

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: P322717

Luminaire Tested: **GLEON-SA3B-830-U-T4FT-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-17)
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-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9845 lumens
Efficiency: N/A
Efficacy: 79.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

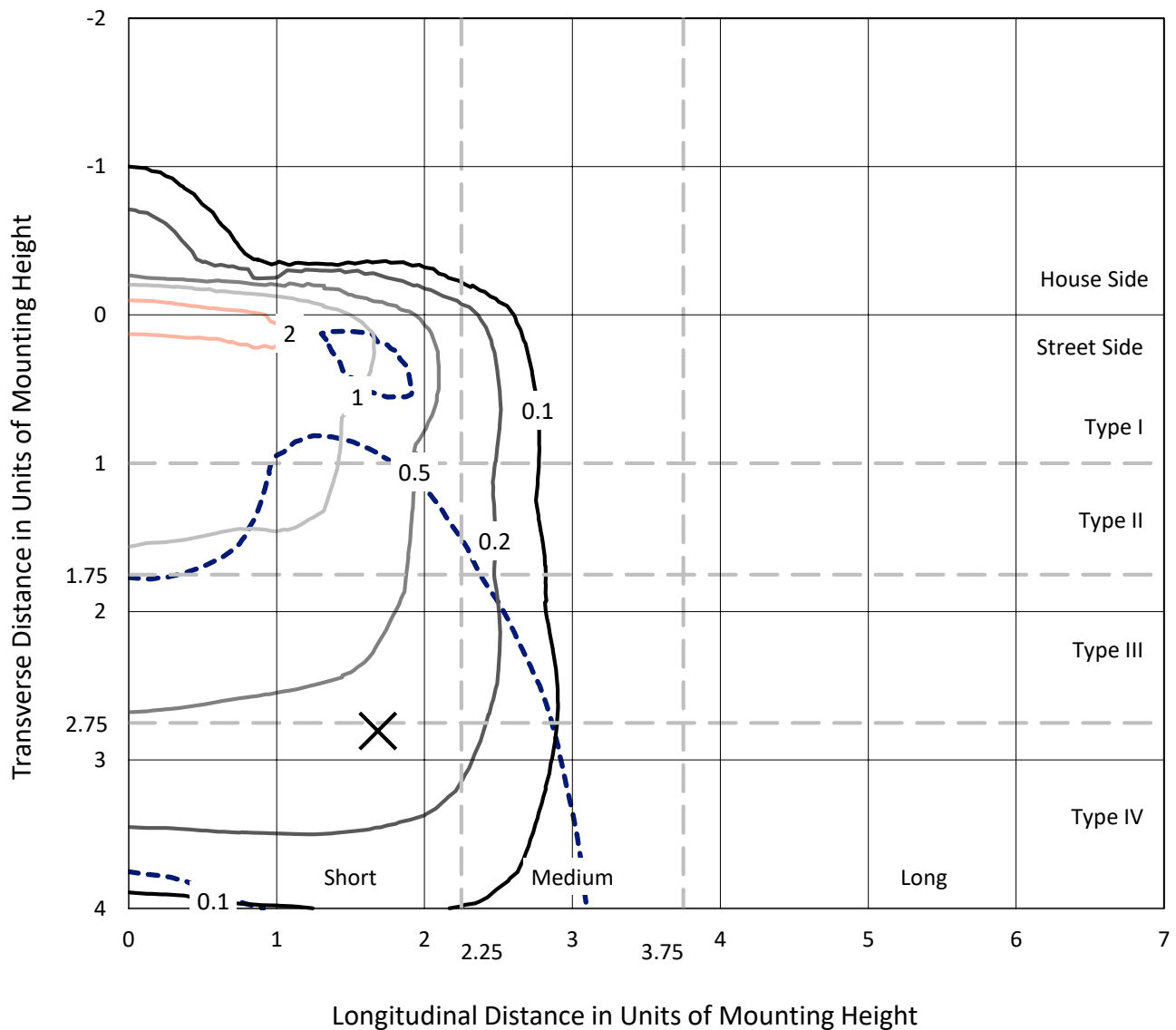
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

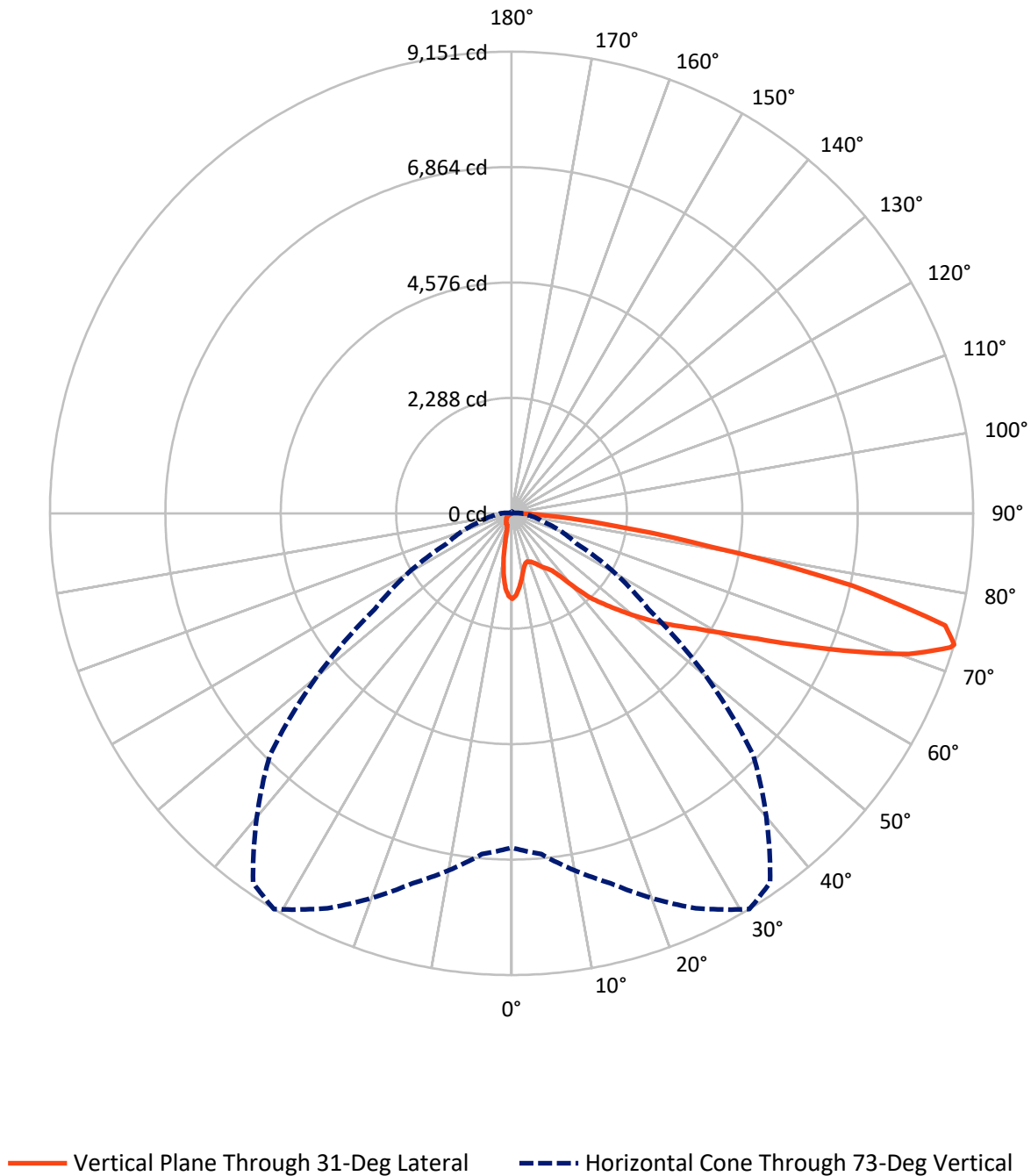
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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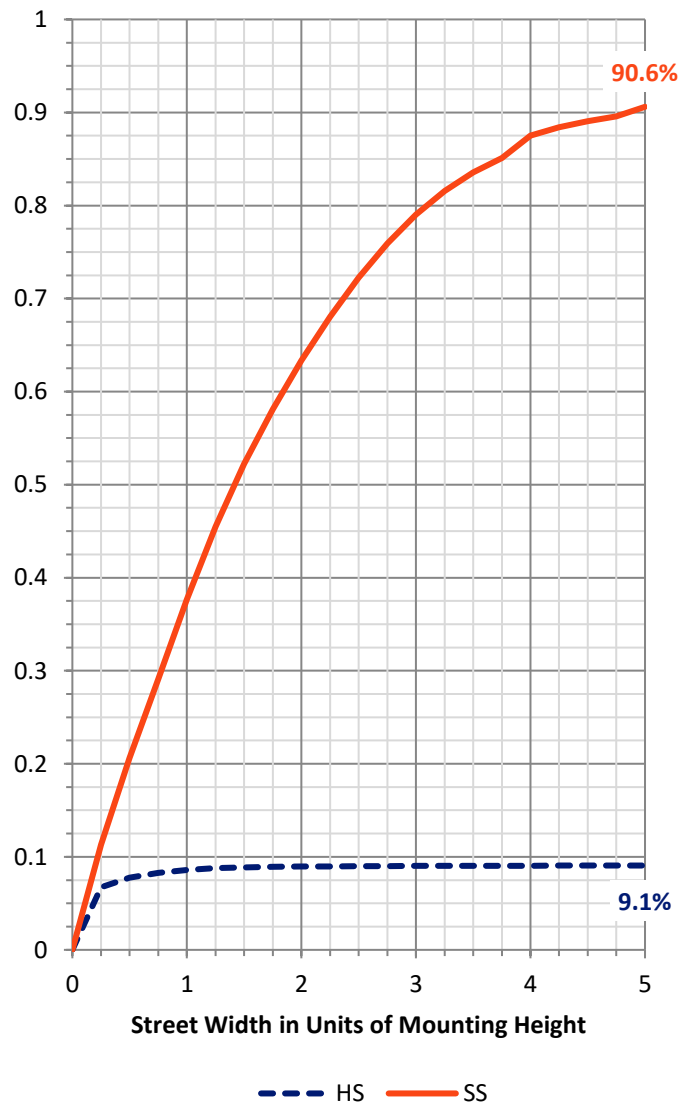
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	897.4	0.0	897.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8947.6	0.0	8947.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	9845.0	0.0	9845.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	1.4
10°-20°	304.9	3.1
20°-30°	456.9	4.6
30°-40°	726.9	7.4
40°-50°	1298.1	13.2
50°-60°	2014.3	20.5
60°-70°	2677.7	27.2
70°-80°	2014.2	20.5
80°-90°	211.6	2.1
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°	9845.0	100.0
0°-180°	9845.0	100.0

Coefficient of Utilization



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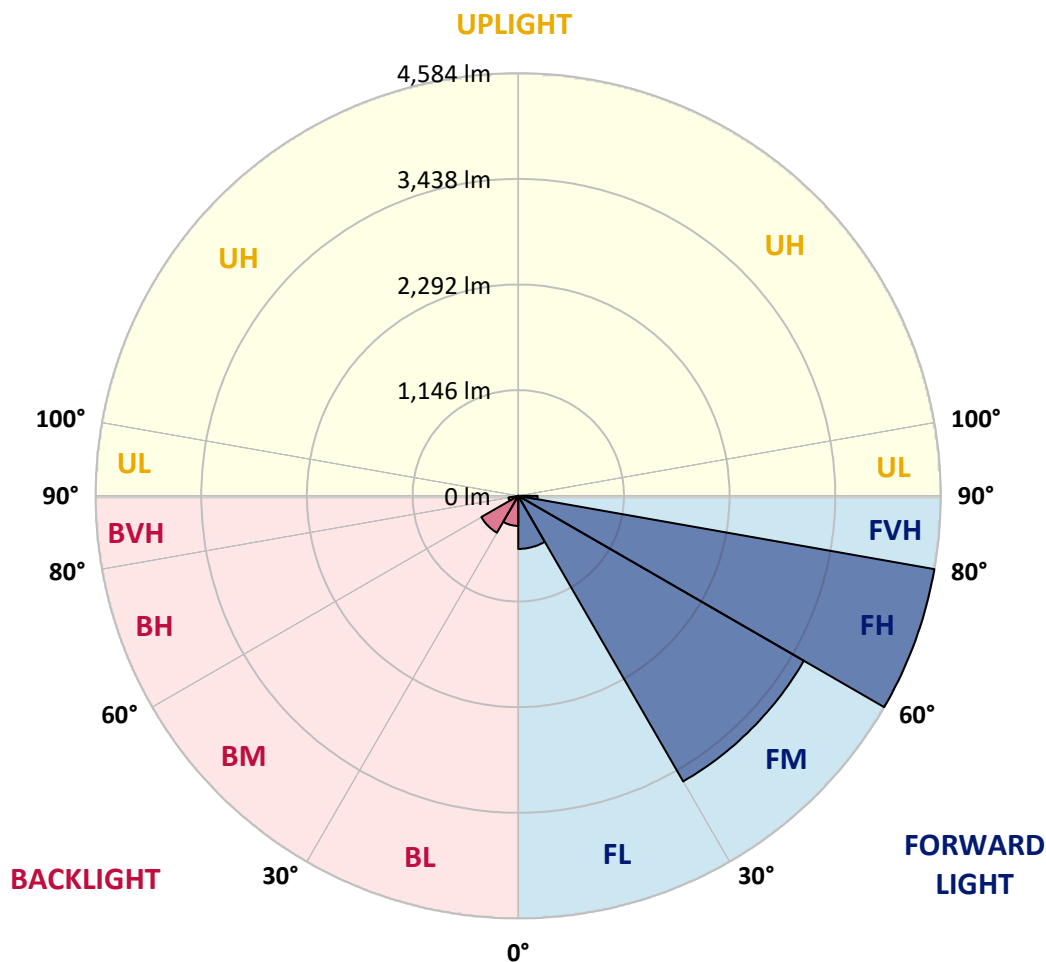
CATALOG NUMBER: GLEON-SA3B-830-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	575.9	5.9			
FM	(30°-60°)	3577.3	36.3			
FH	(60°-80°)	4584.5	46.6			G2/5000
FVH	(80°-90°)	209.9	2.1			G2/225
BL	(0°-30°)	326.3	3.3	B1/500		
BM	(30°-60°)	461.9	4.7	B1/1000		
BH	(60°-80°)	107.4	1.1	B0/110		G0/110
BVH	(80°-90°)	1.8	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°	31°	35°	45°	55°	65°	75°	85°
0°	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9
2.5°	1605.2	1612.0	1619.2	1620.6	1632.7	1633.2	1650.5	1663.5	1676.5	1689.0	1693.4
5°	1440.4	1451.5	1464.5	1477.5	1503.1	1513.2	1555.6	1598.9	1640.4	1679.9	1699.2
7.5°	1264.6	1277.1	1295.4	1327.7	1356.1	1375.9	1442.9	1519.9	1597.0	1669.8	1711.7
10°	1104.2	1115.7	1135.0	1169.2	1213.1	1240.0	1330.1	1437.1	1550.3	1660.6	1730.5
12.5°	1002.1	1008.3	1018.9	1055.5	1095.0	1125.4	1231.4	1363.8	1511.7	1660.1	1760.8
15°	983.3	985.2	976.5	992.9	1023.7	1053.1	1160.5	1304.6	1482.4	1667.8	1800.3
17.5°	1013.1	1012.2	983.3	981.3	1005.9	1030.0	1125.9	1263.6	1461.6	1685.7	1851.4
20°	1058.4	1055.0	1004.9	995.8	1021.8	1044.4	1123.5	1248.2	1453.9	1715.5	1913.5
22.5°	1118.6	1112.9	1034.3	1024.7	1052.6	1076.2	1153.3	1263.2	1460.7	1755.5	1985.8
25°	1193.3	1184.6	1084.9	1074.3	1102.7	1126.3	1206.8	1306.0	1480.9	1804.2	2077.3
27.5°	1277.6	1265.1	1165.8	1138.4	1170.7	1195.2	1278.1	1371.6	1512.7	1855.7	2189.6
30°	1357.1	1340.7	1251.1	1205.8	1245.3	1272.8	1355.2	1449.6	1563.8	1935.2	2343.3
32.5°	1437.1	1418.8	1327.2	1273.3	1308.9	1338.8	1434.7	1557.0	1659.6	2056.6	2547.5
35°	1621.1	1601.8	1489.6	1400.5	1400.0	1416.8	1546.0	1704.0	1786.3	2225.7	2791.3
37.5°	1930.9	1919.8	1812.8	1643.7	1598.5	1579.7	1697.7	1879.3	1968.5	2458.4	3066.4
40°	2270.0	2260.4	2140.4	1987.2	1918.4	1872.1	1915.5	2123.6	2225.7	2742.6	3347.2
42.5°	2653.0	2607.3	2393.4	2347.6	2285.9	2250.8	2211.7	2424.7	2541.7	3051.9	3625.7
45°	3000.9	2923.8	2646.3	2576.9	2562.9	2571.6	2593.3	2829.4	2897.3	3419.5	3903.2
47.5°	3208.0	3147.3	2934.4	2867.9	2864.0	2921.4	3085.2	3286.5	3251.4	3739.9	4147.4
50°	3405.0	3350.1	3173.3	3189.7	3207.5	3285.6	3643.5	3756.7	3574.6	4030.4	4371.4
52.5°	3564.5	3480.7	3388.2	3480.2	3567.9	3693.6	4219.7	4178.7	3803.9	4261.6	4563.2
55°	3656.5	3618.5	3663.3	3755.8	3920.5	4124.8	4763.6	4529.9	3971.6	4472.6	4690.9
57.5°	3993.8	3919.1	4008.2	4088.2	4303.0	4588.7	5229.5	4791.5	4092.5	4603.2	4720.2
60°	4401.8	4341.6	4394.1	4527.1	4817.1	5152.9	5665.0	5005.0	4155.6	4687.0	4644.1
62.5°	5051.2	4971.7	4939.0	5087.8	5472.3	5838.9	5995.4	5152.9	4141.7	4649.9	4383.0
65°	5921.3	5838.9	5692.4	5827.3	6316.3	6575.0	6365.0	5184.2	4045.3	4349.8	3723.0
67.5°	6812.5	6752.8	6627.5	6854.9	7296.2	7379.5	6755.7	5108.1	3735.1	3526.9	2630.4
70°	7401.2	7375.7	7457.1	7960.0	8353.6	8329.6	7114.1	4699.0	2911.2	2168.9	1301.2
72.5°	6976.8	7099.1	7700.4	8612.3	9093.1	8896.6	6930.1	3608.3	1664.0	834.4	376.3
73°	6625.1	6781.7	7591.0	8636.9	9151.4	8936.1	6775.4	3312.1	1418.3	658.6	285.2
75°	4609.0	4801.2	6284.5	8043.9	8878.8	8514.1	5647.6	2027.2	657.1	291.9	115.1
77.5°	2237.8	2379.9	3460.4	5811.9	6905.0	6652.1	3515.9	755.4	296.8	182.6	53.0
80°	835.4	928.8	1502.1	2958.0	3990.4	4094.9	1546.4	285.7	197.5	146.9	27.0
82.5°	218.7	243.8	554.0	1319.0	2045.1	2140.4	487.5	144.0	144.5	120.9	16.4
85°	69.9	80.0	173.0	592.1	963.5	846.0	127.2	69.9	105.0	90.1	9.2
87.5°	8.7	11.1	54.9	139.2	212.5	118.0	19.8	20.7	44.8	50.1	5.3
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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CATALOG NUMBER: GLEON-SA3B-830-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9	1693.9
2.5°	1697.7	1695.3	1695.8	1683.3	1675.1	1658.7	1641.8	1634.1	1625.9	1622.6	1625.9
5°	1706.4	1702.0	1689.5	1651.0	1610.0	1557.0	1507.4	1469.8	1422.6	1409.6	1423.1
7.5°	1719.9	1711.2	1674.6	1596.1	1505.0	1403.8	1290.1	1207.3	1139.4	1095.5	1111.4
10°	1739.6	1723.2	1649.5	1516.1	1353.3	1174.0	1012.7	886.9	797.8	761.2	759.7
12.5°	1772.9	1742.0	1618.7	1412.0	1167.8	928.8	717.3	581.0	508.7	462.0	461.0
15°	1809.5	1764.2	1579.7	1287.3	951.9	665.3	462.0	358.4	311.7	296.8	294.8
17.5°	1854.3	1789.7	1529.1	1133.6	726.0	440.8	301.6	271.7	269.8	268.3	268.3
20°	1910.6	1820.1	1464.1	957.7	515.0	294.4	256.3	258.2	259.2	257.3	257.7
22.5°	1976.2	1850.9	1386.5	768.9	348.3	246.2	245.2	247.6	248.6	247.6	248.1
25°	2052.3	1886.6	1292.1	570.9	251.5	233.7	236.1	239.4	241.8	241.8	241.8
27.5°	2146.7	1929.9	1178.4	398.4	217.3	220.6	227.4	233.7	237.0	238.0	238.0
30°	2269.6	1983.9	1042.0	273.2	197.5	203.3	215.8	227.9	234.1	235.1	235.6
32.5°	2424.7	2044.6	884.0	201.9	180.7	185.0	198.5	218.7	230.8	232.7	232.7
35°	2602.4	2114.9	714.0	175.8	168.6	170.1	180.7	203.8	225.0	230.3	230.8
37.5°	2797.1	2184.3	542.9	164.3	158.5	158.5	166.2	186.0	211.0	227.4	229.3
40°	2978.7	2226.2	380.6	155.1	149.3	149.3	156.1	170.5	194.1	218.7	224.0
42.5°	3146.3	2240.6	265.0	146.5	140.7	142.1	147.9	159.5	177.3	201.9	206.7
45°	3318.8	2238.2	193.2	136.3	132.0	136.3	140.7	149.3	162.4	176.3	177.3
47.5°	3448.9	2218.0	153.2	126.7	123.8	129.6	133.4	139.2	146.5	145.5	145.5
50°	3570.8	2168.9	123.3	113.7	115.6	122.4	124.3	126.2	126.7	117.5	116.6
52.5°	3663.3	2092.3	98.8	99.7	107.4	114.2	112.2	109.4	104.5	93.5	91.5
55°	3694.1	1944.8	77.6	82.4	95.4	104.1	96.8	90.6	81.4	72.3	70.3
57.5°	3638.2	1754.6	63.1	64.1	80.5	87.7	79.5	72.3	62.1	54.4	53.0
60°	3519.7	1543.1	52.0	48.2	62.1	68.4	63.1	55.9	46.7	40.9	40.5
62.5°	3284.6	1317.6	42.9	37.6	47.2	52.5	49.1	43.8	36.1	32.3	31.8
65°	2790.3	1054.1	34.7	30.4	36.6	40.9	38.1	34.2	28.4	25.5	25.1
67.5°	1947.7	712.5	28.4	25.1	28.9	32.3	29.9	27.9	22.6	22.2	22.6
70°	939.4	343.5	23.6	20.2	22.6	25.1	24.1	22.6	21.7	25.1	28.9
72.5°	269.3	115.1	18.8	16.9	18.3	19.8	20.7	20.2	23.6	30.4	35.2
73°	207.2	93.0	17.8	15.9	17.3	19.3	20.2	19.8	24.1	30.8	35.2
75°	88.6	44.8	13.5	13.0	14.5	16.9	17.8	17.8	24.1	31.3	33.7
77.5°	40.0	24.1	8.7	10.1	12.5	13.5	14.9	14.9	19.3	24.1	24.1
80°	22.6	13.0	6.7	7.7	9.2	9.2	9.2	8.2	8.7	9.6	10.6
82.5°	14.5	8.7	5.3	6.3	5.8	4.8	3.9	3.9	3.4	3.9	4.8
85°	8.2	4.8	4.8	3.9	2.4	1.9	2.4	1.9	0.5	0.0	0.5
87.5°	4.8	2.9	1.4	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.

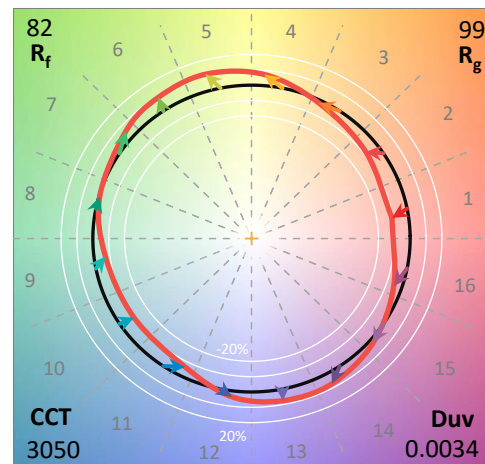
Test Information

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
 Rf: 81.5
 Rg: 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

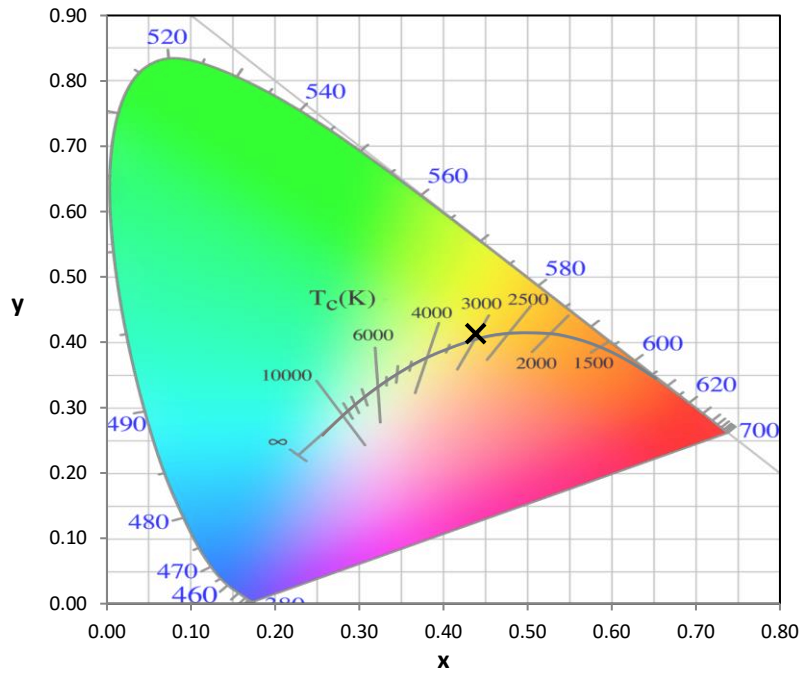
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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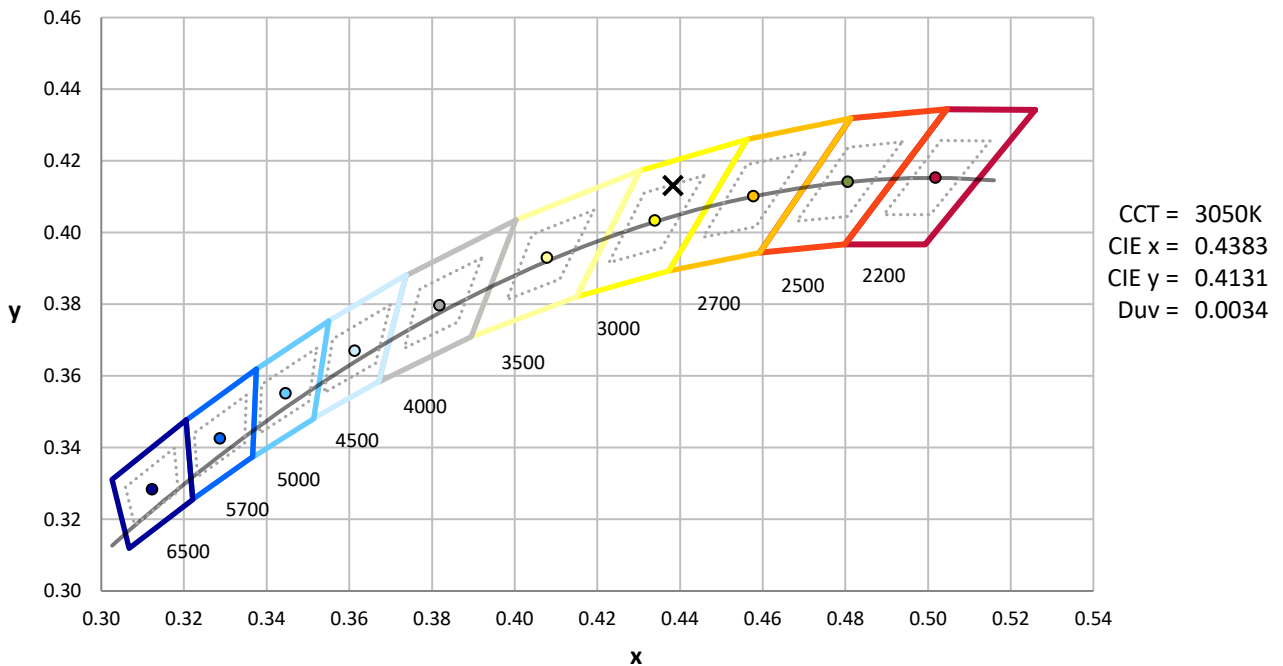
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



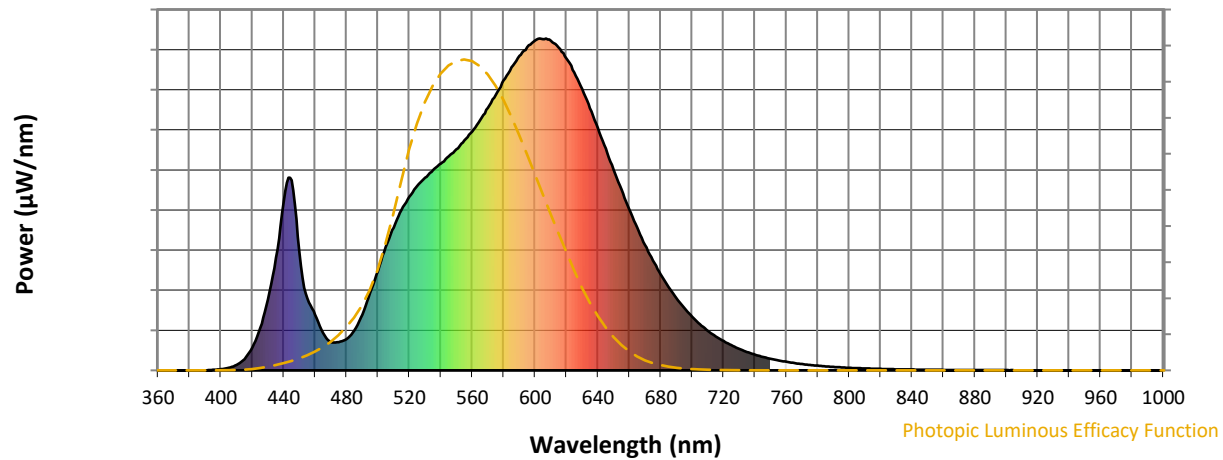
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

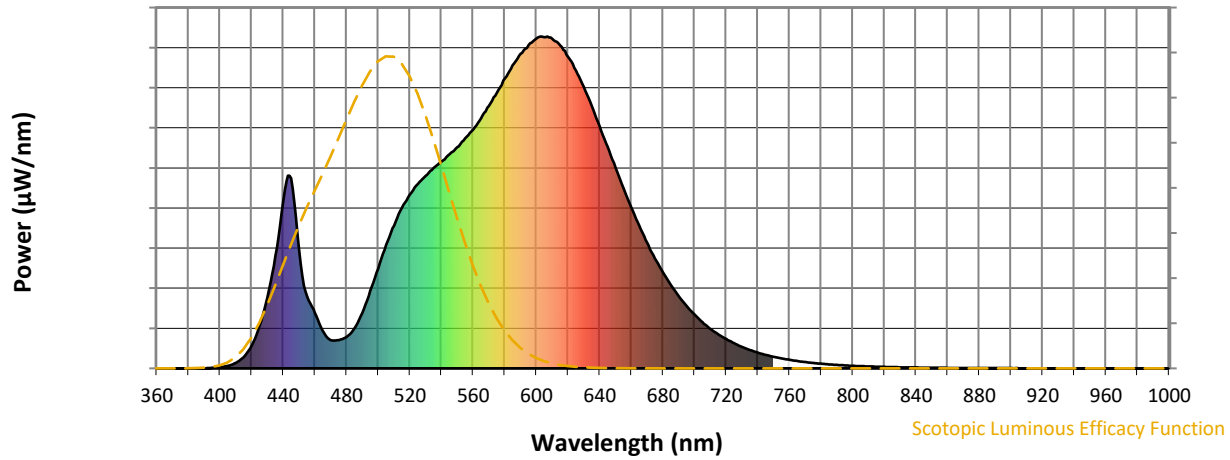


Photopic Lumens: NR

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



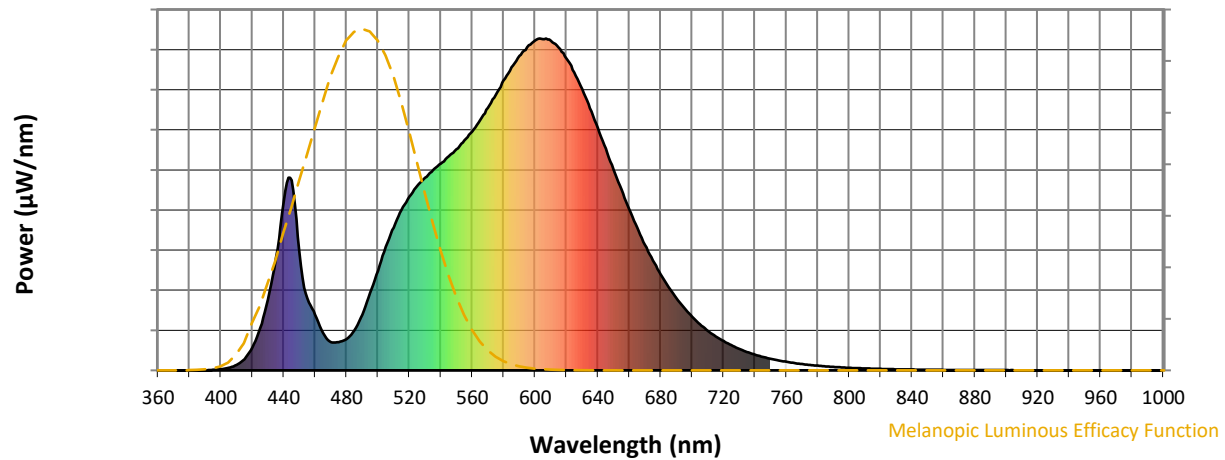
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

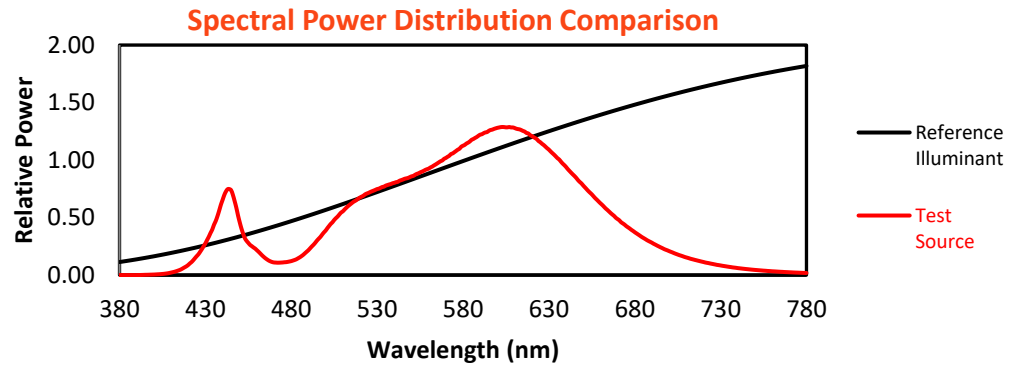
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	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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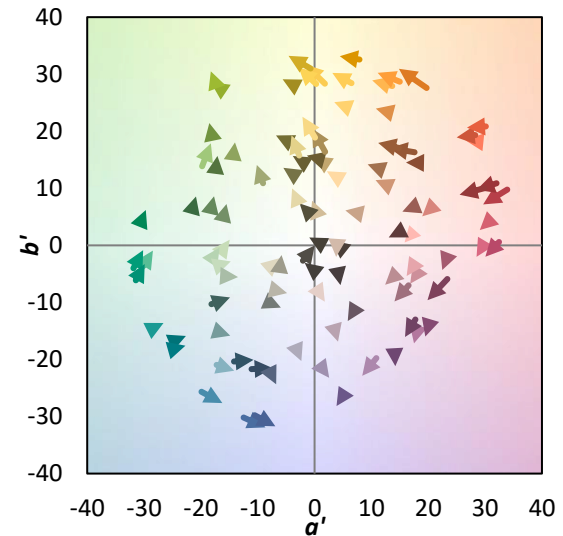
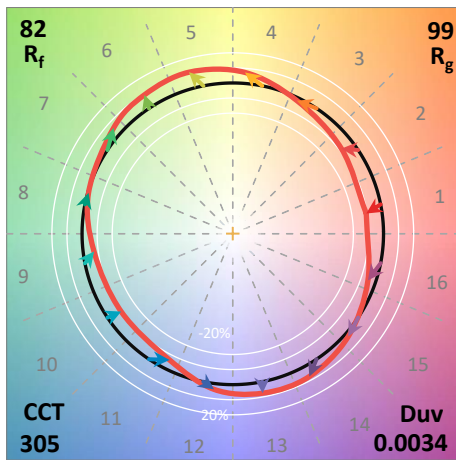
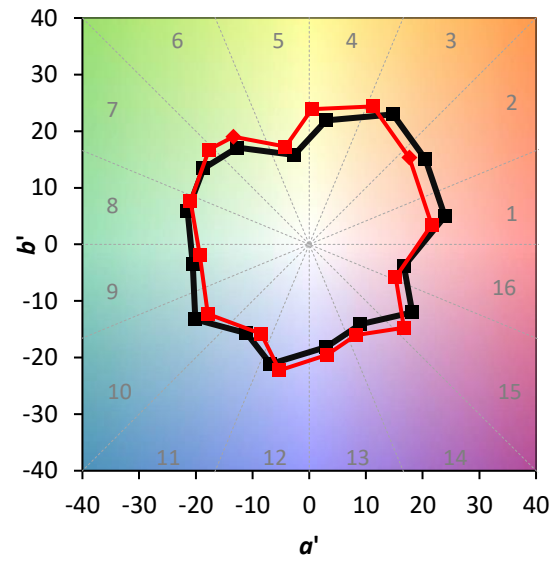
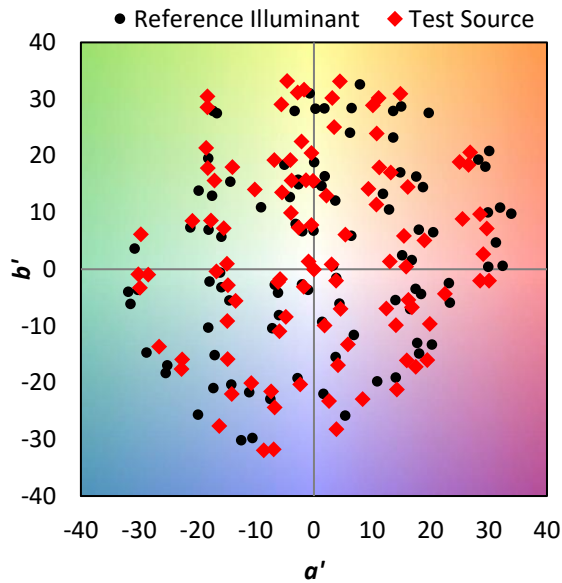
TM-30-18

Summary

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

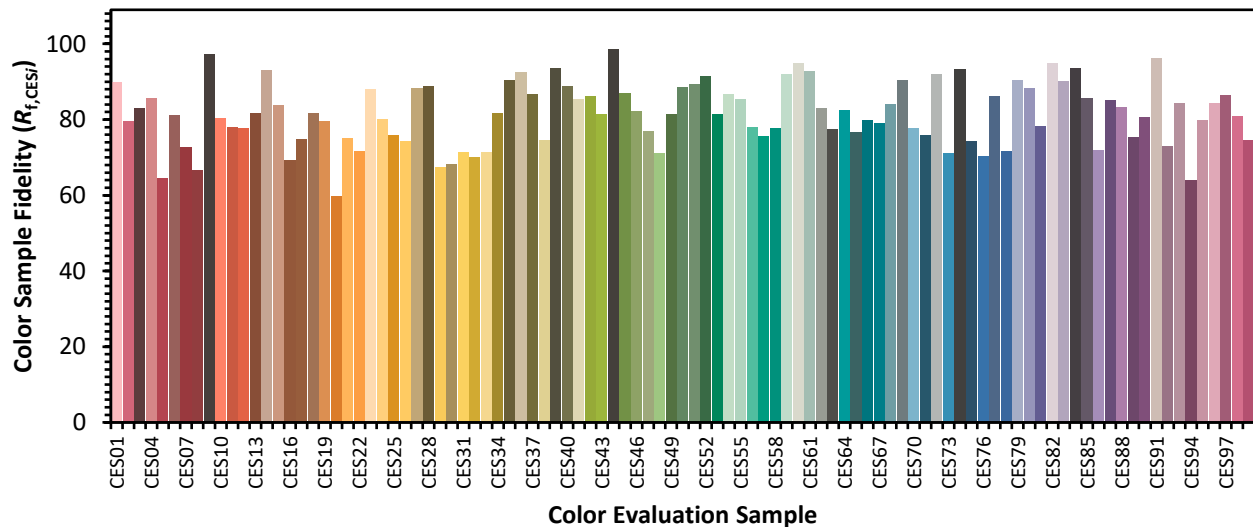


Color Vector Graphics

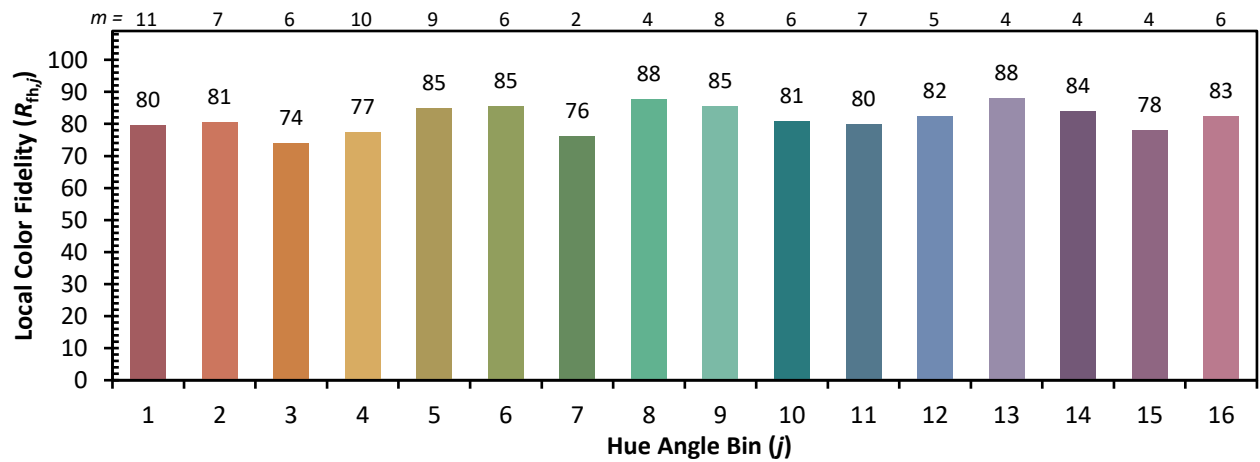
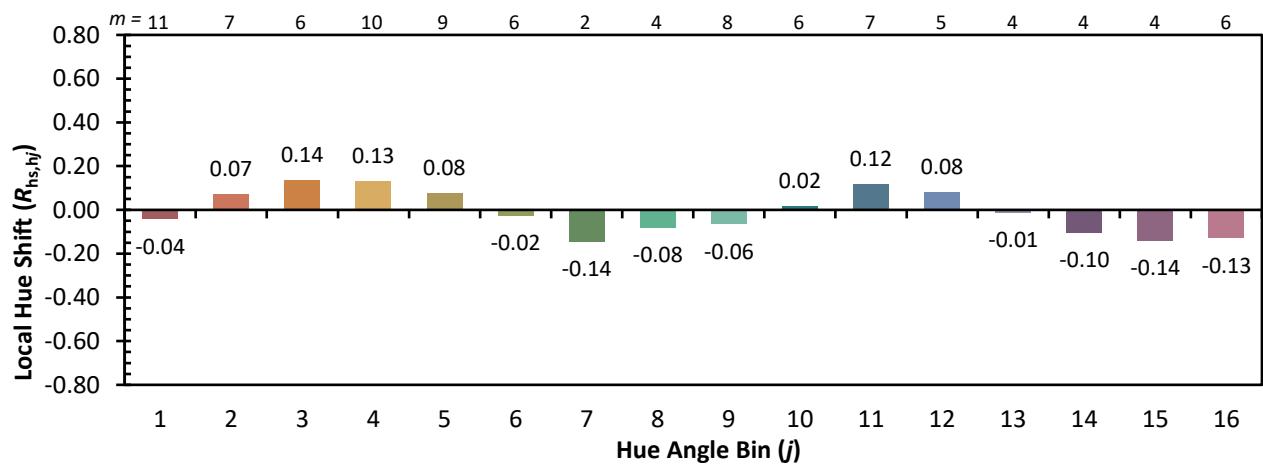
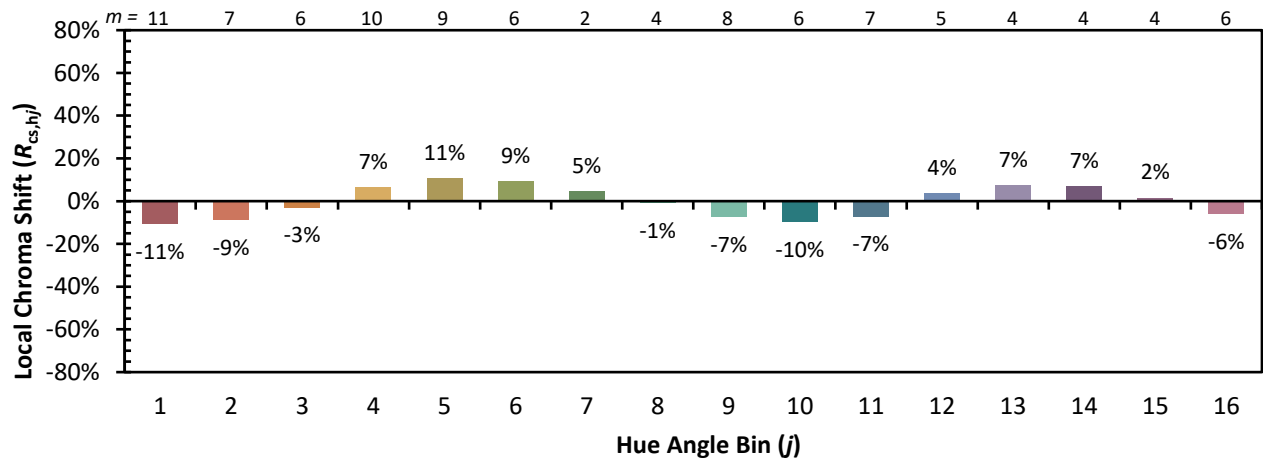


Individual Sample Fidelity Index ($R_{f,i}$)

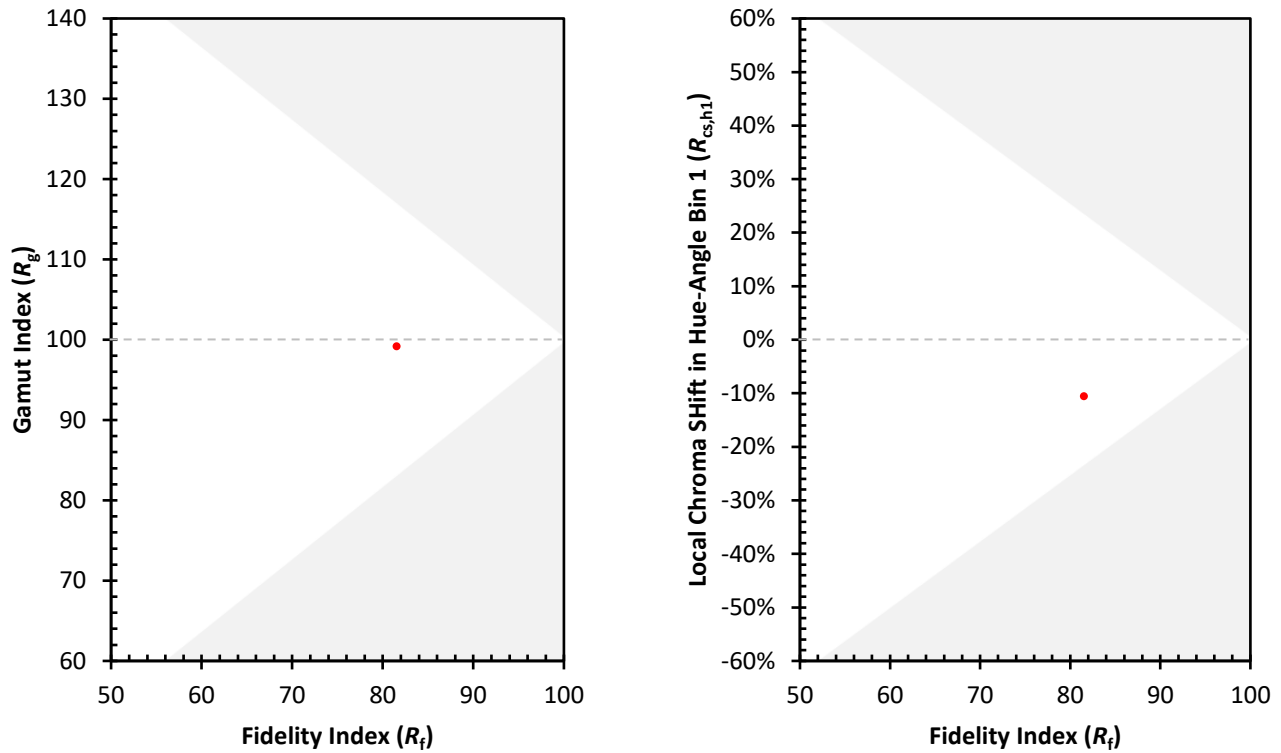
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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