

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: P317601

Luminaire Tested: **GLEON-SA7B-830-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P317601
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-SA7B-830-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33463 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

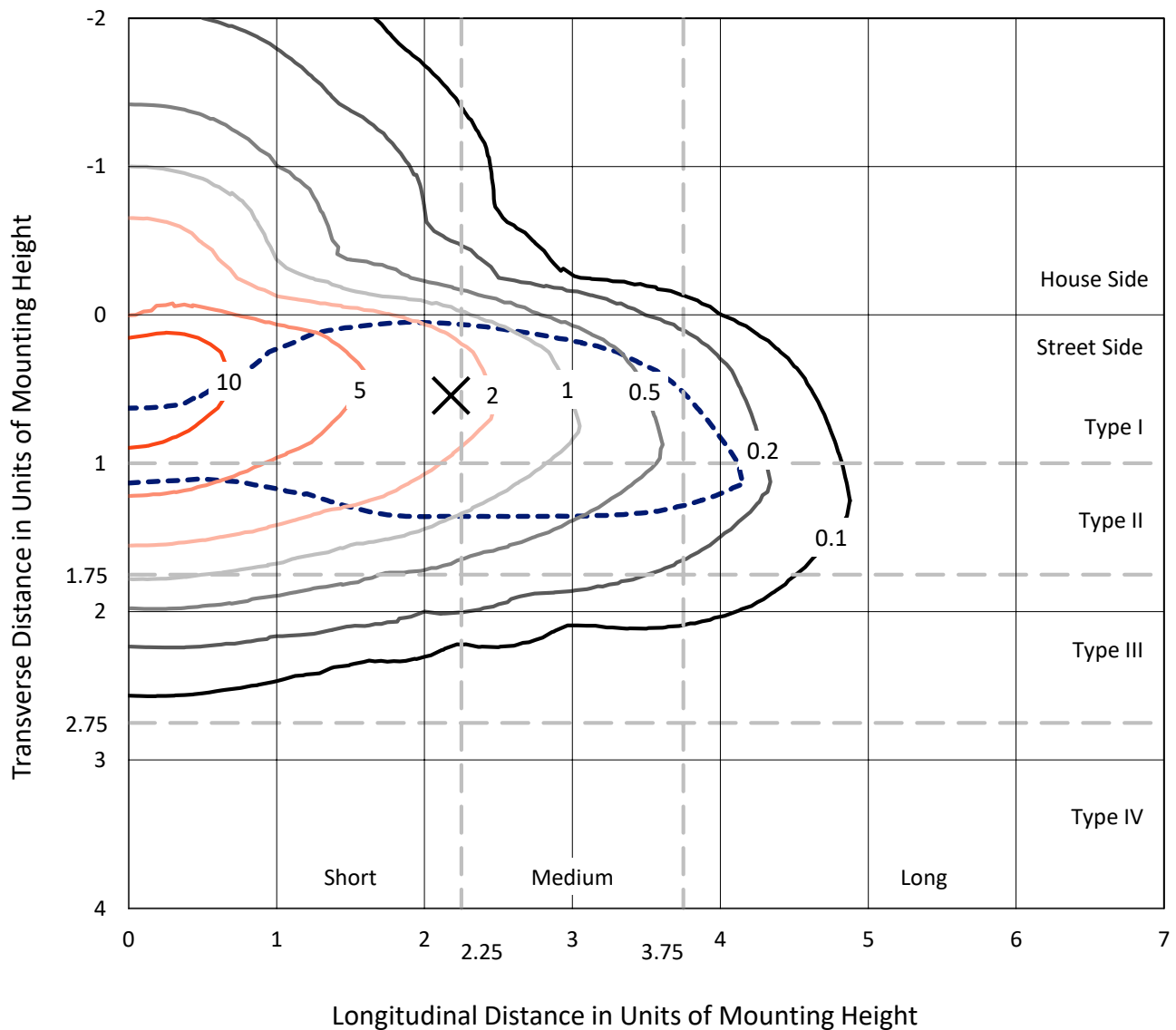
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

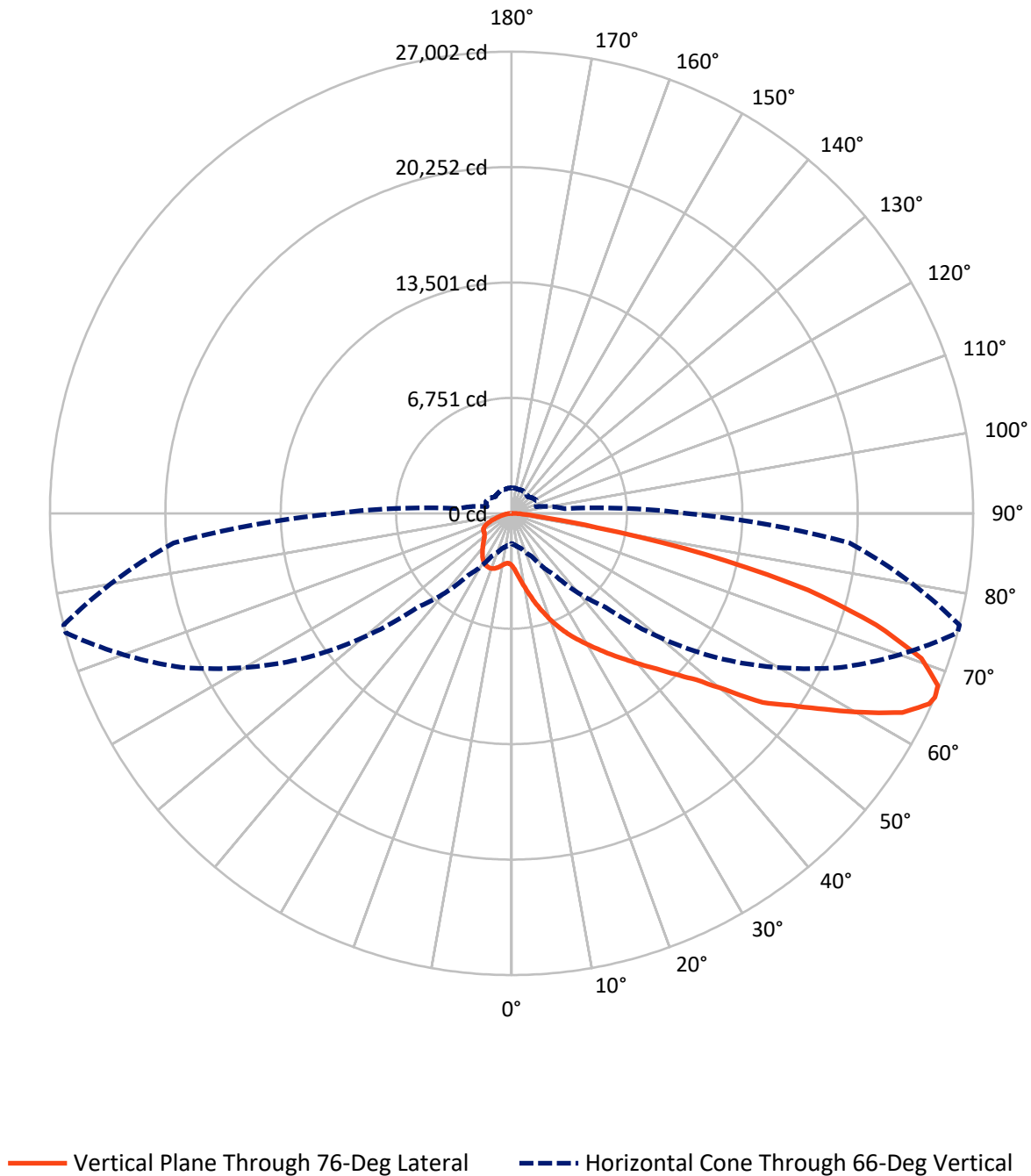
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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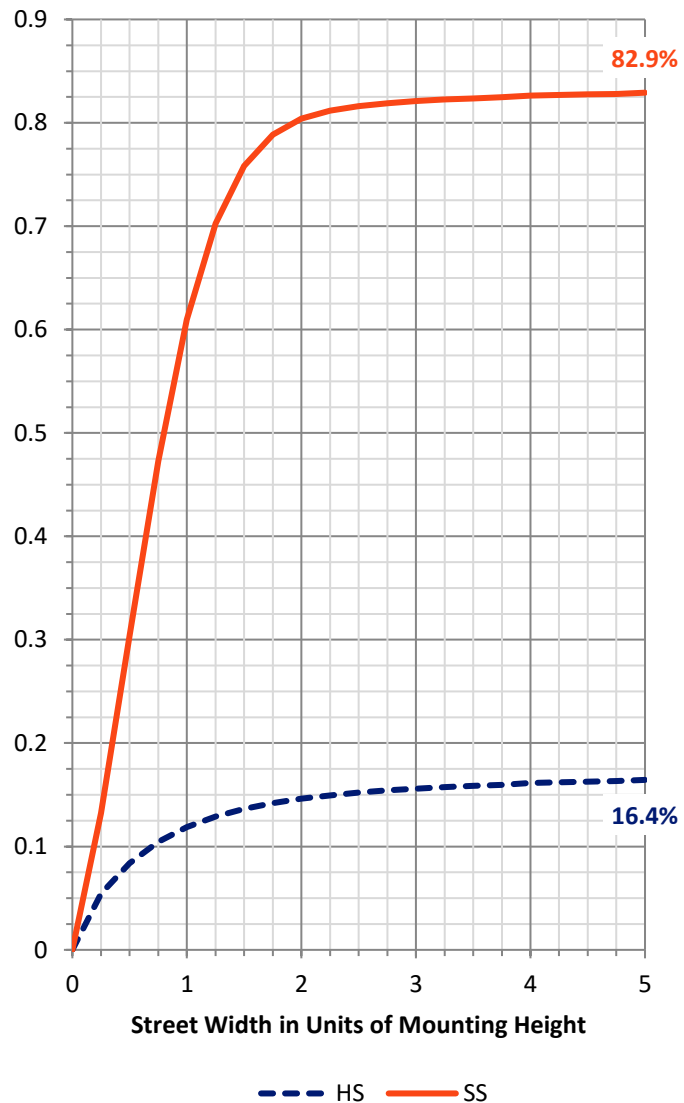
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5630.7	0.0	5630.7
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	27832.3	0.0	27832.3
	% Fixture	83.2	0.0	83.2
Total	Lumens	33463.0	0.0	33463.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.5	1.1
10°-20°	1459.3	4.4
20°-30°	2835.8	8.5
30°-40°	4628.6	13.8
40°-50°	6323.8	18.9
50°-60°	7366.0	22.0
60°-70°	6603.7	19.7
70°-80°	3337.3	10.0
80°-90°	538.9	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°	33463.0	100.0
0°-180°	33463.0	100.0

Coefficient of Utilization



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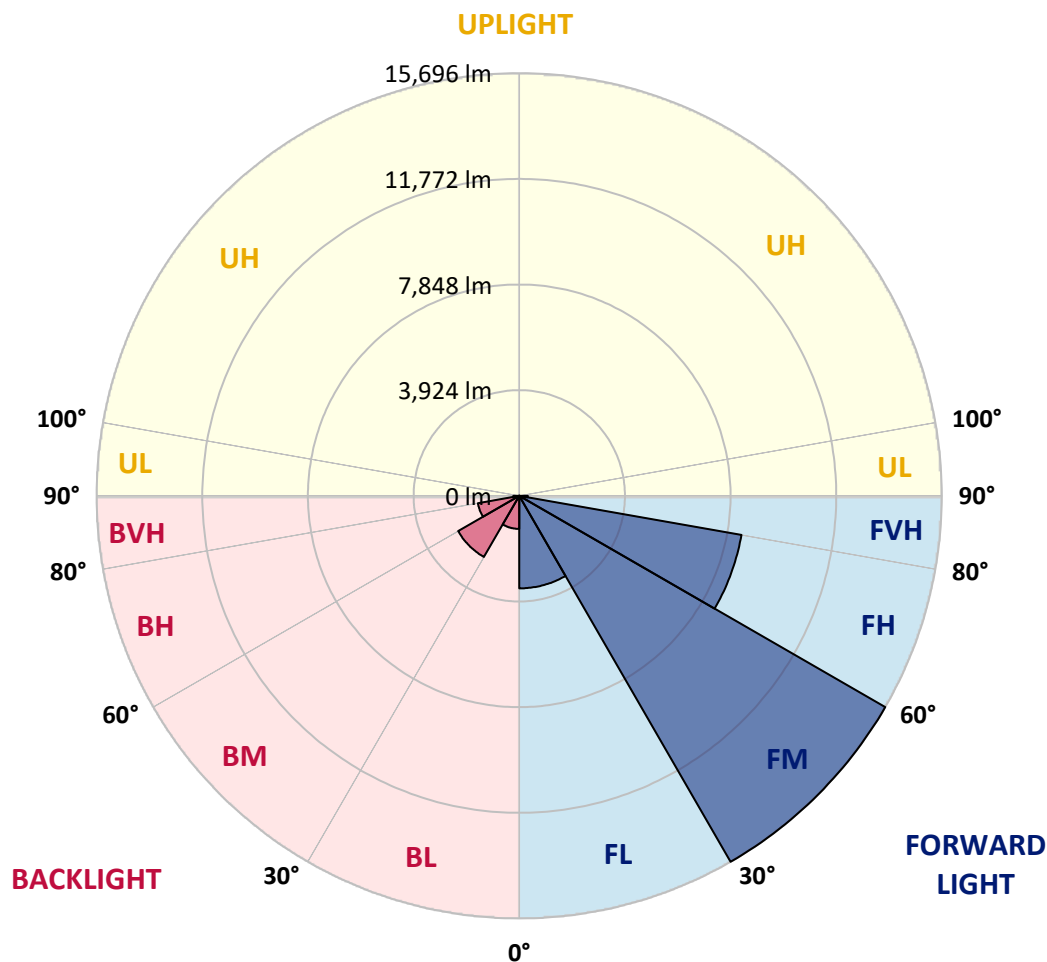
CATALOG NUMBER: GLEON-SA7B-830-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3436.6	10.3			
FM	(30°-60°)	15696.5	46.9			
FH	(60°-80°)	8381.0	25.0			G4/12000
FVH	(80°-90°)	318.3	1.0			G3/500
BL	(0°-30°)	1228.1	3.7	B3/2500		
BM	(30°-60°)	2622.0	7.8	B3/5000		
BH	(60°-80°)	1560.0	4.7	B3/2500		G3/2500
BVH	(80°-90°)	220.7	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9
2.5°	4056.8	3995.4	3989.7	3900.0	3879.5	3708.0	3581.9	3450.1	3300.2	3270.6	3152.5
5°	5211.0	5205.3	5126.9	4980.4	4865.6	4572.5	4282.8	3976.1	3639.8	3585.3	3319.5
7.5°	6249.3	6240.2	6180.0	6022.1	5856.2	5496.1	5082.6	4612.3	4067.0	3986.3	3545.6
10°	7037.7	7034.3	7013.9	6898.0	6757.1	6411.8	5955.1	5313.2	4563.4	4453.2	3828.4
12.5°	7646.6	7653.4	7667.1	7626.2	7559.2	7264.9	6796.9	6056.2	5092.8	4983.8	4143.1
15°	8059.0	8079.5	8149.9	8207.8	8243.0	8062.4	7609.1	6816.2	5685.8	5555.2	4491.9
17.5°	8266.9	8289.6	8411.2	8586.1	8747.4	8729.3	8369.1	7541.0	6255.0	6128.9	4866.8
20°	8446.4	8463.4	8599.8	8809.9	9095.1	9221.2	9019.0	8238.5	6878.7	6728.7	5264.4
22.5°	8966.7	8988.3	9029.2	9148.5	9400.7	9632.4	9534.7	8898.5	7450.1	7310.4	5641.5
25°	9971.0	9997.1	9908.5	9807.4	9855.1	10016.4	10034.6	9500.6	8029.5	7871.6	6047.1
27.5°	11180.8	11218.3	11067.2	10807.1	10579.9	10517.4	10495.8	9993.7	8582.7	8399.8	6448.1
30°	12365.7	12430.5	12233.9	11896.5	11479.6	11186.5	10969.5	10476.5	9128.0	8953.1	6826.4
32.5°	13523.3	13497.2	13212.1	12882.6	12394.1	12027.2	11502.3	10994.5	9741.5	9540.4	7202.4
35°	14316.3	14325.4	14060.7	13669.9	13204.1	12922.4	12215.8	11553.4	10367.4	10182.3	7629.6
37.5°	14991.1	14949.0	14649.1	14284.5	13883.4	13763.0	13050.7	12169.2	11045.6	10843.4	8084.0
40°	15216.0	15167.2	14970.6	14708.2	14386.7	14376.5	13972.1	12866.7	11812.5	11612.5	8596.4
42.5°	15079.7	15017.2	14936.6	14865.0	14766.1	14811.6	14837.7	13684.6	12655.4	12431.6	9189.4
45°	14576.4	14482.1	14538.9	14694.6	14909.3	15166.0	15619.3	14590.1	13599.4	13412.0	9885.8
47.5°	13802.8	13717.6	13894.8	14227.7	14811.6	15461.4	16358.9	15589.8	14726.4	14540.1	10877.5
50°	12714.5	12739.5	12992.8	13598.3	14481.0	15597.7	17270.0	16913.2	16364.5	16190.7	12230.5
52.5°	10928.6	10933.2	11646.6	12640.6	13894.8	15527.3	17775.5	18604.8	18601.4	18391.2	13518.8
55°	9270.0	9371.1	9935.7	11256.9	12945.1	15245.6	18128.8	19427.3	20070.3	19823.8	14719.6
57.5°	7650.0	7709.1	8244.2	9571.1	11589.8	14494.6	18491.2	20414.5	21763.0	21607.3	16212.3
60°	5807.4	5898.3	6451.5	7677.3	9856.2	13162.1	18525.3	21444.9	23786.2	23629.5	17878.9
62.5°	3769.4	3926.1	4444.2	5592.7	7759.1	11245.6	17734.6	22118.5	25703.9	25648.2	19358.0
65°	2166.4	2284.6	2644.7	3530.8	5353.0	8839.5	15854.5	21859.5	26884.2	26852.4	19911.2
66°	1769.9	1843.8	2119.8	2759.4	4416.9	7762.5	14761.6	21313.1	27001.2	27002.3	19847.6
67.5°	1415.5	1448.4	1572.3	1975.6	3259.3	6152.8	12808.8	20107.8	26855.8	26895.6	19437.5
70°	1171.2	1188.3	1226.9	1324.6	1779.0	3710.3	9091.7	16975.7	25396.0	25426.7	17836.8
72.5°	1050.8	1061.1	1075.8	1089.5	1255.3	2073.3	5552.9	13580.1	22266.2	22306.0	15397.8
75°	952.0	957.7	955.4	956.5	1053.1	1321.2	2869.6	10139.1	18003.8	17924.3	11795.4
77.5°	836.1	841.8	830.4	832.7	931.5	1015.6	1428.0	7097.9	12149.9	11588.7	6645.8
80°	706.6	711.2	706.6	714.6	811.1	766.8	830.4	3993.2	5372.3	5081.5	2362.9
82.5°	533.9	553.2	566.9	598.7	668.0	545.3	555.5	1555.2	1635.9	1557.5	724.8
85°	234.0	285.1	427.1	457.8	502.1	327.2	364.7	633.9	665.7	645.3	263.6
87.5°	61.3	67.0	211.3	265.8	278.3	147.7	189.7	288.6	304.5	288.6	87.5
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9	3055.9
2.5°	3090.0	3034.3	2934.4	2845.8	2778.7	2733.3	2687.9	2665.1	2651.5	2637.9	2640.1
5°	3188.8	3076.4	2904.8	2783.3	2715.1	2671.9	2649.2	2640.1	2634.5	2620.8	2620.8
7.5°	3337.7	3178.6	2942.3	2817.4	2764.0	2731.0	2717.4	2712.8	2706.0	2690.1	2692.4
10°	3525.1	3302.4	3020.7	2899.2	2850.3	2814.0	2794.6	2787.8	2775.3	2757.2	2759.4
12.5°	3745.5	3455.8	3124.1	2996.9	2937.8	2888.9	2857.1	2837.8	2816.2	2792.4	2793.5
15°	3986.3	3622.8	3235.4	3084.3	3003.7	2935.5	2884.4	2851.4	2817.4	2787.8	2786.7
17.5°	4230.6	3784.1	3320.6	3132.0	3023.0	2933.2	2863.9	2812.8	2770.8	2734.4	2731.0
20°	4494.1	3929.5	3368.3	3127.5	2986.6	2879.8	2787.8	2724.2	2677.6	2641.3	2635.6
22.5°	4762.2	4065.9	3376.3	3080.9	2906.0	2775.3	2678.8	2608.3	2560.6	2523.1	2509.5
25°	5007.6	4171.5	3343.3	2991.2	2793.5	2652.6	2558.3	2486.8	2448.1	2403.8	2390.2
27.5°	5231.4	4245.4	3277.5	2876.4	2667.4	2528.8	2440.2	2378.9	2336.8	2302.7	2291.4
30°	5432.5	4285.1	3169.5	2740.1	2537.9	2411.8	2336.8	2294.8	2258.4	2215.3	2207.3
32.5°	5623.4	4285.1	3030.9	2591.3	2409.5	2308.4	2264.1	2238.0	2197.1	2155.1	2143.7
35°	5814.2	4259.0	2867.3	2435.7	2291.4	2234.6	2232.3	2201.6	2139.1	2082.3	2067.6
37.5°	6015.3	4205.6	2683.3	2290.2	2194.8	2201.6	2220.9	2152.8	2064.2	1983.5	1961.9
40°	6242.5	4131.7	2492.5	2164.1	2114.2	2186.9	2190.3	2082.3	1909.7	1835.8	1816.5
42.5°	6509.5	4057.9	2315.2	2052.8	2050.5	2142.6	2132.3	1930.1	1826.7	1789.3	1779.0
45°	6860.5	4015.9	2147.1	1947.2	2000.6	2071.0	2033.5	1846.1	1802.9	1781.3	1772.2
47.5°	7413.7	4037.5	1992.6	1863.1	1950.6	1999.4	1849.5	1812.0	1781.3	1755.2	1746.1
50°	8106.7	4025.0	1867.6	1805.2	1893.8	1924.4	1766.5	1767.7	1751.8	1722.2	1708.6
52.5°	8628.2	3927.3	1787.0	1772.2	1843.8	1791.5	1714.3	1724.5	1716.5	1673.4	1658.6
55°	9131.4	3843.2	1746.1	1759.7	1807.4	1625.7	1652.9	1677.9	1670.0	1627.9	1621.1
57.5°	9757.4	3827.3	1721.1	1763.1	1776.8	1542.7	1593.9	1626.8	1621.1	1602.9	1599.5
60°	10524.2	3831.8	1698.4	1768.8	1742.7	1481.4	1538.2	1580.2	1583.6	1580.2	1577.9
62.5°	10945.7	3708.0	1641.6	1752.9	1682.5	1428.0	1480.2	1541.6	1542.7	1549.5	1548.4
65°	10587.8	3337.7	1535.9	1697.2	1581.4	1383.7	1430.3	1497.3	1480.2	1510.9	1510.9
66°	10240.2	3124.1	1483.7	1660.9	1538.2	1366.6	1414.4	1474.6	1453.0	1495.0	1495.0
67.5°	9530.2	2764.0	1389.4	1583.6	1476.8	1342.8	1396.2	1437.1	1407.5	1470.0	1465.5
70°	8232.8	2138.0	1199.7	1408.7	1375.7	1307.6	1371.2	1362.1	1318.9	1414.4	1396.2
72.5°	6941.2	1624.5	963.4	1179.2	1222.4	1263.3	1336.0	1266.7	1212.1	1279.2	1239.4
75°	5385.9	1221.2	761.1	916.8	1032.7	1194.0	1293.9	1156.5	1078.1	1071.3	1049.7
77.5°	2911.7	838.4	603.2	699.8	820.2	1107.6	1265.5	1038.3	920.2	892.9	875.9
80°	1153.1	545.3	438.5	530.5	573.7	982.7	1197.4	900.9	758.9	731.6	705.5
82.5°	476.0	322.6	282.9	355.6	373.8	840.7	1074.7	738.4	586.2	811.1	861.1
85°	204.5	177.2	168.1	184.0	211.3	589.6	855.4	563.5	632.8	564.6	448.7
87.5°	61.3	75.0	71.6	70.4	77.3	140.9	455.5	313.5	464.6	176.1	131.8
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.

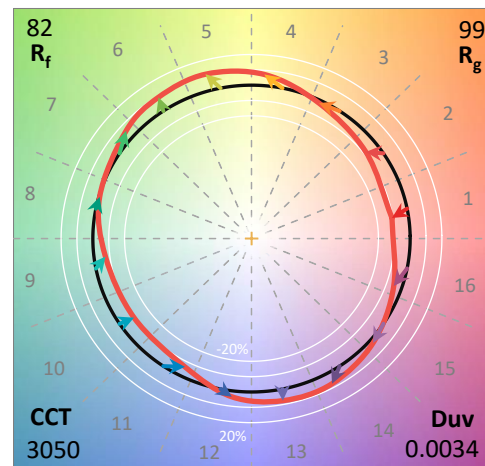
Test Information

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

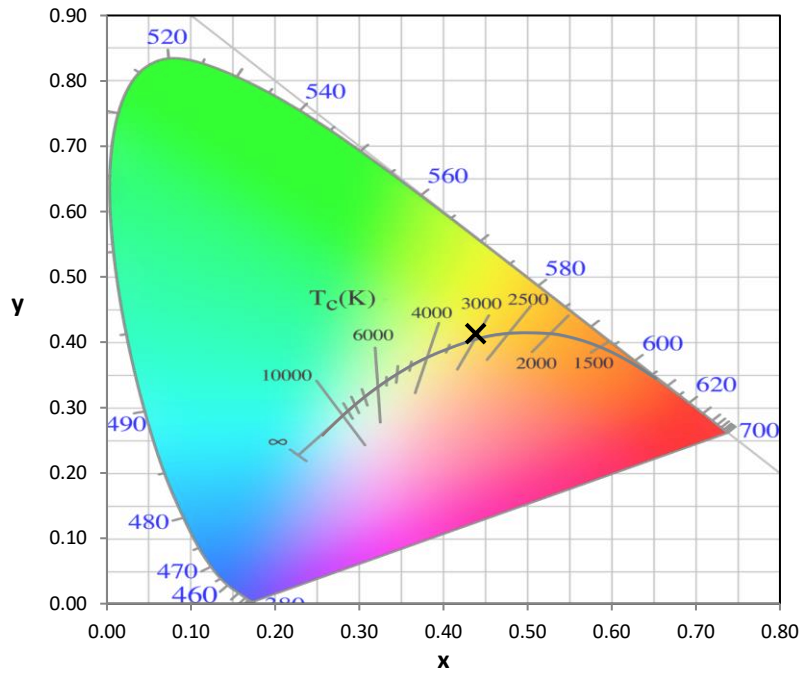
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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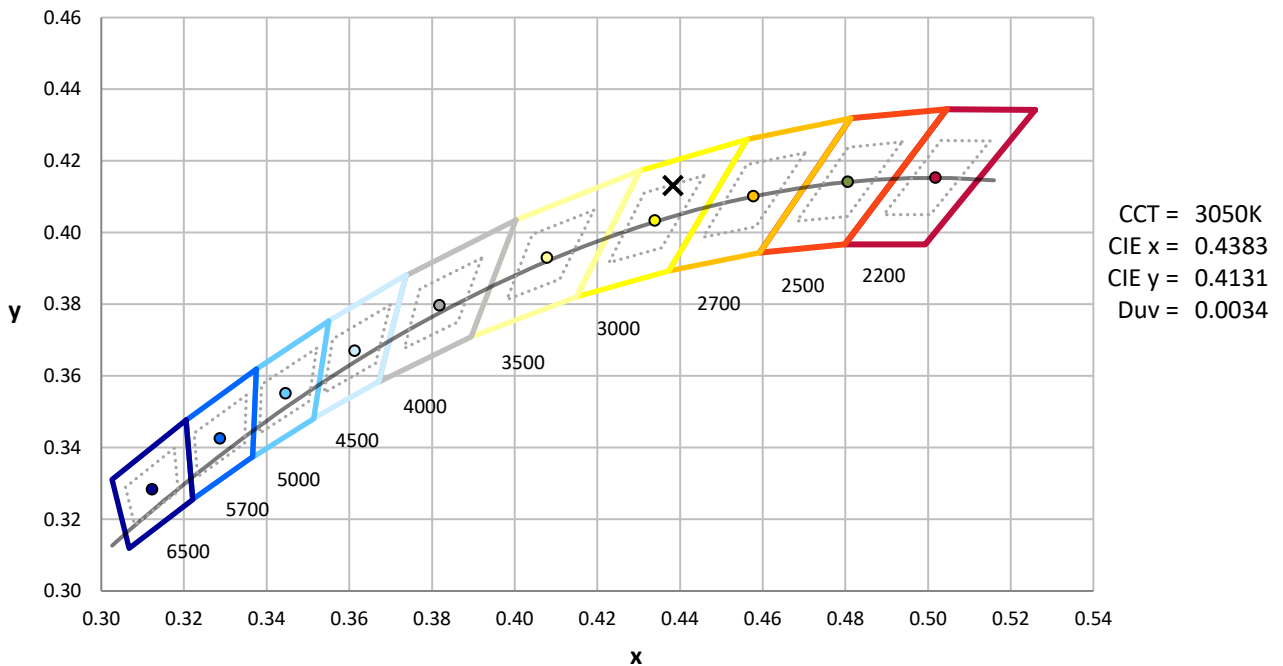
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



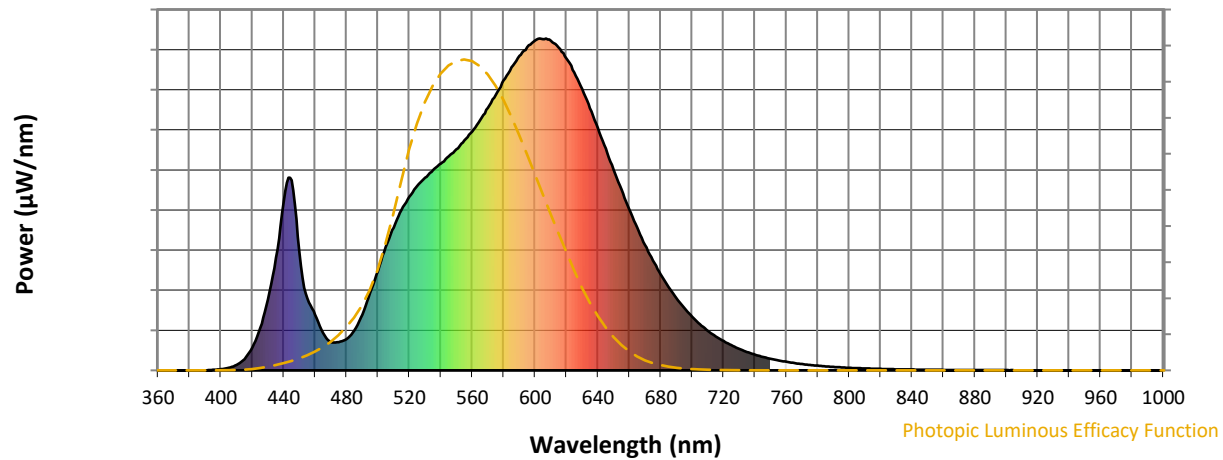
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

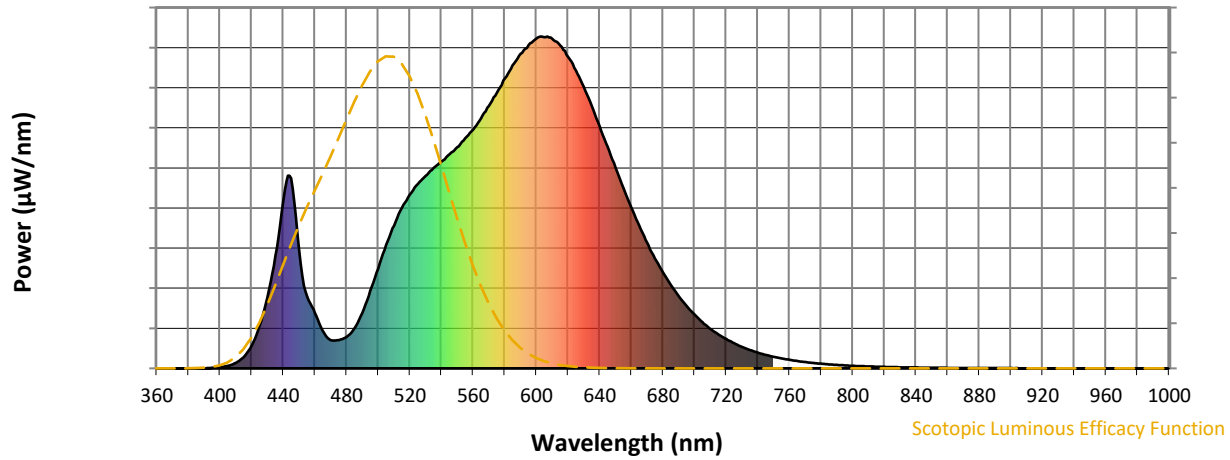


Photopic Lumens: NR

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



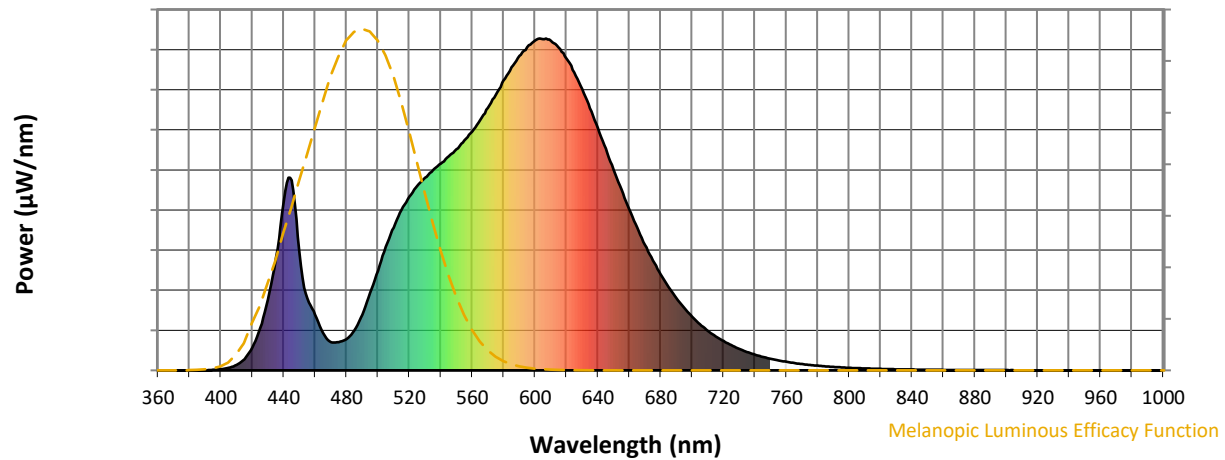
Scotopic Lumens: NR

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

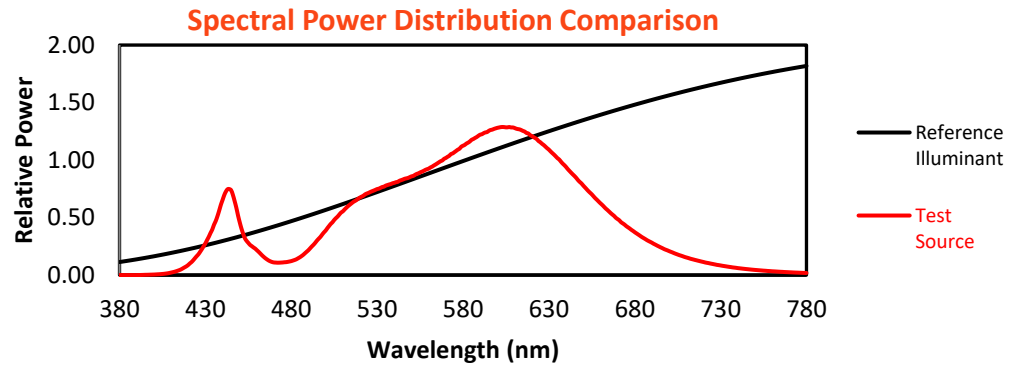
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168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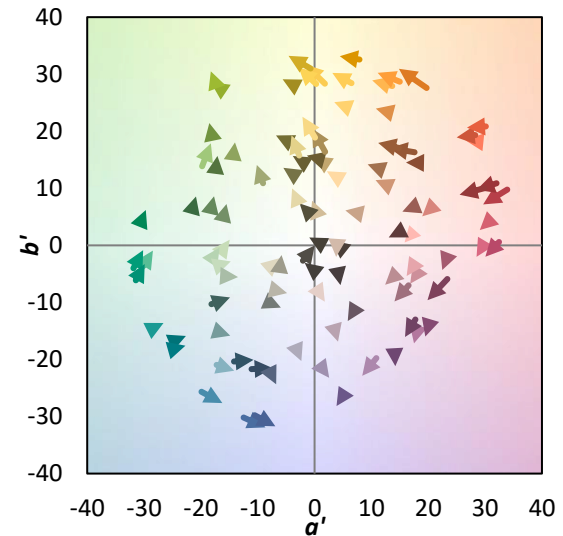
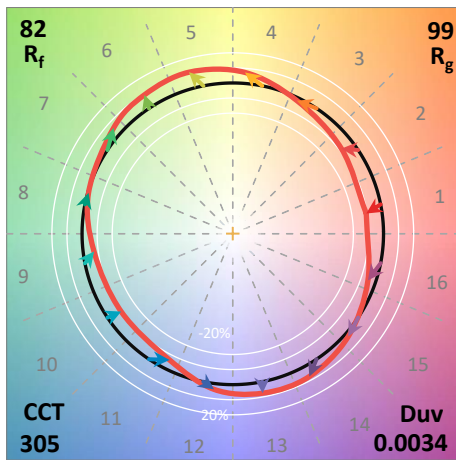
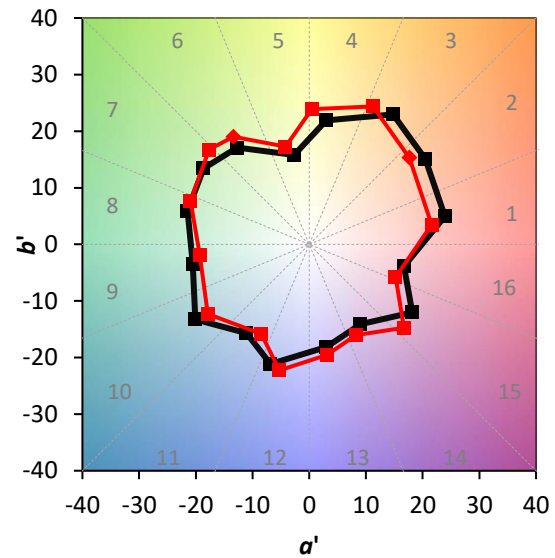
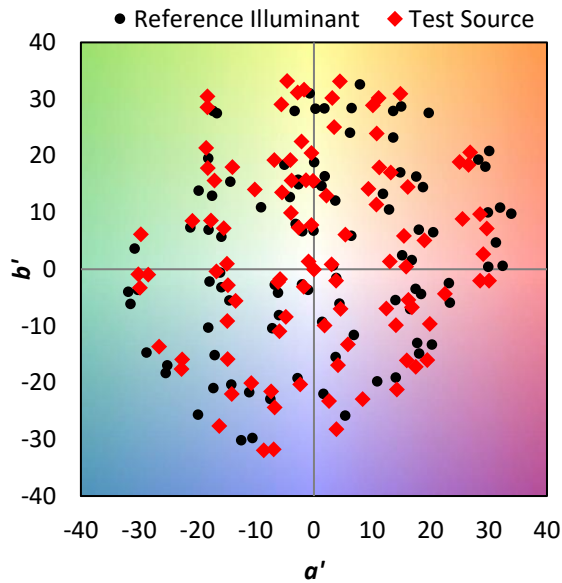
TM-30-18

Summary

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

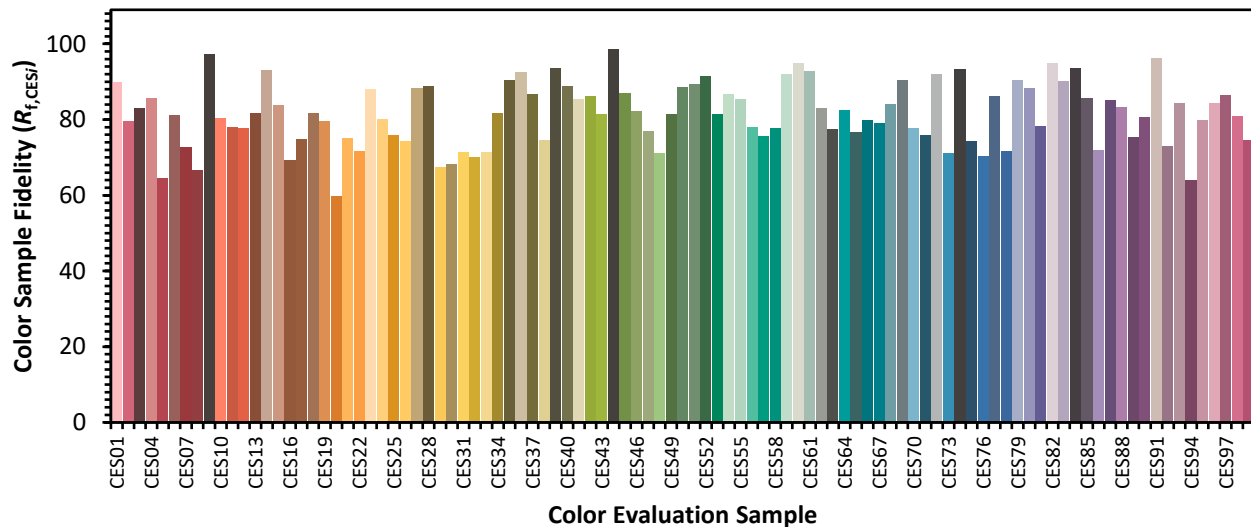


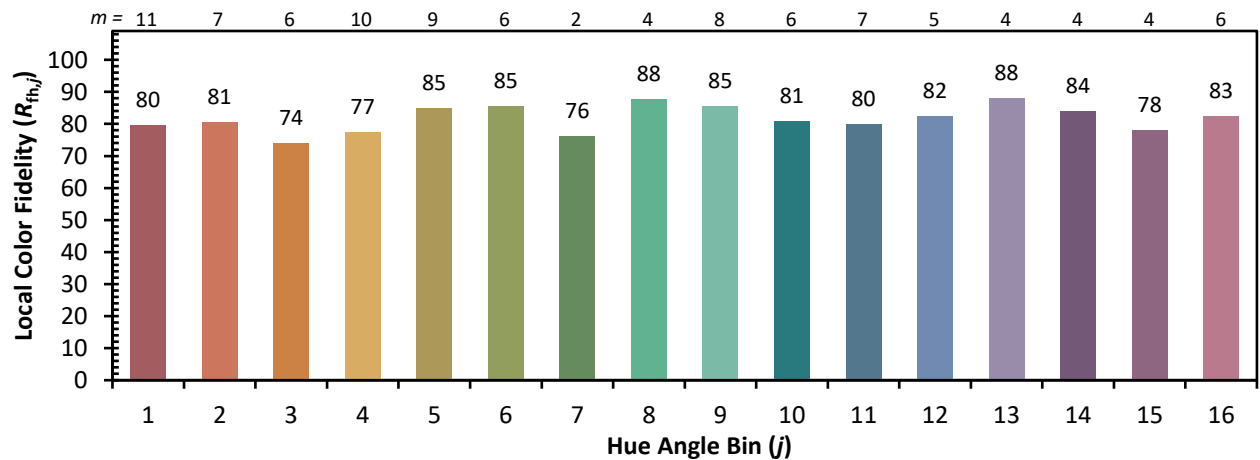
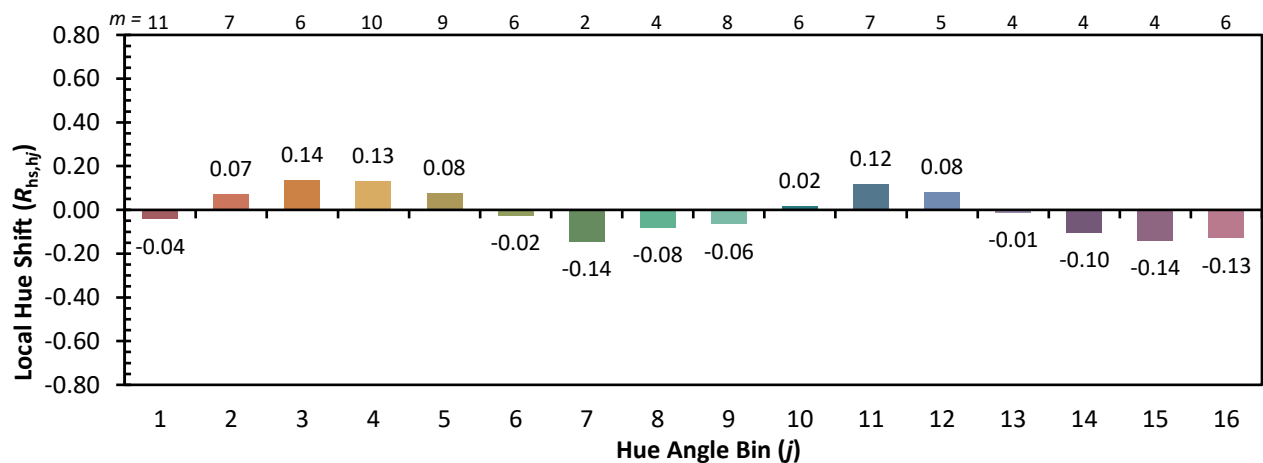
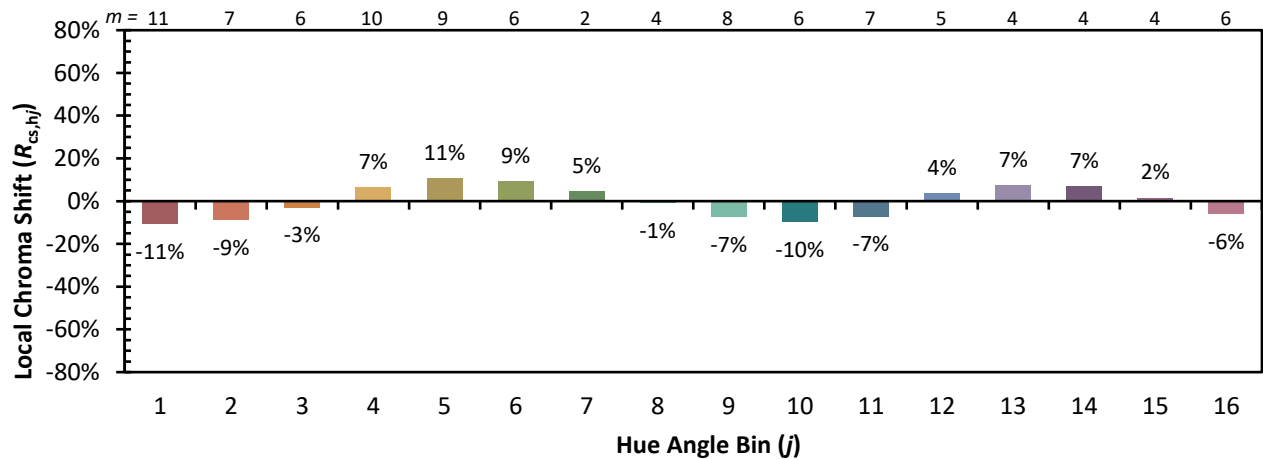
Color Vector Graphics



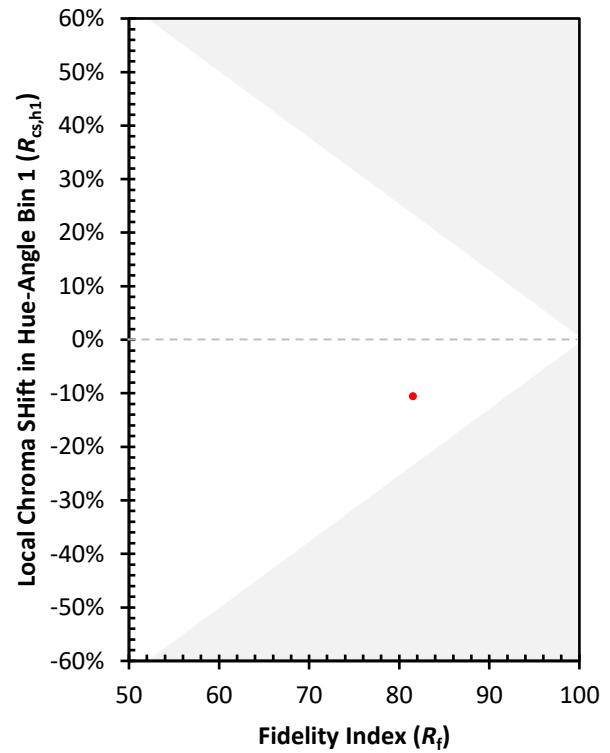
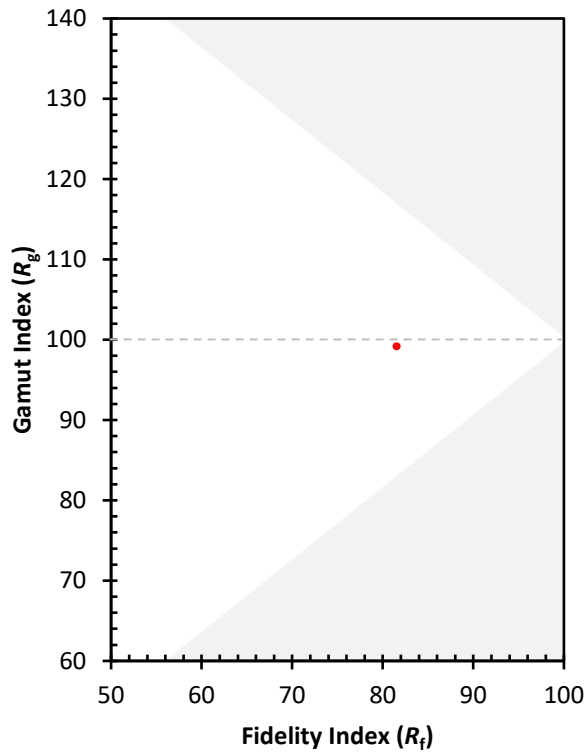
Individual Sample Fidelity Index ($R_{f,i}$)

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)