

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: P630071

Luminaire Tested: GWS-SA1C-830-U-SLR-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630071
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-SA1C-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: 3615.3 lumens
Efficiency: N/A
Efficacy: 106.0 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

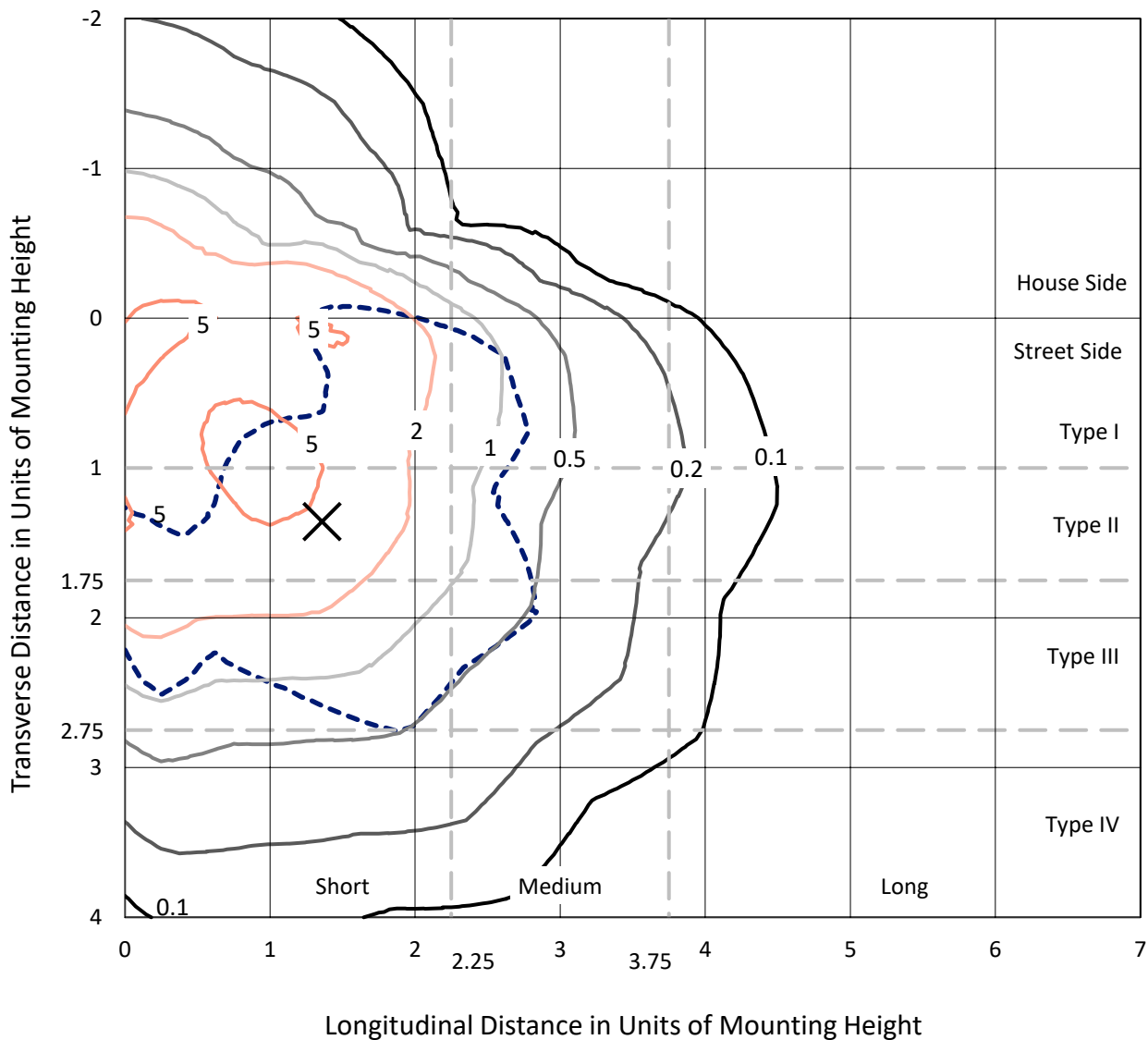
Input Watts (W): 34.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

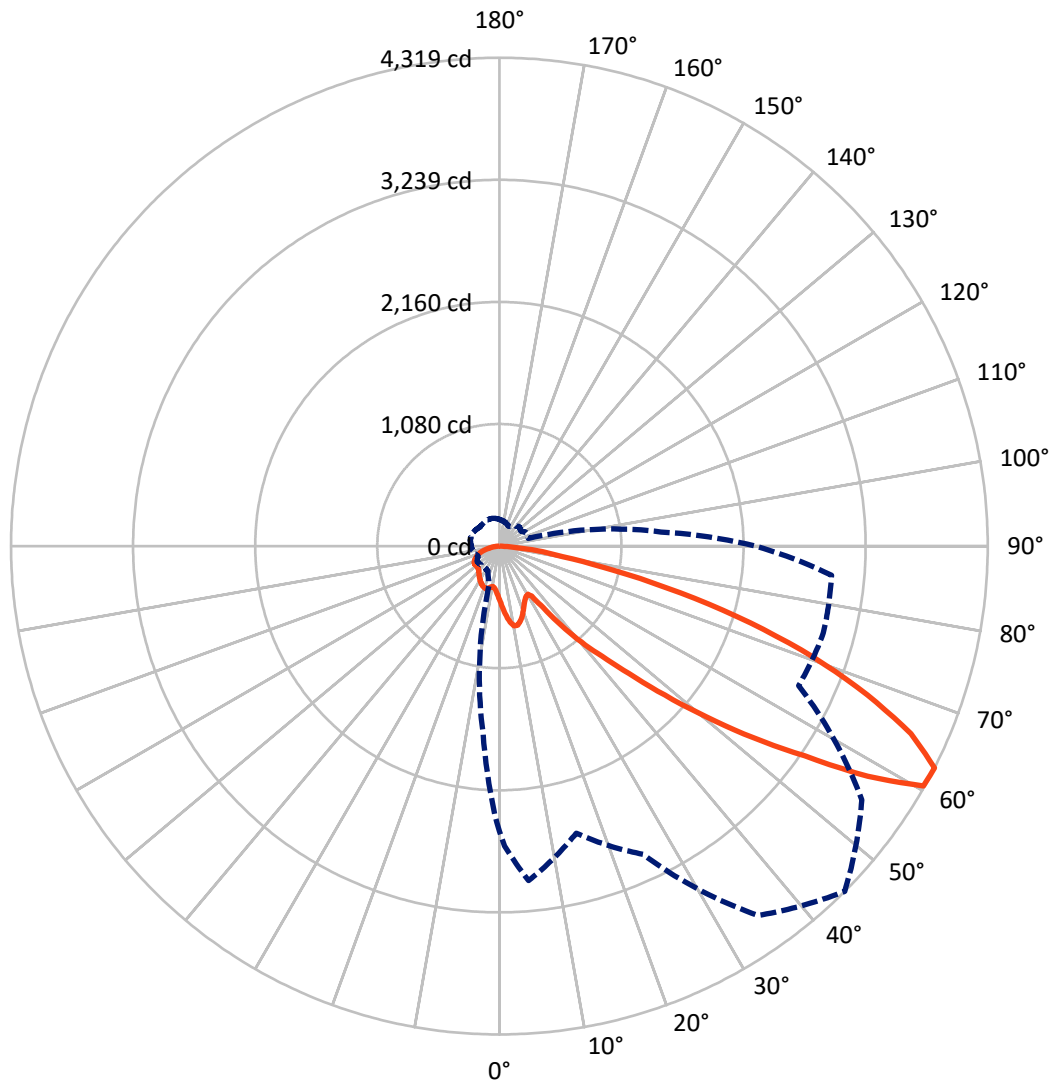
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.8 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
House Side	Lumens	862.7	0.0	862.7
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	2752.6	0.0	2752.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	3615.3	0.0	3615.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.9	1.3
10°-20°	146.9	4.1
20°-30°	228.2	6.3
30°-40°	309.8	8.6
40°-50°	491.0	13.6
50°-60°	866.1	24.0
60°-70°	963.7	26.7
70°-80°	488.7	13.5
80°-90°	74.0	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°	3615.3	100.0
0°-180°	3615.3	100.0

Coefficient of Utilization



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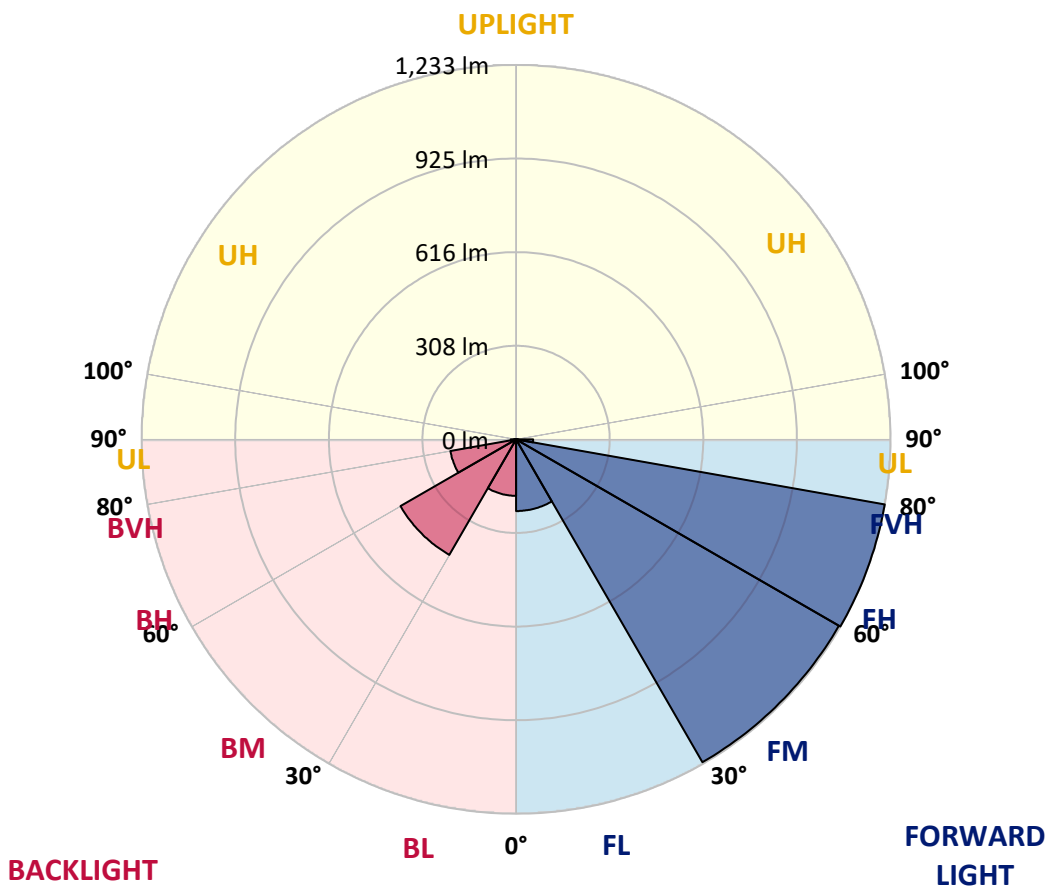
CATALOG NUMBER: GWS-SA1C-830-U-SLR-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	236.1	6.5			
FM (30°-60°)	1227.6	34.0			
FH (60°-80°)	1232.8	34.1			G1/1800
FVH (80°-90°)	56.2	1.6			G1/100
BL (0°-30°)	185.9	5.1	B1/500		
BM (30°-60°)	439.4	12.2	B1/1000		
BH (60°-80°)	219.6	6.1	B1/500		G1/500
BVH (80°-90°)	17.8	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°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	515.7	515.4	520.6	528.5	535.9	539.2	544.7	544.1	539.8	534.0	532.1
5°	556.2	557.3	566.3	583.8	603.3	611.5	615.0	613.7	605.7	595.6	577.8
7.5°	592.9	594.8	608.7	635.0	659.1	670.1	678.8	677.2	665.7	646.8	620.5
10°	619.7	621.9	638.6	669.5	696.3	705.9	717.1	717.7	707.6	682.1	655.3
12.5°	646.5	648.7	664.3	692.5	710.0	710.3	716.9	720.4	721.0	709.2	682.4
15°	674.4	676.4	690.6	706.5	705.6	690.3	690.3	697.2	712.2	720.7	702.1
17.5°	698.2	700.7	711.7	706.5	682.1	654.5	651.2	659.9	686.2	718.8	716.9
20°	718.0	719.9	725.9	691.4	647.1	610.9	604.6	614.8	650.3	707.0	728.1
22.5°	736.8	737.9	734.7	671.7	609.3	568.0	560.3	571.0	609.3	686.2	737.7
25°	759.3	758.2	742.6	651.2	574.8	534.0	526.1	538.1	578.1	658.6	748.1
27.5°	785.3	781.2	749.4	629.0	548.3	508.8	503.4	516.2	553.5	633.1	756.3
30°	807.5	799.5	750.5	609.3	534.6	498.2	494.9	506.9	541.4	615.9	766.7
32.5°	832.1	821.1	756.8	604.1	542.2	523.9	528.3	529.1	544.7	610.9	782.3
35°	867.4	853.2	774.1	619.1	621.1	652.0	667.9	646.5	594.2	621.9	811.8
37.5°	920.8	902.7	809.1	684.3	783.9	853.2	891.5	842.8	744.8	663.2	856.5
40°	985.7	962.7	854.0	804.7	936.1	1047.0	1115.1	1043.7	899.7	766.4	919.1
42.5°	1076.3	1052.2	941.0	923.0	1077.1	1242.1	1331.1	1224.6	1036.3	899.7	1019.6
45°	1234.2	1210.9	1100.6	1041.5	1242.1	1482.4	1607.3	1459.2	1175.1	1033.6	1207.4
47.5°	1526.0	1498.6	1337.7	1172.9	1430.4	1794.5	1969.1	1753.4	1319.3	1186.8	1522.7
50°	1876.3	1850.0	1635.2	1328.3	1638.5	2128.1	2370.9	2099.1	1485.5	1373.2	1899.6
52.5°	2297.8	2292.9	2059.7	1524.9	1855.0	2484.0	2816.8	2482.1	1667.5	1624.2	2326.6
55°	2677.8	2725.9	2598.9	1824.6	2134.7	2931.0	3275.3	2899.7	1914.4	2039.2	2826.7
57.5°	2882.5	3012.0	3207.1	2436.1	2541.5	3465.2	3841.1	3409.7	2338.6	2730.0	3290.3
60°	2747.3	2894.0	3247.6	2896.5	2944.9	3893.3	4308.0	3838.3	2755.2	3209.6	3264.1
62.5°	2522.3	2654.0	2968.4	2627.7	3007.3	3987.5	4319.0	3913.0	2920.8	2966.3	2948.5
65°	2255.4	2388.2	2721.3	2293.7	2808.9	3763.9	4000.4	3693.2	2623.3	2680.0	2686.5
67.5°	1901.0	2023.6	2362.7	2039.5	2560.3	3435.7	3511.2	3380.1	2415.8	2506.1	2411.7
70°	1420.3	1530.9	1830.3	1657.4	2158.3	3008.1	2947.1	2966.5	2182.9	2272.7	2014.5
72.5°	970.6	1053.8	1310.6	1302.3	1652.7	2408.2	2323.0	2507.2	1823.2	1942.3	1535.8
75°	678.8	743.7	947.3	1028.9	1249.2	1784.9	1654.3	1876.6	1423.9	1593.8	1120.6
77.5°	416.6	459.6	598.3	762.3	803.6	1221.6	1027.5	1412.1	999.9	1162.5	747.5
80°	208.3	229.1	290.7	479.3	532.9	719.9	567.4	819.8	676.6	719.9	413.6
82.5°	63.0	69.5	85.1	182.0	276.2	414.4	335.3	476.3	369.5	337.5	162.9
85°	16.7	18.9	23.5	53.9	96.9	148.6	113.3	230.7	177.1	124.5	61.3
87.5°	1.4	1.4	1.1	1.1	0.5	0.0	0.0	16.4	33.1	18.9	10.7
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°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	522.5	521.4	510.2	502.0	492.4	483.1	473.5	465.0	455.5	445.9	443.1
5°	564.7	557.0	533.2	513.2	493.5	476.3	461.2	445.6	433.0	420.7	416.0
7.5°	601.9	588.5	554.0	523.6	496.2	474.9	452.7	430.0	412.2	394.7	390.3
10°	635.6	617.8	574.3	535.9	505.6	481.2	455.2	424.8	399.1	377.7	372.0
12.5°	660.5	641.0	591.8	547.7	513.2	485.8	460.1	433.3	406.2	378.5	372.3
15°	680.2	659.9	606.3	556.7	513.5	478.2	453.3	444.0	435.5	408.4	396.9
17.5°	696.1	674.7	618.9	562.2	506.1	454.9	433.3	447.0	468.6	451.6	430.0
20°	710.6	688.9	628.5	566.0	489.7	422.9	410.8	439.9	472.4	471.9	452.5
22.5°	726.4	705.4	642.4	568.2	466.7	390.3	397.4	429.5	456.0	463.9	451.9
25°	746.7	728.1	661.8	573.2	440.7	367.9	387.6	416.0	438.2	440.1	433.0
27.5°	770.2	756.3	690.9	584.7	415.5	356.4	376.1	397.2	417.4	418.2	409.8
30°	796.0	786.7	717.7	594.2	396.6	352.8	361.3	378.3	391.1	393.3	385.9
32.5°	828.8	820.6	741.5	587.9	385.4	352.0	347.6	356.4	367.1	367.1	361.3
35°	874.0	862.5	766.7	563.9	371.7	348.7	333.1	335.6	340.2	341.1	337.8
37.5°	938.0	919.1	792.1	516.2	349.3	336.9	316.4	313.4	315.0	317.2	316.4
40°	1017.4	986.5	829.4	459.0	322.4	314.2	299.2	293.4	292.1	296.4	298.1
42.5°	1117.3	1070.0	869.3	405.6	298.1	288.2	278.9	274.0	271.8	279.2	283.6
45°	1276.9	1198.9	907.6	352.8	284.4	266.1	259.8	256.2	257.3	266.1	271.5
47.5°	1552.5	1395.7	944.0	319.4	283.3	250.2	242.5	243.3	246.3	255.7	262.2
50°	1901.2	1659.3	968.4	305.5	286.6	240.6	230.5	234.8	239.5	248.5	256.2
52.5°	2256.2	1904.8	939.4	297.8	286.3	240.9	219.2	232.4	234.6	243.6	251.8
55°	2500.4	1932.2	811.6	286.0	281.9	251.8	210.5	231.3	232.7	240.9	248.3
57.5°	2593.5	1838.6	618.9	289.3	268.8	260.3	206.7	223.6	233.5	240.6	248.3
60°	2481.0	1662.0	376.1	297.8	247.7	259.8	209.1	209.7	226.6	238.7	246.3
62.5°	2268.8	1435.4	264.1	273.7	232.4	245.2	214.9	193.2	214.6	229.1	235.9
65°	2025.8	1168.8	201.5	235.7	225.0	222.8	216.8	178.7	198.2	212.4	218.4
67.5°	1772.6	908.5	163.7	175.7	203.4	201.5	198.2	165.9	178.7	188.9	195.7
70°	1453.7	635.6	138.2	131.9	174.4	180.7	173.3	149.7	153.8	164.2	169.7
72.5°	1063.4	396.1	113.6	108.9	140.1	157.9	154.1	131.9	133.8	143.7	148.1
75°	764.8	226.6	91.1	89.8	107.0	135.2	127.6	113.6	115.8	123.2	126.2
77.5°	486.1	126.2	70.3	72.3	76.6	101.0	108.9	97.2	97.2	101.5	104.0
80°	260.3	72.3	51.5	52.3	53.6	77.2	85.9	75.3	75.3	72.3	75.3
82.5°	106.2	41.6	35.3	32.8	35.9	52.8	60.2	47.9	50.1	45.2	46.3
85°	35.0	20.8	17.5	17.2	17.0	23.3	29.0	23.8	28.5	18.1	18.9
87.5°	4.7	3.8	2.2	1.6	1.9	0.8	1.6	1.9	1.9	1.4	1.4
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°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	441.2	439.0	431.1	433.0	431.7	429.5	431.7	427.5	430.8	431.9	438.8
5°	412.5	407.3	399.6	395.8	395.0	392.8	393.1	391.1	391.7	396.3	404.0
7.5°	386.8	381.8	375.8	373.1	370.6	368.1	367.9	367.6	369.8	373.9	381.3
10°	368.1	365.4	362.9	364.0	362.9	361.9	359.9	359.9	363.5	370.9	379.9
12.5°	368.1	367.6	368.1	371.4	371.2	371.4	369.0	370.3	380.2	392.8	405.6
15°	387.9	383.5	383.5	385.1	384.6	384.6	384.6	390.3	412.8	432.2	445.9
17.5°	411.9	399.1	393.6	392.8	392.5	392.5	393.6	405.9	441.0	461.5	469.4
20°	428.6	404.3	395.2	391.7	392.0	392.5	395.8	412.8	451.4	461.8	459.8
22.5°	431.7	400.2	389.2	384.0	384.8	385.4	390.3	408.4	437.1	438.8	434.9
25°	417.7	388.7	376.9	372.8	373.9	373.6	378.0	391.1	411.7	411.1	408.9
27.5°	396.9	370.3	361.6	358.8	360.8	358.6	359.9	370.1	385.9	385.4	384.6
30°	375.5	352.5	344.6	343.2	345.7	342.4	342.7	351.2	362.1	361.6	361.3
32.5°	354.2	334.8	327.6	327.6	330.1	326.5	327.1	334.5	341.9	339.7	339.7
35°	333.9	320.2	314.5	313.4	315.3	312.9	314.0	320.8	323.5	320.5	318.6
37.5°	316.1	310.1	304.4	300.5	300.8	301.1	304.4	309.6	307.9	303.6	301.1
40°	299.7	299.7	294.2	287.1	286.3	288.2	293.7	299.4	294.8	289.9	286.9
42.5°	287.9	290.4	285.2	278.1	276.5	279.7	285.8	289.9	284.4	278.9	274.8
45°	277.0	283.0	279.5	271.5	269.3	273.2	280.8	282.5	275.1	269.9	266.9
47.5°	269.3	277.5	275.1	267.4	264.1	269.6	277.5	277.3	268.0	262.5	260.0
50°	263.9	274.3	274.0	267.4	263.9	270.7	277.8	274.3	264.1	258.4	255.9
52.5°	259.5	274.0	275.9	272.1	269.6	275.6	280.0	273.2	261.4	255.4	253.5
55°	257.6	275.1	276.5	272.9	270.7	276.2	280.0	275.4	261.4	255.9	254.3
57.5°	258.1	273.7	274.0	269.1	265.2	272.1	278.1	276.7	264.4	258.1	256.2
60°	254.8	266.3	266.9	259.2	254.8	263.0	273.7	272.9	263.0	256.5	252.9
62.5°	243.9	254.0	254.3	247.2	240.9	252.6	264.4	264.1	255.1	248.5	244.4
65°	225.5	236.2	239.0	232.1	227.2	239.8	252.1	251.5	242.5	236.5	232.4
67.5°	202.8	214.3	219.5	214.9	213.0	224.4	235.9	235.7	228.3	222.5	219.0
70°	175.2	184.8	193.5	193.5	192.1	205.3	217.6	216.5	209.7	205.3	202.5
72.5°	152.2	159.6	162.3	165.1	169.2	182.8	193.2	194.1	189.1	186.9	189.1
75°	129.5	134.1	136.6	134.4	141.5	155.7	169.4	170.8	165.6	162.0	162.9
77.5°	106.5	111.7	114.1	109.2	108.7	126.7	143.4	146.4	142.1	136.6	138.2
80°	76.9	83.8	87.9	84.6	83.5	91.4	114.4	117.7	113.6	109.2	111.7
82.5°	47.1	50.9	52.0	55.3	62.1	65.4	73.6	84.6	81.6	77.7	84.6
85°	18.6	22.2	24.6	27.9	32.6	38.6	45.4	54.2	49.3	47.6	56.1
87.5°	1.1	0.3	0.0	0.5	4.7	9.0	19.4	26.8	22.4	24.1	29.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8	479.8
2.5°	444.2	451.4	460.9	468.9	479.0	488.6	498.4	508.3	513.5	515.7
5°	412.8	425.9	441.2	458.2	477.9	498.7	519.8	541.4	555.1	556.2
7.5°	393.9	412.8	433.8	455.2	479.6	508.3	541.7	575.1	589.0	592.9
10°	399.9	421.0	437.7	457.7	484.5	520.3	559.7	598.9	615.0	619.7
12.5°	424.0	428.1	433.3	451.6	484.5	530.7	578.4	624.9	642.1	646.5
15°	444.0	424.3	415.0	434.4	477.9	539.8	598.1	649.5	670.3	674.4
17.5°	445.6	411.7	391.4	408.9	466.4	546.1	617.0	676.9	694.4	698.2
20°	428.9	398.3	372.0	382.7	450.8	548.8	630.6	696.9	714.1	718.0
22.5°	410.0	387.3	358.8	358.3	431.9	551.8	647.1	715.8	734.4	736.8
25°	392.2	372.3	348.2	340.5	410.0	557.6	669.2	744.2	758.5	759.3
27.5°	371.4	356.1	339.7	332.3	390.9	568.5	702.1	778.2	786.7	785.3
30°	352.5	341.1	333.7	331.5	378.8	576.7	733.3	811.6	812.1	807.5
32.5°	332.6	328.2	328.2	335.3	369.0	574.8	758.7	844.1	838.9	832.1
35°	314.8	315.6	321.3	338.0	352.5	555.6	783.1	884.9	877.3	867.4
37.5°	297.8	304.1	312.3	328.5	330.9	527.2	811.6	942.7	933.1	920.8
40°	283.3	292.9	302.5	310.4	307.9	486.7	851.3	1010.6	999.9	985.7
42.5°	271.8	281.1	291.8	292.6	293.4	444.5	893.4	1093.8	1091.9	1076.3
45°	264.4	270.4	280.6	279.2	292.6	398.0	932.3	1220.8	1246.0	1234.2
47.5°	259.5	264.1	265.2	271.0	299.7	356.4	982.4	1469.3	1539.4	1526.0
50°	256.7	261.4	249.1	271.5	300.8	329.6	1051.6	1781.3	1894.1	1876.3
52.5°	256.5	255.4	236.8	277.3	294.8	313.1	1087.7	2009.1	2259.3	2297.8
55°	257.0	243.3	230.5	278.9	282.7	307.1	966.8	2118.6	2596.2	2677.8
57.5°	252.1	230.2	234.0	272.3	260.0	323.3	714.7	2079.4	2730.9	2882.5
60°	242.8	217.6	240.6	254.6	236.8	295.6	492.1	1904.8	2591.3	2747.3
62.5°	229.4	208.8	239.8	231.6	228.3	242.0	338.3	1660.4	2369.8	2522.3
65°	214.3	201.7	226.9	209.4	211.3	186.1	239.2	1384.5	2105.4	2255.4
67.5°	198.2	197.3	208.0	186.4	178.5	147.5	174.4	1109.6	1765.7	1901.0
70°	179.8	185.9	189.1	165.6	144.8	115.8	129.5	776.0	1302.6	1420.3
72.5°	161.5	162.0	166.7	144.0	108.4	92.8	97.2	470.0	884.9	970.6
75°	142.9	137.7	142.1	117.2	80.7	76.1	75.0	290.4	611.2	678.8
77.5°	122.9	117.2	111.4	88.1	64.9	58.8	57.5	162.9	375.0	416.6
80°	99.9	92.2	83.2	64.6	47.4	42.2	41.9	79.4	186.9	208.3
82.5°	77.7	63.2	60.8	40.2	29.3	25.7	27.4	30.4	56.4	63.0
85°	54.5	46.0	32.3	16.1	13.1	10.7	10.4	9.0	15.1	16.7
87.5°	30.4	20.0	10.4	1.9	2.2	2.5	1.9	1.4	1.4	1.4
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

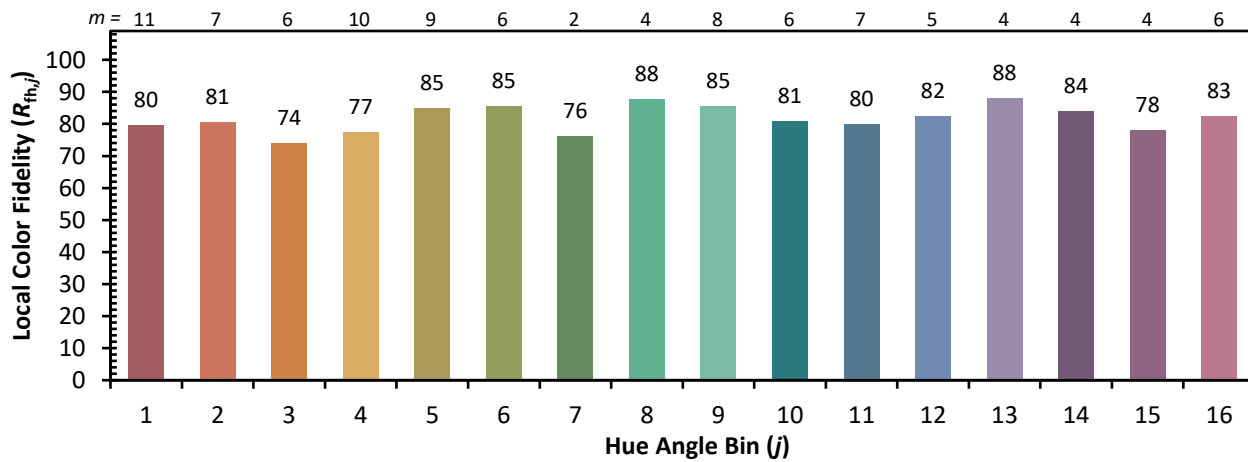
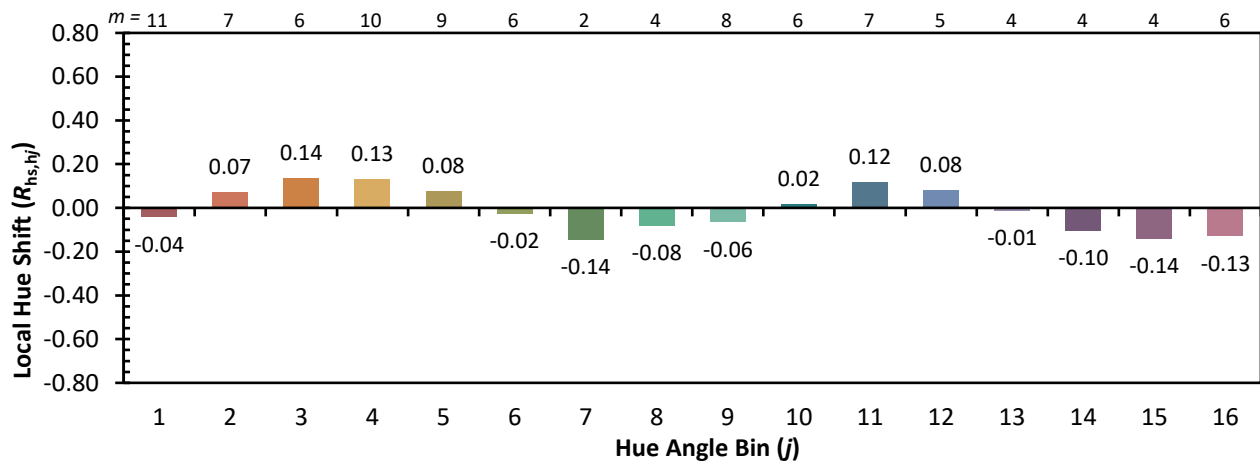
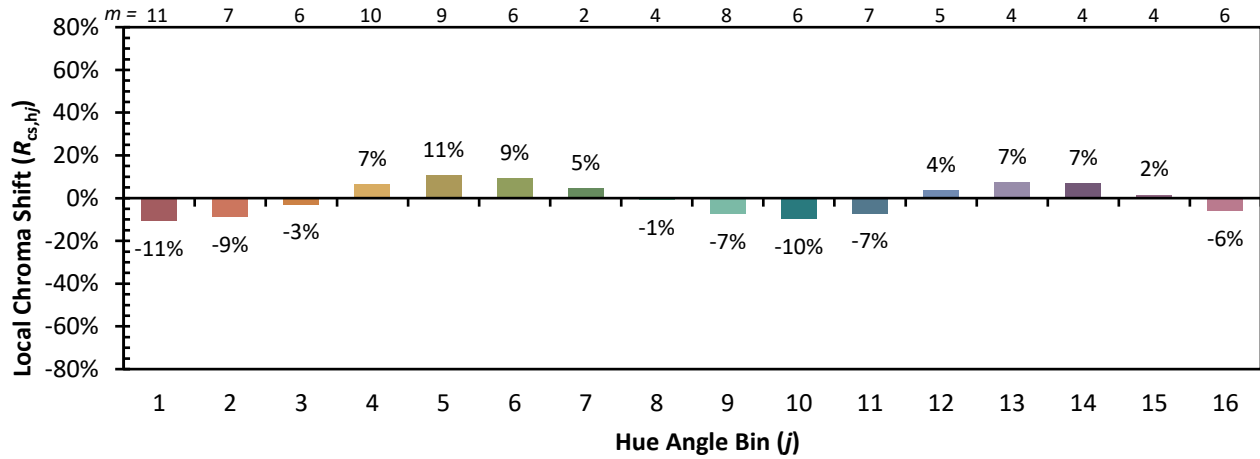


Individual Sample Fidelity Index ($R_{f,i}$)

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)