

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: P630559

Luminaire Tested: GWS-SA1D-830-U-SLL-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P630559
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-SA1D-830-U-SLL-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2583 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G0

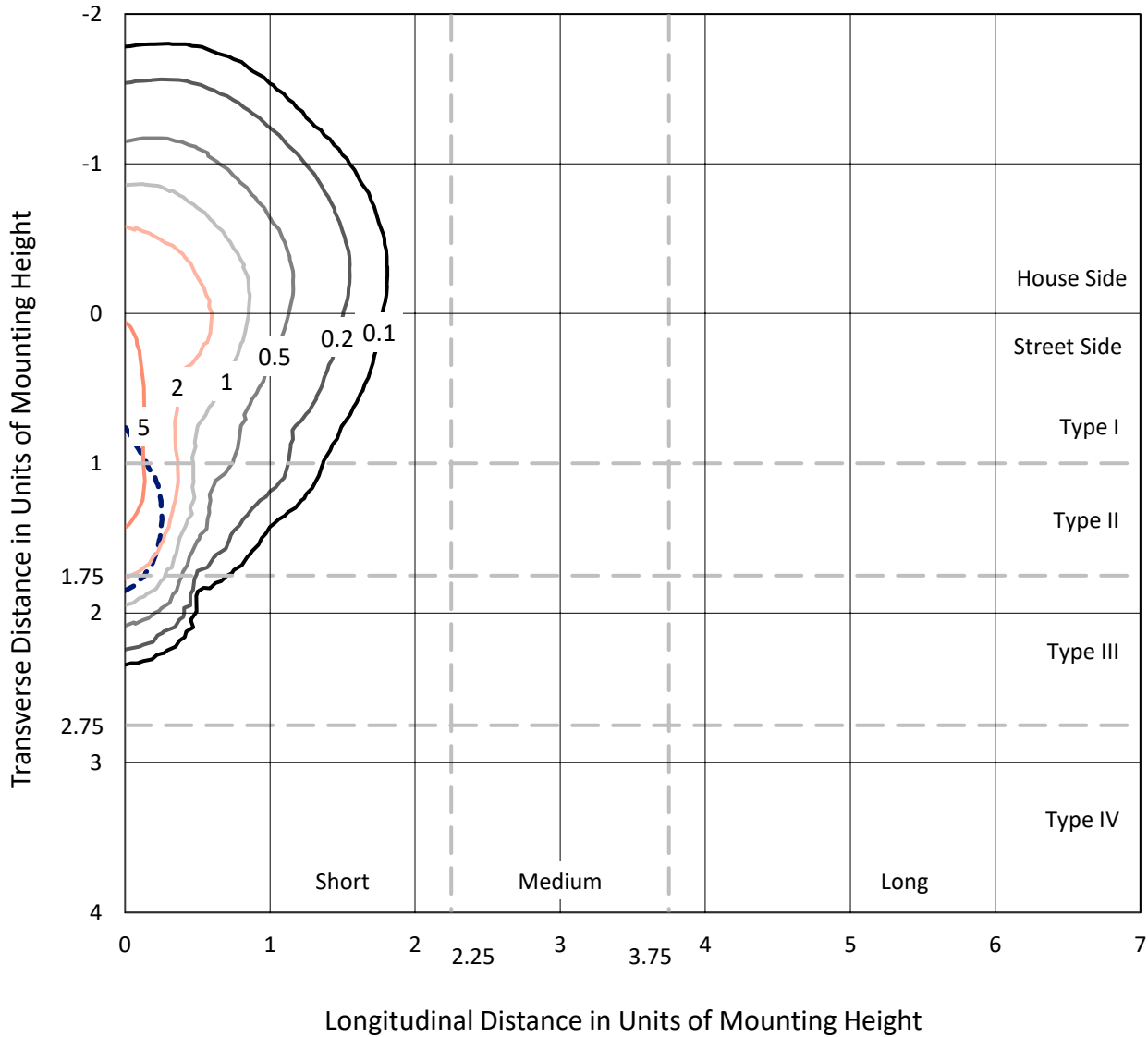
Input Watts (W): 44.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

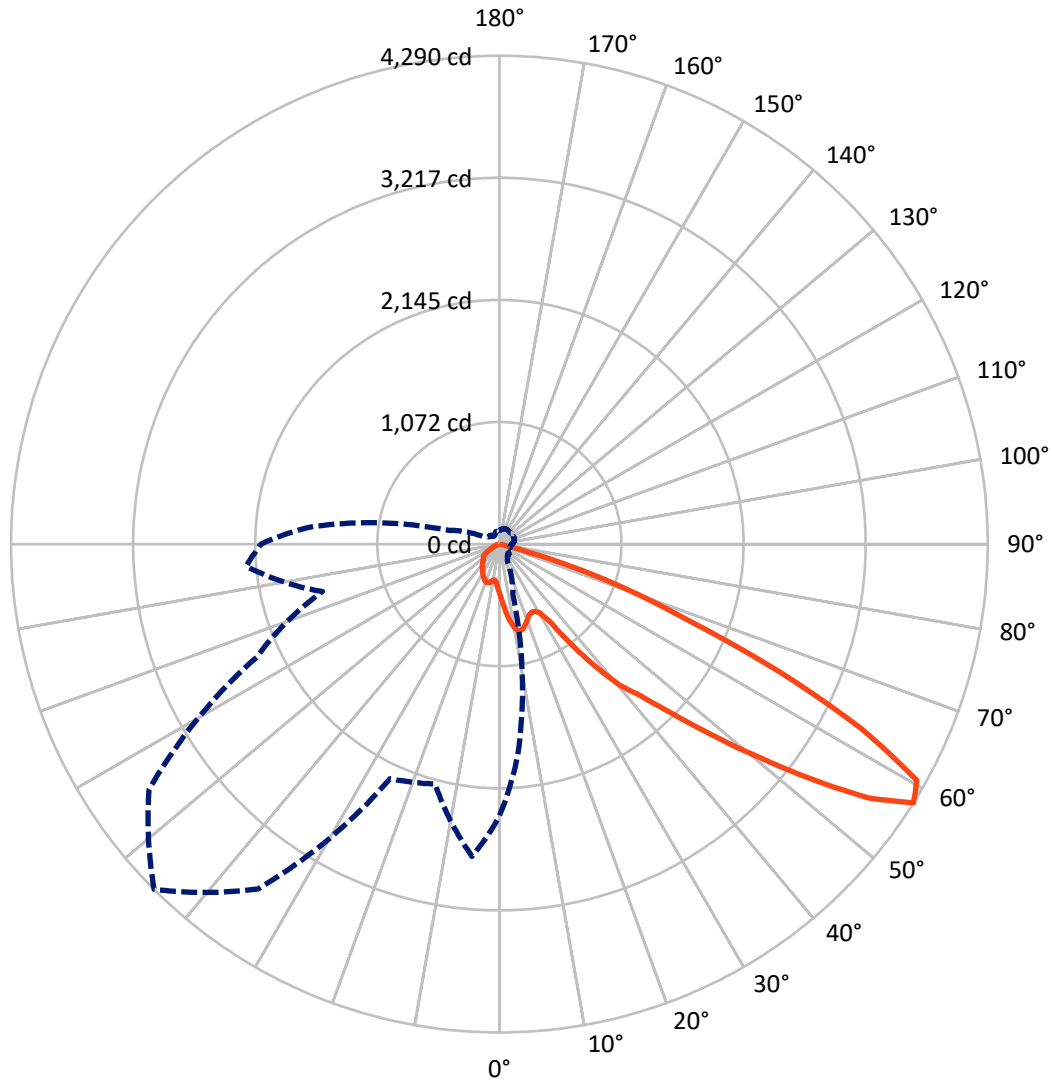
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 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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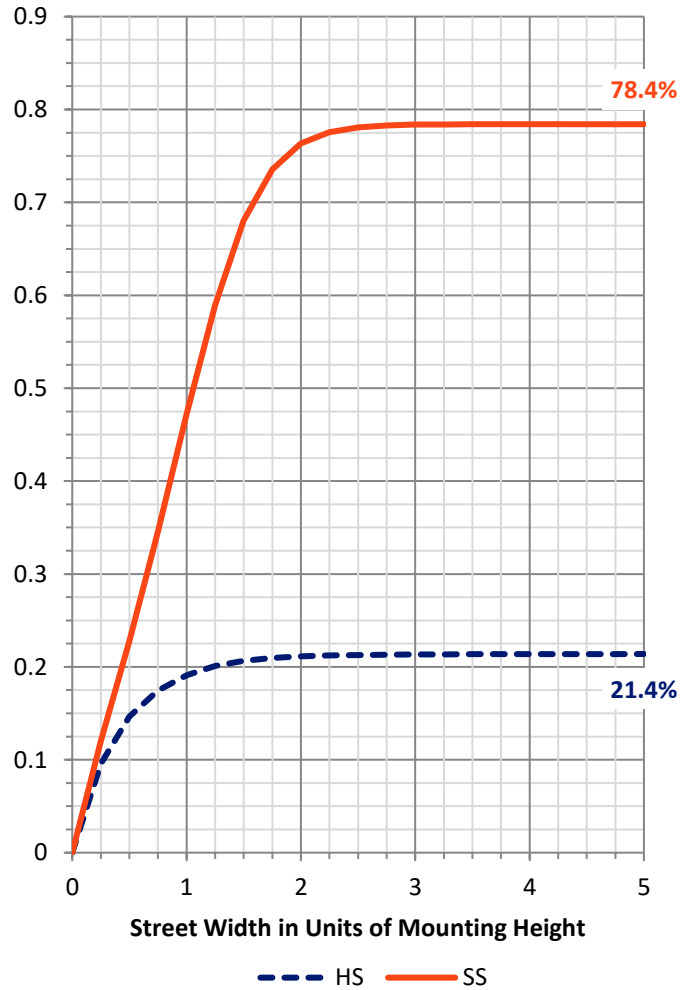
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	556.5	0.0	556.5
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	2026.5	0.0	2026.5
	% Fixture	78.5	0.0	78.5
Total	Lumens	2583.0	0.0	2583.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.4	1.7
10°-20°	142.7	5.5
20°-30°	231.6	9.0
30°-40°	355.5	13.8
40°-50°	567.8	22.0
50°-60°	795.0	30.8
60°-70°	407.6	15.8
70°-80°	39.2	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°	2583.0	100.0
0°-180°	2583.0	100.0

Coefficient of Utilization



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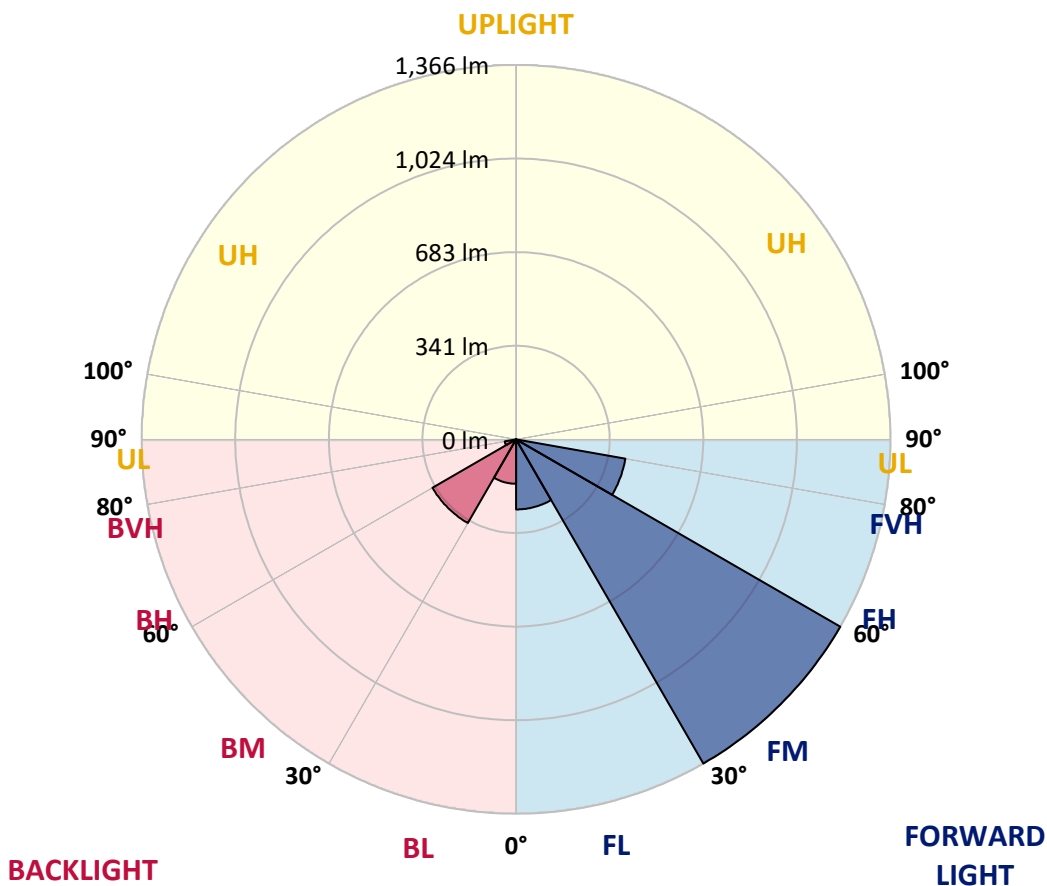
CATALOG NUMBER: GWS-SA1D-830-U-SLL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	255.7	9.9			
FM (30°-60°)	1365.9	52.9			
FH (60°-80°)	404.9	15.7			G0/660
FVH (80°-90°)	0.0	0.0			G0/10
BL (0°-30°)	162.0	6.3	B1/500		
BM (30°-60°)	352.4	13.6	B1/1000		
BH (60°-80°)	42.0	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-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9
2.5°	487.6	486.5	483.1	471.3	464.1	452.7	444.4	433.7	422.0	414.7	407.5
5°	539.4	536.6	527.3	500.4	479.6	457.2	439.2	419.6	398.5	384.7	371.9
7.5°	589.1	585.0	572.5	526.9	495.5	463.4	437.9	409.2	379.5	358.8	342.9
10°	637.8	628.5	608.8	552.8	510.4	471.7	441.7	408.8	374.0	347.7	330.1
12.5°	677.8	670.9	644.0	577.4	522.8	473.4	436.5	406.1	382.6	365.0	348.8
15°	712.4	704.8	679.2	599.5	533.5	466.5	414.7	388.1	391.9	398.8	385.0
17.5°	744.1	736.2	708.6	617.8	537.6	449.6	384.3	371.6	392.6	418.5	413.3
20°	776.9	768.0	734.1	632.6	536.3	423.0	353.6	357.4	387.1	416.8	419.6
22.5°	815.3	806.0	766.6	651.6	535.2	391.2	327.0	345.0	376.7	401.9	406.8
25°	866.0	855.0	811.8	679.6	538.0	362.2	308.0	332.9	359.1	381.9	384.7
27.5°	933.0	918.9	864.0	714.1	543.9	339.4	299.7	316.3	336.7	357.1	359.5
30°	1020.4	1002.4	923.7	744.1	541.1	323.6	294.2	299.7	311.8	328.4	328.7
32.5°	1122.6	1098.1	990.7	770.0	517.3	311.8	286.6	282.8	285.6	298.3	300.8
35°	1242.8	1211.0	1064.6	794.6	473.8	289.0	272.8	260.0	259.0	265.2	271.1
37.5°	1380.6	1342.6	1157.8	826.0	422.3	265.2	252.4	239.6	234.1	237.2	246.2
40°	1507.6	1465.5	1255.2	864.0	369.8	243.8	228.6	215.5	208.9	209.9	221.0
42.5°	1656.8	1613.3	1374.3	913.7	326.3	229.3	203.7	190.3	181.6	186.5	199.2
45°	1883.3	1833.9	1548.0	956.9	291.8	225.8	182.0	163.0	158.8	167.1	182.3
47.5°	2192.7	2132.3	1786.6	983.1	262.4	228.9	166.8	140.9	141.9	151.2	166.4
50°	2499.7	2434.4	2062.5	948.6	238.3	222.7	159.2	123.6	130.2	138.5	152.3
52.5°	2710.7	2625.7	2196.9	848.8	216.2	199.2	158.5	107.4	119.8	122.6	134.3
55°	2719.0	2614.3	2128.2	669.2	186.1	168.2	151.2	93.9	108.4	109.5	119.5
57.5°	2383.3	2288.7	1859.8	459.6	165.4	123.3	120.5	82.2	89.1	97.7	103.9
60°	1813.2	1732.8	1390.9	210.6	125.7	78.4	82.5	70.8	66.6	79.4	85.6
62.5°	1110.5	1059.1	834.3	93.2	80.1	41.8	50.1	56.3	50.1	54.9	60.1
65°	441.0	418.2	316.6	39.7	32.8	21.1	22.8	32.8	35.2	38.7	43.5
67.5°	76.7	72.5	53.2	17.6	13.5	12.8	11.0	15.2	21.4	23.8	27.6
70°	10.0	9.7	8.6	7.3	6.9	6.2	4.8	9.7	14.5	15.2	17.6
72.5°	2.4	2.1	2.1	1.7	2.1	0.7	0.7	5.2	10.4	10.7	12.4
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.6	7.3	8.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9
2.5°	401.6	394.7	392.3	388.8	384.3	385.7	379.5	377.4	380.5	384.7	383.6
5°	365.0	357.4	352.2	344.3	342.9	339.8	337.7	335.0	338.4	343.2	344.3
7.5°	336.0	329.4	324.2	321.8	320.1	318.7	314.6	312.5	312.5	314.6	316.3
10°	323.6	318.7	317.7	318.4	321.1	320.8	317.0	314.2	310.8	309.1	311.1
12.5°	340.8	332.9	331.5	331.8	335.3	335.0	330.8	327.4	326.7	327.4	333.9
15°	370.2	358.1	349.1	347.4	349.1	348.4	345.3	343.2	344.3	354.3	365.3
17.5°	396.4	377.8	361.5	355.3	355.0	353.9	350.8	350.1	355.3	374.0	390.2
20°	404.0	385.7	362.6	354.6	352.9	351.9	348.4	349.5	356.0	378.5	392.3
22.5°	394.0	376.4	352.2	344.3	342.9	342.5	339.1	340.5	346.0	365.7	377.1
25°	375.0	360.2	335.0	328.0	328.0	327.4	324.2	324.9	328.4	345.7	356.7
27.5°	351.9	337.7	316.6	309.7	310.8	311.8	308.0	307.0	309.7	326.0	332.5
30°	325.3	315.3	298.7	292.5	292.1	296.3	291.1	289.7	293.5	306.3	307.7
32.5°	299.4	294.6	282.8	278.0	278.3	279.0	276.2	276.2	279.7	286.6	286.3
35°	274.2	271.1	269.0	265.5	265.2	263.8	263.8	264.5	268.3	270.7	266.2
37.5°	250.0	253.1	255.5	252.1	249.3	249.3	249.3	252.4	255.9	254.8	247.2
40°	228.6	235.2	242.8	239.0	232.4	232.0	233.4	238.6	243.8	237.6	230.7
42.5°	210.3	218.6	229.3	227.2	220.0	218.9	220.0	226.5	230.7	222.7	215.1
45°	192.3	202.7	215.5	215.5	207.5	206.5	206.8	215.5	217.9	208.6	198.9
47.5°	177.1	188.5	202.0	202.0	195.4	193.4	195.1	204.1	205.8	192.7	183.7
50°	162.6	175.1	189.9	188.9	184.4	182.7	185.8	195.4	193.4	178.9	169.5
52.5°	144.3	157.5	177.8	178.9	176.5	176.8	180.6	186.8	180.9	163.3	155.4
55°	127.8	141.2	161.6	167.1	167.1	166.8	168.5	173.3	168.5	147.4	137.8
57.5°	109.8	121.2	138.1	139.5	140.5	136.7	139.2	145.7	143.3	125.3	119.8
60°	90.1	99.8	109.5	110.5	106.0	98.1	102.6	110.2	111.9	98.4	92.2
62.5°	63.9	73.2	84.6	84.6	80.1	72.2	78.0	84.6	82.2	68.4	64.6
65°	47.7	56.3	64.9	68.7	64.9	59.4	63.9	68.7	64.9	53.5	48.0
67.5°	30.7	36.6	41.8	44.9	45.6	44.9	47.0	45.6	41.1	33.5	30.4
70°	18.6	21.8	24.5	27.3	29.4	30.4	31.4	28.3	23.8	19.7	18.6
72.5°	13.5	16.2	18.6	20.7	23.1	23.8	23.8	21.8	17.6	13.8	12.8
75°	9.3	11.7	13.8	15.2	17.3	18.0	18.0	16.2	13.1	10.0	9.0
77.5°	0.3	2.4	2.4	2.1	2.8	3.5	3.5	4.1	3.8	2.8	2.4
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°	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9
2.5°	385.7	398.1	401.6	414.4	425.8	437.2	451.0	459.3	471.7	480.3	485.2
5°	347.7	358.1	370.5	389.5	409.2	430.9	457.2	480.0	508.6	529.7	536.6
7.5°	320.1	333.6	348.1	371.9	398.8	427.8	464.8	502.1	545.9	574.6	592.9
10°	314.9	328.7	348.1	371.6	399.9	433.0	478.3	526.6	581.5	616.4	637.1
12.5°	339.8	354.6	362.9	373.6	395.0	432.0	490.0	551.5	616.0	654.0	676.1
15°	376.4	389.5	376.0	362.6	376.4	420.9	496.6	572.2	646.4	690.3	713.1
17.5°	401.6	402.6	373.3	344.6	348.4	400.9	499.0	592.9	678.9	724.8	748.6
20°	399.2	390.9	361.2	329.4	317.7	375.0	496.2	611.2	711.7	759.7	783.2
22.5°	380.5	370.9	345.7	314.6	291.8	344.3	491.4	627.8	741.7	796.3	818.4
25°	358.1	347.7	327.0	299.7	275.2	314.6	487.6	650.6	779.7	843.9	861.2
27.5°	331.8	322.9	305.3	285.6	268.3	292.1	486.5	680.6	825.6	902.0	914.0
30°	306.3	298.0	284.2	272.8	265.5	279.0	483.1	712.7	880.5	968.6	981.7
32.5°	281.8	273.5	264.9	263.1	263.5	274.2	471.3	744.5	945.8	1065.3	1075.0
35°	260.7	251.0	247.6	251.7	259.3	265.9	438.2	770.7	1015.9	1170.6	1178.5
37.5°	240.7	231.0	230.7	240.7	249.0	253.1	399.2	796.6	1110.5	1277.6	1287.7
40°	222.4	212.7	216.2	228.3	234.8	236.9	351.9	836.0	1210.7	1390.6	1385.0
42.5°	206.8	196.8	198.9	214.4	220.3	225.8	308.4	868.8	1307.0	1497.6	1495.9
45°	191.6	184.1	182.7	199.6	204.8	226.9	276.6	894.0	1431.0	1634.0	1636.8
47.5°	176.8	170.9	171.3	178.5	191.3	232.0	249.7	910.6	1610.9	1850.2	1802.2
50°	163.3	158.8	162.6	154.4	182.7	225.5	226.5	907.1	1811.8	2057.4	1961.0
52.5°	148.5	147.4	149.2	129.1	168.9	198.9	204.8	861.2	1906.1	2198.9	2144.0
55°	133.3	132.9	119.1	103.2	141.2	158.8	175.4	718.6	1903.0	2274.2	2340.9
57.5°	115.3	112.6	90.5	84.3	109.8	110.5	159.9	470.7	1686.5	2094.0	2232.1
60°	87.4	85.3	66.3	68.4	76.7	70.8	127.4	234.5	1260.4	1631.2	1787.0
62.5°	60.4	57.7	49.4	52.8	49.4	40.4	78.0	116.0	763.5	1030.1	1171.3
65°	44.2	41.1	33.8	29.0	23.1	23.1	29.7	44.5	295.6	437.9	528.0
67.5°	27.3	25.9	20.0	14.5	14.2	15.2	15.5	22.1	47.7	76.0	92.9
70°	17.6	16.2	13.5	9.3	8.6	9.0	9.3	10.4	12.1	13.1	15.9
72.5°	12.1	11.4	9.7	5.2	4.1	4.5	4.8	4.8	5.9	5.5	6.6
75°	8.6	7.9	6.9	2.4	1.4	1.7	2.1	1.7	2.1	1.4	1.7
77.5°	2.4	2.4	1.7	0.3	0.0	0.3	0.7	0.7	0.3	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9	438.9
2.5°	497.6	505.5	508.6	504.2	508.0	501.7	499.3	490.0	489.3	487.6
5°	564.6	582.5	593.2	599.8	592.2	583.9	571.5	550.1	543.5	539.4
7.5°	630.5	658.5	676.8	685.4	683.4	666.4	644.0	608.1	595.3	589.1
10°	687.9	722.0	744.1	754.8	750.4	735.5	703.4	658.5	641.6	637.8
12.5°	727.9	759.3	774.5	783.9	784.2	778.3	747.9	702.7	682.7	677.8
15°	753.1	766.6	766.9	772.5	782.1	795.3	781.1	741.0	719.6	712.4
17.5°	769.0	754.2	739.0	740.3	756.2	791.1	805.6	774.9	752.1	744.1
20°	780.4	733.4	705.1	705.5	721.7	774.5	822.5	807.7	784.2	776.9
22.5°	787.7	715.1	674.7	673.7	691.0	754.8	838.1	846.7	823.6	815.3
25°	802.5	706.5	656.4	662.3	677.5	748.6	859.1	898.5	877.1	866.0
27.5°	829.1	715.1	654.7	668.2	685.4	766.9	895.7	967.6	945.5	933.0
30°	875.0	747.6	681.3	699.9	720.7	814.9	957.2	1063.9	1032.1	1020.4
32.5°	948.9	814.9	763.5	803.5	823.6	893.7	1049.4	1172.0	1146.1	1122.6
35°	1050.8	968.6	962.7	1056.0	1051.1	1042.8	1162.7	1304.6	1265.6	1242.8
37.5°	1191.0	1215.8	1259.3	1351.9	1348.8	1285.6	1311.5	1429.9	1409.9	1380.6
40°	1366.0	1418.9	1492.8	1625.4	1583.9	1504.5	1494.2	1558.4	1542.2	1507.6
42.5°	1469.3	1560.5	1701.3	1820.5	1787.3	1648.5	1636.8	1730.0	1694.4	1656.8
45°	1517.3	1675.8	1952.0	2113.3	2012.8	1744.2	1739.7	1953.8	1933.7	1883.3
47.5°	1539.4	1792.2	2245.6	2489.7	2301.8	1828.1	1811.8	2278.4	2252.1	2192.7
50°	1563.9	1952.7	2599.2	2925.8	2651.0	1923.0	1934.8	2580.9	2569.8	2499.7
52.5°	1617.8	2122.6	3034.6	3424.4	3074.3	2071.9	2145.8	2866.1	2791.5	2710.7
55°	1698.6	2307.7	3487.6	3933.8	3506.3	2271.8	2374.0	3017.7	2808.4	2719.0
57.5°	1609.1	2354.0	3755.9	4289.5	3697.9	2272.5	2181.0	2754.9	2470.0	2383.3
60°	1277.0	2190.0	3652.7	4212.4	3534.6	2018.0	1669.9	2150.9	1871.2	1813.2
62.5°	863.3	1836.7	3215.5	3562.6	3025.3	1587.4	1085.3	1398.9	1158.5	1110.5
65°	473.1	1370.2	2598.1	2695.2	2367.8	1108.8	558.4	607.1	462.4	441.0
67.5°	130.5	953.7	1911.6	1788.0	1661.3	722.0	144.3	108.4	77.3	76.7
70°	32.8	630.9	1145.4	1180.6	1018.7	462.4	27.6	13.1	10.4	10.0
72.5°	13.8	271.4	543.5	624.7	521.4	214.1	10.0	3.8	3.1	2.4
75°	1.7	21.8	46.3	70.1	48.0	23.1	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



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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

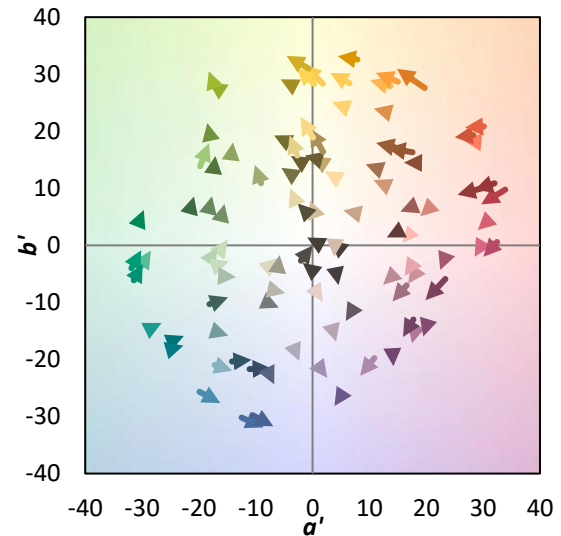
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300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

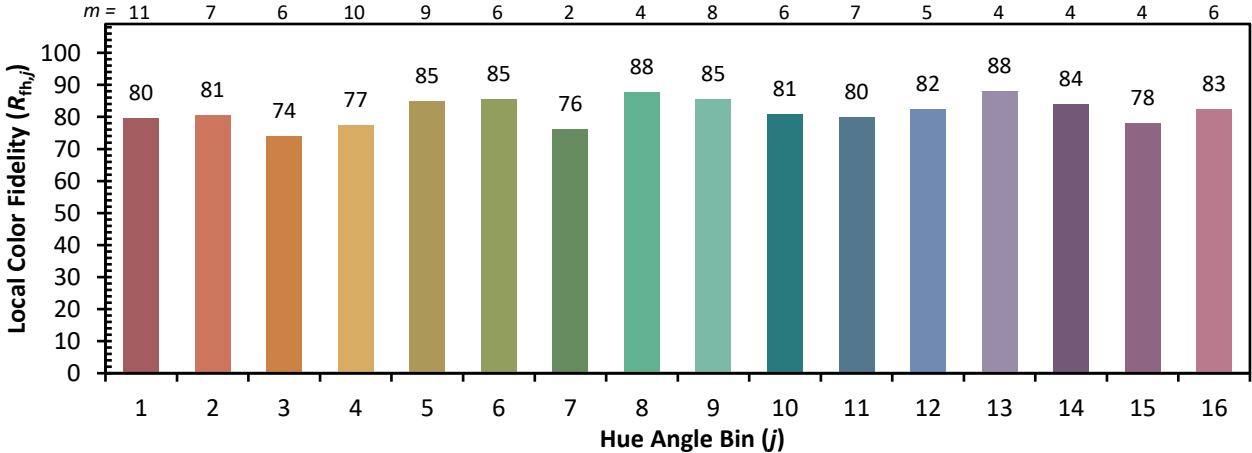


Individual Sample Fidelity Index ($R_{f,i}$)

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)