

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: P636501

Luminaire Tested: GWS-SA3F-830-U-SLL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P636501
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3F-830-U-SLL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (48) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11760.2 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

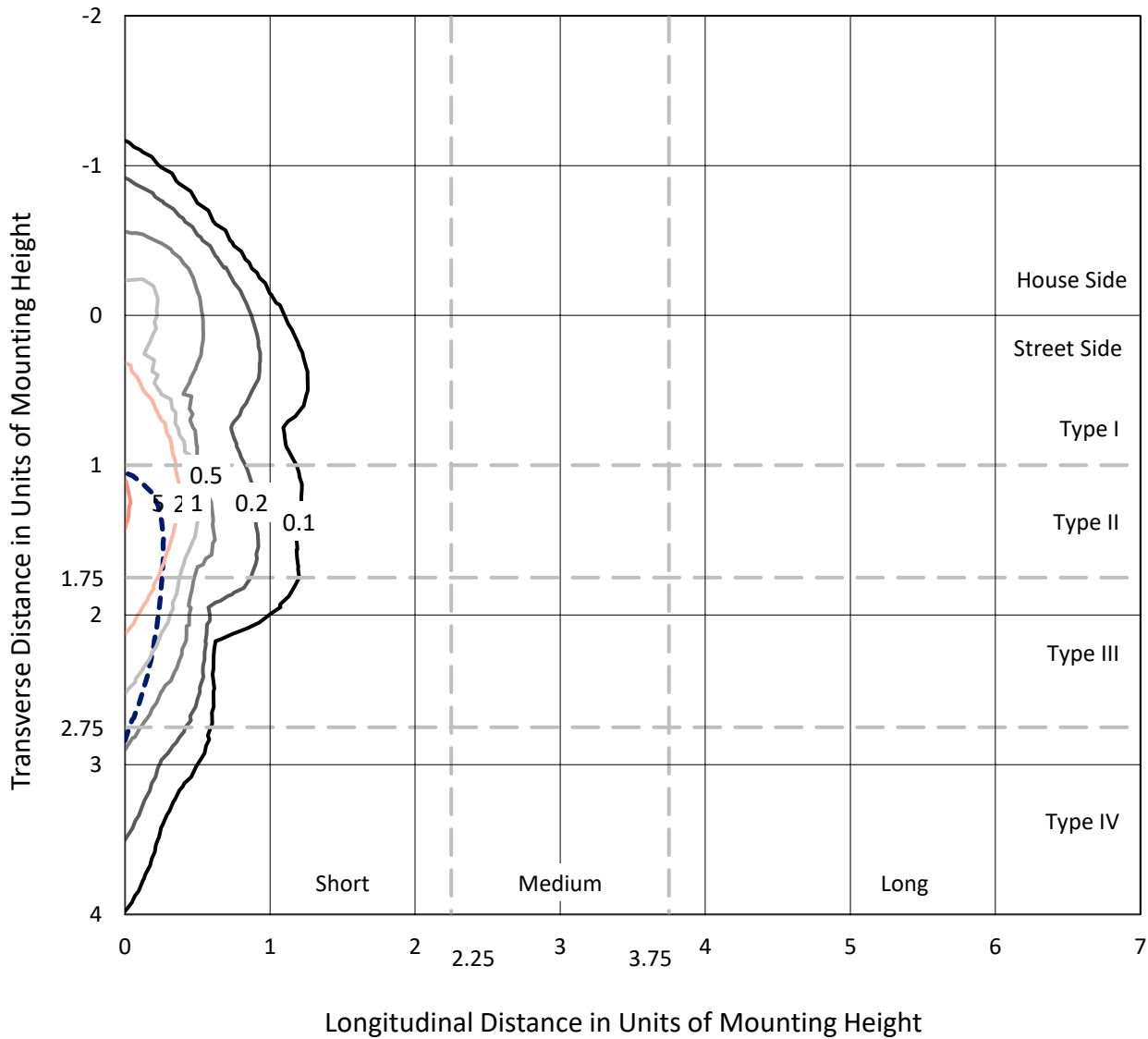
Input Watts (W): 183.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P636501
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

Iso-Footcandle Lines of Horizontal Illumination

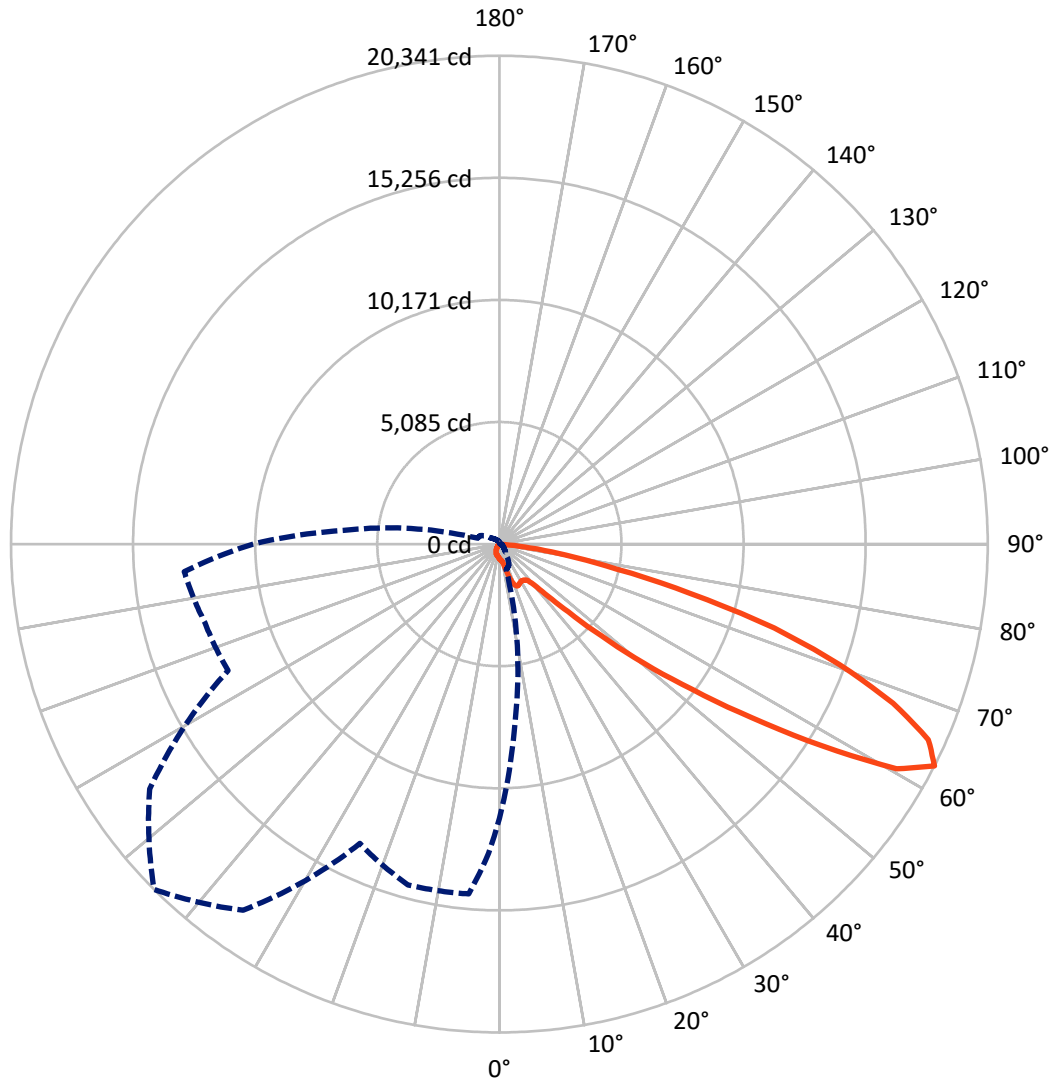
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - N/A

REPORT NUMBER: P636501
CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P636501
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1366.4	0.0	1366.4
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	10393.8	0.0	10393.8
	% Fixture	88.4	0.0	88.4
Total	Lumens	11760.2	0.0	11760.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	0.4
10°-20°	180.5	1.5
20°-30°	407.8	3.5
30°-40°	702.6	6.0
40°-50°	1325.3	11.3
50°-60°	2959.0	25.2
60°-70°	3957.6	33.7
70°-80°	1984.6	16.9
80°-90°	190.2	1.6
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°	11760.2	100.0
0°-180°	11760.2	100.0

Coefficient of Utilization



REPORT NUMBER: P636501

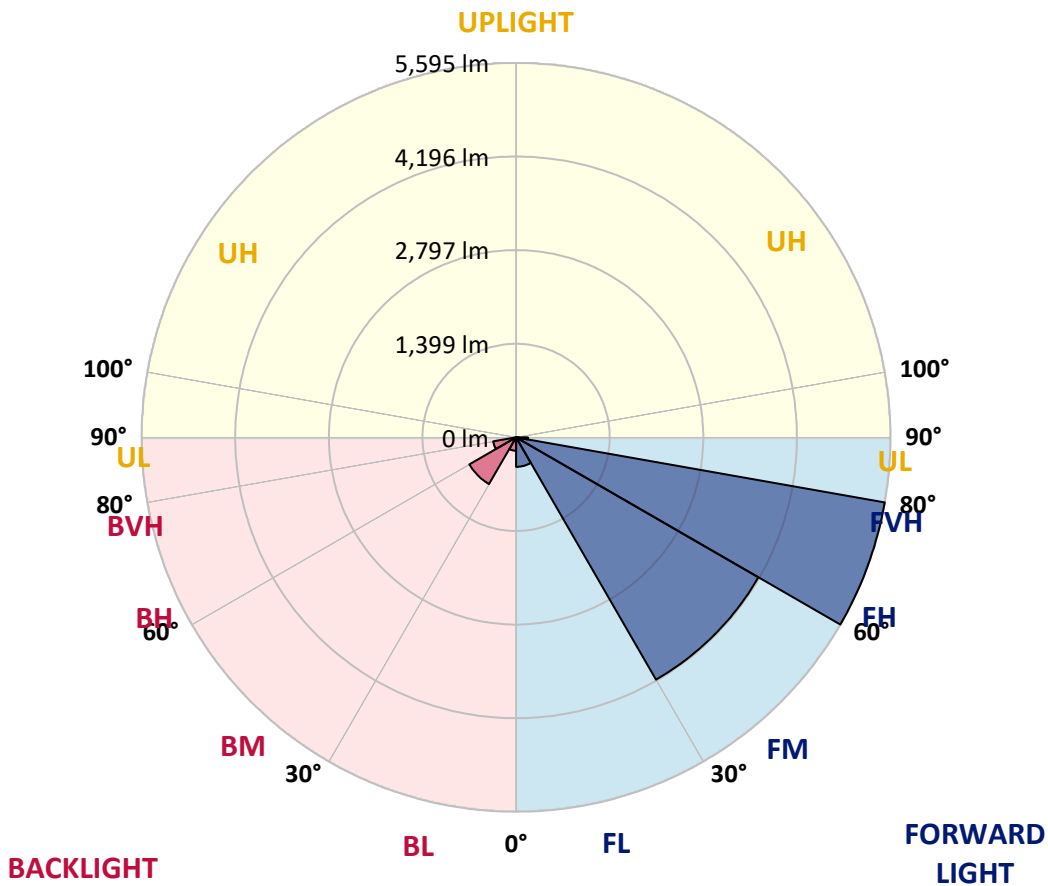
CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	440.4	3.7			
FM (30°-60°)	4181.1	35.6			
FH (60°-80°)	5594.7	47.6			G3/7500
FVH (80°-90°)	177.6	1.5			G2/225
BL (0°-30°)	200.6	1.7	B1/500		
BM (30°-60°)	805.7	6.9	B1/1000		
BH (60°-80°)	347.5	3.0	B1/500		G1/500
BVH (80°-90°)	12.7	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Short





REPORT NUMBER: P636501

CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	602.9	601.5	598.8	590.4	583.4	579.3	570.9	570.9	569.5	566.7	561.2
5°	583.4	577.9	572.3	557.0	540.3	530.5	519.4	518.0	518.0	515.2	513.8
7.5°	552.8	547.2	540.3	515.2	499.9	490.1	480.4	479.0	474.8	474.8	474.8
10°	536.1	527.7	516.6	488.8	473.4	465.1	458.1	453.9	451.2	447.0	445.6
12.5°	572.3	557.0	533.3	483.2	462.3	451.2	442.8	440.0	431.7	426.1	421.9
15°	685.1	647.5	600.2	495.7	458.1	441.4	430.3	424.7	417.7	408.0	401.0
17.5°	870.3	816.0	736.6	536.1	453.9	433.1	419.1	409.4	399.6	388.5	380.1
20°	1126.5	1045.7	951.1	609.9	453.9	423.3	406.6	394.1	380.1	367.6	357.9
22.5°	1452.3	1371.6	1210.1	735.2	459.5	410.8	391.3	374.6	357.9	346.7	335.6
25°	1817.2	1703.0	1552.6	887.0	474.8	394.1	373.2	356.5	341.2	327.2	314.7
27.5°	2223.8	2099.8	1899.3	1102.8	508.3	377.4	353.7	338.4	324.4	310.5	293.8
30°	2598.3	2524.5	2319.9	1361.8	562.6	366.2	338.4	324.4	310.5	292.4	277.1
32.5°	3048.1	2917.2	2748.7	1657.0	635.0	355.1	325.8	306.3	295.2	278.5	261.8
35°	3500.7	3389.3	3167.9	2020.5	715.7	343.9	310.5	292.4	282.7	263.2	245.1
37.5°	3967.1	3942.1	3723.5	2422.9	795.1	331.4	292.4	281.3	271.5	249.3	228.4
40°	4426.7	4380.7	4178.8	2882.4	843.8	317.5	277.1	270.1	259.0	233.9	210.3
42.5°	4866.7	4831.9	4635.5	3322.4	836.9	305.0	261.8	253.4	245.1	220.0	190.8
45°	5407.0	5349.9	5102.0	3648.3	765.9	318.9	246.5	232.5	231.1	207.5	171.3
47.5°	6417.9	6229.9	5809.4	3898.9	694.8	355.1	229.8	213.0	222.8	194.9	151.8
50°	7834.0	7612.6	7004.1	4093.9	693.4	402.4	227.0	194.9	215.8	185.2	135.1
52.5°	9257.1	8867.2	8127.8	4198.3	745.0	437.2	252.0	176.8	207.5	175.5	122.5
55°	10620.4	9811.3	8598.5	3853.0	785.4	474.8	298.0	167.1	192.2	164.3	115.6
57.5°	11919.5	10570.2	8803.2	3048.1	920.4	490.1	325.8	171.3	169.9	150.4	110.0
60°	12097.8	10534.0	8389.6	1772.6	1015.1	463.7	314.7	190.8	149.0	133.7	100.3
62.5°	11423.8	9833.6	7446.9	1105.6	942.7	453.9	279.9	217.2	135.1	118.4	87.7
65°	10400.3	8735.0	6209.0	712.9	714.3	504.1	245.1	213.0	126.7	104.4	75.2
67.5°	8800.4	7310.5	4891.7	477.6	403.8	430.3	214.4	146.2	123.9	89.1	58.5
70°	6423.5	5203.7	3184.6	318.9	240.9	343.9	179.6	104.4	117.0	73.8	41.8
72.5°	4695.4	3496.5	1778.2	208.9	136.5	200.5	132.3	75.2	90.5	54.3	29.2
75°	3379.5	2406.2	1015.1	133.7	90.5	110.0	86.3	51.5	58.5	43.2	26.5
77.5°	1626.4	1172.5	460.9	73.8	61.3	55.7	46.0	32.0	36.2	39.0	23.7
80°	61.3	46.0	34.8	36.2	39.0	25.1	20.9	16.7	20.9	26.5	12.5
82.5°	0.0	0.0	0.0	4.2	5.6	7.0	8.4	7.0	8.4	9.7	1.4
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



REPORT NUMBER: P636501
 CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	565.3	562.6	565.3	568.1	570.9	573.7	569.5	572.3	575.1	568.1	570.9
5°	520.8	519.4	527.7	531.9	537.5	540.3	537.5	537.5	536.1	527.7	527.7
7.5°	481.8	483.2	490.1	499.9	506.9	511.0	508.3	506.9	502.7	490.1	490.1
10°	452.6	452.6	463.7	472.0	481.8	486.0	483.2	479.0	474.8	462.3	460.9
12.5°	428.9	428.9	437.2	451.2	462.3	467.9	466.5	460.9	453.9	441.4	440.0
15°	406.6	405.2	417.7	430.3	445.6	452.6	449.8	445.6	433.1	421.9	419.1
17.5°	384.3	382.9	394.1	410.8	427.5	437.2	435.8	426.1	415.0	401.0	398.2
20°	362.0	359.3	373.2	389.9	406.6	416.3	413.6	405.2	391.3	377.4	374.6
22.5°	339.8	338.4	348.1	362.0	377.4	385.7	384.3	377.4	363.4	350.9	350.9
25°	314.7	314.7	321.7	331.4	342.5	346.7	348.1	345.3	337.0	330.0	330.0
27.5°	293.8	289.6	292.4	295.2	300.8	307.7	307.7	310.5	311.9	309.1	310.5
30°	277.1	270.1	266.0	260.4	257.6	260.4	263.2	272.9	282.7	288.2	291.0
32.5°	257.6	249.3	238.1	222.8	213.0	210.3	218.6	236.7	254.8	267.4	274.3
35°	238.1	227.0	206.1	183.8	171.3	167.1	176.8	197.7	224.2	246.5	256.2
37.5°	218.6	203.3	174.1	147.6	133.7	130.9	140.6	162.9	193.6	224.2	236.7
40°	196.3	178.2	143.4	115.6	104.4	101.7	110.0	132.3	164.3	199.1	218.6
42.5°	174.1	151.8	115.6	91.9	80.8	80.8	91.9	108.6	137.9	175.5	199.1
45°	151.8	128.1	94.7	73.8	66.8	68.2	75.2	91.9	115.6	154.6	176.8
47.5°	130.9	110.0	78.0	61.3	55.7	57.1	65.4	79.4	98.9	133.7	157.3
50°	112.8	93.3	68.2	51.5	47.3	50.1	58.5	71.0	87.7	118.4	137.9
52.5°	101.7	83.5	62.7	44.6	41.8	44.6	52.9	64.1	79.4	104.4	123.9
55°	96.1	82.2	62.7	40.4	36.2	39.0	47.3	58.5	71.0	94.7	111.4
57.5°	94.7	84.9	66.8	36.2	30.6	33.4	41.8	52.9	65.4	86.3	100.3
60°	89.1	80.8	65.4	29.2	23.7	27.8	34.8	46.0	59.9	80.8	93.3
62.5°	78.0	71.0	57.1	23.7	18.1	20.9	29.2	40.4	54.3	73.8	87.7
65°	64.1	57.1	44.6	15.3	11.1	13.9	22.3	34.8	47.3	66.8	79.4
67.5°	47.3	40.4	30.6	9.7	5.6	9.7	18.1	29.2	43.2	59.9	72.4
70°	29.2	23.7	16.7	5.6	4.2	8.4	16.7	27.8	39.0	55.7	68.2
72.5°	16.7	11.1	7.0	2.8	4.2	8.4	16.7	27.8	37.6	52.9	64.1
75°	12.5	7.0	2.8	1.4	2.8	7.0	15.3	25.1	36.2	50.1	61.3
77.5°	8.4	4.2	1.4	0.0	1.4	5.6	13.9	23.7	33.4	47.3	58.5
80°	1.4	0.0	0.0	0.0	0.0	4.2	12.5	20.9	30.6	41.8	51.5
82.5°	0.0	0.0	0.0	0.0	0.0	1.4	9.7	18.1	26.5	34.8	41.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	5.6	13.9	20.9	26.5	29.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	13.9	16.7	19.5
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: P636501

CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	569.5	577.9	577.9	583.4	590.4	602.9	609.9	619.6	626.6	633.6	636.4
5°	526.4	527.7	529.1	531.9	540.3	554.2	566.7	582.1	600.2	614.1	622.4
7.5°	490.1	490.1	490.1	494.3	502.7	512.4	525.0	545.8	566.7	583.4	597.4
10°	459.5	463.7	465.1	472.0	481.8	494.3	508.3	526.4	550.0	572.3	597.4
12.5°	440.0	444.2	451.2	458.1	467.9	481.8	497.1	520.8	569.5	615.5	668.4
15°	421.9	427.5	435.8	445.6	456.7	472.0	488.8	537.5	651.7	738.0	821.6
17.5°	402.4	410.8	421.9	431.7	445.6	462.3	483.2	577.9	802.1	945.5	1087.5
20°	377.4	388.5	401.0	416.3	433.1	452.6	483.2	661.4	1019.3	1225.4	1413.4
22.5°	353.7	364.8	380.1	399.6	419.1	438.6	490.1	788.1	1299.2	1559.6	1797.7
25°	334.2	348.1	363.4	380.1	402.4	424.7	506.9	966.4	1636.1	1971.7	2140.2
27.5°	316.1	332.8	348.1	362.0	381.5	406.6	544.5	1204.5	2034.4	2375.5	2507.8
30°	298.0	317.5	332.8	346.7	366.2	392.7	601.5	1508.0	2477.2	2808.6	2822.5
32.5°	282.7	300.8	318.9	332.8	350.9	381.5	680.9	1863.1	2931.1	3251.4	3120.5
35°	266.0	286.8	303.6	318.9	338.4	371.8	772.8	2246.1	3389.3	3658.0	3417.1
37.5°	249.3	272.9	293.8	305.0	324.4	362.0	839.7	2645.7	3857.1	4054.9	3677.5
40°	233.9	260.4	284.1	295.2	305.0	349.5	849.4	3055.1	4332.0	4446.1	3922.6
42.5°	217.2	246.5	267.4	282.7	291.0	341.2	790.9	3400.4	4730.2	4836.0	4242.8
45°	199.1	233.9	250.6	261.8	278.5	346.7	715.7	3667.8	5185.5	5368.0	4770.6
47.5°	181.0	220.0	233.9	242.3	264.6	380.1	687.9	3846.0	5936.1	6314.8	5660.4
50°	164.3	207.5	222.8	221.4	261.8	423.3	718.5	3981.1	7064.0	7509.6	6880.2
52.5°	146.2	193.6	211.7	206.1	282.7	456.7	779.8	4088.3	7931.5	8910.4	8519.1
55°	130.9	178.2	194.9	193.6	321.7	481.8	827.1	3522.9	8290.8	10212.4	10365.5
57.5°	119.8	161.5	175.5	199.1	346.7	481.8	956.6	2500.9	8297.7	11170.4	12816.3
60°	110.0	146.2	156.0	218.6	337.0	456.7	946.9	1531.7	7647.4	11104.9	14119.6
62.5°	101.7	132.3	144.8	224.2	298.0	452.6	855.0	949.7	6522.3	10259.7	13174.1
65°	94.7	121.1	139.2	206.1	270.1	484.6	576.5	682.3	5290.0	9296.1	12089.4
67.5°	87.7	111.4	147.6	168.5	245.1	433.1	416.3	484.6	4152.3	8239.2	11093.8
70°	82.2	105.8	156.0	137.9	214.4	338.4	295.2	367.6	3179.0	6874.6	9691.6
72.5°	78.0	98.9	130.9	108.6	174.1	261.8	206.1	267.4	2077.6	5366.6	7900.9
75°	73.8	90.5	96.1	87.7	129.5	171.3	156.0	179.6	1237.9	3922.6	5994.6
77.5°	72.4	84.9	78.0	71.0	87.7	101.7	118.4	121.1	604.3	1962.0	3141.4
80°	64.1	76.6	66.8	58.5	59.9	66.8	87.7	80.8	137.9	498.5	838.3
82.5°	50.1	59.9	55.7	48.7	48.7	48.7	58.5	54.3	44.6	224.2	378.8
85°	34.8	41.8	41.8	39.0	37.6	37.6	36.2	34.8	12.5	13.9	20.9
87.5°	23.7	29.2	30.6	29.2	25.1	22.3	19.5	16.7	5.6	0.0	2.8
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: P636501

CATALOG NUMBER: GWS-SA3F-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9	609.9
2.5°	646.1	650.3	650.3	644.7	640.5	629.4	618.3	607.1	604.3	602.9
5°	646.1	662.8	671.2	669.8	660.0	641.9	618.3	593.2	586.2	583.4
7.5°	636.4	668.4	693.4	697.6	679.5	647.5	604.3	566.7	557.0	552.8
10°	658.6	721.3	771.4	778.4	757.5	694.8	625.2	561.2	545.8	536.1
12.5°	778.4	881.4	942.7	971.9	931.6	852.2	736.6	622.4	587.6	572.3
15°	1020.7	1166.9	1283.9	1283.9	1246.3	1105.6	959.4	774.2	726.9	685.1
17.5°	1331.2	1515.0	1618.0	1606.9	1549.8	1451.0	1275.5	1009.5	913.5	870.3
20°	1684.9	1794.9	1818.6	1811.6	1786.5	1729.4	1608.3	1322.8	1193.3	1126.5
22.5°	1991.2	1962.0	1927.2	1899.3	1892.4	1909.1	1892.4	1672.4	1570.7	1452.3
25°	2198.7	2033.0	1928.6	1878.4	1902.1	1998.2	2102.6	2020.5	1939.7	1817.2
27.5°	2311.5	2024.6	1874.3	1822.7	1863.1	1999.6	2226.6	2365.8	2282.3	2223.8
30°	2372.8	2017.7	1839.4	1789.3	1850.6	2021.9	2312.9	2688.9	2691.6	2598.3
32.5°	2460.5	2062.2	1846.4	1800.5	1882.6	2088.7	2421.5	3017.5	3098.2	3048.1
35°	2559.4	2130.5	1878.4	1836.7	1938.3	2177.8	2542.6	3348.9	3517.4	3500.7
37.5°	2652.7	2207.1	1953.6	1913.3	2023.3	2254.4	2659.6	3674.7	3908.7	3967.1
40°	2750.1	2314.3	2184.8	2223.8	2285.0	2375.5	2764.0	3957.4	4338.9	4426.7
42.5°	2979.9	2686.1	2883.8	2957.6	2966.0	2779.4	2992.4	4319.4	4762.2	4866.7
45°	3492.3	3347.5	3914.2	4018.7	3964.4	3399.0	3542.4	4841.6	5354.0	5407.0
47.5°	4139.8	4206.6	5324.8	5685.4	5359.6	4130.1	4209.4	5940.3	6437.4	6417.9
50°	4894.5	5210.6	6926.1	7776.9	6997.2	5079.7	4978.1	7291.0	7893.9	7834.0
52.5°	5787.1	6377.5	8850.5	10059.2	9321.2	6147.7	6106.0	9080.3	9447.9	9257.1
55°	6910.8	7504.0	11064.5	12753.6	11703.7	7451.1	7594.5	11155.1	11226.1	10620.4
57.5°	8587.3	8973.1	13674.0	15843.5	14190.6	9222.3	10262.5	13916.3	13066.9	11919.5
60°	11631.3	10862.6	16195.8	19004.4	16836.3	11713.4	13781.3	15552.5	13679.6	12097.8
62.5°	12691.0	12466.8	17774.9	20341.2	18615.9	13759.0	14696.1	14625.1	12885.9	11423.8
65°	11085.4	12067.1	17492.2	19635.2	18387.5	13422.0	13188.1	13601.6	11991.9	10400.3
67.5°	10240.2	11128.6	16421.4	17687.1	17121.8	12278.8	11755.2	11642.4	10067.5	8800.4
70°	9388.0	10268.1	14868.8	15026.1	14762.9	10415.7	9727.8	8971.7	7524.9	6423.5
72.5°	8363.2	8847.7	12714.6	11968.3	11670.3	8180.7	8035.9	6756.3	5640.9	4695.4
75°	7293.7	7153.1	9913.0	8214.2	8437.0	6365.0	6786.9	4961.4	4132.8	3379.5
77.5°	5305.3	5200.9	6639.3	4989.2	5525.3	4169.0	3745.7	1980.1	1885.4	1626.4
80°	2960.4	3568.9	3585.6	2796.1	3488.1	2718.1	937.1	65.4	41.8	61.3
82.5°	1375.8	1534.5	1943.9	1296.4	1989.8	1346.5	193.6	0.0	0.0	0.0
85°	445.6	651.7	545.8	190.8	481.8	455.3	32.0	0.0	0.0	0.0
87.5°	26.5	54.3	13.9	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

REPORT NUMBER: SP1-2408-195-9

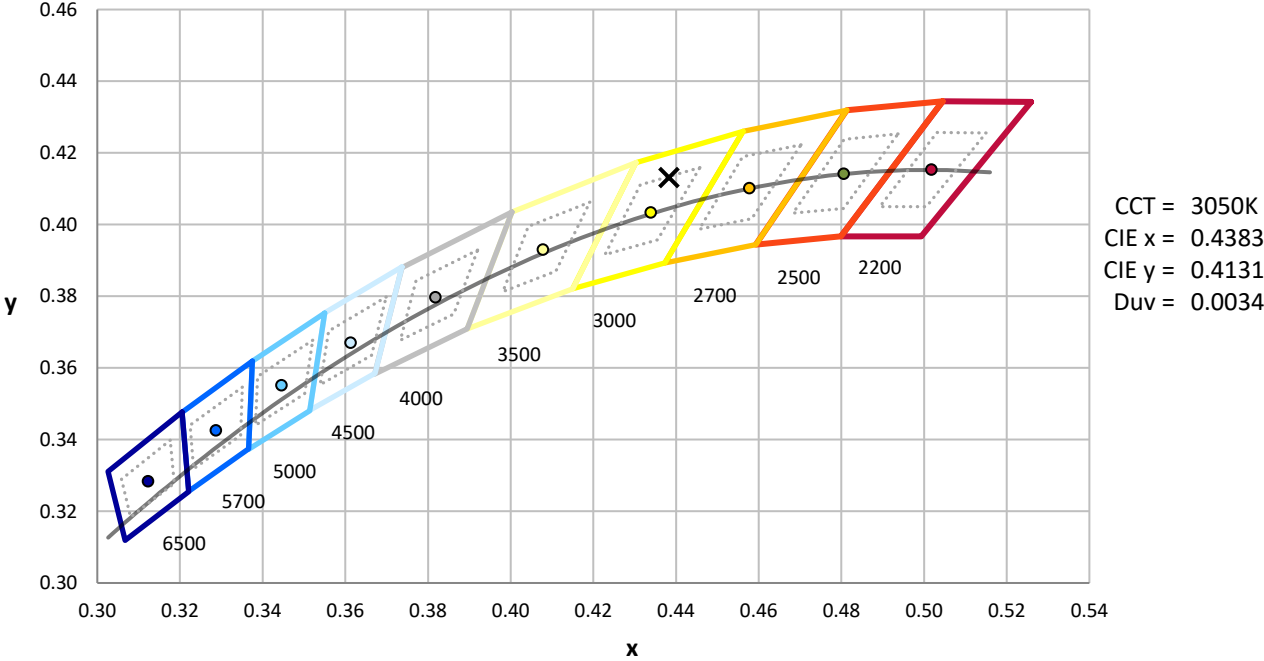
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

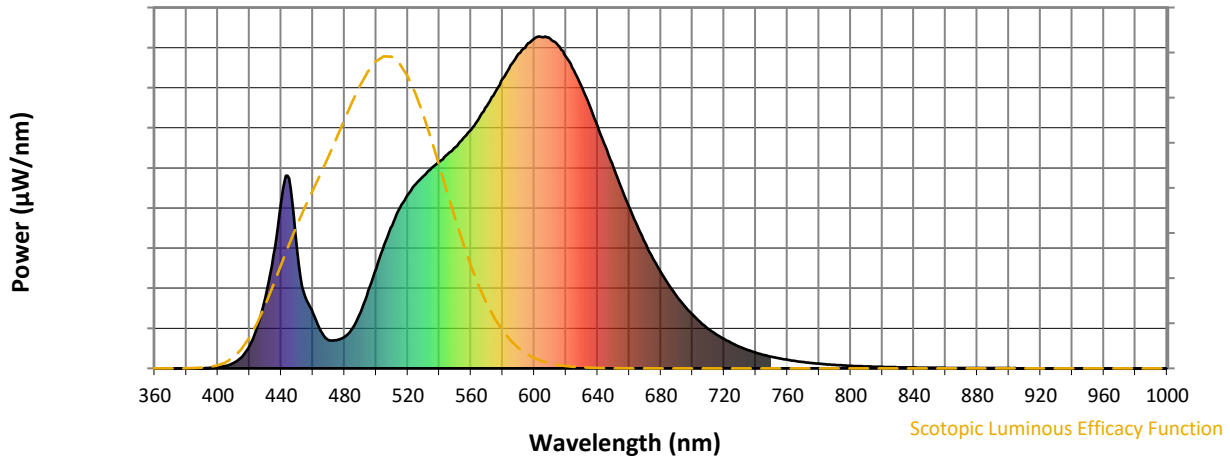


Photopic Lumens: NR

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

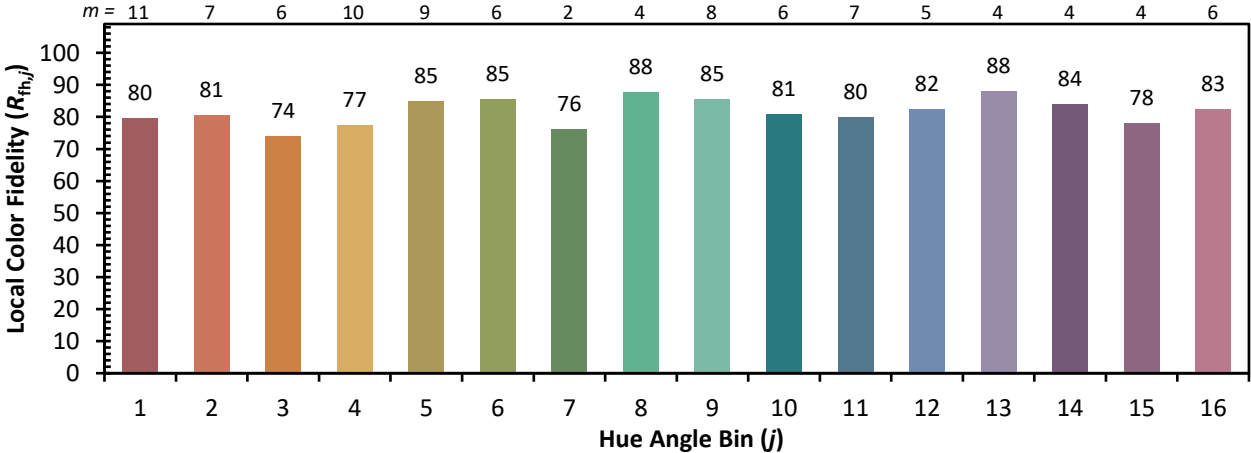


Individual Sample Fidelity Index ($R_{f,i}$)

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)