

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: P320161

Luminaire Tested: **GLEON-SA7B-830-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA7B-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30521 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

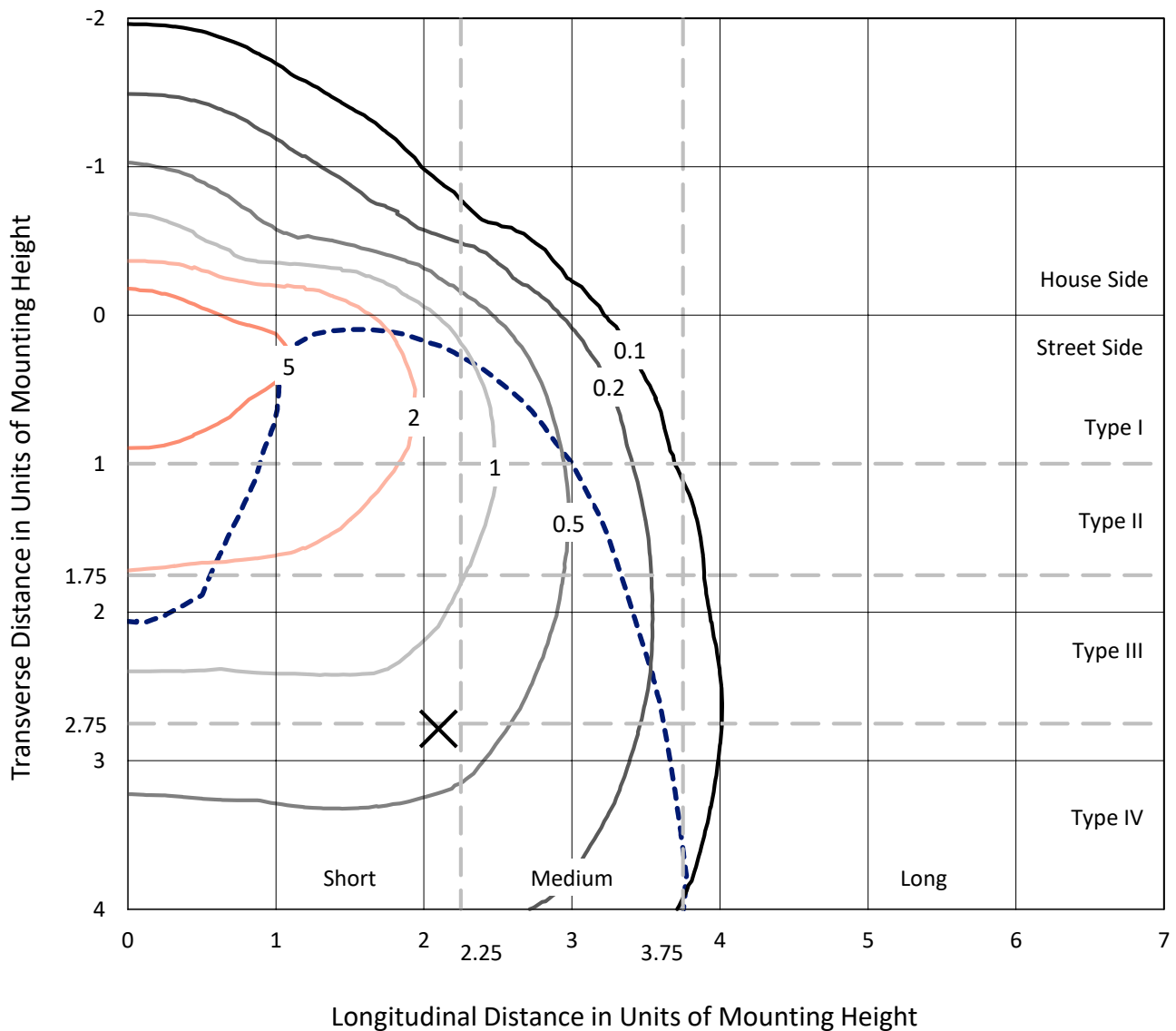
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

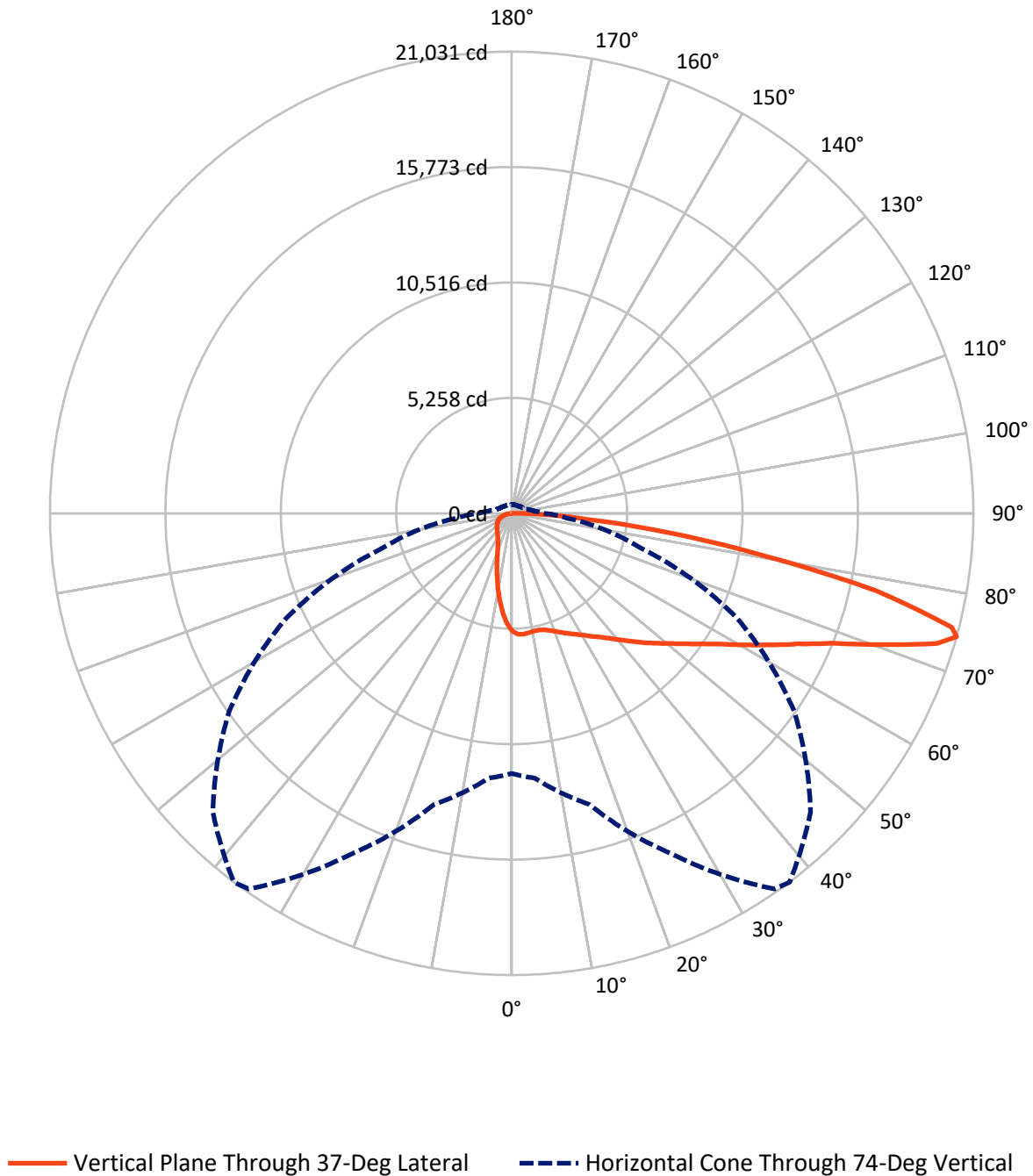
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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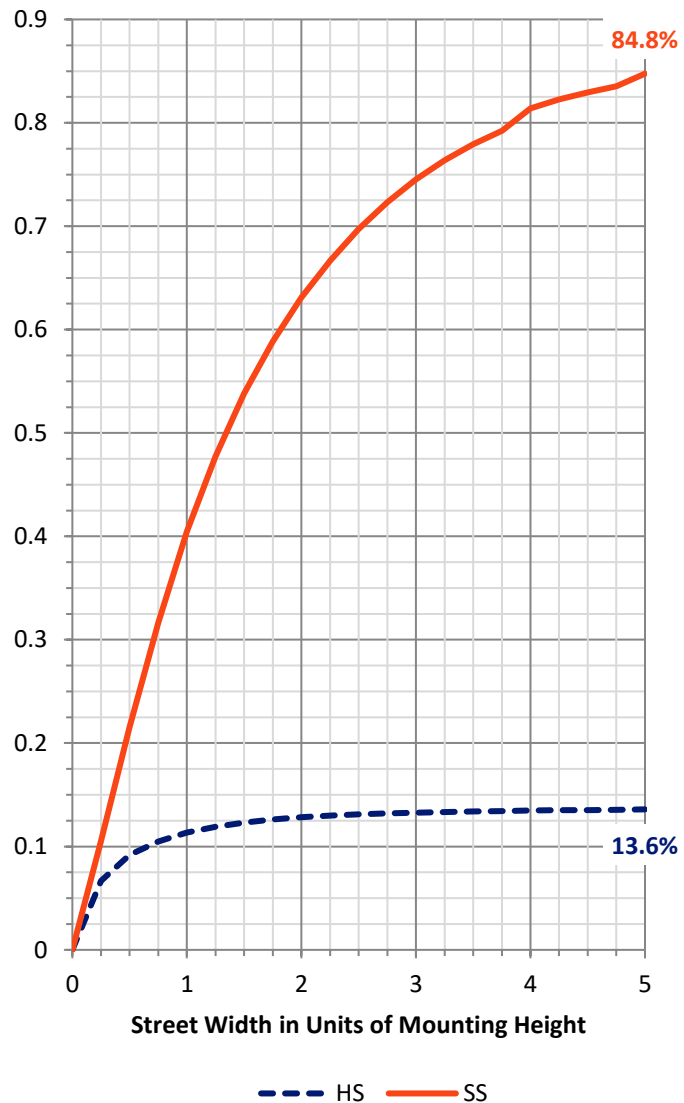
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4199.5	0.0	4199.5
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	26321.5	0.0	26321.5
	% Fixture	86.2	0.0	86.2
Total	Lumens	30521.0	0.0	30521.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.6	1.6
10°-20°	1213.9	4.0
20°-30°	1870.3	6.1
30°-40°	2719.7	8.9
40°-50°	4003.0	13.1
50°-60°	5621.5	18.4
60°-70°	7115.1	23.3
70°-80°	6265.1	20.5
80°-90°	1238.7	4.1
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°	30521.0	100.0
0°-180°	30521.0	100.0

Coefficient of Utilization



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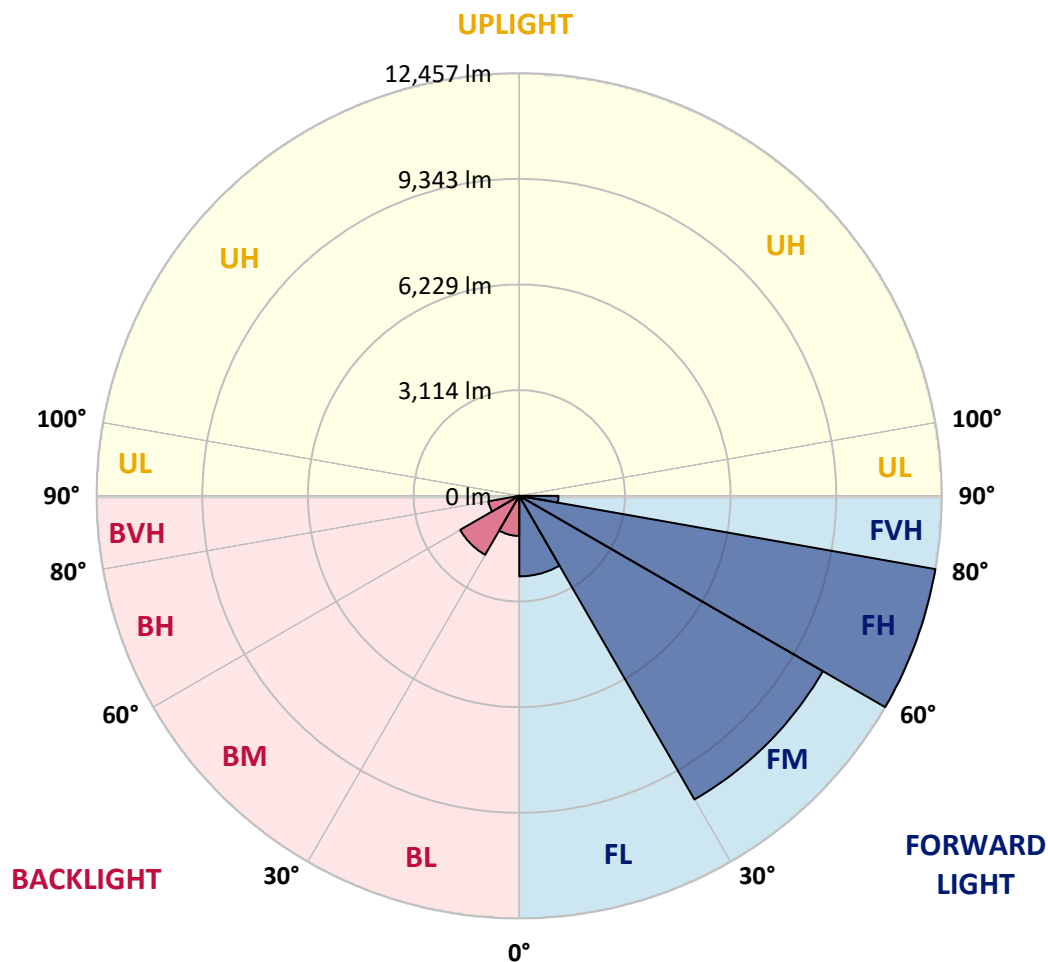
CATALOG NUMBER: GLEON-SA7B-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2374.9	7.8			
FM	(30°-60°)	10334.7	33.9			
FH	(60°-80°)	12457.1	40.8			G5
FVH	(80°-90°)	1154.9	3.8			G5
BL	(0°-30°)	1182.9	3.9	B3/2500		
BM	(30°-60°)	2009.6	6.6	B2/2500		
BH	(60°-80°)	923.1	3.0	B2/1000		G2/1000
BVH	(80°-90°)	83.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7
2.5°	5561.5	5562.6	5561.5	5552.9	5532.5	5515.3	5501.3	5480.9	5435.7	5401.3	5349.7
5°	5614.2	5607.8	5603.5	5587.3	5555.1	5535.7	5508.8	5470.1	5396.0	5327.2	5243.3
7.5°	5589.5	5582.0	5572.3	5552.9	5516.4	5500.2	5462.6	5412.1	5322.9	5232.5	5112.1
10°	5513.1	5511.0	5506.7	5502.4	5471.2	5458.3	5423.9	5370.2	5282.0	5172.3	5031.5
12.5°	5428.2	5433.6	5450.8	5473.4	5459.4	5452.9	5431.4	5394.9	5304.6	5186.3	5016.4
15°	5374.5	5389.5	5435.7	5494.9	5506.7	5504.5	5499.2	5475.5	5379.8	5248.7	5050.8
17.5°	5356.2	5380.9	5469.1	5566.9	5601.3	5608.8	5611.0	5570.1	5463.7	5325.0	5086.3
20°	5389.5	5420.7	5549.7	5684.1	5738.9	5743.2	5733.5	5662.6	5543.2	5390.6	5105.7
22.5°	5490.6	5518.5	5679.8	5831.4	5893.7	5900.2	5871.2	5763.6	5627.1	5468.0	5132.6
25°	5685.2	5719.6	5880.8	6032.4	6064.7	6065.7	6023.8	5890.5	5736.8	5576.6	5190.6
27.5°	5938.9	5973.3	6118.4	6266.8	6249.6	6239.9	6182.9	6049.6	5879.8	5726.0	5293.8
30°	6221.6	6259.3	6396.9	6502.2	6461.4	6442.0	6395.8	6223.8	6078.7	5930.3	5451.9
32.5°	6514.1	6548.5	6668.9	6740.9	6689.3	6680.7	6610.8	6453.9	6337.8	6242.1	5707.7
35°	6814.0	6838.8	6957.0	6997.9	6929.1	6926.9	6907.6	6763.5	6690.4	6735.5	6079.7
37.5°	7120.4	7126.9	7227.9	7230.1	7209.7	7218.3	7238.7	7148.4	7168.8	7309.6	6563.5
40°	7393.5	7410.7	7483.8	7506.4	7541.9	7572.0	7674.1	7615.0	7773.0	8022.4	7165.6
42.5°	7595.6	7629.0	7746.1	7804.2	7919.2	7966.5	8110.6	8165.4	8483.7	8857.8	7881.6
45°	7766.6	7818.2	8006.3	8125.7	8320.2	8403.0	8609.5	8793.3	9286.8	9764.1	8635.3
47.5°	7951.5	8017.1	8252.5	8480.4	8744.9	8838.4	9213.7	9488.9	10143.6	10675.8	9345.9
50°	8223.5	8274.0	8504.1	8862.1	9192.2	9312.6	9831.8	10226.4	11014.5	11544.5	9961.9
52.5°	8603.0	8583.6	8778.2	9280.3	9723.3	9871.6	10492.0	11011.2	11897.1	12330.4	10482.3
55°	8984.7	8952.4	9088.9	9717.9	10342.5	10498.4	11218.7	11799.3	12736.8	13037.8	10881.2
57.5°	9409.3	9348.0	9463.1	10211.4	11047.8	11233.8	12032.6	12636.8	13562.5	13609.8	11134.9
60°	9846.9	9764.1	9893.1	10823.1	11943.4	12162.7	12985.1	13453.9	14340.8	14067.8	11216.6
62.5°	10229.6	10171.6	10370.5	11505.8	12952.9	13193.7	13920.5	14322.6	15108.5	14258.1	10922.0
65°	10564.0	10573.7	10917.7	12273.4	14078.5	14335.5	14993.4	15393.4	15712.7	14145.2	10232.9
67.5°	10962.9	11017.7	11604.7	13284.0	15495.5	15777.2	16554.5	16560.9	16050.3	13482.9	8876.1
70°	11544.5	11657.4	12549.7	14686.0	17510.3	17897.3	18497.2	17246.9	15576.1	11687.5	6983.9
72.5°	12060.5	12271.3	13554.9	16290.0	19965.8	20259.3	19633.6	16851.2	13594.7	8758.9	4351.0
74°	11850.9	12112.1	13737.7	17080.2	20890.4	21031.2	19249.8	15696.6	11334.8	6065.7	2528.7
75°	11399.4	11683.2	13471.1	17072.7	20773.2	20694.7	18323.0	14377.4	9335.1	4137.0	1682.5
77.5°	9199.7	9499.6	11351.0	14632.2	17032.9	16958.7	14075.3	9644.8	4088.6	1356.8	854.7
80°	5348.7	5577.7	7046.2	9292.1	11485.4	11619.7	9256.7	4772.4	1608.4	762.3	579.5
82.5°	2376.0	2534.0	3403.8	4743.4	6931.2	7104.3	4847.7	2500.7	993.4	463.4	348.3
85°	1558.9	1676.1	2066.4	2258.8	3300.6	3418.8	2372.8	1947.0	655.8	254.8	255.9
87.5°	1121.3	1234.2	1535.3	1340.7	1514.8	1434.2	1291.2	1801.9	263.4	145.1	86.0
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-SA7B-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7	5377.7
2.5°	5327.2	5310.0	5271.2	5198.1	5157.3	5122.9	5065.9	5032.6	5017.5	5016.4	5022.9
5°	5194.9	5155.1	5055.2	4932.6	4834.8	4745.5	4634.8	4568.1	4520.8	4492.9	4500.4
7.5°	5041.2	4978.8	4821.9	4626.2	4469.2	4296.1	4125.2	4023.0	3943.5	3884.4	3895.1
10°	4935.8	4849.8	4620.8	4339.1	4077.9	3826.3	3590.9	3450.0	3338.2	3252.2	3258.6
12.5°	4900.3	4784.2	4467.1	4090.8	3724.2	3380.1	3072.7	2856.6	2741.5	2643.7	2651.2
15°	4905.7	4749.8	4338.1	3867.2	3405.9	2972.7	2599.6	2347.0	2191.1	2123.3	2124.4
17.5°	4910.0	4710.0	4202.6	3627.4	3090.9	2592.1	2186.8	1930.9	1783.6	1721.2	1722.3
20°	4896.0	4645.5	4034.9	3352.2	2761.9	2242.7	1850.3	1633.1	1521.3	1472.9	1472.9
22.5°	4877.8	4569.2	3845.7	3075.9	2437.3	1939.5	1609.4	1443.9	1379.4	1347.1	1346.0
25°	4886.4	4512.2	3652.1	2792.1	2138.4	1697.6	1449.2	1339.6	1296.6	1276.2	1275.1
27.5°	4932.6	4485.3	3473.7	2509.3	1877.1	1515.9	1341.7	1264.3	1236.4	1223.5	1223.5
30°	5016.4	4485.3	3287.7	2268.5	1660.0	1381.5	1258.9	1206.3	1186.9	1178.3	1178.3
32.5°	5162.7	4510.1	3108.1	2029.8	1486.9	1276.2	1190.1	1154.7	1139.6	1135.3	1135.3
35°	5414.2	4593.9	2932.9	1804.0	1347.1	1190.1	1124.6	1104.1	1093.4	1092.3	1095.5
37.5°	5767.9	4764.9	2768.4	1637.4	1248.2	1120.3	1069.7	1053.6	1047.2	1052.5	1056.8
40°	6213.0	4997.1	2619.0	1486.9	1172.9	1064.4	1019.2	1008.4	1005.2	1012.8	1019.2
42.5°	6750.6	5311.0	2496.4	1378.3	1114.9	1017.1	976.2	963.3	960.1	968.7	977.3
45°	7332.2	5648.6	2410.4	1297.7	1069.7	981.6	938.6	924.6	918.1	922.4	932.1
47.5°	7861.2	5967.9	2376.0	1240.7	1026.7	951.5	905.2	888.0	877.3	875.1	882.7
50°	8307.3	6205.5	2392.1	1206.3	992.3	918.1	873.0	853.6	837.5	827.8	833.2
52.5°	8632.0	6355.0	2407.2	1191.2	965.4	881.6	837.5	819.2	797.7	781.6	781.6
55°	8867.5	6389.4	2373.8	1179.4	945.0	841.8	797.7	780.5	759.0	740.7	738.6
57.5°	8959.9	6292.6	2250.2	1162.2	931.0	804.2	755.8	742.9	724.6	703.1	702.0
60°	8835.2	5993.7	2011.5	1125.6	912.8	773.0	713.9	705.3	696.7	676.2	675.2
62.5°	8334.2	5337.9	1703.0	1051.5	876.2	739.7	675.2	679.5	680.5	666.6	664.4
65°	7425.8	4437.0	1401.9	954.7	821.4	699.9	635.4	655.8	667.6	665.5	662.3
67.5°	6105.5	3453.2	1188.0	852.6	749.3	645.1	592.4	616.0	625.7	633.2	631.1
70°	4531.6	2435.1	982.6	745.0	662.3	580.6	536.5	548.3	541.9	550.5	553.7
72.5°	2526.5	1461.1	801.0	637.5	572.0	505.3	474.1	472.0	458.0	458.0	458.0
74°	1515.9	1071.9	704.2	570.9	517.1	455.8	429.0	419.3	406.4	407.5	406.4
75°	1219.2	921.4	646.1	526.8	478.4	426.8	399.9	387.0	377.4	377.4	376.3
77.5°	769.8	699.9	520.4	419.3	382.7	351.6	333.3	316.1	316.1	315.0	313.9
80°	581.6	556.9	405.3	317.2	293.5	269.9	258.0	250.5	250.5	253.7	252.6
82.5°	398.9	419.3	284.9	221.5	209.6	192.4	190.3	191.4	188.1	183.8	182.8
85°	291.4	315.0	192.4	139.8	127.9	117.2	125.8	130.1	124.7	115.0	110.7
87.5°	111.8	206.4	103.2	58.1	53.8	46.2	53.8	55.9	60.2	47.3	48.4
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

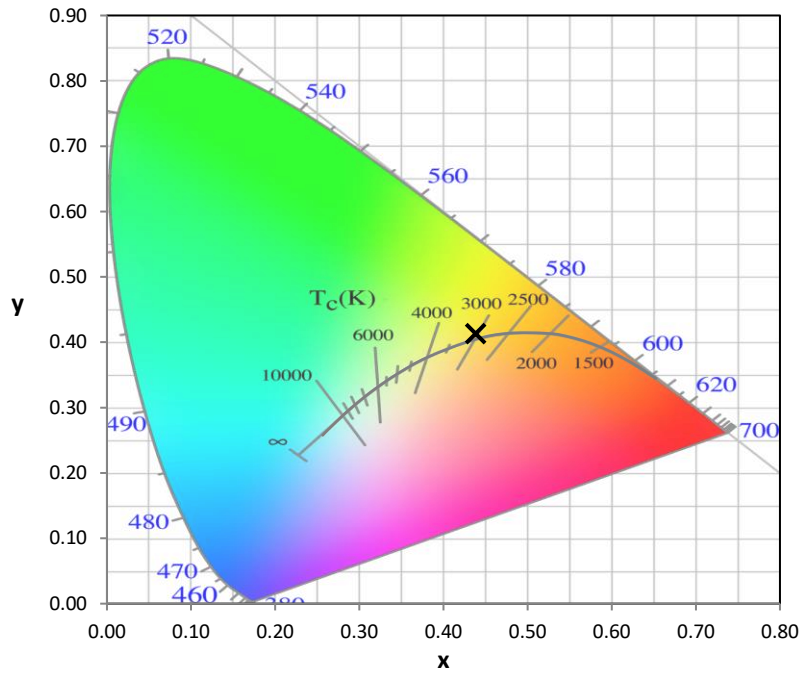
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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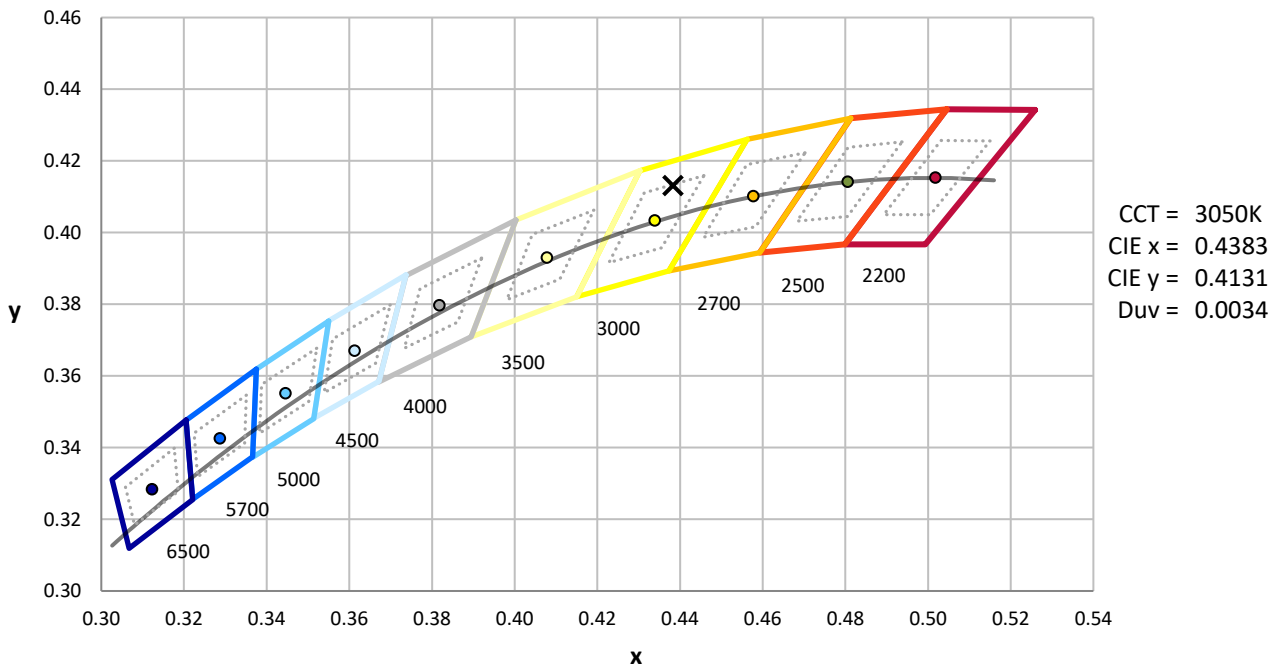
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

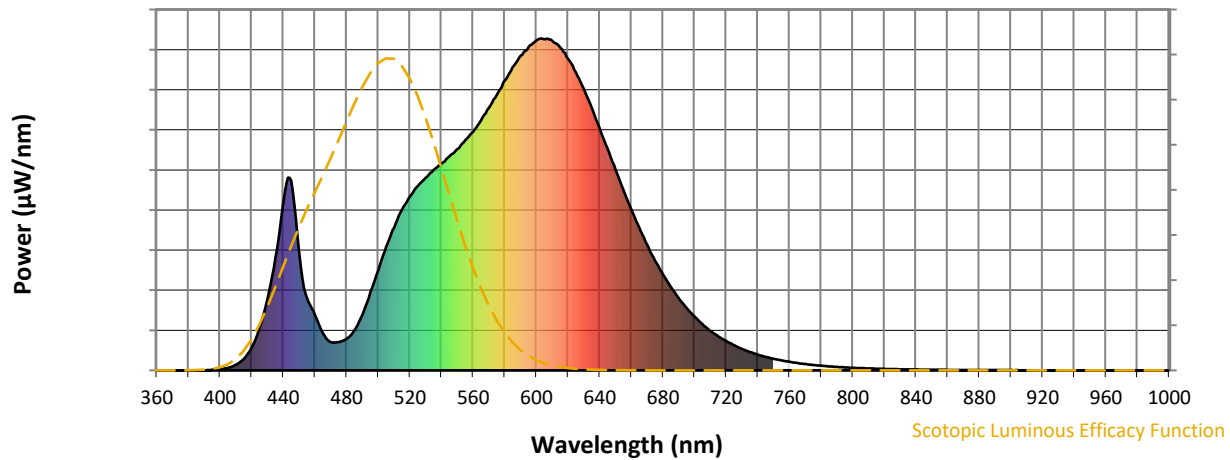


Photopic Lumens: NR

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



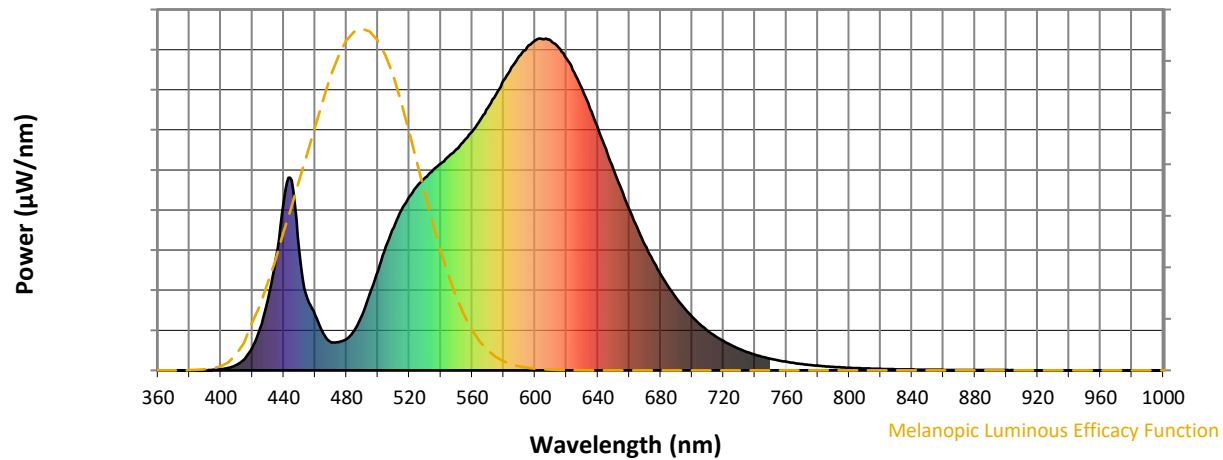
Scotopic Lumens: NR

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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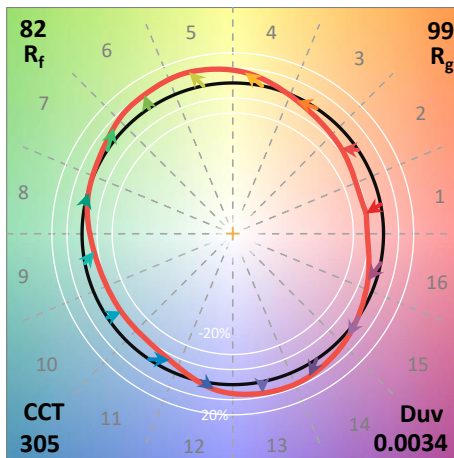
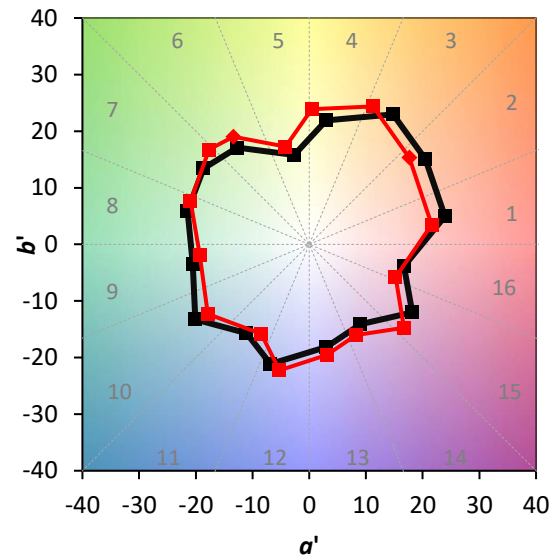
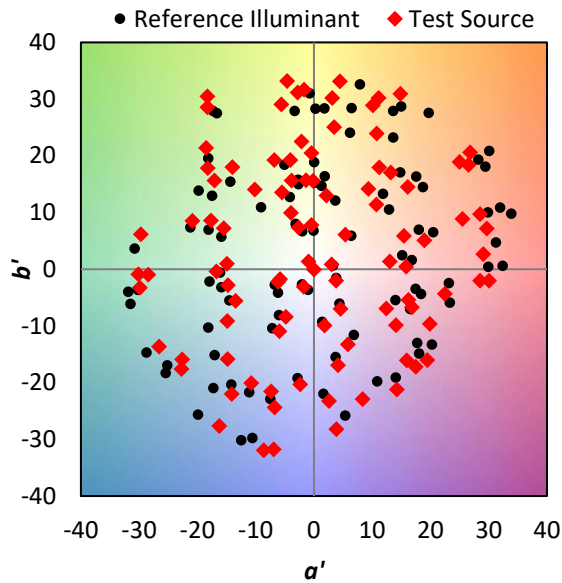
TM-30-18

Summary

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

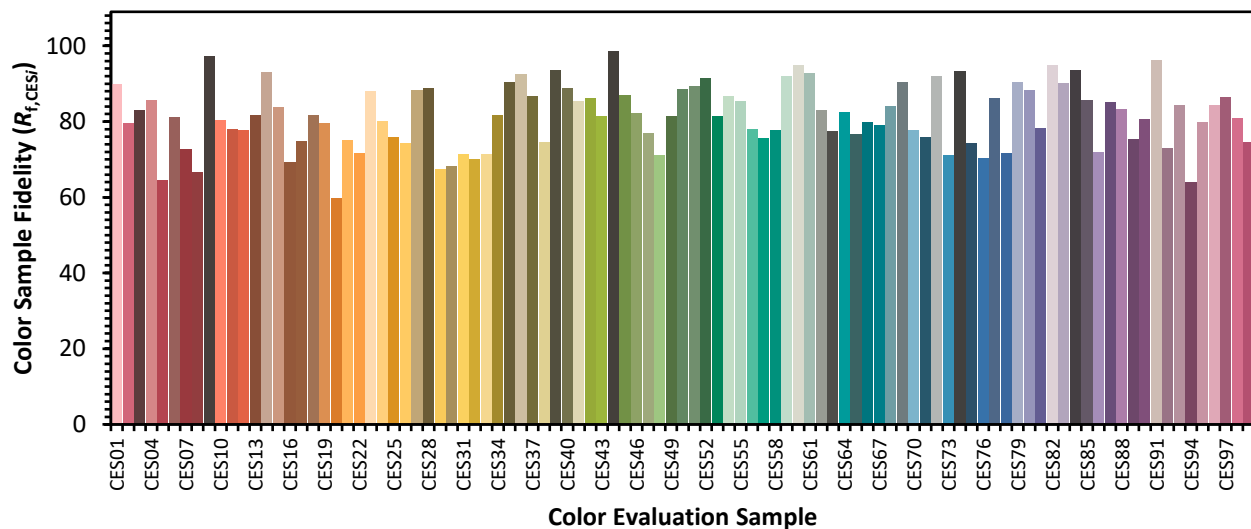


Color Vector Graphics

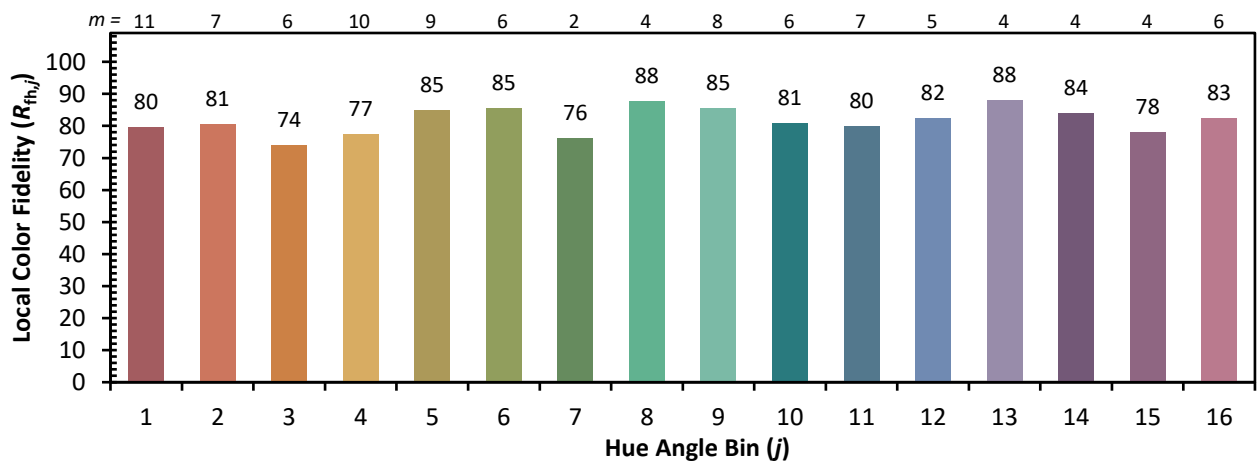
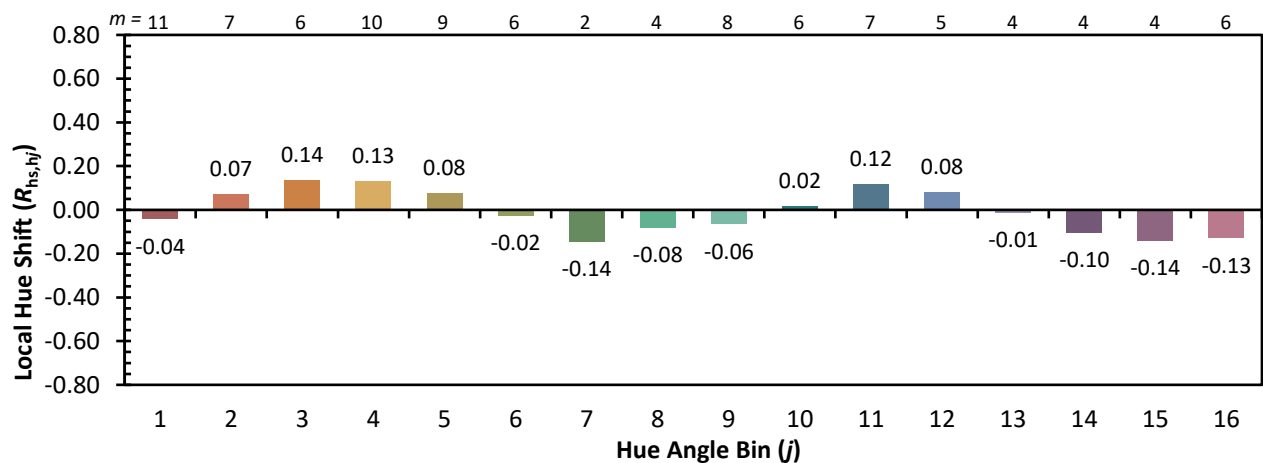
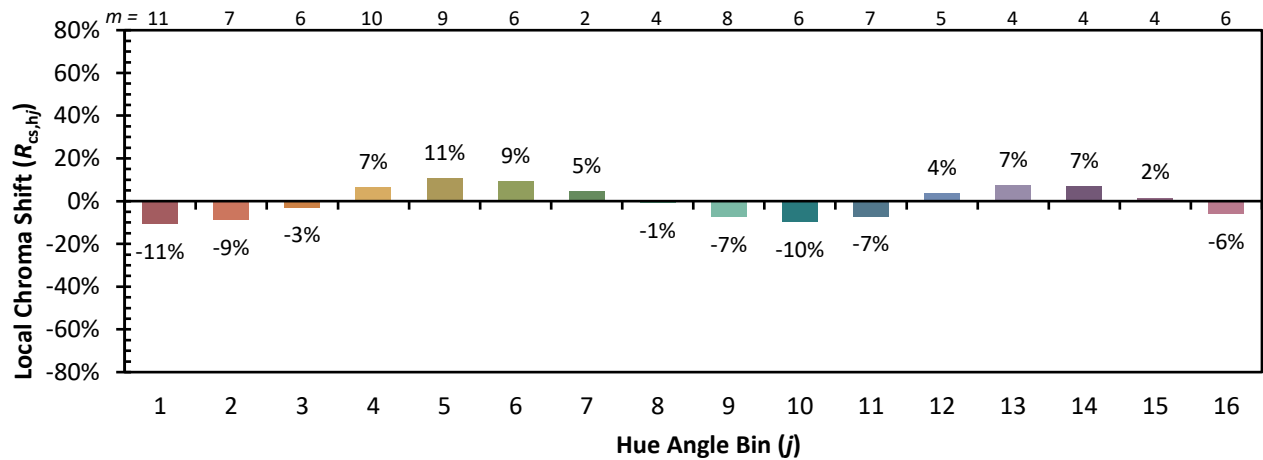


Individual Sample Fidelity Index ($R_{f,i}$)

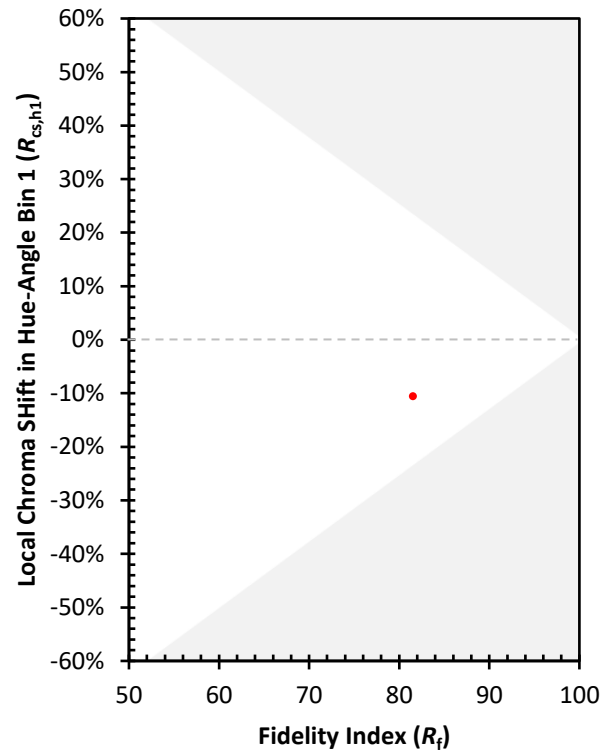
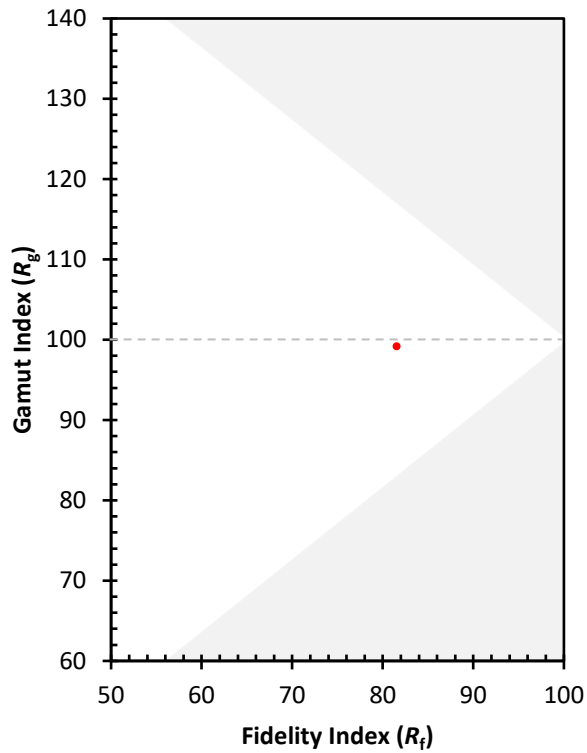
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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