

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P323037

Luminaire Tested: **GLEON-SA3B-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323037
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3B-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10047 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

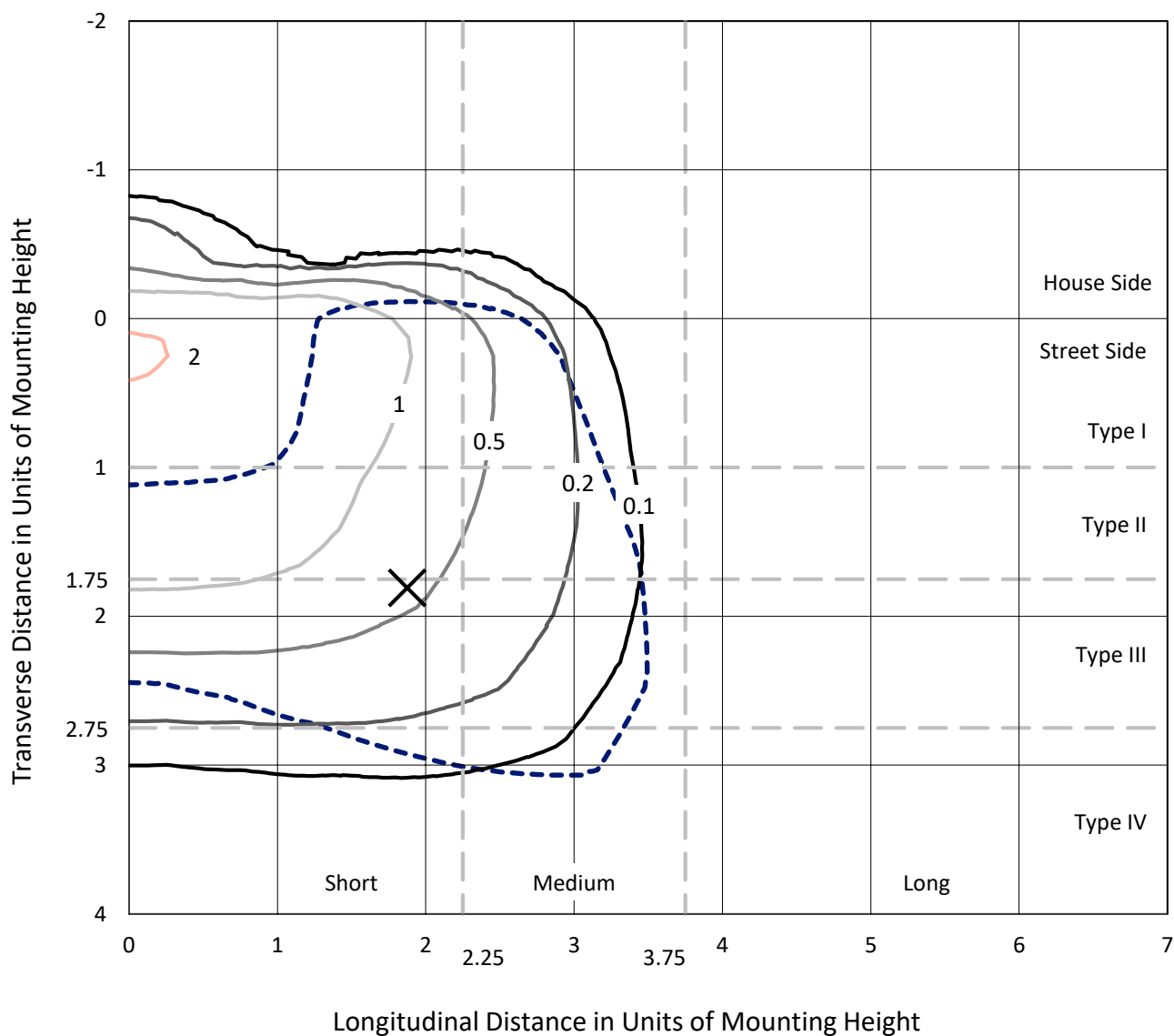
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

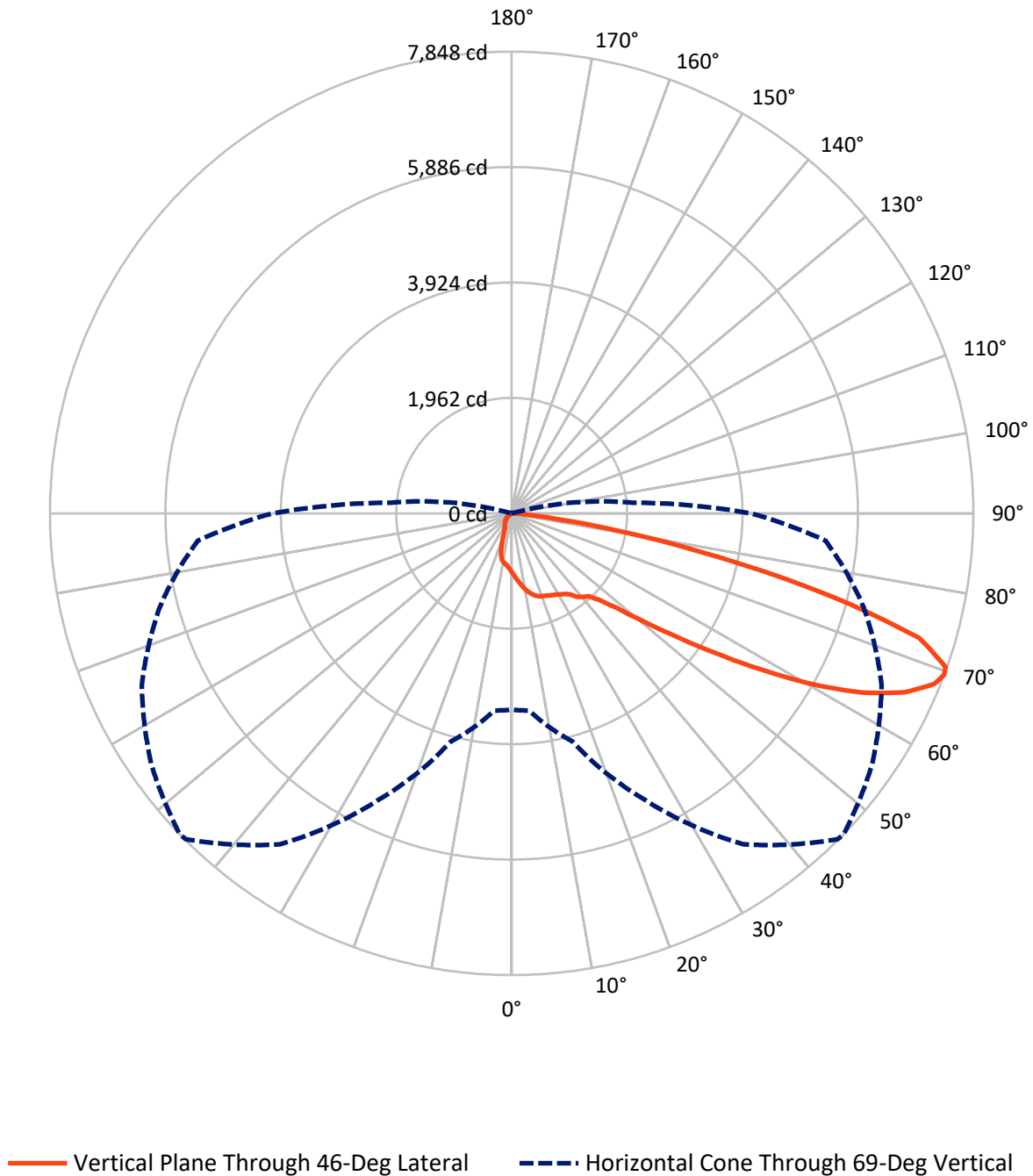
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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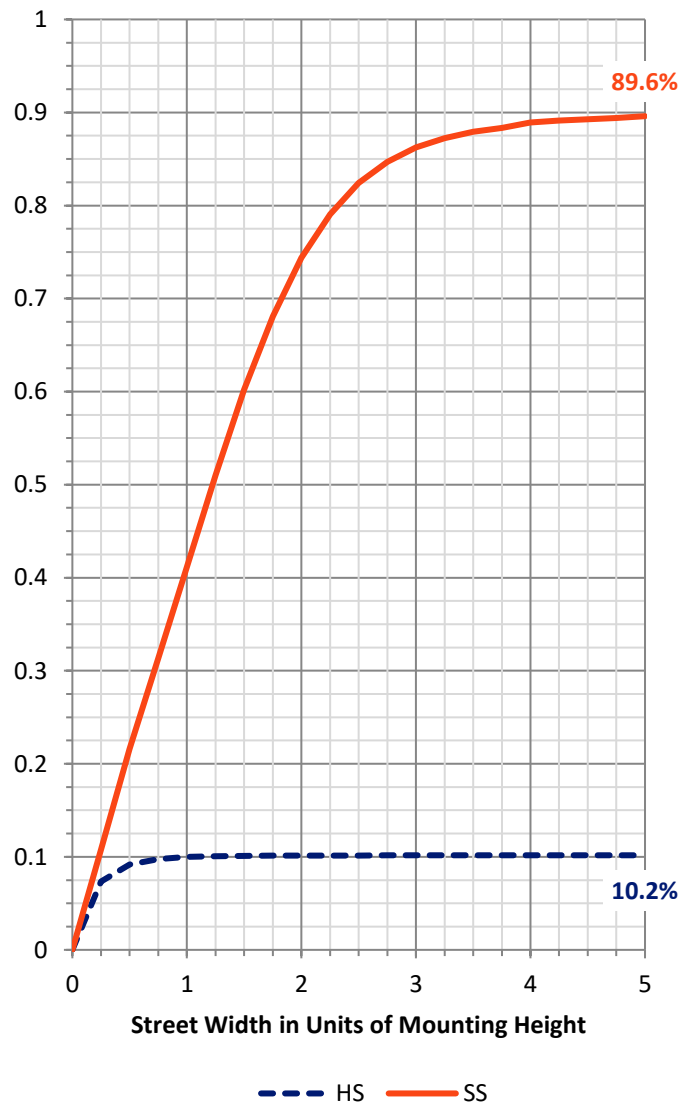
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1031.1	0.0	1031.1
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	9015.9	0.0	9015.9
	% Fixture	89.7	0.0	89.7
Total	Lumens	10047.0	0.0	10047.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.0
10°-20°	304.0	3.0
20°-30°	478.1	4.8
30°-40°	685.5	6.8
40°-50°	1184.9	11.8
50°-60°	2340.8	23.3
60°-70°	3271.5	32.6
70°-80°	1580.5	15.7
80°-90°	101.6	1.0
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°	10047.0	100.0
0°-180°	10047.0	100.0

Coefficient of Utilization



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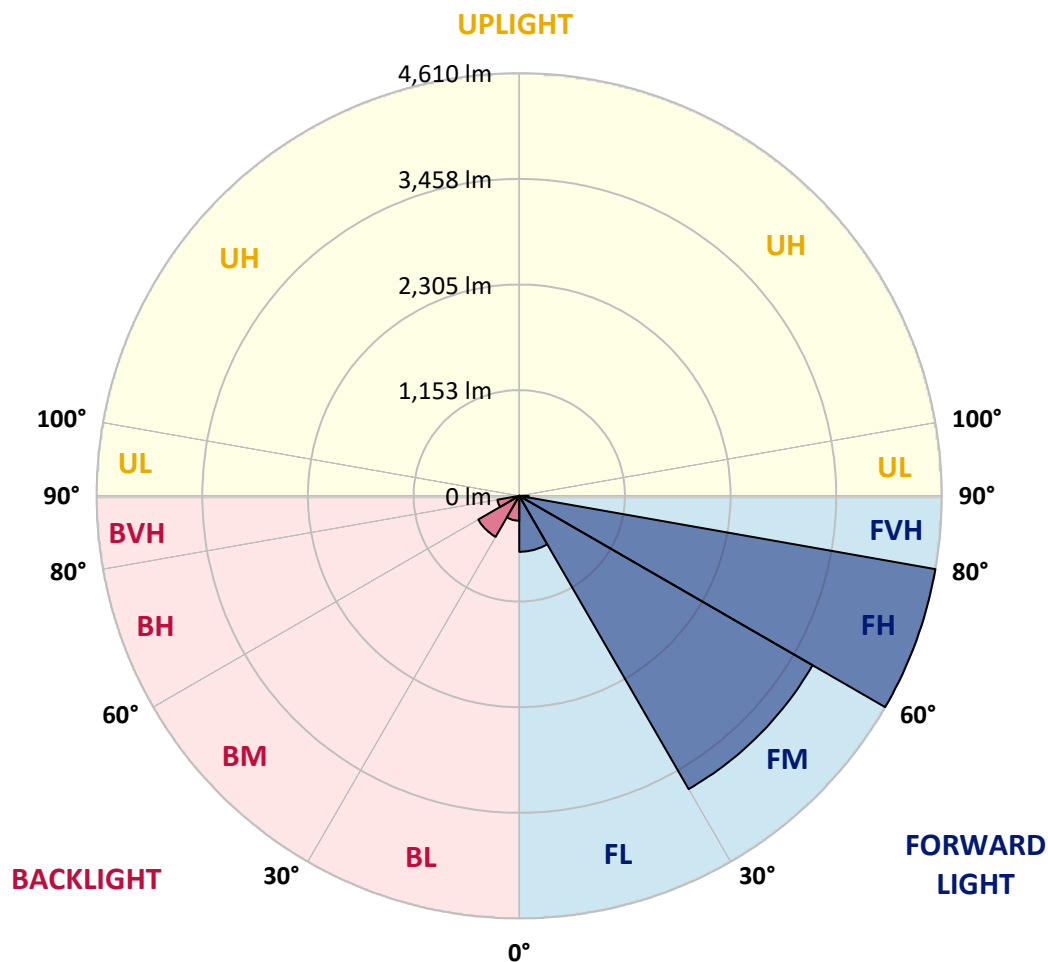
CATALOG NUMBER: GLEON-SA3B-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	610.5	6.1			
FM	(30°-60°)	3694.5	36.8			
FH	(60°-80°)	4610.2	45.9			G2/5000
FVH	(80°-90°)	100.7	1.0			G2/225
BL	(0°-30°)	271.8	2.7	B1/500		
BM	(30°-60°)	516.7	5.1	B1/1000		
BH	(60°-80°)	241.8	2.4	B1/500		G1/500
BVH	(80°-90°)	0.9	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7
2.5°	1118.3	1116.9	1110.3	1107.5	1091.5	1082.0	1078.3	1066.5	1049.5	1032.6	1013.7
5°	1245.5	1245.0	1232.8	1221.0	1190.9	1162.6	1157.4	1130.1	1091.9	1056.1	1020.3
7.5°	1375.5	1369.4	1357.1	1334.5	1290.7	1245.5	1241.3	1202.6	1148.5	1096.6	1045.3
10°	1485.7	1482.0	1466.0	1431.6	1380.2	1328.9	1323.7	1276.1	1214.9	1151.3	1085.8
12.5°	1571.5	1568.7	1547.5	1504.6	1449.9	1396.7	1389.6	1347.3	1281.8	1210.6	1133.4
15°	1623.8	1622.4	1596.4	1550.8	1497.1	1450.9	1444.8	1407.6	1346.8	1272.4	1185.2
17.5°	1636.0	1636.5	1609.6	1563.5	1519.2	1486.2	1481.5	1453.2	1402.4	1328.4	1237.0
20°	1608.7	1614.3	1590.3	1550.3	1523.0	1505.5	1501.8	1484.8	1441.9	1372.2	1278.5
22.5°	1570.1	1572.9	1556.4	1529.6	1518.3	1521.5	1519.7	1510.2	1474.0	1409.9	1319.5
25°	1546.5	1546.5	1536.6	1514.0	1521.5	1541.8	1542.3	1540.4	1511.7	1456.1	1369.4
27.5°	1545.6	1542.7	1531.4	1514.5	1535.2	1566.3	1568.2	1580.9	1563.0	1512.1	1431.6
30°	1583.3	1580.0	1555.9	1533.8	1560.2	1593.6	1598.3	1626.1	1617.2	1572.9	1500.8
32.5°	1671.3	1659.6	1606.3	1570.1	1589.9	1629.9	1636.0	1680.3	1694.4	1647.8	1567.7
35°	1791.9	1754.7	1677.9	1638.8	1640.7	1682.7	1688.3	1753.3	1795.2	1716.6	1619.5
37.5°	1958.2	1939.9	1815.0	1710.4	1718.9	1782.5	1799.0	1869.7	1857.9	1754.3	1678.4
40°	2322.8	2294.1	2161.3	1911.1	1793.8	1863.5	1868.7	1906.4	1907.4	1839.5	1800.9
42.5°	2819.3	2807.6	2667.7	2275.3	1941.3	1917.7	1927.1	1990.7	2061.9	2019.5	2017.6
45°	3369.1	3363.0	3214.6	2758.6	2239.5	2095.3	2107.1	2192.3	2328.5	2337.9	2397.7
47.5°	3811.4	3808.6	3723.3	3297.9	2695.9	2396.3	2400.1	2490.5	2729.8	2848.1	2943.7
50°	4214.6	4228.3	4160.9	3881.6	3317.7	2867.9	2858.9	2919.2	3303.6	3497.2	3615.9
52.5°	4775.2	4794.5	4605.6	4426.2	3970.2	3452.9	3445.9	3509.0	3993.2	4138.3	4159.5
55°	5270.3	5237.3	5088.0	5036.2	4765.8	4175.5	4173.7	4229.2	4660.3	4722.0	4761.1
57.5°	5488.9	5476.2	5548.2	5666.9	5599.1	5029.6	5025.4	4983.0	5257.1	5263.7	5383.8
60°	5626.9	5642.4	5863.4	6229.4	6398.5	5948.6	5921.3	5662.7	5827.1	5812.5	5941.1
62.5°	5523.3	5553.9	5951.5	6561.5	6996.8	6750.9	6712.2	6285.5	6314.2	6263.8	6383.4
65°	4973.1	5020.6	5672.1	6498.9	7293.5	7377.9	7338.8	6835.2	6700.9	6618.0	6551.6
67.5°	4038.0	4066.3	4746.5	5953.8	7159.8	7751.9	7743.9	7317.1	6993.0	6558.2	6042.9
69°	3337.0	3364.8	4019.6	5380.1	6865.3	7832.0	7847.5	7471.6	6937.4	6194.5	5354.2
70°	2826.4	2856.1	3466.1	4888.3	6523.8	7794.8	7822.6	7457.0	6778.2	5773.4	4749.8
72.5°	1482.5	1507.9	2133.9	3367.7	5318.4	7157.4	7241.7	6826.7	5745.6	4193.0	2808.5
75°	465.9	480.5	833.3	1760.4	3641.4	5565.2	5584.5	5355.1	4079.9	2306.3	1169.7
77.5°	177.6	173.4	277.5	648.7	1840.9	3504.3	3622.5	3346.5	2141.0	815.4	269.9
80°	95.6	96.1	144.1	268.5	787.6	1800.9	1900.8	1621.9	760.8	254.4	62.2
82.5°	41.5	43.3	81.0	142.3	361.8	664.2	714.1	594.5	290.6	171.0	23.1
85°	9.0	9.9	39.1	77.3	147.4	186.5	195.5	192.7	185.1	132.8	9.0
87.5°	0.0	0.0	17.4	27.8	37.2	42.4	37.2	48.5	102.2	89.5	4.7
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: P323037

CATALOG NUMBER: GLEON-SA3B-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7	1006.7
2.5°	1007.6	999.1	984.5	968.5	957.2	945.4	936.0	931.8	927.1	923.8	928.0
5°	1005.7	989.2	961.0	933.7	913.9	897.9	884.7	879.5	874.3	870.5	870.1
7.5°	1022.2	999.1	955.8	915.8	885.1	863.5	845.6	838.0	831.9	829.1	826.7
10°	1053.8	1024.1	966.2	913.9	874.3	837.6	798.9	769.3	749.9	741.0	737.7
12.5°	1094.8	1057.5	985.9	923.8	866.3	795.6	713.7	643.0	597.3	582.2	573.3
15°	1142.8	1096.6	1011.9	936.5	837.1	708.0	569.0	476.7	434.3	425.8	416.4
17.5°	1189.0	1138.1	1042.9	938.8	773.0	565.8	416.9	354.2	337.8	343.4	344.8
20°	1229.5	1179.1	1073.6	918.1	656.7	424.4	322.7	307.1	313.3	324.1	326.0
22.5°	1270.5	1218.7	1101.8	863.5	507.8	322.2	290.6	294.4	300.5	311.4	313.3
25°	1320.4	1266.7	1128.2	763.1	381.1	274.2	276.0	281.7	287.8	297.7	298.7
27.5°	1377.9	1327.5	1145.6	632.6	282.6	252.0	258.1	266.6	272.7	282.2	284.1
30°	1454.2	1407.6	1151.3	497.4	236.9	232.2	235.1	245.4	254.4	262.9	264.3
32.5°	1525.8	1486.7	1132.4	375.4	219.5	213.9	213.9	220.0	230.4	238.4	240.2
35°	1591.7	1566.3	1072.2	274.6	206.3	196.9	192.2	192.2	198.8	205.4	207.3
37.5°	1678.9	1677.9	974.6	219.0	193.6	182.8	172.9	165.3	163.0	164.4	165.3
40°	1828.2	1829.6	847.5	196.4	182.8	168.2	153.1	139.4	126.7	122.5	122.0
42.5°	2061.4	2040.2	714.1	185.6	173.4	153.1	130.5	112.1	92.3	86.2	85.7
45°	2431.7	2305.9	572.8	175.7	163.5	136.1	107.9	82.9	66.9	62.2	62.2
47.5°	2971.0	2654.9	443.7	164.9	150.3	116.8	81.5	59.8	49.0	46.6	47.1
50°	3528.8	2996.9	340.1	151.2	134.3	96.6	60.3	43.3	37.2	37.2	37.7
52.5°	4023.4	3247.5	265.2	136.6	114.5	75.8	45.7	33.9	31.1	30.6	31.1
55°	4486.4	3409.1	203.0	119.7	90.9	56.5	34.9	27.8	25.9	25.0	24.5
57.5°	4933.0	3489.2	152.2	96.6	65.9	41.0	27.8	23.6	21.7	20.3	19.8
60°	5230.3	3424.2	104.6	71.1	45.7	29.7	23.1	20.3	17.9	16.5	16.0
62.5°	5398.0	3246.6	67.4	51.3	32.5	22.1	18.4	17.0	13.7	12.2	12.2
65°	5330.1	2953.6	47.1	36.7	23.6	16.5	13.7	13.7	9.9	8.0	7.5
67.5°	4723.4	2495.2	35.8	27.3	17.0	12.2	10.4	11.8	6.1	3.8	3.8
69°	4063.9	2068.0	30.6	22.6	14.1	9.9	9.0	10.8	4.2	2.8	2.4
70°	3532.1	1783.9	27.8	19.8	11.8	8.5	8.0	10.4	4.2	2.4	1.9
72.5°	2113.2	994.9	21.2	14.1	7.5	6.6	6.6	11.8	4.2	2.4	1.9
75°	854.0	350.5	15.5	9.9	5.7	5.7	8.0	15.1	3.8	1.9	1.4
77.5°	193.6	76.8	9.0	6.1	3.8	5.7	9.4	11.8	2.4	0.9	0.0
80°	47.1	18.8	5.7	3.8	2.4	4.2	7.1	6.6	0.5	0.0	0.0
82.5°	15.5	6.6	2.4	1.9	0.5	1.4	3.3	1.9	0.0	0.0	0.0
85°	6.6	3.8	0.9	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0
87.5°	4.2	1.4	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

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
 R_f: 81.5
 R_g: 99.2

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



Test Conditions

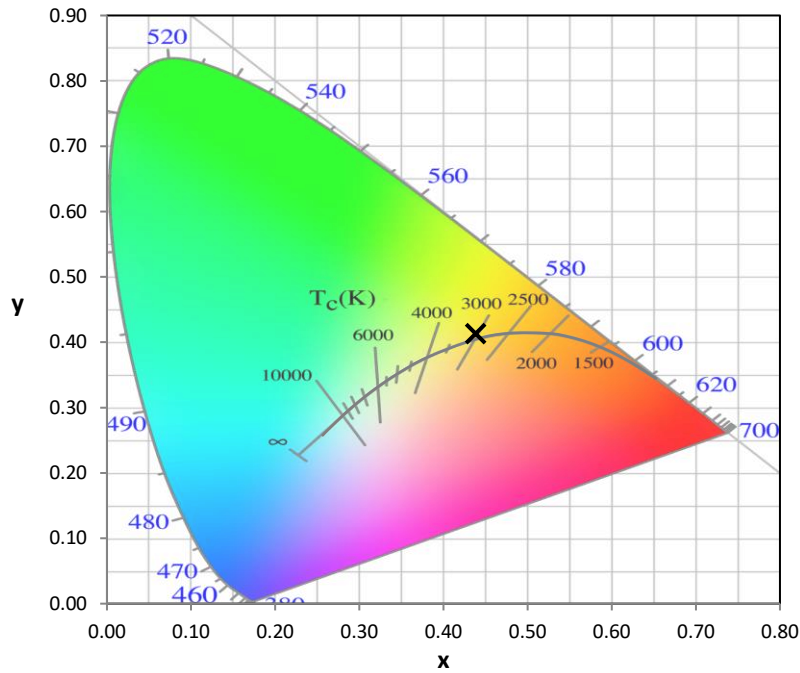
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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

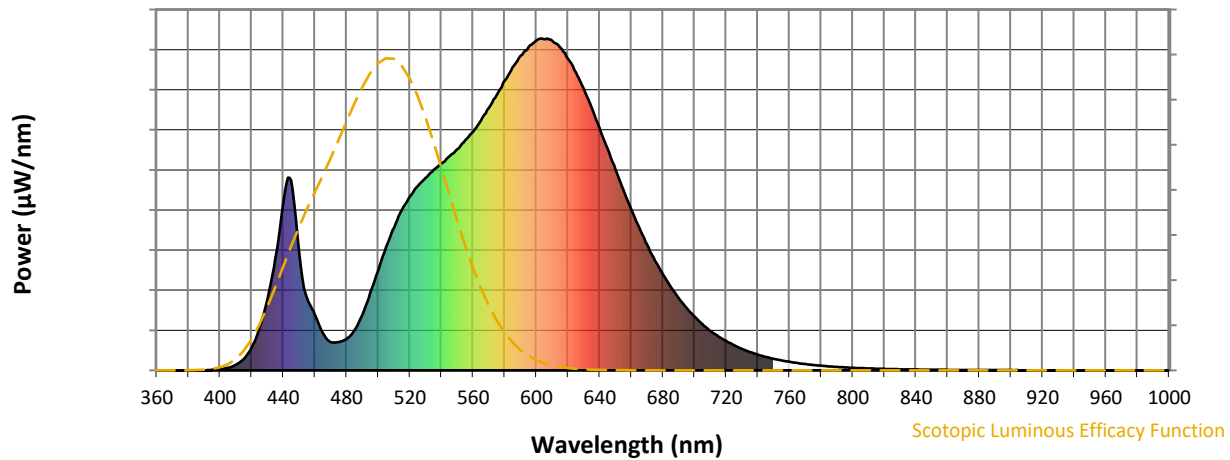


Photopic Lumens: NR

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

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Scotopic Flux vs. Wavelength



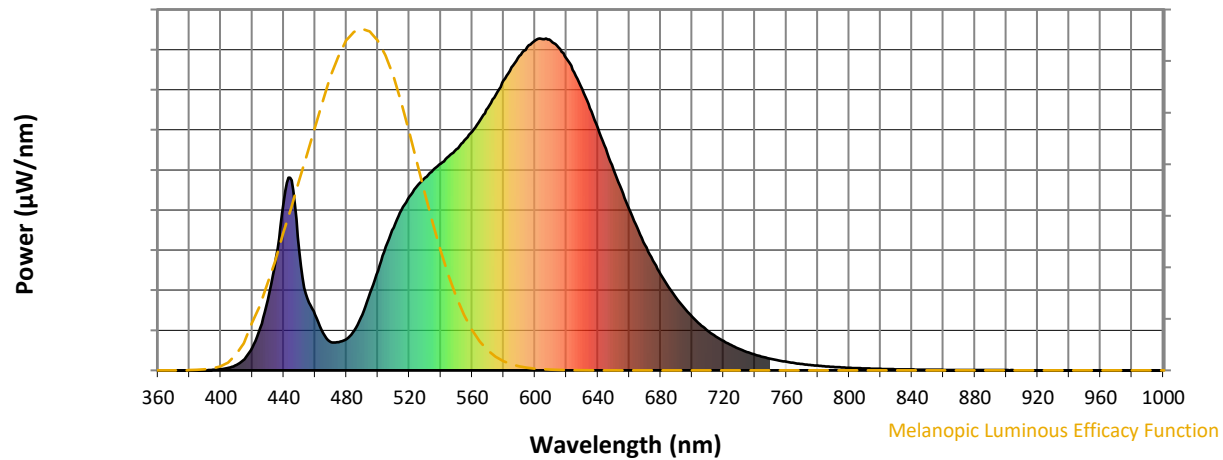
Scotopic Lumens: NR

S/P: 1.27

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

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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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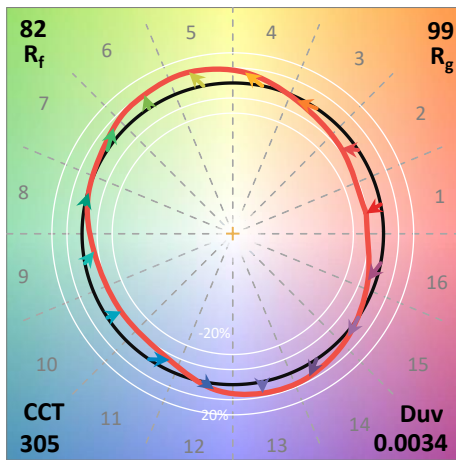
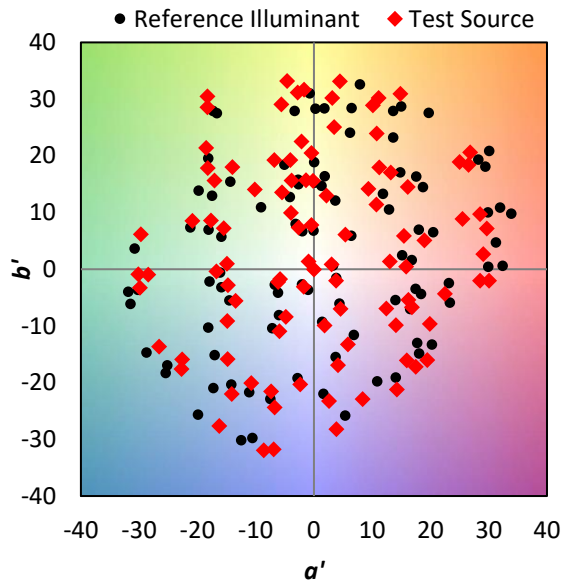
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

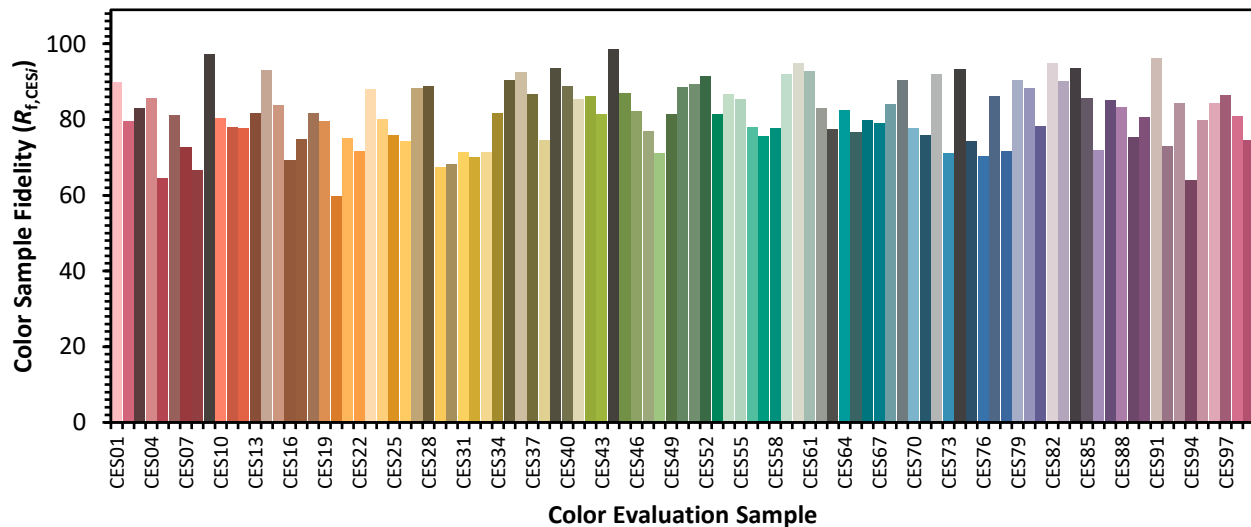


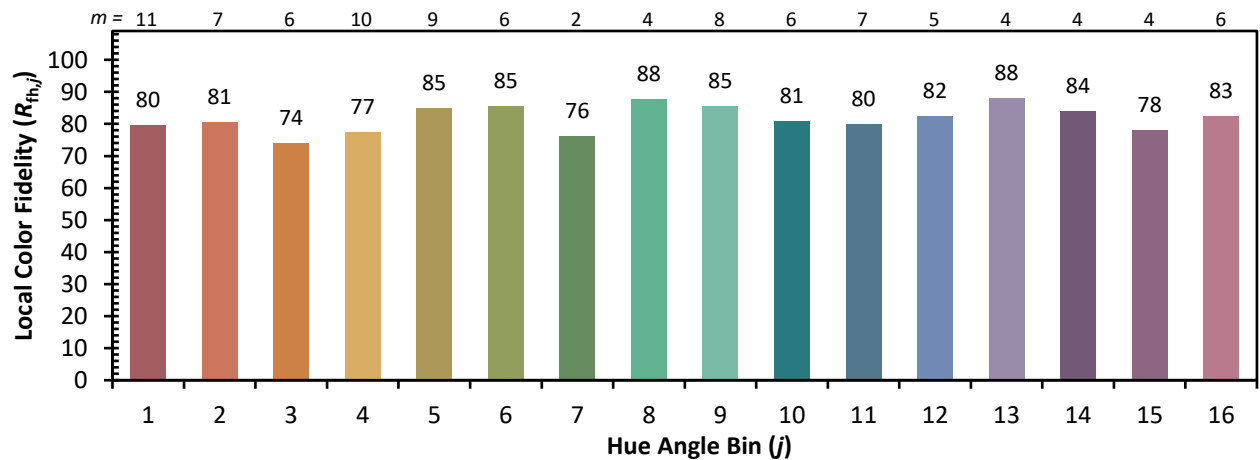
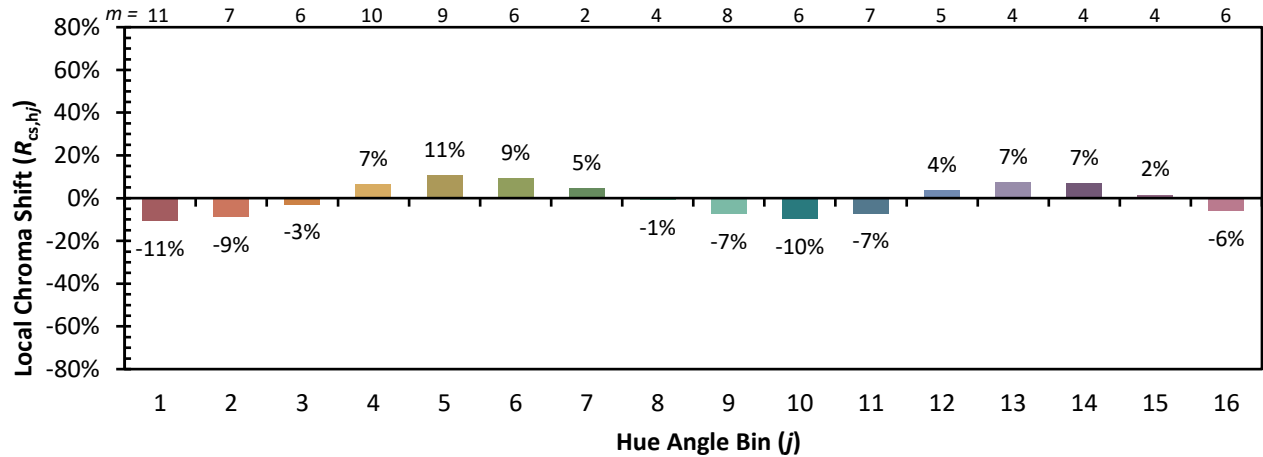
Color Vector Graphics

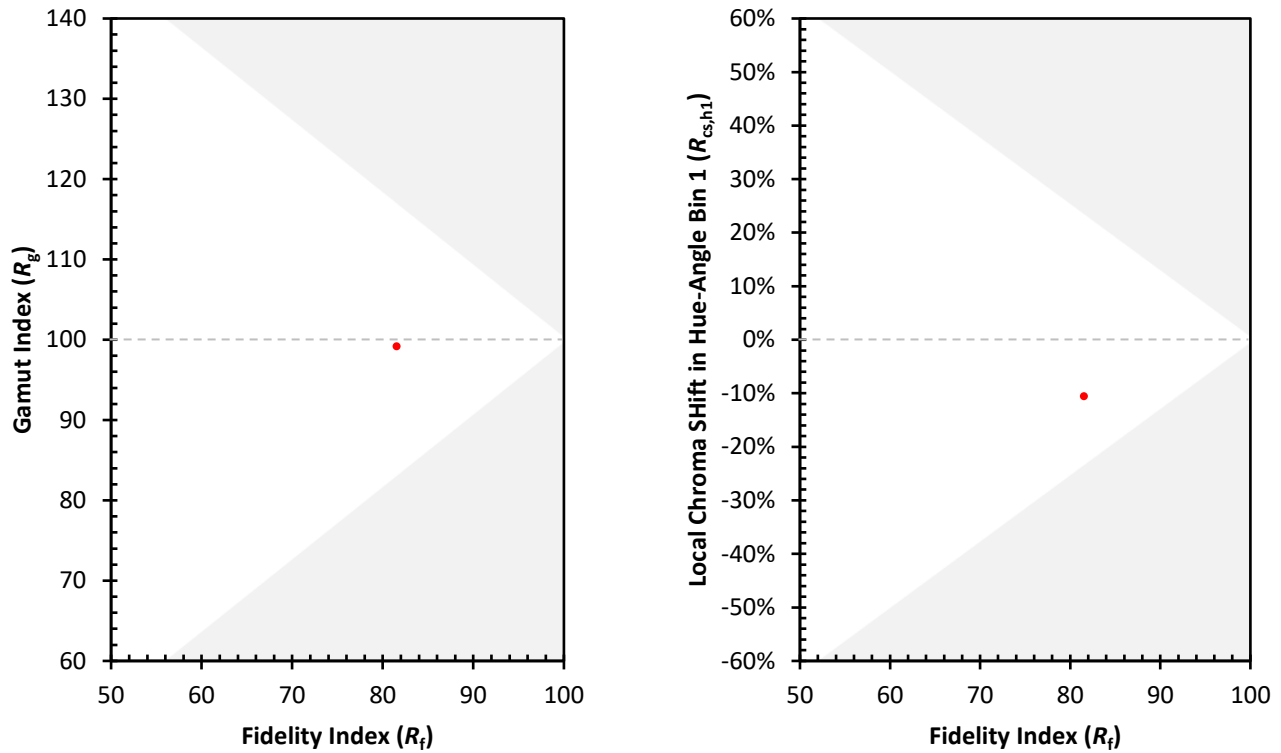


Individual Sample Fidelity Index ($R_{f,i}$)

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)