

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: P318256

Luminaire Tested: **GLEON-SA2D-830-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P318256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA2D-830-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12381 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

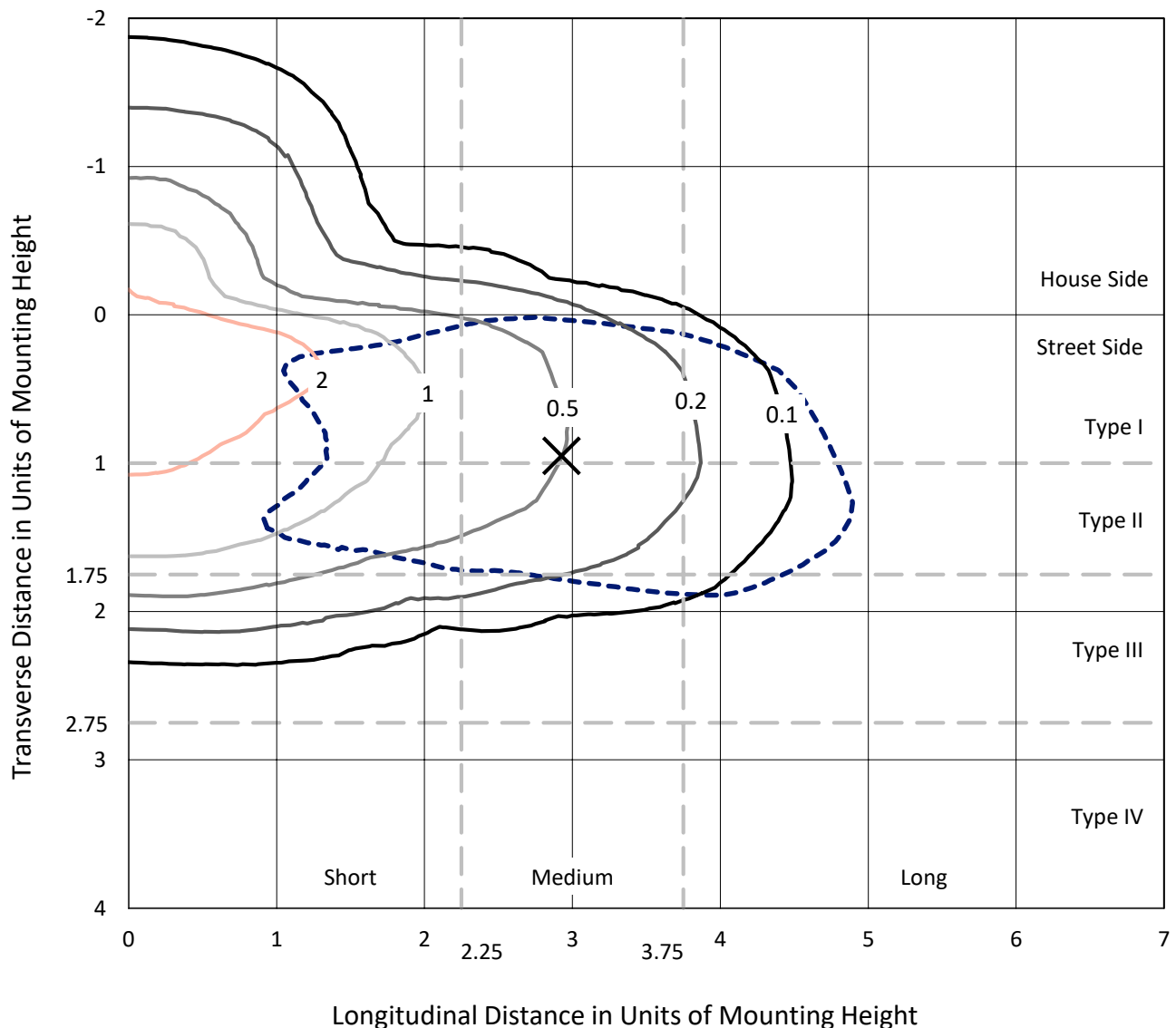
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P318256
 CATALOG NUMBER: GLEON-SA2D-830-U-T2

Iso-Footcandle Lines of Horizontal Illumination

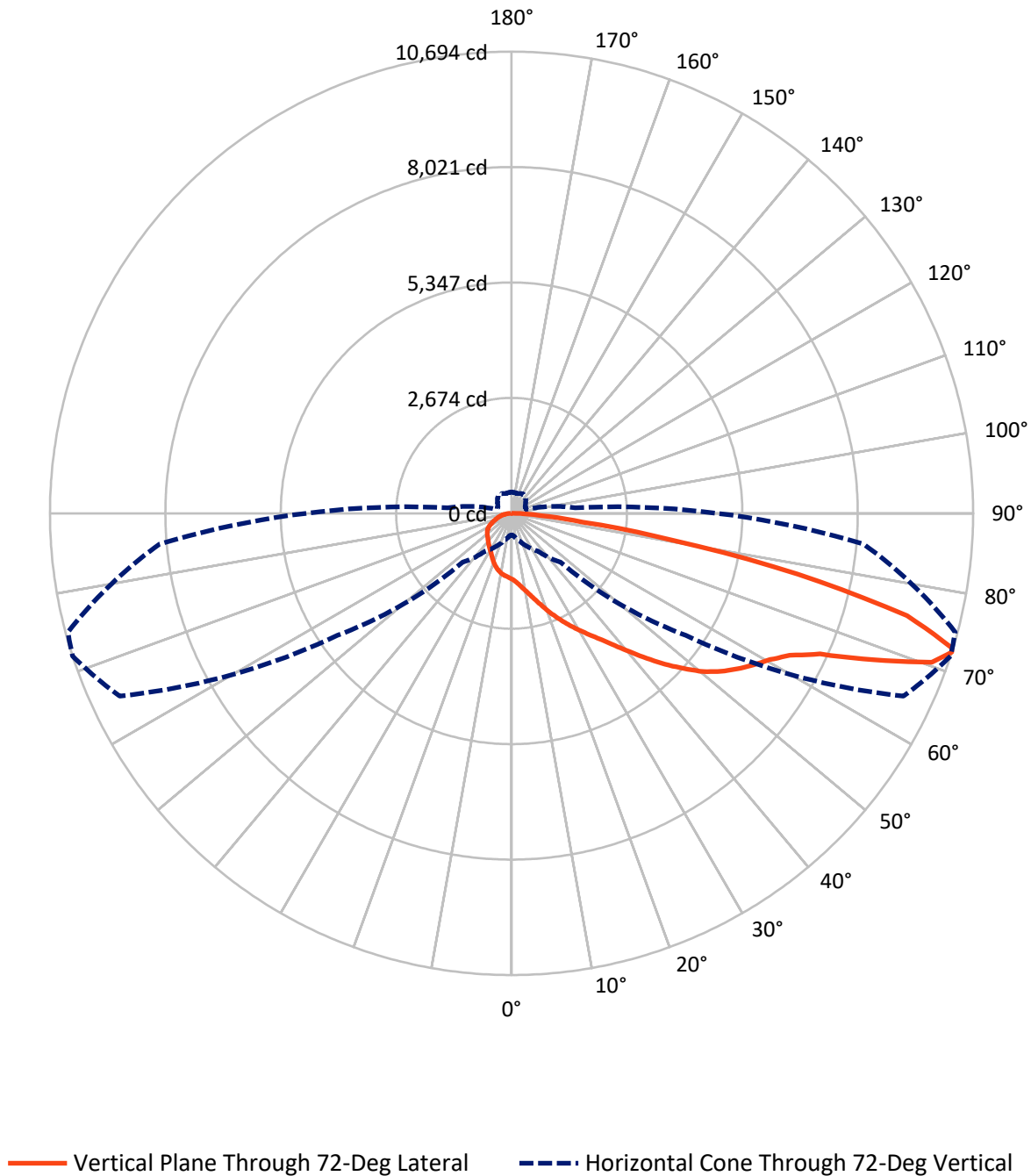
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Medium - N/A

REPORT NUMBER: P318256
CATALOG NUMBER: GLEON-SA2D-830-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P318256

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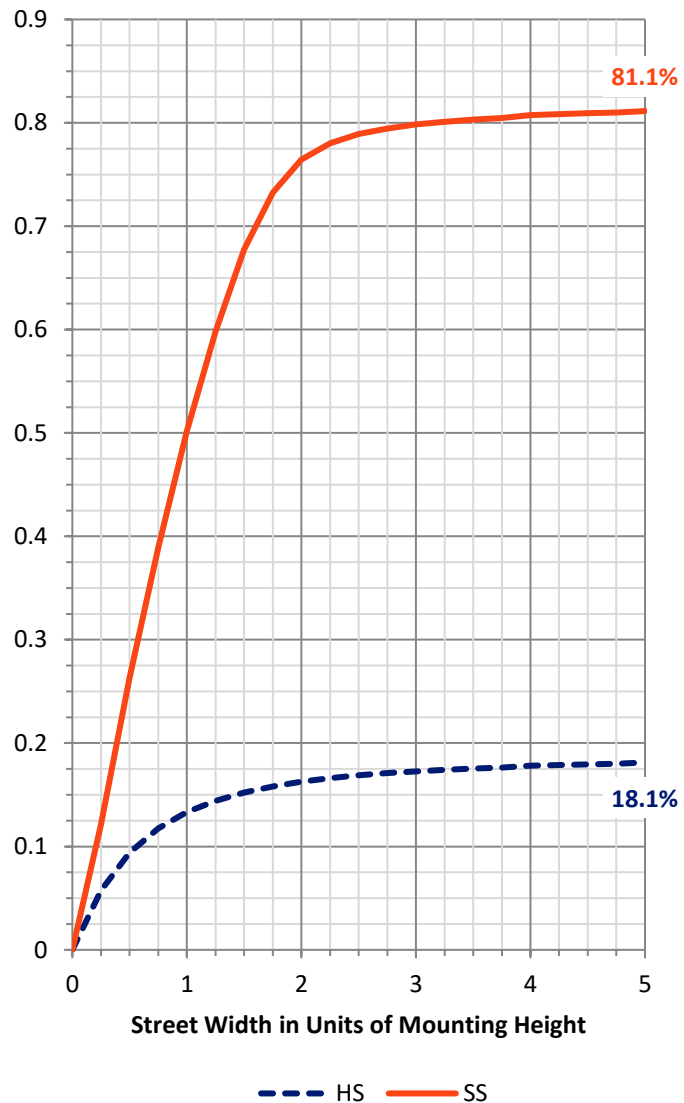
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2296.8	0.0	2296.8
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	10084.2	0.0	10084.2
	% Fixture	81.4	0.0	81.4
Total	Lumens	12381.0	0.0	12381.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.6	1.2
10°-20°	493.2	4.0
20°-30°	864.3	7.0
30°-40°	1281.4	10.4
40°-50°	1874.2	15.1
50°-60°	2578.9	20.8
60°-70°	2871.1	23.2
70°-80°	1945.5	15.7
80°-90°	319.8	2.6
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°	12381.0	100.0
0°-180°	12381.0	100.0

Coefficient of Utilization



REPORT NUMBER: P318256

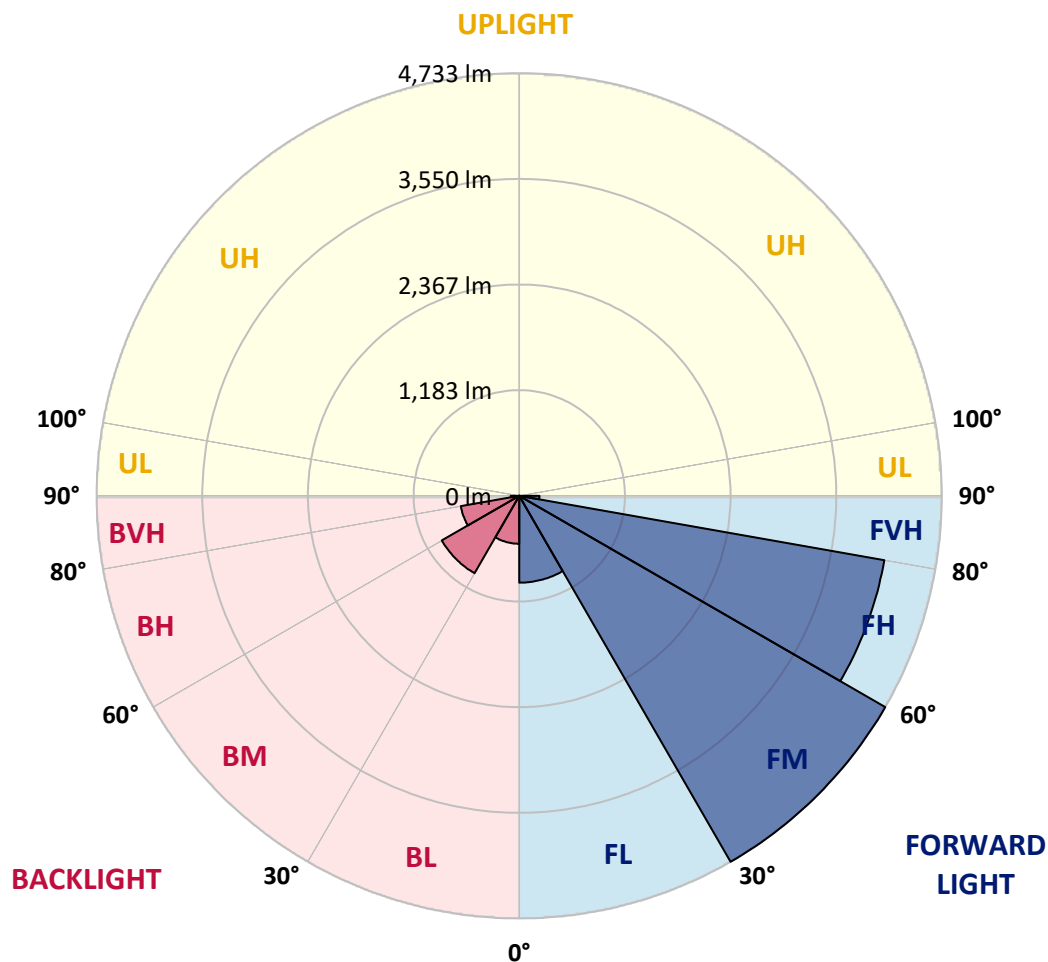
CATALOG NUMBER: GLEON-SA2D-830-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	973.2	7.9			
FM	(30°-60°)	4733.4	38.2			
FH	(60°-80°)	4152.1	33.5			G2/5000
FVH	(80°-90°)	225.5	1.8			G3/500
BL	(0°-30°)	536.9	4.3	B2/1000		
BM	(30°-60°)	1001.2	8.1	B2/2500		
BH	(60°-80°)	664.5	5.4	B2/1000		G2/1000
BVH	(80°-90°)	94.2	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





REPORT NUMBER: P318256

CATALOG NUMBER: GLEON-SA2D-830-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2
2.5°	1682.6	1680.1	1671.1	1671.1	1654.1	1639.6	1612.3	1594.0	1572.2	1564.5	1539.0
5°	1845.5	1846.3	1835.2	1827.6	1802.4	1771.7	1725.3	1683.1	1640.8	1623.8	1571.4
7.5°	1982.3	1980.6	1977.6	1971.2	1947.8	1916.2	1853.6	1790.9	1728.7	1703.1	1612.7
10°	2070.1	2074.0	2076.5	2079.5	2069.7	2047.1	1987.9	1911.5	1830.1	1795.2	1662.2
12.5°	2114.5	2121.3	2133.2	2153.7	2169.9	2167.3	2124.3	2043.3	1946.5	1902.6	1724.0
15°	2140.5	2149.4	2168.2	2204.8	2250.5	2276.5	2265.0	2191.6	2083.8	2029.6	1799.4
17.5°	2156.7	2163.9	2192.9	2241.9	2309.7	2378.8	2409.0	2347.7	2239.0	2177.1	1886.0
20°	2167.8	2173.3	2209.5	2267.1	2354.9	2464.9	2549.3	2534.0	2409.9	2329.8	1976.3
22.5°	2192.5	2197.2	2231.7	2289.7	2386.9	2528.8	2684.4	2707.5	2590.2	2499.4	2073.1
25°	2261.5	2261.5	2290.5	2331.0	2422.3	2584.3	2798.7	2900.6	2774.4	2668.7	2162.6
27.5°	2393.3	2392.0	2402.7	2416.7	2485.8	2640.5	2900.6	3071.1	2965.4	2849.8	2249.6
30°	2549.3	2557.8	2559.1	2552.3	2584.7	2710.9	2994.8	3251.0	3157.6	3033.2	2338.7
32.5°	2750.1	2755.6	2749.2	2726.6	2722.0	2810.6	3087.3	3439.4	3365.7	3224.6	2420.1
35°	3005.0	2994.4	2974.3	2928.3	2884.4	2944.1	3193.0	3627.9	3599.3	3456.1	2532.2
37.5°	3278.3	3278.7	3254.0	3149.5	3089.0	3114.6	3338.8	3841.4	3881.9	3731.4	2675.9
40°	3497.4	3508.9	3524.3	3387.0	3308.5	3343.9	3524.3	4089.1	4216.2	4058.0	2863.1
42.5°	3650.4	3663.7	3707.1	3621.0	3539.6	3605.3	3742.5	4353.4	4591.3	4434.8	3082.2
45°	3812.4	3819.7	3850.4	3813.3	3761.3	3909.2	3988.5	4627.1	4988.2	4836.4	3327.3
47.5°	3983.0	3990.6	4022.2	3997.5	3970.2	4193.1	4245.1	4885.0	5368.5	5277.6	3589.1
50°	4193.6	4198.7	4228.5	4183.8	4192.3	4407.1	4474.5	5121.6	5767.0	5674.1	3851.7
52.5°	4480.9	4482.2	4523.5	4483.0	4442.9	4564.0	4671.9	5344.6	6079.5	6035.6	4114.3
55°	4706.0	4719.6	4855.2	4846.7	4823.6	4706.4	4836.9	5556.9	6358.3	6379.2	4393.1
57.5°	4562.3	4615.6	4890.1	5083.7	5272.1	5060.7	5059.8	5796.0	6617.5	6716.4	4699.6
60°	3995.8	4068.2	4472.8	4902.1	5491.7	5677.1	5522.8	6088.1	6879.3	7050.7	5083.7
62.5°	2853.7	2973.0	3521.3	4206.8	5190.7	6085.5	6464.9	6551.4	7235.2	7437.7	5582.9
65°	1442.6	1533.0	1992.5	2818.3	4147.1	5818.6	7488.9	7566.1	7853.8	8033.7	6351.5
67.5°	876.5	910.6	1134.8	1567.5	2542.5	4532.5	7823.1	9257.2	9050.9	9146.4	7447.5
70°	645.9	671.0	810.8	1041.0	1462.2	2659.7	6797.4	10464.1	10328.5	10317.8	8257.5
72°	503.0	521.4	645.0	841.1	1069.2	1595.7	4926.8	10018.6	10694.3	10640.6	8183.3
72.5°	477.0	493.2	605.8	791.6	1010.3	1446.5	4429.7	9718.0	10667.8	10643.5	8087.4
75°	375.6	387.1	448.5	612.2	790.8	820.6	2427.4	7531.1	9463.5	9857.0	7274.0
77.5°	310.8	312.5	344.9	445.5	616.4	580.2	1192.4	5225.2	6776.5	7209.2	5152.7
80°	253.2	255.4	270.7	312.5	466.4	429.3	566.1	3004.6	3794.1	3798.8	2450.4
82.5°	201.6	202.1	219.1	228.5	335.1	306.9	324.4	1410.6	1657.9	1594.8	880.7
85°	142.0	139.0	214.0	187.6	219.1	197.0	179.0	558.5	685.5	655.7	275.8
87.5°	47.3	49.0	95.1	121.5	127.9	111.7	79.7	214.0	258.8	256.6	87.4
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: P318256

CATALOG NUMBER: GLEON-SA2D-830-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2	1523.2
2.5°	1530.9	1517.2	1497.2	1475.0	1457.5	1439.6	1426.4	1419.6	1411.9	1405.5	1413.2
5°	1547.1	1521.5	1478.9	1437.1	1406.4	1379.1	1359.5	1349.3	1339.9	1333.5	1334.3
7.5°	1573.5	1532.1	1460.5	1399.6	1356.9	1327.5	1307.5	1300.7	1294.7	1293.0	1295.1
10°	1601.6	1540.7	1436.2	1355.2	1306.6	1282.3	1273.4	1278.1	1282.3	1286.2	1290.4
12.5°	1633.6	1548.3	1400.8	1303.2	1261.9	1252.5	1261.4	1281.9	1296.8	1305.8	1311.3
15°	1675.4	1555.2	1359.9	1251.2	1223.5	1234.2	1264.4	1299.8	1325.8	1342.4	1345.0
17.5°	1713.7	1554.7	1307.5	1198.8	1192.4	1223.5	1269.1	1319.0	1353.9	1377.4	1382.1
20°	1753.4	1543.2	1246.5	1147.6	1160.8	1212.0	1271.2	1331.3	1373.6	1400.8	1407.2
22.5°	1790.5	1523.2	1179.6	1101.1	1134.4	1196.6	1263.1	1324.1	1366.3	1388.5	1395.3
25°	1815.6	1488.2	1111.8	1061.9	1110.9	1177.9	1236.7	1285.7	1317.3	1328.4	1330.1
27.5°	1828.4	1442.6	1047.9	1027.8	1086.7	1147.2	1187.7	1212.0	1220.9	1220.1	1218.4
30°	1830.1	1382.5	992.9	1000.1	1058.5	1102.0	1121.2	1116.5	1105.0	1085.4	1087.1
32.5°	1824.6	1314.7	946.8	973.7	1022.7	1047.0	1047.9	1025.3	994.6	963.4	954.9
35°	1826.3	1248.2	906.3	943.8	979.2	989.9	980.1	946.8	905.0	865.0	856.4
37.5°	1845.0	1190.2	871.4	909.3	931.0	933.6	919.5	884.6	853.9	814.7	811.3
40°	1889.8	1148.9	838.1	870.5	882.9	884.2	864.1	839.4	842.0	821.1	820.6
42.5°	1970.4	1131.0	808.7	830.0	837.7	840.2	824.9	809.1	831.3	817.7	813.0
45°	2074.4	1135.2	784.0	790.4	804.4	816.4	807.0	787.8	796.3	737.1	717.5
47.5°	2194.6	1162.5	764.4	756.3	780.6	803.2	788.7	759.7	729.4	670.6	659.5
50°	2335.3	1204.7	746.5	722.6	754.6	785.3	770.8	729.4	683.8	655.2	651.4
52.5°	2481.9	1256.3	728.6	685.5	721.7	771.6	764.4	722.6	666.3	638.2	633.1
55°	2648.2	1308.3	706.0	642.4	686.4	765.2	761.4	697.9	653.1	637.3	633.5
57.5°	2855.0	1367.6	676.1	597.7	653.1	742.2	730.3	682.9	639.5	627.5	626.2
60°	3124.4	1455.0	633.1	549.9	612.6	706.8	704.3	661.2	617.7	609.2	607.5
62.5°	3528.5	1599.5	573.8	502.2	567.4	646.7	670.2	631.8	594.7	594.3	595.1
65°	4155.2	1816.9	509.4	460.4	521.8	596.0	630.5	601.5	571.2	579.8	581.1
67.5°	4881.6	1997.2	446.3	419.5	475.3	547.8	594.7	571.2	540.1	562.3	562.7
70°	5123.3	1836.1	390.9	379.0	427.2	501.3	555.9	538.0	506.4	528.6	526.5
72°	4767.8	1482.3	355.1	348.3	390.9	463.0	521.4	506.9	475.8	490.7	485.1
72.5°	4655.7	1413.2	346.2	340.6	381.1	453.2	512.4	499.2	468.1	480.9	475.8
75°	4153.1	1227.3	297.6	298.8	332.5	405.4	462.1	457.9	425.9	427.2	425.5
77.5°	3012.3	899.9	250.7	259.2	283.1	356.4	411.4	408.8	373.9	367.5	366.2
80°	1397.9	459.1	204.2	208.0	232.8	298.0	350.8	347.4	319.3	311.2	306.5
82.5°	478.7	218.3	153.5	156.0	180.3	240.0	304.4	302.2	278.8	263.0	253.2
85°	170.9	108.7	107.4	104.9	128.7	188.9	265.2	253.7	219.1	186.7	185.9
87.5°	55.4	46.5	55.4	55.0	75.0	127.9	192.7	164.1	159.0	132.2	129.6
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.

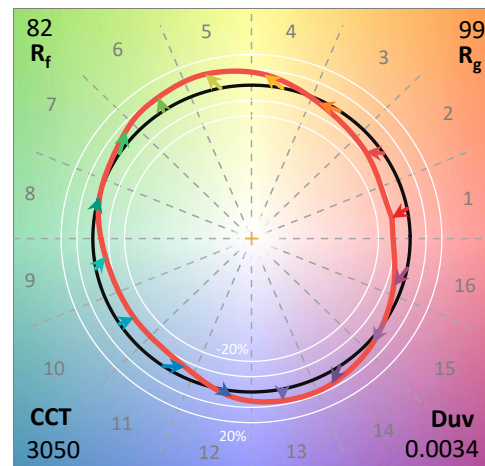
Test Information

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

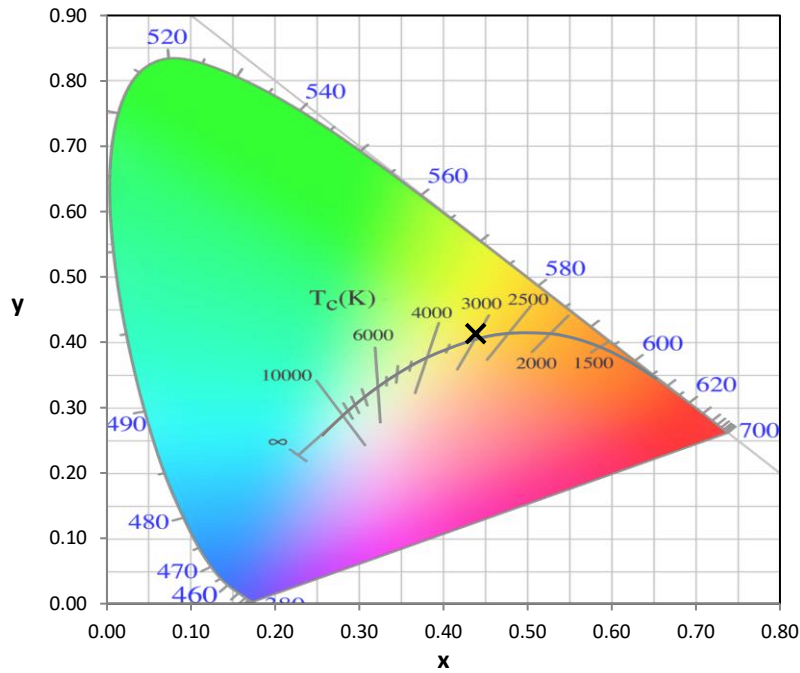
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

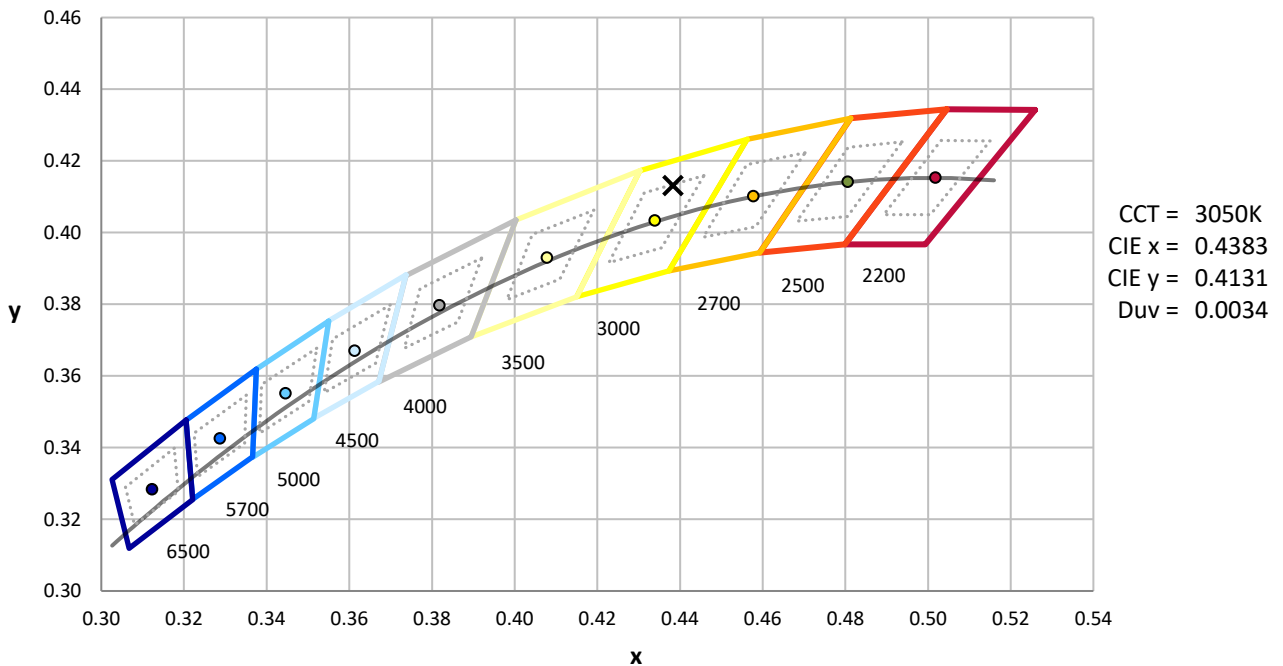
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



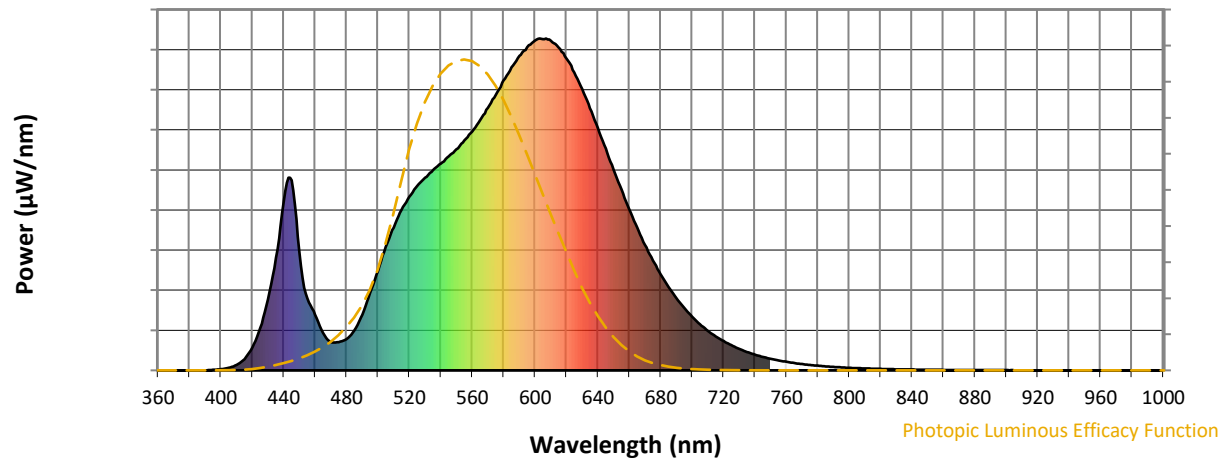
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

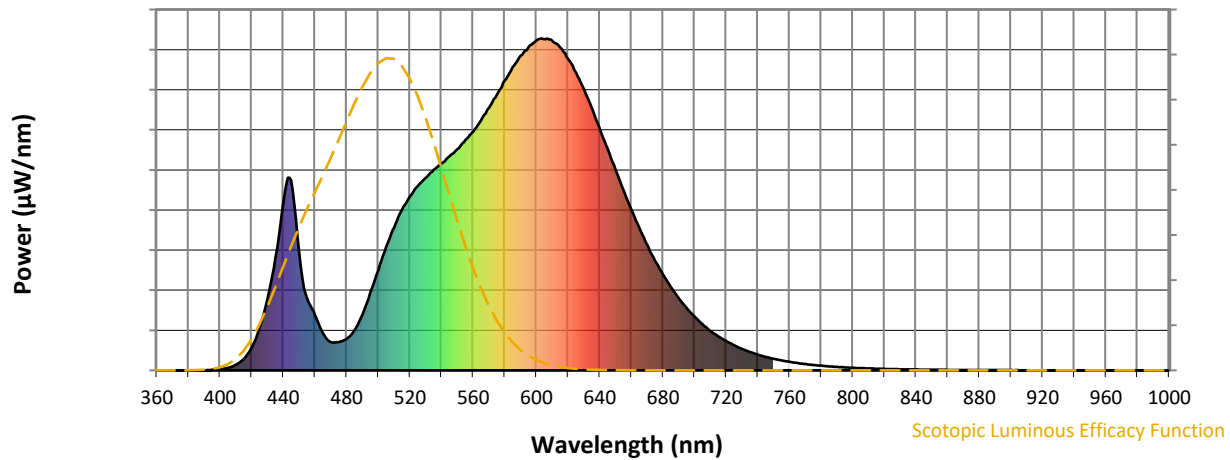


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



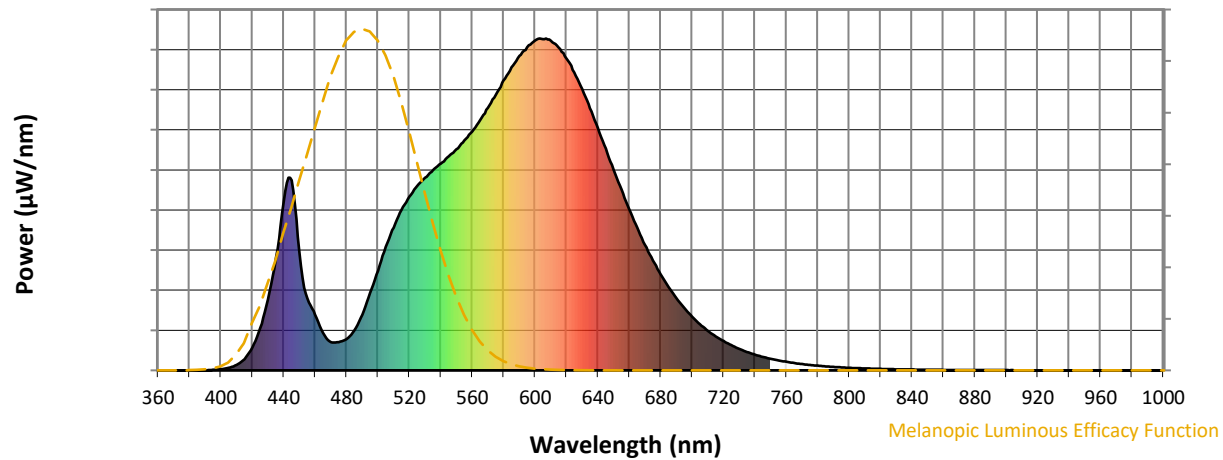
Scotopic Lumens: NR

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

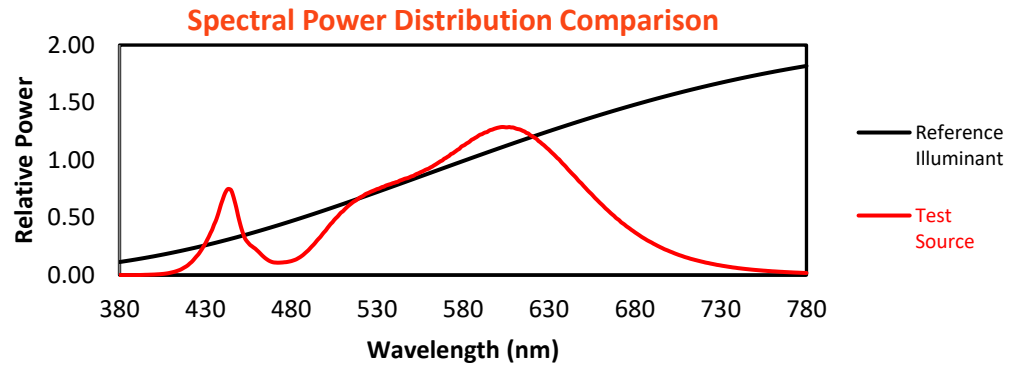
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	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			

REPORT NUMBER: SP1-2408-195-9

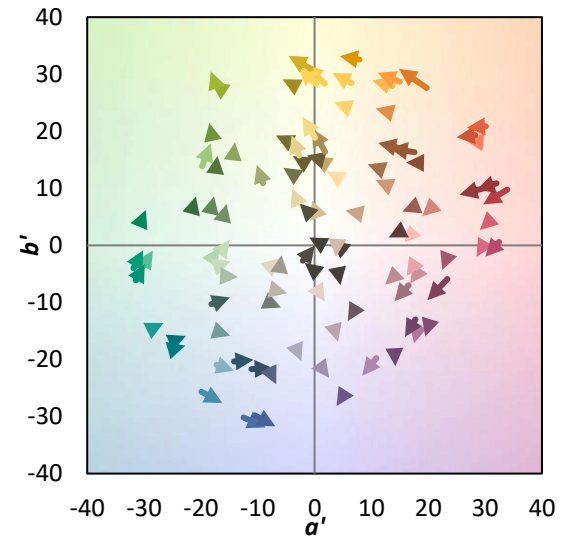
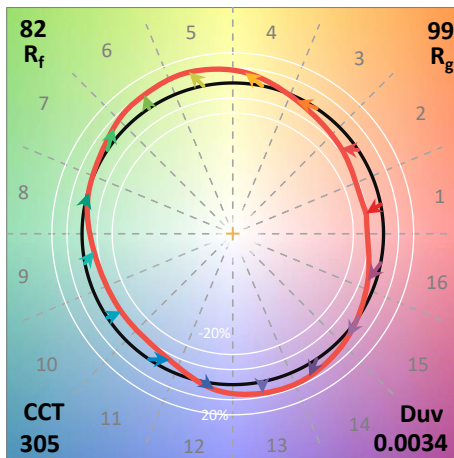
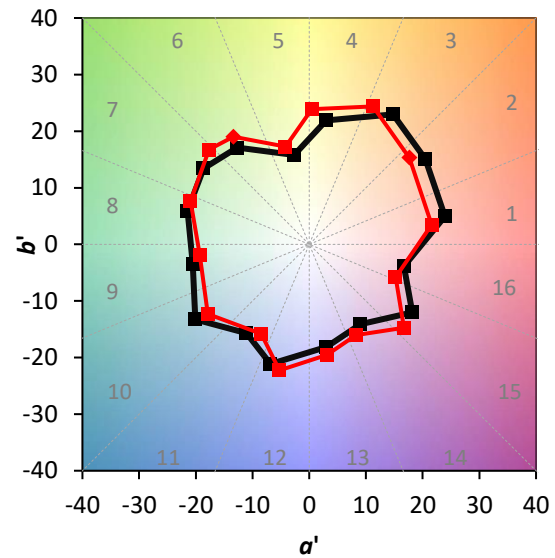
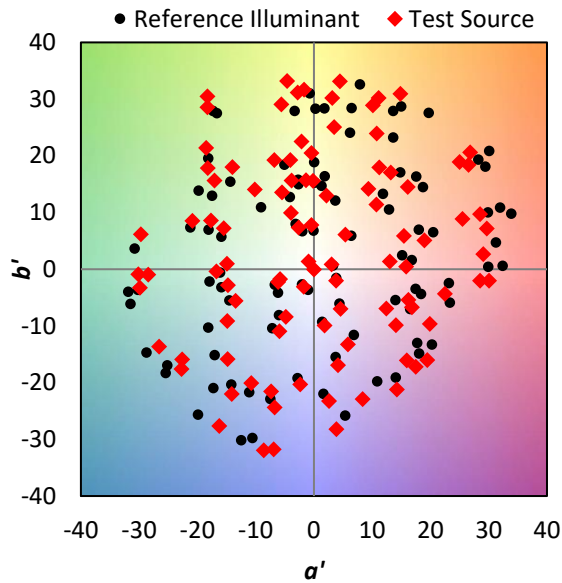
TM-30-18

Summary

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

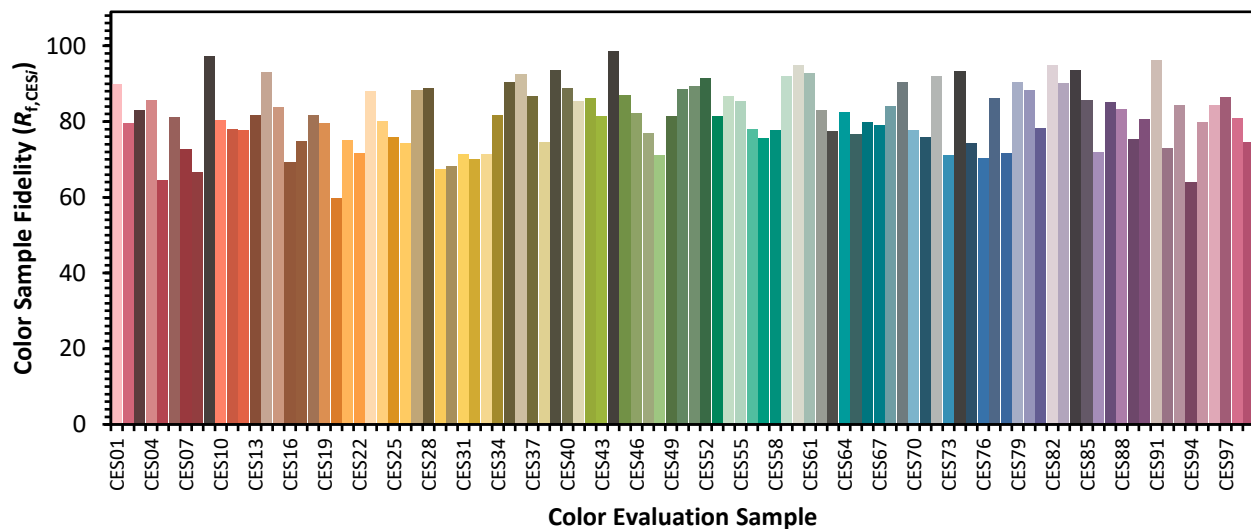


Color Vector Graphics

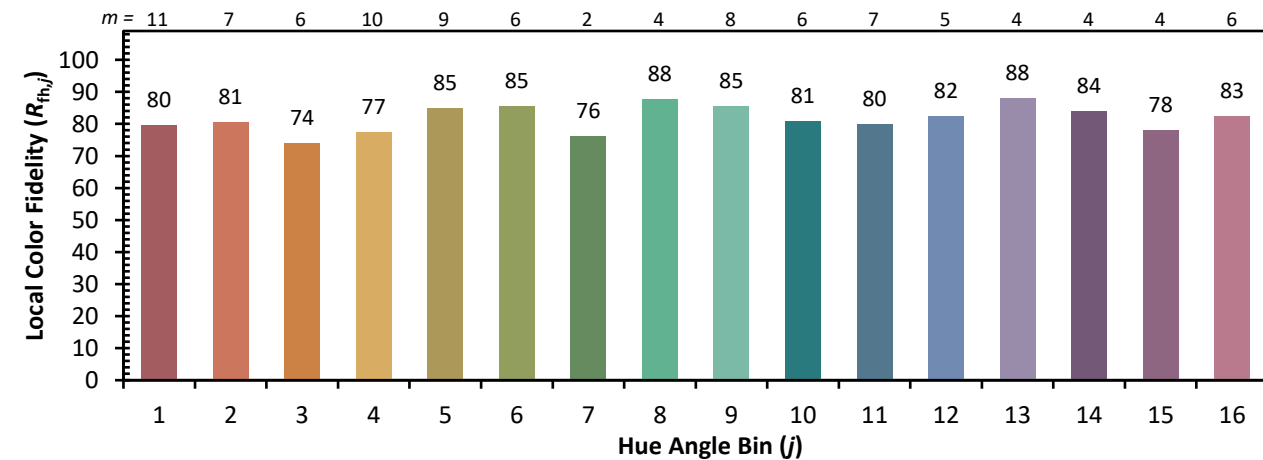
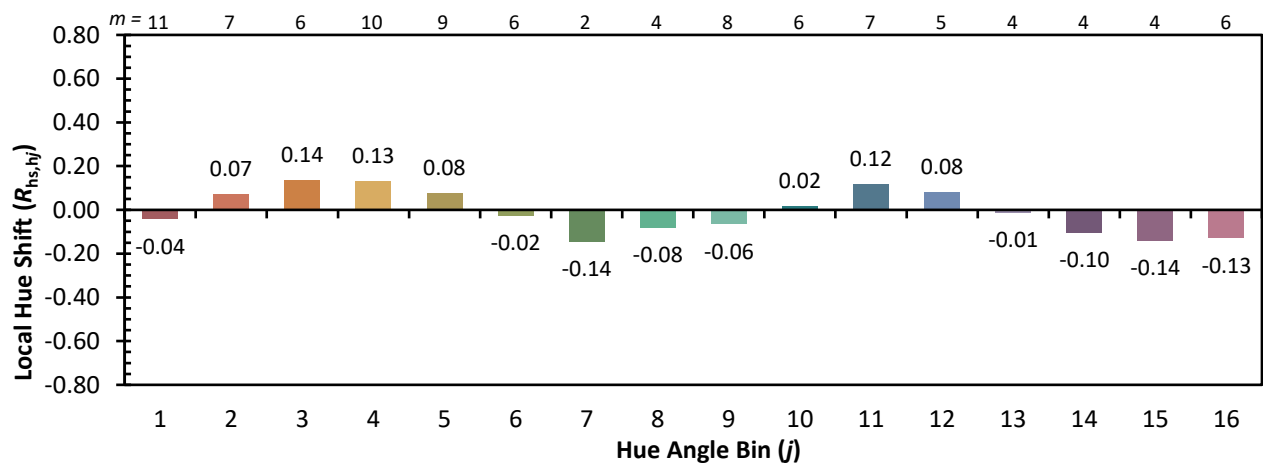
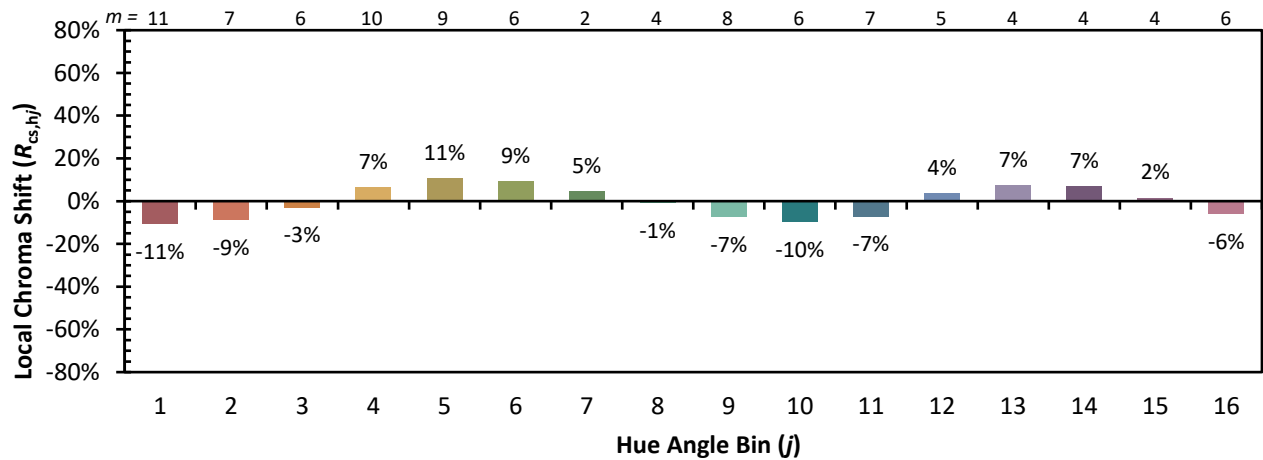


Individual Sample Fidelity Index ($R_{f,i}$)

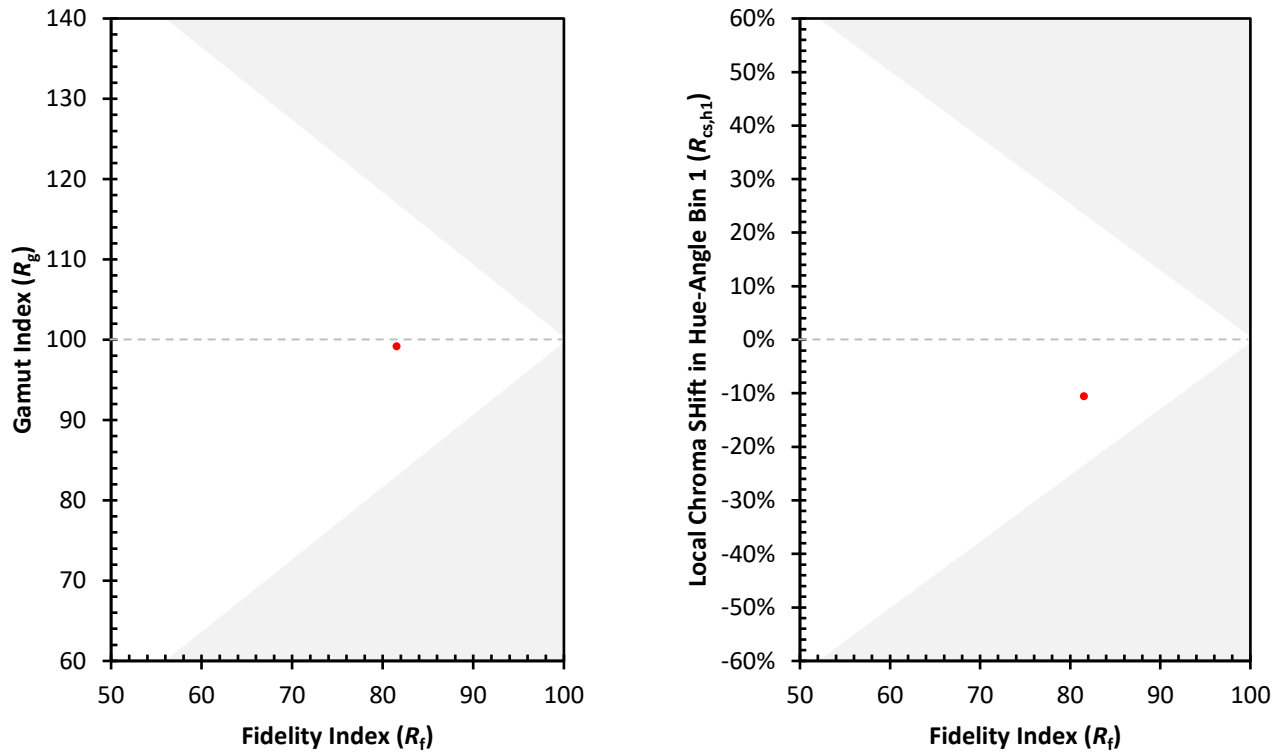
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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