.4	667.3	666.9	682.2	712.9	730.2
37.5°	1760.2	1720.2	1537.0	1221.0	830.4	646.9	652.4	635.9	650.0	674.4	694.0
40°	1856.5	1814.5	1619.2	1253.3	746.3	606.8	619.4	601.7	610.3	635.5	657.5
42.5°	1950.8	1906.0	1695.8	1289.8	665.0	567.5	573.8	567.1	569.8	596.2	626.8
45°	2074.6	2024.3	1790.1	1315.8	591.9	536.4	530.5	519.2	533.7	567.9	600.5
47.5°	2281.4	2221.2	1944.6	1332.7	538.8	518.8	491.6	485.0	503.0	541.2	575.0
50°	2523.1	2471.2	2191.4	1331.9	499.1	503.8	453.9	448.0	477.9	516.4	552.2
52.5°	2721.1	2668.5	2402.4	1292.6	466.5	472.0	431.9	415.4	456.3	492.0	527.8
55°	2881.1	2821.7	2499.5	1128.3	425.2	421.3	407.9	377.7	429.2	467.7	501.1
57.5°	2795.0	2724.3	2382.0	857.9	382.8	358.0	366.7	344.3	392.2	440.6	472.8
60°	2343.5	2279.8	1935.1	456.7	336.8	299.1	317.2	320.7	351.7	407.9	440.9
62.5°	1609.7	1563.4	1311.4	277.1	265.7	240.1	268.4	294.0	317.2	364.7	393.4
65°	787.6	773.8	655.9	177.6	185.9	194.1	222.4	253.5	287.7	329.3	359.6
67.5°	216.9	218.5	198.9	138.7	146.6	169.4	191.8	216.5	250.7	289.2	319.9
70°	95.5	97.1	100.2	106.9	121.8	142.7	165.8	191.4	222.8	255.1	284.5
72.5°	66.4	68.0	72.7	81.4	94.7	114.4	136.4	160.7	193.4	220.5	244.8
75°	40.9	42.1	46.4	53.8	62.9	77.8	99.4	121.8	150.5	175.3	196.9
77.5°	21.6	20.8	23.6	28.7	36.5	44.4	58.9	73.1	93.5	113.6	131.7
80°	11.8	11.4	13.0	15.7	18.1	24.4	34.2	43.6	55.4	66.8	76.6
82.5°	5.1	4.7	5.1	6.7	8.3	11.8	17.3	24.0	30.7	38.5	44.8
85°	0.0	0.0	0.0	0.4	2.0	3.1	5.9	8.6	12.6	17.3	21.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.5
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-SA2B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7
2.5°	826.1	816.3	815.5	807.6	808.4	808.8	800.9	797.8	800.5	803.7	802.1
5°	789.9	779.7	775.4	767.9	767.1	763.6	760.5	756.5	759.3	762.0	763.6
7.5°	758.5	751.8	749.1	747.1	747.9	746.3	740.0	736.5	736.1	737.3	738.8
10°	748.3	742.8	746.3	751.8	755.7	758.5	751.8	745.9	740.4	738.1	738.1
12.5°	770.3	763.2	770.3	776.2	784.0	786.0	778.5	772.2	770.3	772.6	777.4
15°	819.0	802.5	802.1	805.6	811.9	815.1	808.0	804.9	804.9	819.8	831.6
17.5°	867.7	840.6	829.2	827.3	831.2	832.4	826.5	823.7	830.8	859.9	881.9
20°	901.9	868.9	844.2	839.4	840.6	841.0	836.3	834.3	844.6	879.9	898.4
22.5°	898.4	874.0	843.8	837.9	839.8	839.1	834.7	833.9	842.2	872.9	881.5
25°	874.0	855.2	829.6	825.7	828.8	828.4	824.1	822.2	825.7	846.1	846.9
27.5°	846.1	829.6	807.6	806.4	811.5	814.3	806.8	800.9	799.8	813.5	810.4
30°	812.7	800.5	782.9	783.6	793.1	794.6	785.6	777.0	774.6	782.1	777.7
32.5°	773.0	769.1	759.7	761.6	770.7	773.8	764.4	755.3	752.6	755.0	745.9
35°	739.2	737.7	738.4	742.0	749.8	752.2	744.3	737.3	733.3	725.1	713.3
37.5°	704.3	708.6	720.0	726.7	731.0	730.2	725.9	720.8	714.5	699.1	684.6
40°	671.6	682.6	703.1	710.5	712.1	712.5	709.4	705.0	697.2	676.7	660.2
42.5°	646.5	658.7	685.8	697.2	698.0	698.8	695.6	692.1	681.1	654.0	637.8
45°	620.2	636.3	668.1	681.9	681.1	680.7	677.9	676.4	663.4	631.9	614.3
47.5°	597.8	616.6	650.8	662.6	662.2	661.8	659.8	659.8	646.9	612.7	592.6
50°	575.7	597.4	633.1	642.9	643.7	642.9	642.2	643.3	628.0	591.5	571.8
52.5°	551.8	576.1	613.5	622.5	627.2	629.2	629.2	626.4	608.4	570.2	548.6
55°	525.4	548.6	591.9	604.0	608.0	611.5	611.5	606.0	589.1	550.6	527.4
57.5°	492.8	513.3	547.4	559.6	569.1	571.4	571.4	562.4	548.6	511.7	492.8
60°	457.5	475.1	498.3	511.3	518.4	513.7	517.2	514.8	503.8	469.6	453.9
62.5°	410.3	428.4	453.9	467.3	470.4	465.7	470.4	470.0	455.1	424.4	405.6
65°	376.5	394.2	419.3	436.6	441.7	440.6	443.7	439.0	420.5	391.4	373.3
67.5°	336.4	355.3	384.4	403.6	414.2	415.4	419.7	409.9	391.0	359.2	336.4
70°	298.3	314.4	336.8	354.9	369.8	377.3	378.1	363.9	340.3	314.0	297.5
72.5°	258.2	274.7	301.8	321.5	340.3	349.0	349.0	331.7	306.1	277.1	259.4
75°	209.5	224.8	249.6	270.8	292.4	303.4	303.0	288.1	259.8	232.3	213.8
77.5°	141.9	153.3	169.0	185.1	188.2	196.9	201.2	182.4	166.6	151.7	135.2
80°	82.5	89.6	98.2	107.3	109.3	112.0	104.9	97.9	89.6	79.8	72.3
82.5°	48.3	53.1	57.4	64.5	65.6	66.4	60.1	57.0	50.3	44.4	39.7
85°	23.6	25.2	29.1	32.6	31.0	30.3	27.5	24.4	21.6	19.3	16.9
87.5°	4.7	4.7	7.1	6.7	5.5	4.7	2.8	3.5	0.8	0.8	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°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7
2.5°	807.2	813.9	822.2	833.2	845.7	859.1	872.1	881.9	891.7	906.3	903.9
5°	766.0	777.4	790.3	807.2	827.7	850.8	876.8	902.7	930.6	954.2	964.4
7.5°	742.0	754.6	769.9	791.9	818.2	846.5	883.1	925.1	970.3	1001.4	1020.6
10°	742.0	758.1	778.1	799.4	822.5	851.6	896.8	949.5	1007.7	1048.5	1070.9
12.5°	784.8	800.9	805.3	804.5	817.4	849.7	907.8	975.0	1044.6	1087.8	1115.3
15°	851.6	857.1	824.5	794.6	796.6	835.5	912.9	995.5	1076.4	1128.3	1158.2
17.5°	896.4	881.9	823.7	771.5	760.5	811.5	912.9	1015.1	1110.2	1168.8	1196.7
20°	900.0	863.8	803.7	749.1	720.8	779.7	906.7	1030.1	1142.8	1207.7	1237.6
22.5°	868.9	833.2	782.5	729.8	688.1	741.2	896.4	1041.4	1170.7	1244.2	1281.2
25°	833.6	803.7	760.8	710.2	665.7	702.3	887.0	1060.7	1209.7	1293.8	1331.1
27.5°	799.0	773.8	734.9	693.6	653.2	668.5	881.1	1089.0	1256.0	1364.1	1396.3
30°	765.2	742.4	707.0	677.9	646.5	646.5	876.0	1121.6	1317.3	1443.1	1475.3
32.5°	731.0	709.4	680.7	662.6	642.6	637.8	861.8	1152.3	1380.6	1529.6	1562.6
35°	699.1	677.5	655.5	648.1	640.6	631.2	826.9	1176.2	1442.3	1630.6	1658.9
37.5°	669.3	648.4	631.9	630.0	630.8	613.1	771.9	1196.3	1519.3	1733.9	1748.8
40°	643.3	620.2	607.2	606.8	610.7	584.0	702.3	1225.0	1607.4	1821.6	1815.3
42.5°	620.2	595.8	580.1	583.6	581.2	554.9	634.3	1251.3	1684.0	1903.7	1891.1
45°	597.4	573.8	551.8	556.9	554.1	536.8	576.5	1270.6	1768.9	2002.3	2003.9
47.5°	575.4	552.2	530.2	523.9	523.5	531.3	532.1	1276.9	1907.2	2161.1	2125.3
50°	554.9	531.7	508.9	487.7	496.0	520.3	499.1	1272.1	2114.3	2336.4	2236.6
52.5°	533.7	511.7	486.5	448.4	470.0	494.0	469.6	1255.2	2240.9	2491.2	2431.5
55°	509.3	488.5	454.3	407.9	434.3	439.4	439.4	1091.8	2294.7	2644.5	2681.4
57.5°	476.7	449.2	395.0	357.6	381.2	361.6	407.1	764.0	2205.9	2596.2	2739.6
60°	439.8	410.3	352.9	326.2	333.3	298.7	347.0	479.1	1828.2	2209.1	2457.4
62.5°	391.0	363.9	316.4	295.5	281.0	243.7	279.4	303.0	1253.3	1640.4	1809.8
65°	358.4	328.5	286.1	258.6	228.7	196.1	185.5	198.9	674.0	918.0	1032.4
67.5°	319.9	290.4	250.3	215.8	191.8	168.2	149.7	145.0	231.1	305.8	330.9
70°	283.4	255.1	221.7	189.4	165.5	142.3	124.2	111.2	106.9	106.1	104.5
72.5°	246.0	219.7	191.8	161.9	135.6	114.4	98.2	83.3	77.0	75.1	73.1
75°	201.6	180.8	152.9	120.7	99.4	79.8	67.2	57.4	51.9	49.9	47.6
77.5°	129.7	120.3	95.9	77.8	60.1	47.6	40.9	34.6	31.0	30.3	28.3
80°	69.2	64.5	53.1	44.8	35.8	29.1	25.5	22.0	20.0	19.3	18.5
82.5°	38.5	35.0	29.5	25.9	20.8	17.7	15.7	14.1	13.0	12.6	12.2
85°	17.3	14.9	11.8	11.0	9.8	9.0	8.6	7.9	7.5	7.1	6.7
87.5°	0.8	1.6	2.0	1.6	1.6	2.4	2.8	2.8	2.4	2.4	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



REPORT NUMBER: P632045

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7	860.7
2.5°	918.4	930.2	931.4	935.3	930.2	929.1	920.8	916.1	911.8	910.6
5°	990.0	1013.5	1023.0	1029.7	1023.4	1020.2	1002.1	983.3	972.7	967.6
7.5°	1063.5	1098.8	1117.3	1125.6	1126.3	1112.2	1081.1	1045.8	1028.1	1021.4
10°	1129.1	1172.7	1197.1	1212.8	1207.3	1190.0	1147.6	1099.6	1077.2	1071.3
12.5°	1177.8	1219.5	1238.3	1248.6	1248.2	1238.7	1198.6	1146.8	1121.2	1115.3
15°	1209.3	1234.0	1235.2	1237.6	1244.2	1256.8	1236.0	1188.0	1159.7	1151.5
17.5°	1234.0	1224.2	1205.7	1199.4	1214.4	1249.3	1261.9	1223.0	1192.4	1185.3
20°	1249.7	1200.2	1167.6	1155.4	1172.7	1229.7	1277.6	1254.5	1222.6	1213.6
22.5°	1261.9	1177.8	1125.2	1116.9	1135.0	1208.5	1293.8	1291.8	1256.8	1244.2
25°	1281.2	1162.9	1095.3	1089.4	1106.3	1198.3	1315.4	1342.5	1311.4	1293.4
27.5°	1311.4	1161.3	1080.0	1078.0	1101.2	1207.3	1346.4	1416.8	1377.9	1364.5
30°	1353.5	1176.2	1083.5	1087.4	1115.7	1239.9	1394.8	1501.7	1462.7	1441.9
32.5°	1414.0	1216.3	1137.3	1154.2	1175.1	1292.2	1465.5	1593.6	1564.1	1533.5
35°	1493.8	1326.4	1296.5	1368.4	1348.8	1406.5	1550.8	1705.2	1669.5	1642.7
37.5°	1600.3	1552.0	1579.5	1678.5	1630.9	1622.7	1654.9	1806.6	1787.0	1760.2
40°	1749.6	1759.5	1810.2	1940.2	1871.5	1818.4	1782.6	1882.9	1889.5	1856.5
42.5°	1848.7	1893.9	2016.1	2163.9	2069.1	1942.2	1889.5	1980.3	1980.7	1950.8
45°	1885.6	2003.9	2259.4	2429.5	2271.1	2012.9	1948.5	2112.8	2108.8	2074.6
47.5°	1872.2	2096.7	2512.1	2772.2	2530.5	2063.2	1940.2	2301.4	2333.2	2281.4
50°	1844.3	2189.8	2807.2	3191.9	2848.9	2116.7	1927.7	2510.5	2563.1	2523.1
52.5°	1872.6	2293.5	3156.2	3625.8	3248.1	2202.0	2012.6	2778.9	2769.5	2721.1
55°	1962.2	2416.2	3580.2	4170.9	3686.7	2346.2	2230.7	3034.7	2938.9	2881.1
57.5°	1957.9	2503.8	3952.0	4602.0	4068.3	2464.5	2306.5	3061.9	2868.1	2795.0
60°	1777.1	2463.7	4093.5	4874.8	4183.5	2399.3	2057.0	2734.9	2420.1	2343.5
62.5°	1326.4	2186.3	3819.2	4533.3	3857.7	2072.3	1546.8	1963.0	1739.0	1609.7
65°	848.5	1710.3	3210.8	3672.6	3179.8	1585.0	921.2	1052.5	824.5	787.6
67.5°	361.2	1207.3	2495.9	2454.7	2378.8	1026.9	355.7	296.3	220.9	216.9
70°	119.5	821.4	1538.6	1637.2	1420.7	707.4	117.5	99.4	99.0	95.5
72.5°	78.2	440.9	866.2	964.4	914.1	407.1	71.1	66.4	68.0	66.4
75°	46.8	95.9	145.8	189.4	145.8	68.4	42.8	42.1	42.8	40.9
77.5°	27.5	26.7	25.9	25.9	25.5	23.6	21.6	20.8	21.2	21.6
80°	17.7	16.9	16.1	15.7	13.8	13.0	12.2	11.4	11.4	11.8
82.5°	11.4	10.6	9.8	8.6	7.1	5.9	5.5	4.7	4.7	5.1
85°	5.9	4.7	3.5	2.8	1.6	0.8	0.0	0.0	0.0	0.0
87.5°	1.2	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



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)