

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: P317588

Luminaire Tested: **GLEON-SA4A-830-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P317588
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4A-830-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15563 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

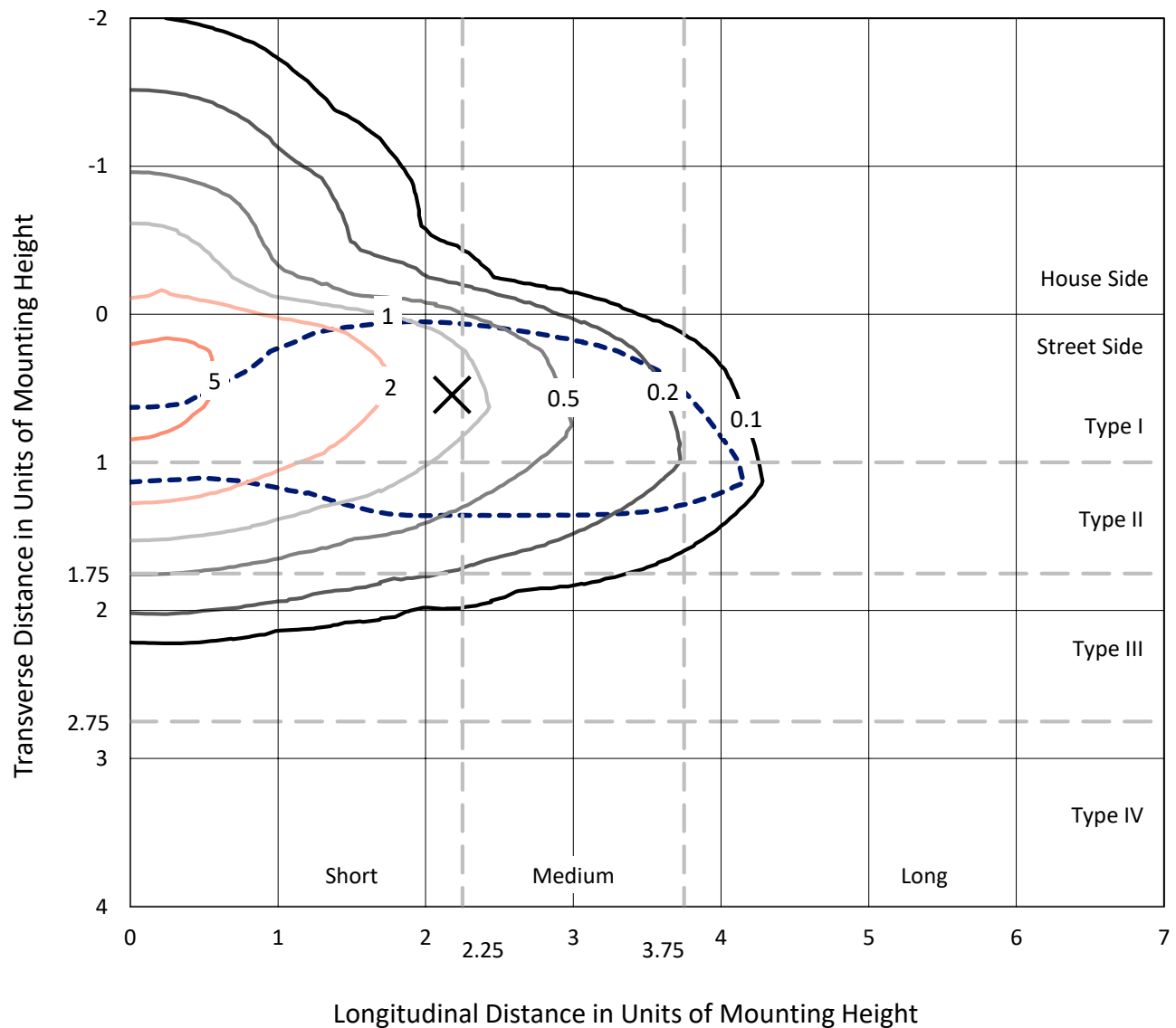
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P317588
 CATALOG NUMBER: GLEON-SA4A-830-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

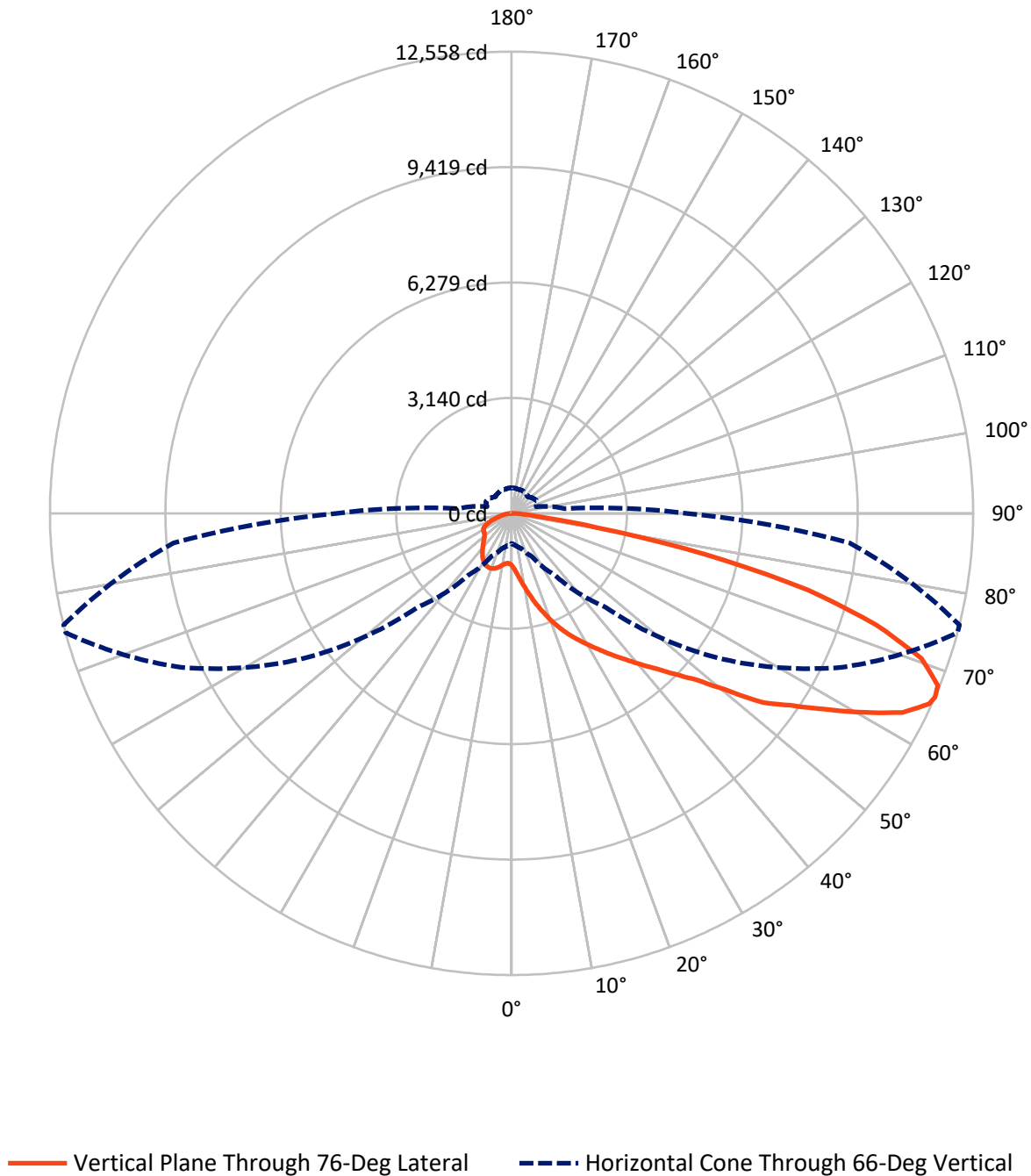
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type II - Short - N/A

REPORT NUMBER: P317588
CATALOG NUMBER: GLEON-SA4A-830-U-T2R

Luminous Intensity Polar Plot



REPORT NUMBER: P317588

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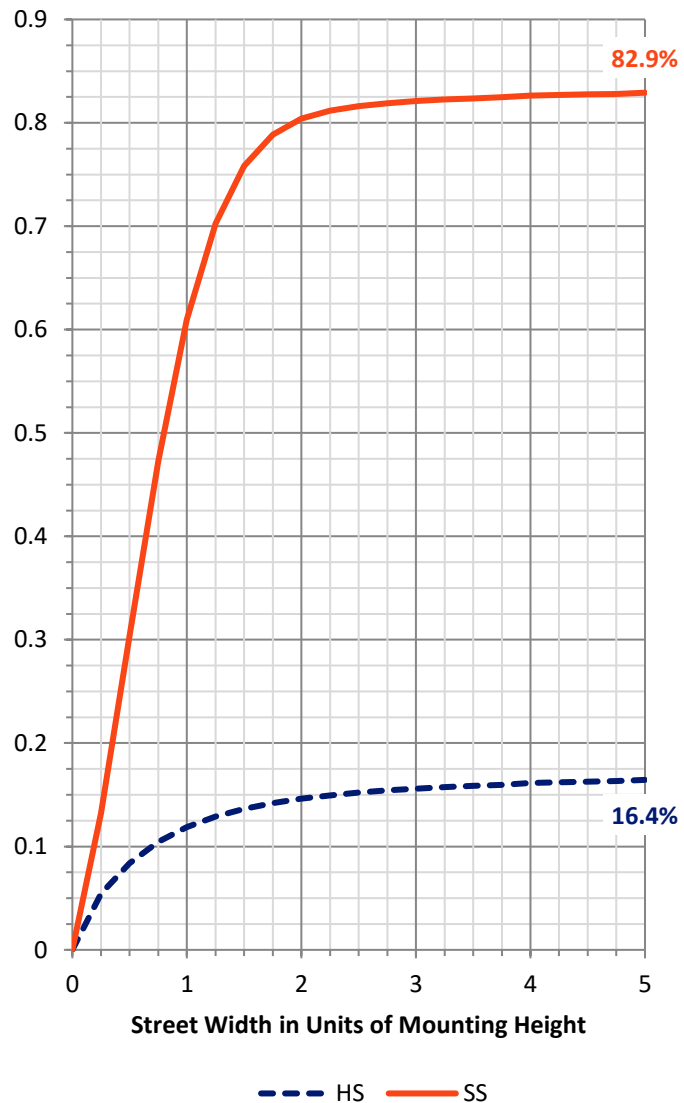
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2618.7	0.0	2618.7
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	12944.3	0.0	12944.3
	% Fixture	83.2	0.0	83.2
Total	Lumens	15563.0	0.0	15563.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.9	1.1
10°-20°	678.7	4.4
20°-30°	1318.9	8.5
30°-40°	2152.7	13.8
40°-50°	2941.1	18.9
50°-60°	3425.8	22.0
60°-70°	3071.3	19.7
70°-80°	1552.1	10.0
80°-90°	250.6	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°	15563.0	100.0
0°-180°	15563.0	100.0

Coefficient of Utilization



REPORT NUMBER: P317588

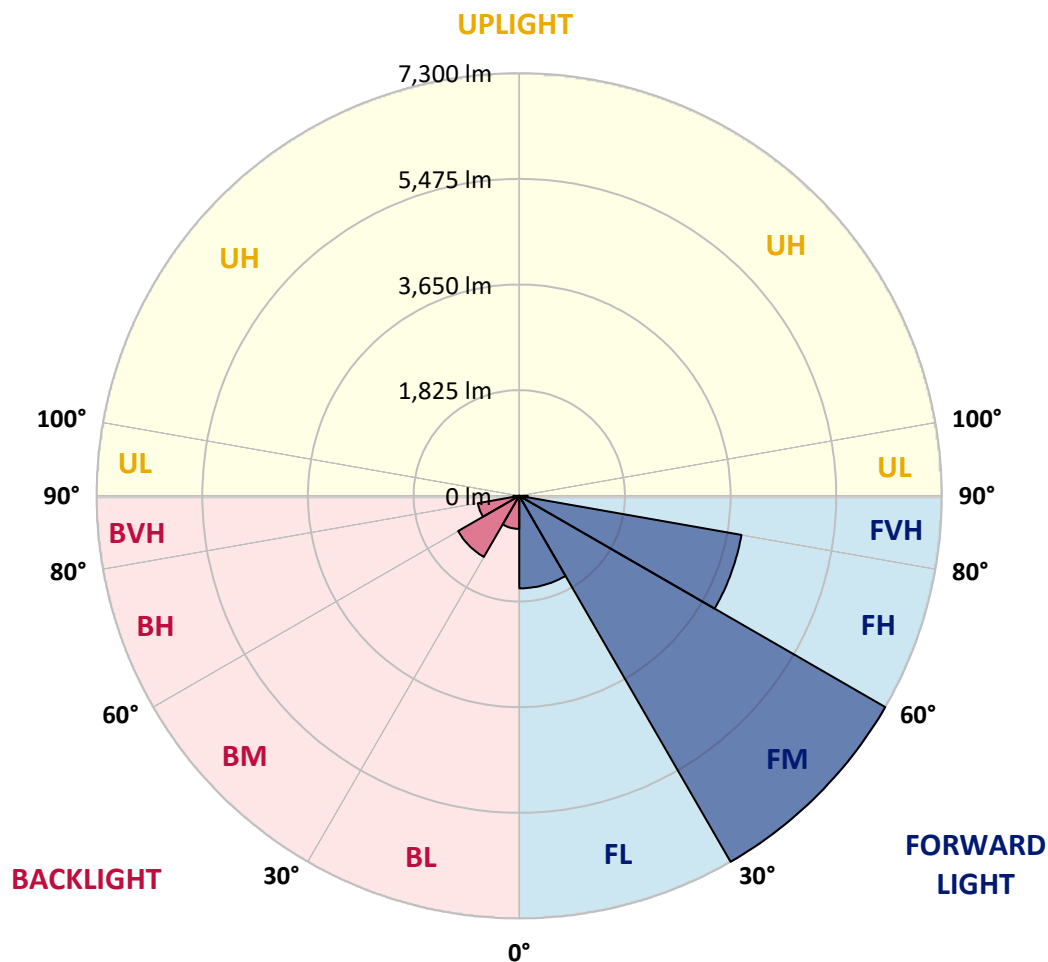
CATALOG NUMBER: GLEON-SA4A-830-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1598.3	10.3			
FM	(30°-60°)	7300.1	46.9			
FH	(60°-80°)	3897.9	25.0			G2/5000
FVH	(80°-90°)	148.0	1.0			G2/225
BL	(0°-30°)	571.2	3.7	B2/1000		
BM	(30°-60°)	1219.4	7.8	B2/2500		
BH	(60°-80°)	725.5	4.7	B2/1000		G2/1000
BVH	(80°-90°)	102.6	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



REPORT NUMBER: P317588

CATALOG NUMBER: GLEON-SA4A-830-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3
2.5°	1886.7	1858.2	1855.6	1813.8	1804.3	1724.5	1665.9	1604.6	1534.8	1521.1	1466.2
5°	2423.5	2420.9	2384.4	2316.3	2262.9	2126.6	1991.9	1849.2	1692.8	1667.5	1543.8
7.5°	2906.4	2902.2	2874.2	2800.8	2723.6	2556.1	2363.8	2145.1	1891.5	1854.0	1649.0
10°	3273.1	3271.5	3262.0	3208.1	3142.6	2982.0	2769.6	2471.1	2122.4	2071.1	1780.5
12.5°	3556.3	3559.5	3565.8	3546.8	3515.6	3378.8	3161.1	2816.6	2368.6	2317.9	1926.9
15°	3748.1	3757.6	3790.4	3817.3	3833.7	3749.7	3538.9	3170.1	2644.4	2583.6	2089.1
17.5°	3844.8	3855.3	3911.9	3993.2	4068.3	4059.8	3892.3	3507.2	2909.1	2850.4	2263.4
20°	3928.3	3936.2	3999.6	4097.3	4229.9	4288.6	4194.5	3831.6	3199.1	3129.4	2448.4
22.5°	4170.2	4180.3	4199.3	4254.8	4372.1	4479.9	4434.4	4138.5	3464.9	3399.9	2623.8
25°	4637.3	4649.5	4608.2	4561.2	4583.4	4658.4	4666.9	4418.6	3734.4	3660.9	2812.4
27.5°	5200.0	5217.4	5147.2	5026.2	4920.5	4891.4	4881.4	4647.9	3991.7	3906.6	2998.9
30°	5751.1	5781.2	5689.8	5532.8	5338.9	5202.6	5101.7	4872.4	4245.3	4163.9	3174.8
32.5°	6289.4	6277.3	6144.7	5991.5	5764.3	5593.6	5349.5	5113.3	4530.6	4437.1	3349.7
35°	6658.2	6662.5	6539.3	6357.6	6141.0	6009.9	5681.3	5373.3	4821.7	4735.6	3548.4
37.5°	6972.1	6952.5	6813.0	6643.4	6456.9	6400.9	6069.6	5659.7	5137.1	5043.1	3759.7
40°	7076.7	7054.0	6962.6	6840.5	6691.0	6686.2	6498.1	5984.1	5493.8	5400.8	3998.0
42.5°	7013.3	6984.2	6946.7	6913.4	6867.5	6888.6	6900.7	6364.5	5885.8	5781.7	4273.8
45°	6779.2	6735.4	6761.8	6834.2	6934.0	7053.4	7264.2	6785.6	6324.8	6237.7	4597.7
47.5°	6419.4	6379.8	6462.2	6617.0	6888.6	7190.8	7608.2	7250.5	6849.0	6762.3	5058.9
50°	5913.3	5924.9	6042.7	6324.3	6734.8	7254.2	8031.9	7866.0	7610.8	7530.0	5688.2
52.5°	5082.7	5084.8	5416.6	5878.9	6462.2	7221.4	8267.0	8652.7	8651.2	8553.4	6287.3
55°	4311.3	4358.3	4620.9	5235.4	6020.5	7090.4	8431.4	9035.3	9334.3	9219.7	6845.8
57.5°	3557.9	3585.4	3834.2	4451.3	5390.2	6741.2	8599.9	9494.4	10121.5	10049.2	7540.0
60°	2700.9	2743.2	3000.5	3570.6	4583.9	6121.4	8615.8	9973.6	11062.5	10989.6	8315.1
62.5°	1753.1	1826.0	2066.9	2601.1	3608.6	5230.1	8248.0	10286.9	11954.4	11928.5	9003.0
65°	1007.6	1062.5	1230.0	1642.1	2489.6	4111.1	7373.6	10166.4	12503.3	12488.5	9260.3
66°	823.2	857.5	985.9	1283.4	2054.2	3610.2	6865.3	9912.3	12557.7	12558.3	9230.7
67.5°	658.3	673.6	731.2	918.8	1515.8	2861.5	5957.1	9351.7	12490.1	12508.6	9040.0
70°	544.7	552.7	570.6	616.1	827.4	1725.6	4228.4	7895.1	11811.2	11825.5	8295.6
72.5°	488.7	493.5	500.3	506.7	583.8	964.2	2582.6	6315.9	10355.6	10374.1	7161.2
75°	442.8	445.4	444.3	444.9	489.8	614.5	1334.6	4715.5	8373.2	8336.3	5485.8
77.5°	388.9	391.5	386.2	387.3	433.2	472.3	664.1	3301.1	5650.7	5389.7	3090.8
80°	328.6	330.7	328.6	332.3	377.2	356.6	386.2	1857.1	2498.6	2363.3	1099.0
82.5°	248.3	257.3	263.6	278.4	310.7	253.6	258.4	723.3	760.8	724.4	337.1
85°	108.8	132.6	198.7	212.9	233.5	152.2	169.6	294.8	309.6	300.1	122.6
87.5°	28.5	31.2	98.3	123.6	129.4	68.7	88.2	134.2	141.6	134.2	40.7
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: P317588

CATALOG NUMBER: GLEON-SA4A-830-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3	1421.3
2.5°	1437.1	1411.2	1364.7	1323.5	1292.3	1271.2	1250.1	1239.5	1233.2	1226.8	1227.9
5°	1483.1	1430.8	1351.0	1294.4	1262.7	1242.7	1232.1	1227.9	1225.2	1218.9	1218.9
7.5°	1552.3	1478.3	1368.4	1310.3	1285.5	1270.1	1263.8	1261.7	1258.5	1251.1	1252.2
10°	1639.5	1535.9	1404.9	1348.3	1325.6	1308.7	1299.7	1296.6	1290.8	1282.3	1283.4
12.5°	1742.0	1607.2	1453.0	1393.8	1366.3	1343.6	1328.8	1319.8	1309.8	1298.7	1299.2
15°	1854.0	1684.9	1504.7	1434.5	1396.9	1365.2	1341.5	1326.2	1310.3	1296.6	1296.0
17.5°	1967.6	1759.9	1544.4	1456.7	1405.9	1364.2	1332.0	1308.2	1288.6	1271.7	1270.1
20°	2090.1	1827.6	1566.5	1454.5	1389.0	1339.4	1296.6	1267.0	1245.3	1228.4	1225.8
22.5°	2214.8	1891.0	1570.2	1432.9	1351.5	1290.8	1245.8	1213.1	1190.9	1173.5	1167.1
25°	2329.0	1940.1	1554.9	1391.1	1299.2	1233.7	1189.8	1156.6	1138.6	1118.0	1111.6
27.5°	2433.0	1974.4	1524.3	1337.8	1240.6	1176.1	1134.9	1106.4	1086.8	1071.0	1065.7
30°	2526.6	1992.9	1474.1	1274.4	1180.3	1121.7	1086.8	1067.3	1050.4	1030.3	1026.6
32.5°	2615.3	1992.9	1409.6	1205.2	1120.6	1073.6	1053.0	1040.8	1021.8	1002.3	997.0
35°	2704.1	1980.8	1333.5	1132.8	1065.7	1039.3	1038.2	1023.9	994.9	968.5	961.6
37.5°	2797.6	1955.9	1248.0	1065.1	1020.8	1023.9	1032.9	1001.2	960.0	922.5	912.5
40°	2903.3	1921.6	1159.2	1006.5	983.3	1017.1	1018.7	968.5	888.2	853.8	844.8
42.5°	3027.4	1887.3	1076.8	954.7	953.7	996.5	991.7	897.7	849.6	832.1	827.4
45°	3190.7	1867.7	998.6	905.6	930.4	963.2	945.7	858.6	838.5	828.4	824.2
47.5°	3448.0	1877.7	926.7	866.5	907.2	929.9	860.1	842.7	828.4	816.3	812.1
50°	3770.3	1871.9	868.6	839.5	880.8	895.0	821.6	822.1	814.7	801.0	794.6
52.5°	4012.8	1826.5	831.1	824.2	857.5	833.2	797.3	802.0	798.3	778.3	771.4
55°	4246.9	1787.4	812.1	818.4	840.6	756.1	768.7	780.4	776.7	757.1	754.0
57.5°	4538.0	1780.0	800.4	820.0	826.3	717.5	741.3	756.6	754.0	745.5	743.9
60°	4894.6	1782.1	789.9	822.6	810.5	689.0	715.4	734.9	736.5	734.9	733.9
62.5°	5090.6	1724.5	763.5	815.2	782.5	664.1	688.4	717.0	717.5	720.7	720.1
65°	4924.2	1552.3	714.3	789.4	735.5	643.5	665.2	696.4	688.4	702.7	702.7
66°	4762.5	1453.0	690.0	772.4	715.4	635.6	657.8	685.8	675.8	695.3	695.3
67.5°	4432.3	1285.5	646.2	736.5	686.9	624.5	649.3	668.4	654.6	683.7	681.6
70°	3828.9	994.3	557.9	655.2	639.8	608.1	637.7	633.5	613.4	657.8	649.3
72.5°	3228.2	755.5	448.0	548.4	568.5	587.5	621.3	589.1	563.7	594.9	576.4
75°	2504.9	568.0	354.0	426.4	480.3	555.3	601.8	537.9	501.4	498.2	488.2
77.5°	1354.2	389.9	280.6	325.5	381.5	515.1	588.6	482.9	428.0	415.3	407.4
80°	536.3	253.6	203.9	246.7	266.8	457.0	556.9	419.0	352.9	340.3	328.1
82.5°	221.4	150.1	131.6	165.4	173.8	391.0	499.8	343.4	272.6	377.2	400.5
85°	95.1	82.4	78.2	85.6	98.3	274.2	397.8	262.1	294.3	262.6	208.7
87.5°	28.5	34.9	33.3	32.8	35.9	65.5	211.9	145.8	216.1	81.9	61.3
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

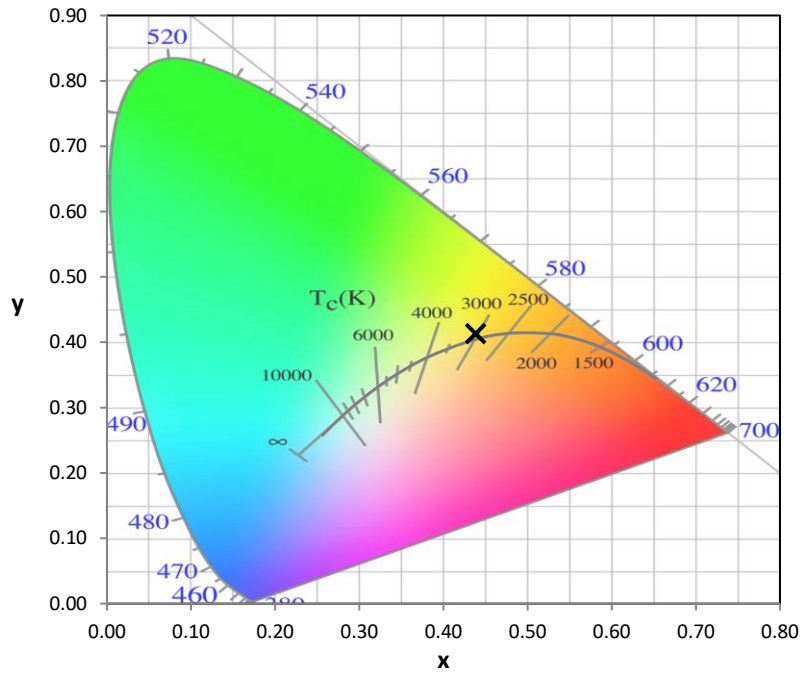
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

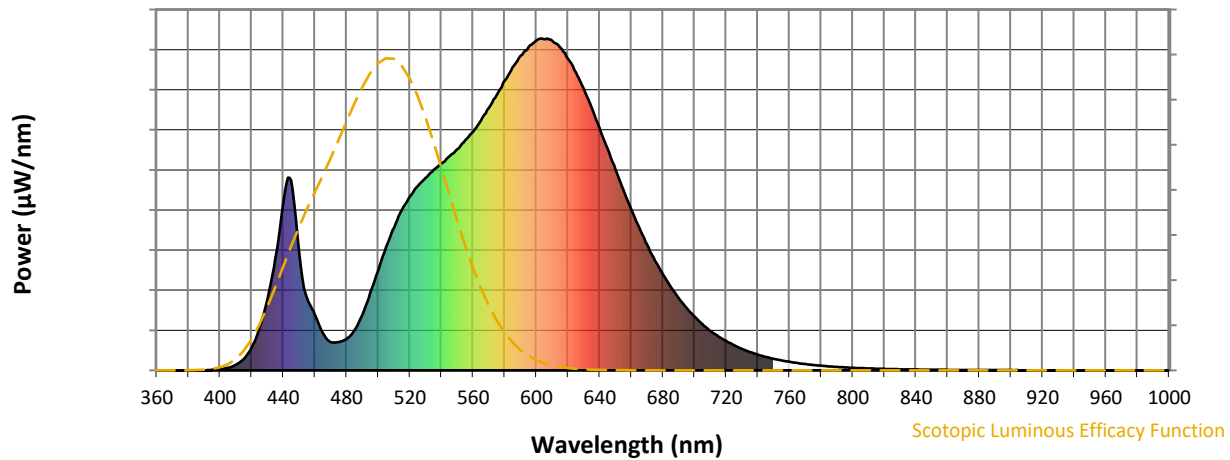


Photopic Lumens: NR

λ (nm)	Power W ^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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



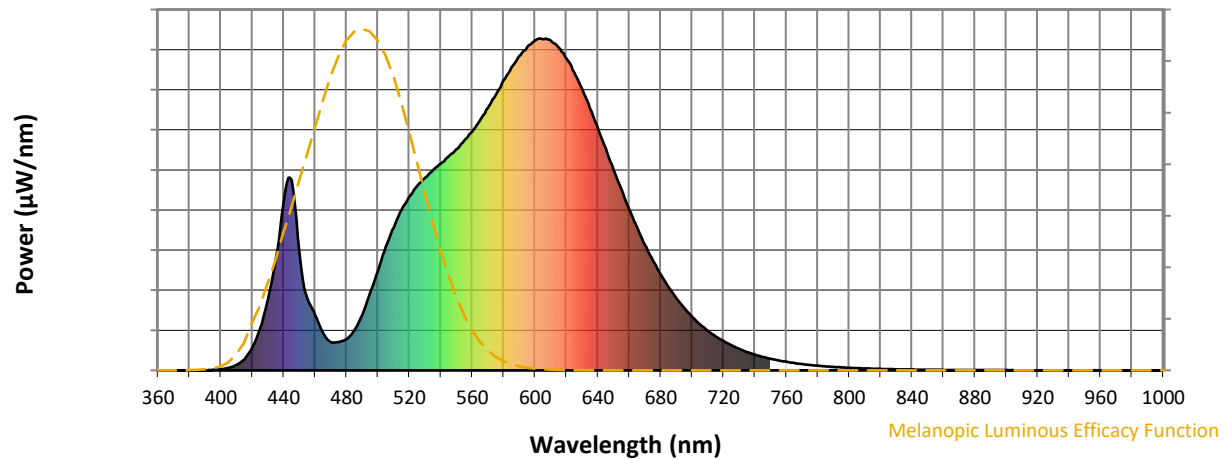
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

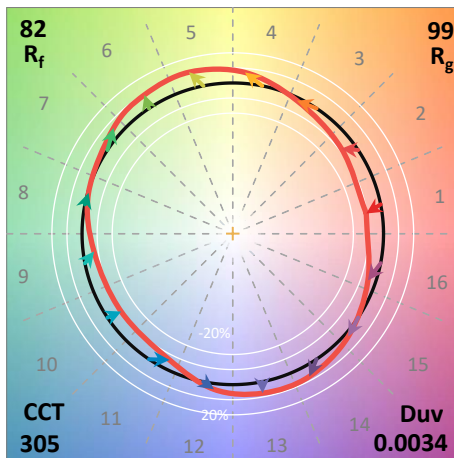
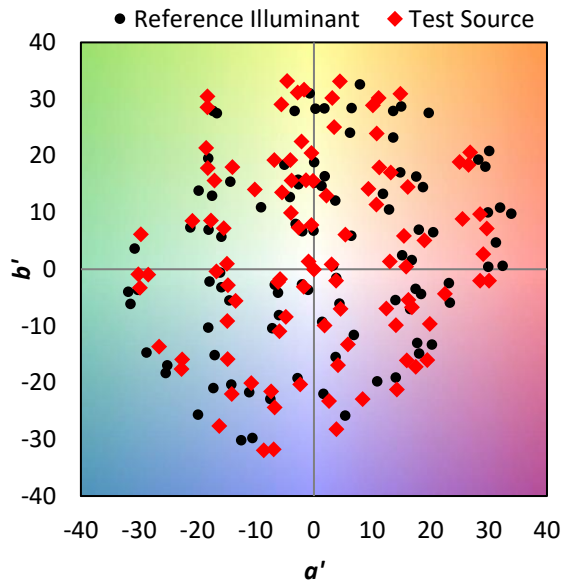
TM-30-18

Summary

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



Color Vector Graphics

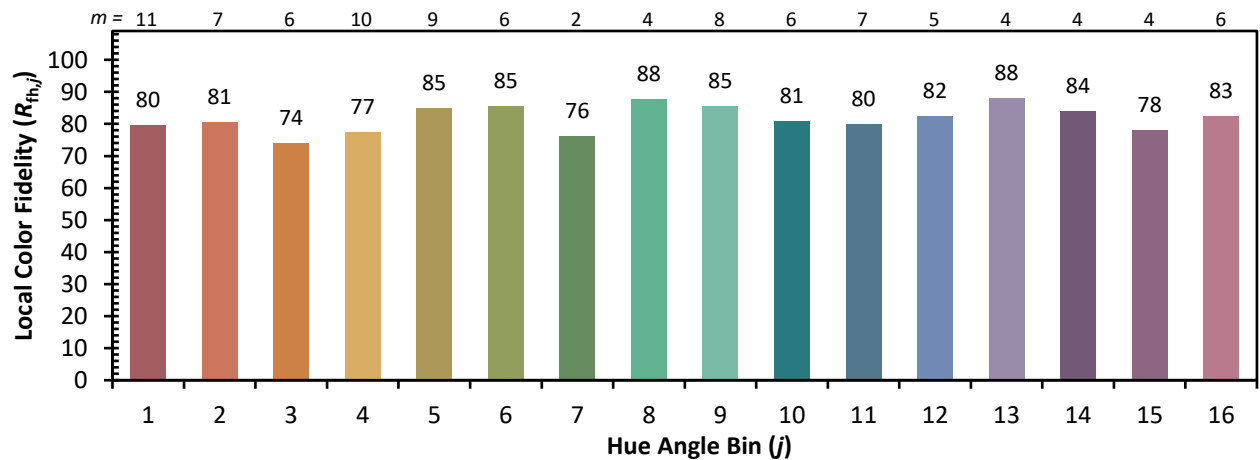
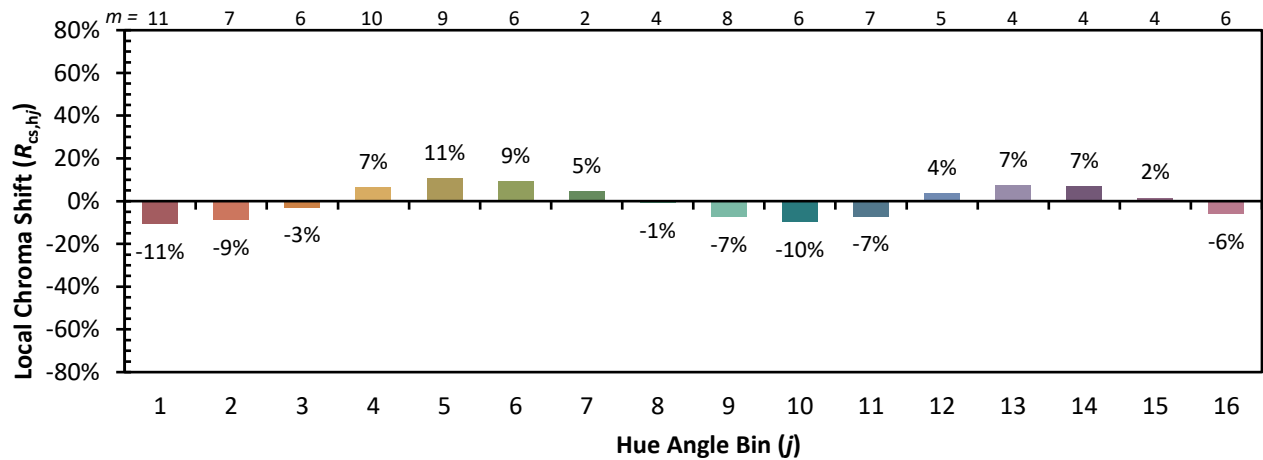


Individual Sample Fidelity Index ($R_{f,i}$)

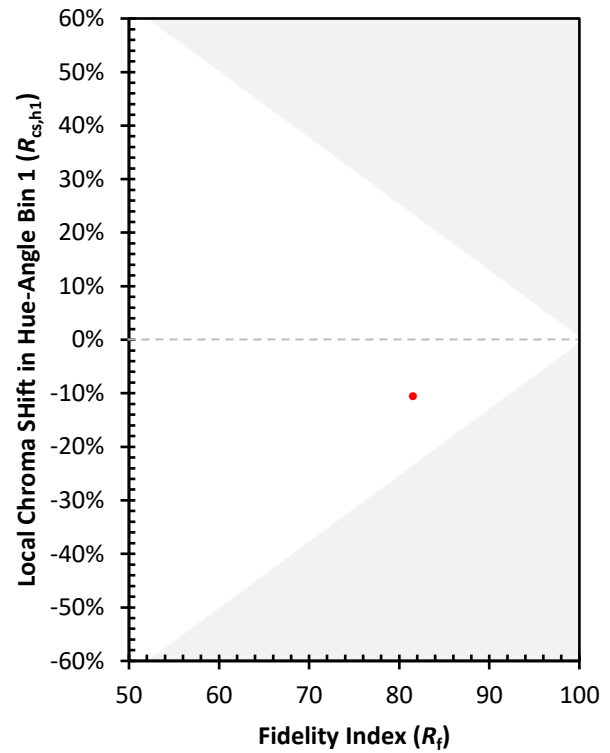
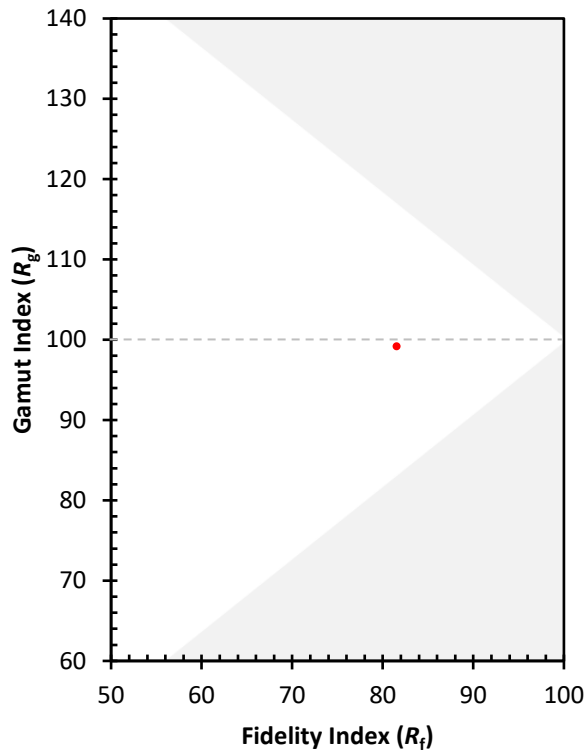
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)