

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: P322398

Luminaire Tested: **GLEON-SA4B-830-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322398
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4B-830-U-T3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13348 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

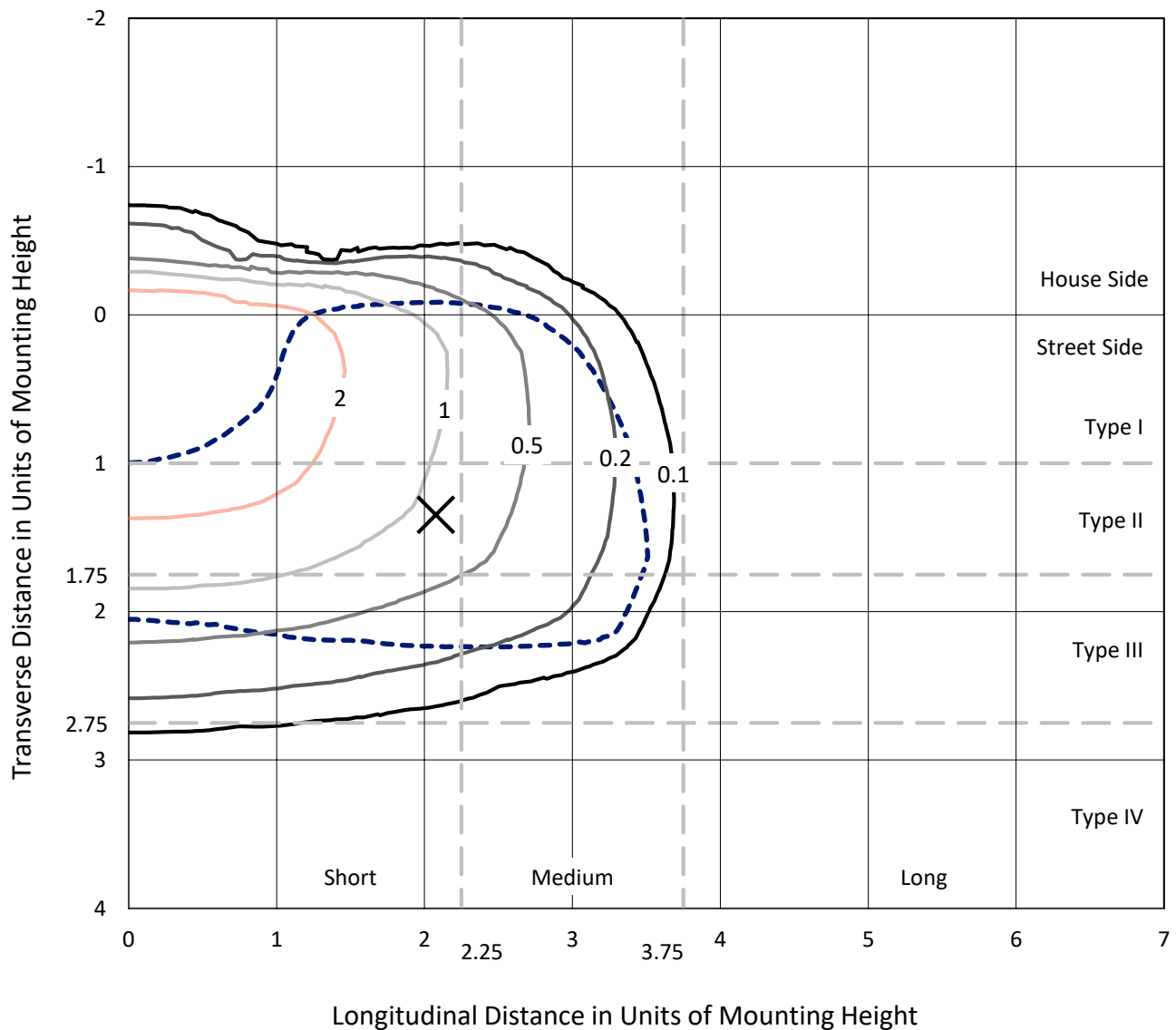
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

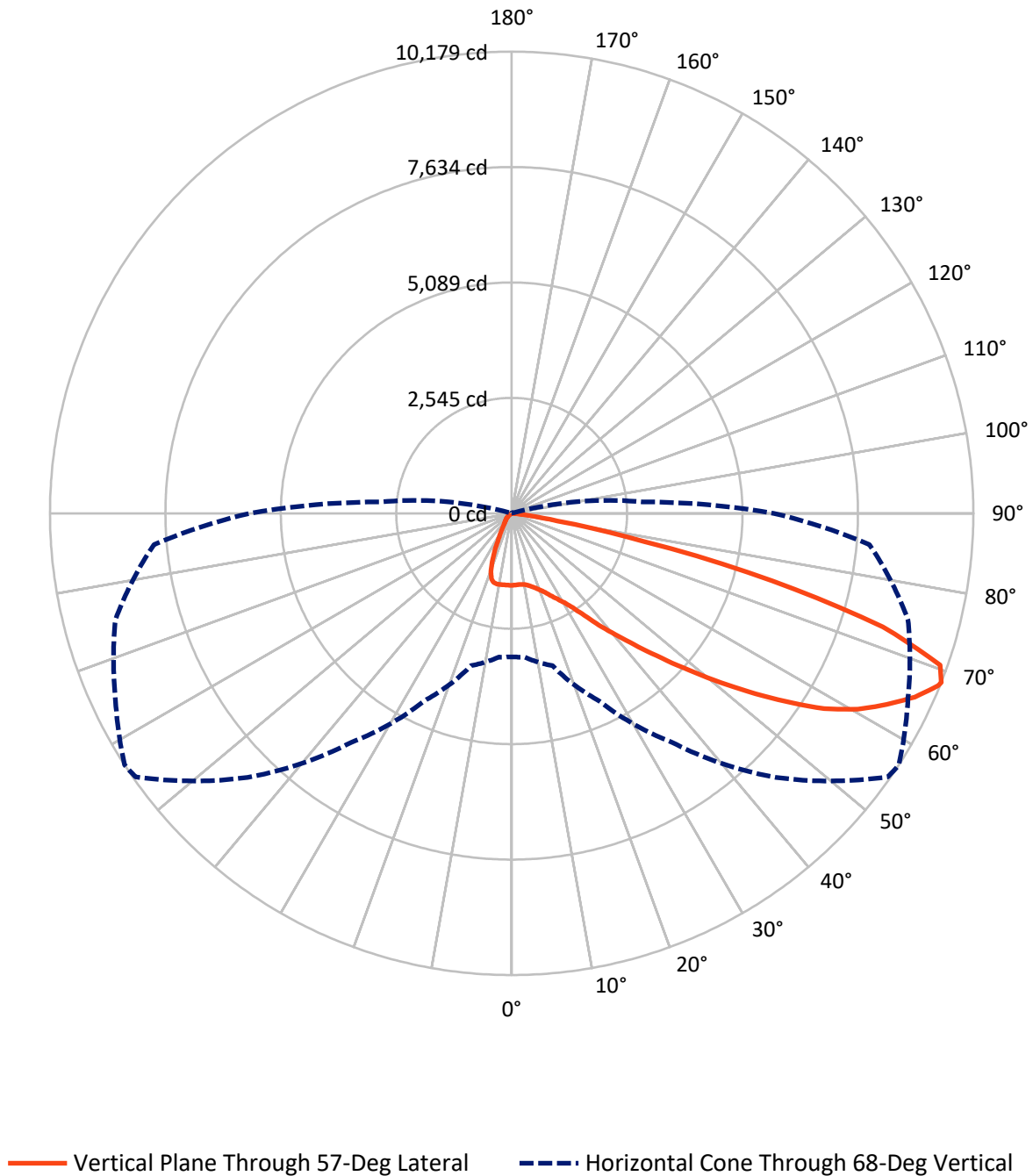
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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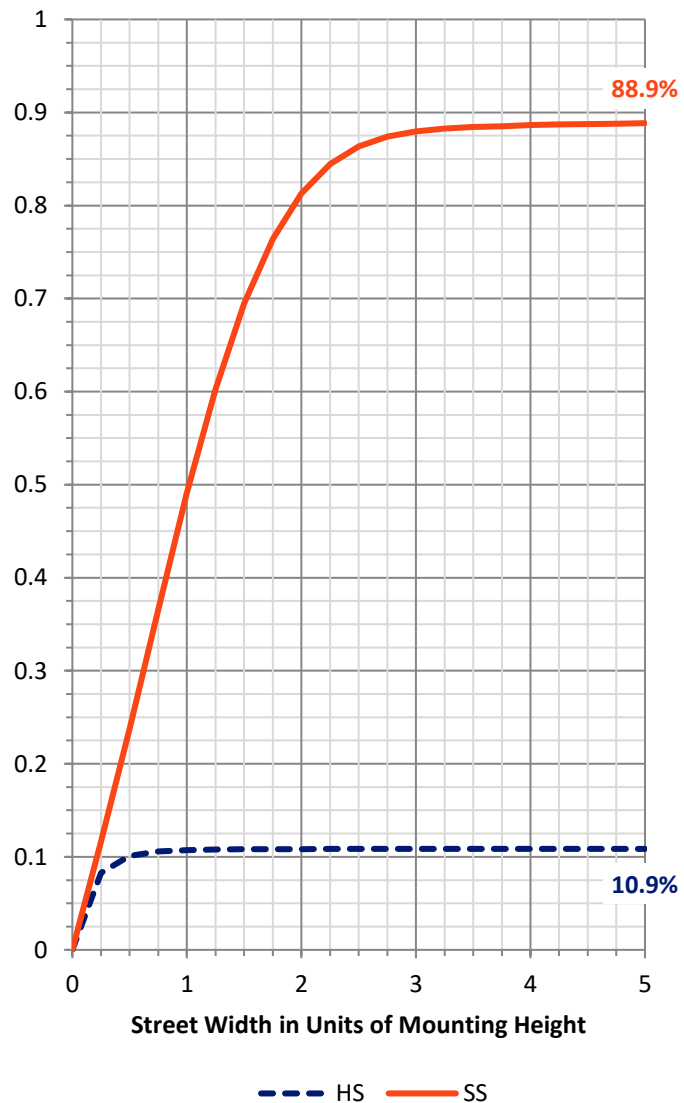
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1463.7	0.0	1463.7
	% Fixture	11.0	0.0	11.0
Street Side	Lumens	11884.3	0.0	11884.3
	% Fixture	89.0	0.0	89.0
Total	Lumens	13348.0	0.0	13348.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	1.1
10°-20°	411.3	3.1
20°-30°	709.6	5.3
30°-40°	1224.7	9.2
40°-50°	2094.9	15.7
50°-60°	3351.6	25.1
60°-70°	3872.4	29.0
70°-80°	1479.7	11.1
80°-90°	55.5	0.4
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°	13348.0	100.0
0°-180°	13348.0	100.0

Coefficient of Utilization



REPORT NUMBER: P322398

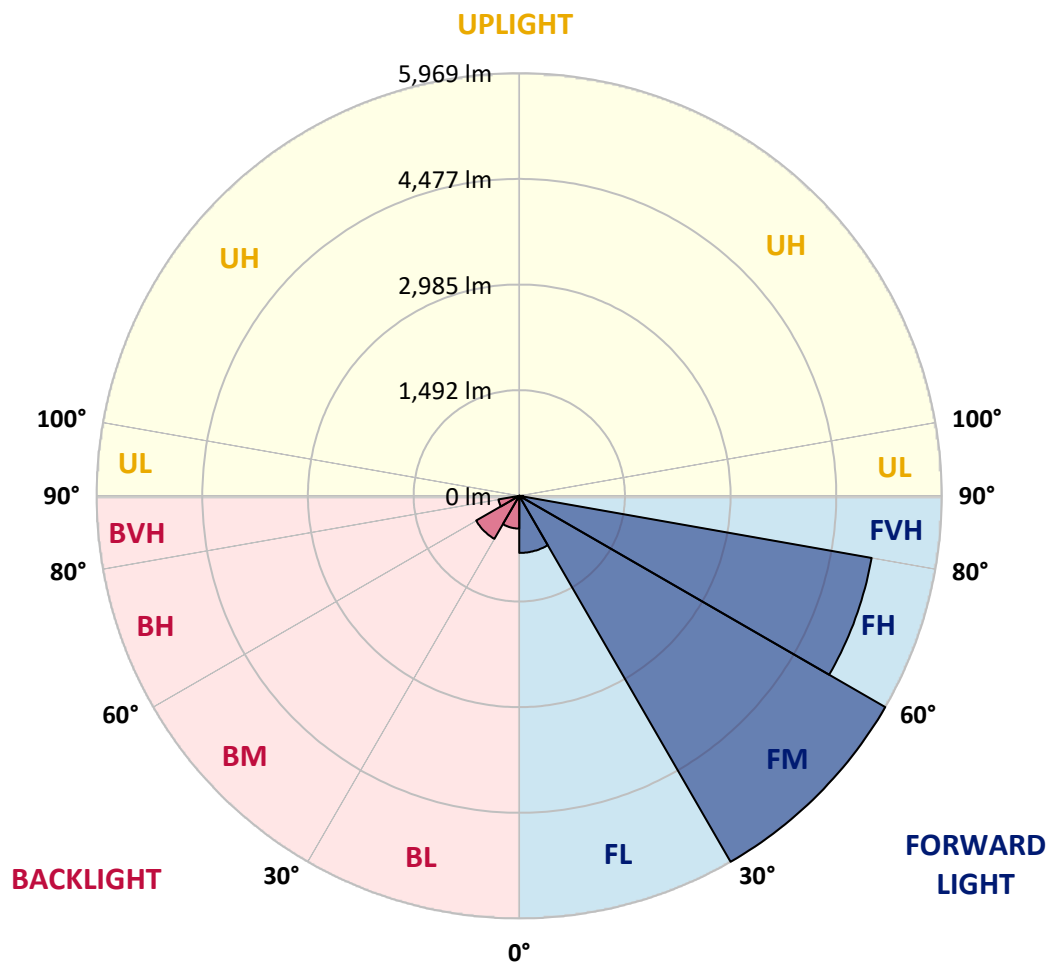
CATALOG NUMBER: GLEON-SA4B-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	806.8	6.0			
FM	(30°-60°)	5969.1	44.7			
FH	(60°-80°)	5054.0	37.9			G3/7500
FVH	(80°-90°)	54.5	0.4			G1/100
BL	(0°-30°)	462.6	3.5	B1/500		
BM	(30°-60°)	702.0	5.3	B1/1000		
BH	(60°-80°)	298.1	2.2	B1/500		G1/500
BVH	(80°-90°)	1.0	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1
2.5°	1548.9	1555.8	1560.8	1564.0	1567.8	1576.0	1578.5	1582.3	1584.2	1584.2	1588.6
5°	1487.6	1495.2	1505.9	1514.8	1532.4	1555.2	1571.6	1577.9	1589.3	1599.3	1605.0
7.5°	1430.8	1439.7	1452.3	1473.1	1503.4	1540.0	1574.1	1582.9	1605.0	1626.5	1637.2
10°	1394.2	1401.2	1417.6	1447.2	1487.0	1538.1	1586.1	1596.8	1634.7	1670.7	1690.9
12.5°	1381.6	1387.9	1405.0	1438.4	1487.6	1547.6	1613.9	1629.6	1685.2	1737.6	1766.0
15°	1399.9	1401.2	1419.5	1451.0	1499.6	1570.9	1659.9	1678.9	1748.9	1817.1	1852.4
17.5°	1470.6	1464.9	1474.4	1488.3	1526.8	1601.9	1708.5	1736.9	1830.4	1910.5	1944.0
20°	1647.3	1647.3	1625.9	1588.0	1588.6	1649.8	1774.2	1806.4	1920.6	2013.4	2043.7
22.5°	1949.6	1944.0	1901.0	1808.3	1723.1	1732.5	1854.3	1896.0	2029.2	2128.3	2138.4
25°	2313.2	2306.2	2240.0	2109.3	1961.6	1866.3	1962.9	2010.9	2158.6	2246.3	2225.5
27.5°	2698.2	2692.5	2626.9	2464.7	2254.5	2079.7	2092.3	2137.7	2290.5	2376.9	2310.7
30°	3071.2	3073.1	3008.1	2841.5	2603.5	2351.7	2256.4	2282.9	2418.6	2506.3	2411.6
32.5°	3425.9	3428.4	3372.3	3186.1	2963.9	2667.9	2483.6	2476.7	2567.5	2654.0	2545.5
35°	3742.1	3748.4	3709.9	3565.4	3330.0	3020.1	2778.3	2761.9	2779.0	2876.8	2750.6
37.5°	4047.0	4050.8	4021.7	3899.9	3703.0	3407.0	3150.7	3127.4	3090.8	3165.9	3021.3
40°	4380.9	4371.4	4337.9	4227.5	4058.3	3834.3	3550.9	3510.5	3446.7	3513.6	3377.3
42.5°	4691.4	4680.7	4686.3	4561.4	4418.7	4273.6	4017.3	3947.9	3910.6	3987.6	3814.1
45°	5079.5	5073.9	5092.8	4984.2	4868.7	4763.3	4551.9	4476.2	4459.7	4550.0	4342.4
47.5°	5462.7	5476.5	5535.2	5489.2	5442.5	5349.7	5118.0	5084.0	5094.1	5203.2	4899.7
50°	5782.0	5798.4	5959.4	6012.4	6079.9	6025.6	5793.4	5772.6	5812.3	5910.8	5499.3
52.5°	6013.0	6046.5	6246.5	6490.8	6737.0	6773.6	6541.9	6523.0	6576.6	6591.8	5962.5
55°	6173.3	6203.0	6429.6	6876.4	7377.6	7535.4	7391.5	7318.3	7308.2	7158.6	6449.8
57.5°	6201.7	6198.6	6524.3	7125.7	7880.0	8287.1	8196.2	8124.2	7917.2	7682.4	7008.4
60°	6041.4	6059.7	6437.8	7212.2	8195.6	8855.7	8862.7	8769.3	8446.8	8191.8	7549.9
62.5°	5547.9	5622.3	6004.2	6985.6	8191.8	9084.9	9351.2	9279.9	8894.2	8609.0	8099.0
65°	4747.6	4774.1	5138.2	6209.3	7638.2	8988.9	9791.1	9764.6	9297.6	9014.2	8381.1
67.5°	3466.9	3409.5	3792.0	4889.6	6466.8	8429.7	10106.7	10140.1	9608.7	9097.5	8080.7
68°	3164.0	3181.0	3478.9	4563.3	6160.1	8232.2	10127.5	10178.6	9639.6	9043.2	7916.6
70°	1885.9	1918.7	2184.4	3141.9	4686.3	7114.4	9902.8	10019.6	9455.3	8483.4	6847.4
72.5°	481.6	520.7	771.9	1406.2	2676.7	5012.6	8359.7	8557.2	8209.4	6882.1	4622.6
75°	198.2	208.3	275.8	463.3	997.2	2258.3	5510.0	5932.9	5691.1	4120.2	2089.1
77.5°	137.0	143.9	177.4	256.9	431.7	765.6	2701.3	3006.8	2708.9	1406.2	455.7
80°	98.5	104.1	126.9	171.0	248.0	273.3	880.5	1018.1	808.5	308.6	113.0
82.5°	58.7	63.1	94.7	121.8	150.8	130.6	219.0	248.7	234.2	153.4	50.5
85°	29.0	34.1	63.7	87.1	81.4	54.9	66.9	74.5	92.1	93.4	27.1
87.5°	1.9	3.8	37.2	52.4	22.7	12.6	19.6	24.0	32.8	46.1	11.4
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-SA4B-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1	1586.1
2.5°	1590.5	1591.1	1586.7	1584.8	1586.1	1578.5	1575.4	1576.6	1576.6	1578.5	1575.4
5°	1606.3	1606.3	1598.7	1588.6	1582.9	1568.4	1559.0	1556.4	1554.5	1553.3	1550.7
7.5°	1640.4	1636.6	1623.3	1601.2	1582.3	1550.7	1526.8	1514.1	1507.8	1505.3	1503.4
10°	1695.3	1688.3	1666.3	1625.2	1581.7	1525.5	1473.1	1435.9	1405.0	1392.3	1384.8
12.5°	1769.1	1759.0	1721.8	1653.6	1577.3	1473.7	1360.1	1251.0	1149.3	1107.7	1086.9
15°	1854.3	1839.8	1781.1	1677.6	1551.4	1357.0	1110.2	919.0	778.2	725.2	702.5
17.5°	1940.8	1921.9	1832.9	1692.8	1473.7	1115.3	778.8	588.2	494.2	468.9	460.1
20°	2027.9	2000.1	1877.7	1681.4	1298.3	804.1	513.8	429.8	402.7	395.1	392.6
22.5°	2110.6	2067.7	1918.1	1637.2	1028.2	539.6	406.5	380.0	371.1	366.7	365.4
25°	2182.5	2122.6	1953.4	1500.9	727.7	407.7	366.1	357.2	345.9	337.7	338.3
27.5°	2250.1	2177.5	1974.9	1276.2	485.4	348.4	338.9	326.9	306.1	294.1	294.1
30°	2331.5	2250.7	1990.7	982.1	357.2	308.0	300.4	282.1	253.7	237.9	237.9
32.5°	2453.9	2361.8	1980.6	689.2	296.0	270.8	253.1	227.8	196.9	181.8	181.1
35°	2641.4	2533.5	1908.6	451.9	261.3	235.4	207.0	176.1	149.0	136.3	135.7
37.5°	2893.8	2763.2	1747.0	323.2	234.2	202.6	168.5	134.4	114.2	106.0	105.4
40°	3221.4	3030.2	1516.0	261.9	208.9	171.0	130.0	104.1	90.3	83.9	84.6
42.5°	3614.6	3316.1	1239.0	226.0	184.3	140.7	101.6	82.1	73.2	68.8	67.5
45°	4051.4	3598.2	948.6	201.3	159.7	113.6	79.5	65.0	58.1	55.5	55.5
47.5°	4531.7	3872.8	694.3	179.9	133.2	87.7	63.7	53.0	47.3	45.4	44.8
50°	4967.8	4063.4	500.5	157.2	109.2	69.4	51.8	44.2	40.4	37.9	37.9
52.5°	5331.4	4123.3	368.6	132.5	88.4	55.5	42.9	37.9	34.1	32.2	32.2
55°	5651.4	4098.7	273.9	109.2	71.3	45.4	36.6	32.2	29.0	27.1	27.1
57.5°	5958.1	4019.2	204.5	89.0	57.4	36.6	30.9	27.1	24.0	22.7	22.7
60°	6208.7	3886.7	152.1	72.0	46.1	29.7	25.9	22.1	19.6	17.7	17.7
62.5°	6411.9	3740.2	111.7	59.3	36.6	23.4	20.2	18.3	14.5	12.6	12.6
65°	6413.2	3497.2	83.9	49.2	28.4	18.3	15.1	14.5	9.5	7.6	6.9
67.5°	5949.3	3015.0	64.4	42.3	22.1	13.9	11.4	12.0	5.0	3.2	2.5
68°	5780.8	2892.6	60.6	41.7	20.8	13.3	10.7	12.0	4.4	2.5	1.9
70°	4873.8	2301.2	48.6	40.4	18.3	10.1	8.8	12.0	3.8	1.9	1.3
72.5°	3117.3	1335.5	36.0	32.2	13.9	7.6	5.7	10.7	3.8	1.3	0.6
75°	1326.7	414.0	24.6	22.7	8.2	5.7	3.8	6.9	2.5	0.6	0.0
77.5°	279.6	93.4	14.5	13.9	5.7	3.8	2.5	1.9	0.6	0.0	0.0
80°	72.0	27.1	7.6	6.9	3.2	1.9	1.3	0.0	0.0	0.0	0.0
82.5°	22.7	10.7	4.4	3.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.4	6.3	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.3	1.9	0.6	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.

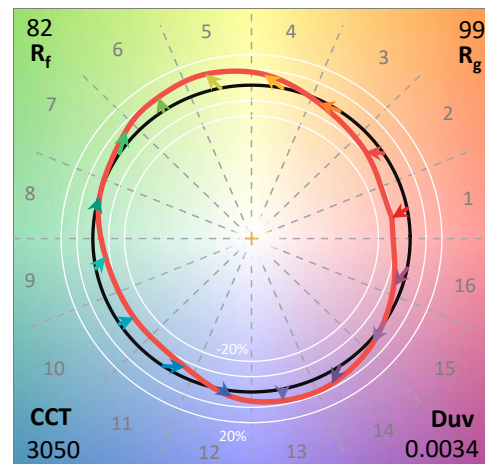
Test Information

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

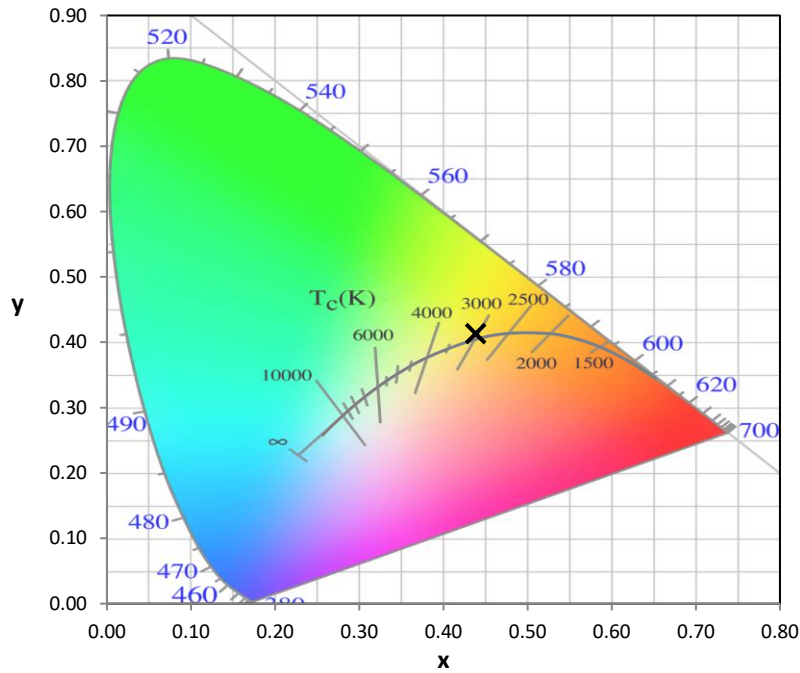
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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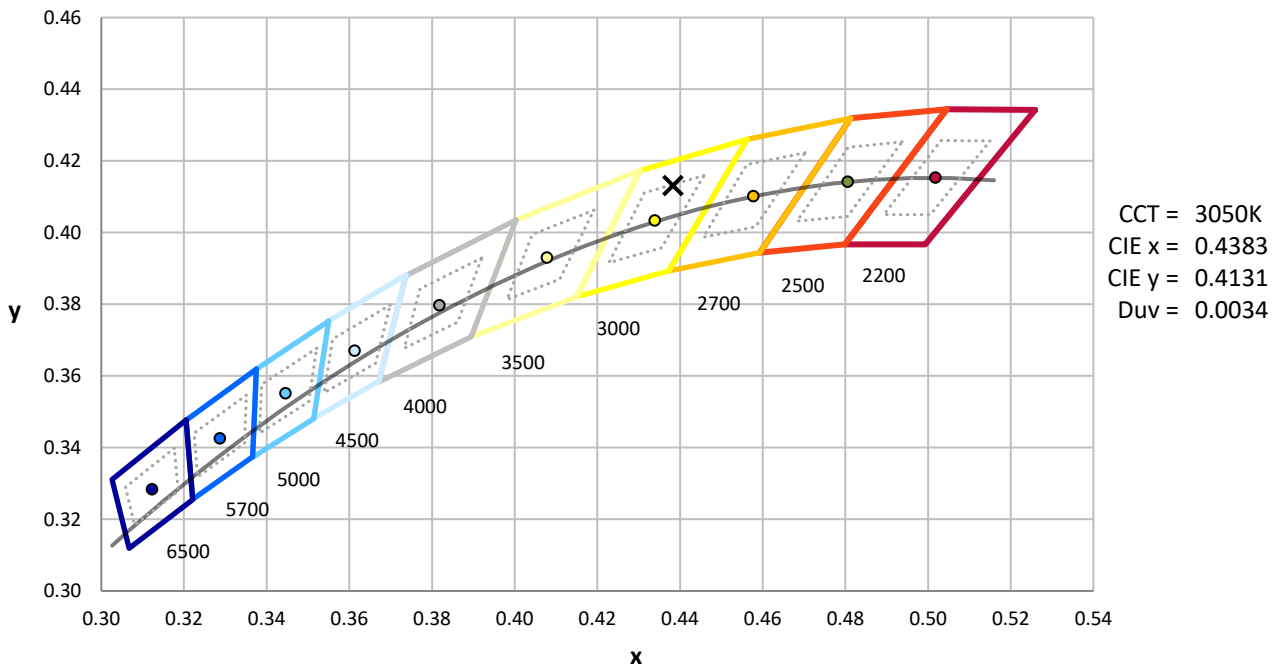
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



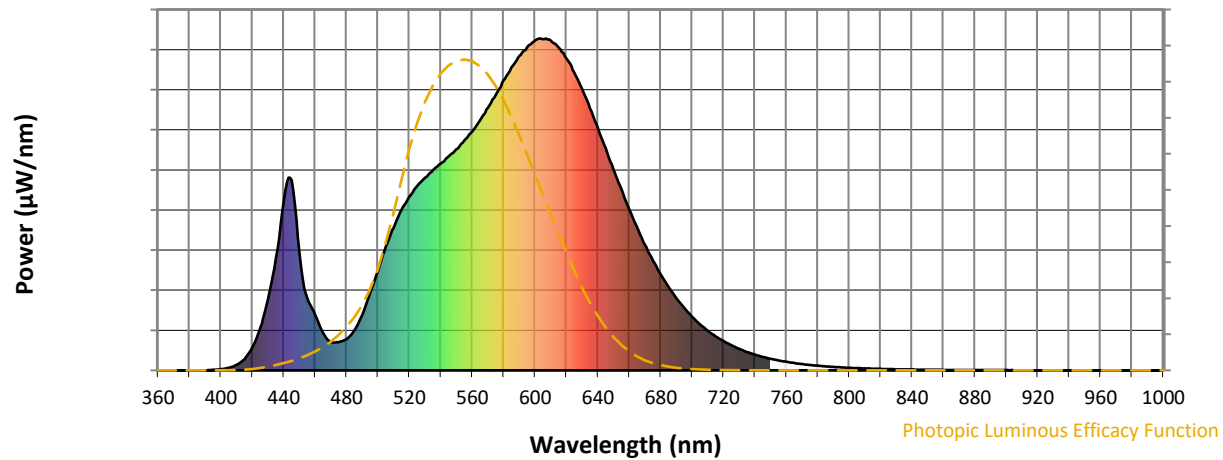
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

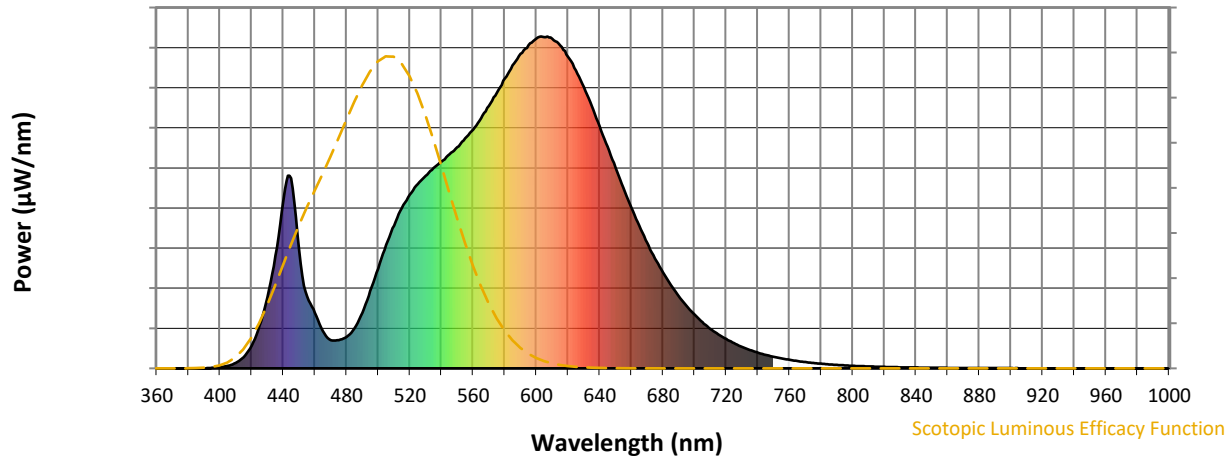


Photopic Lumens: NR

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



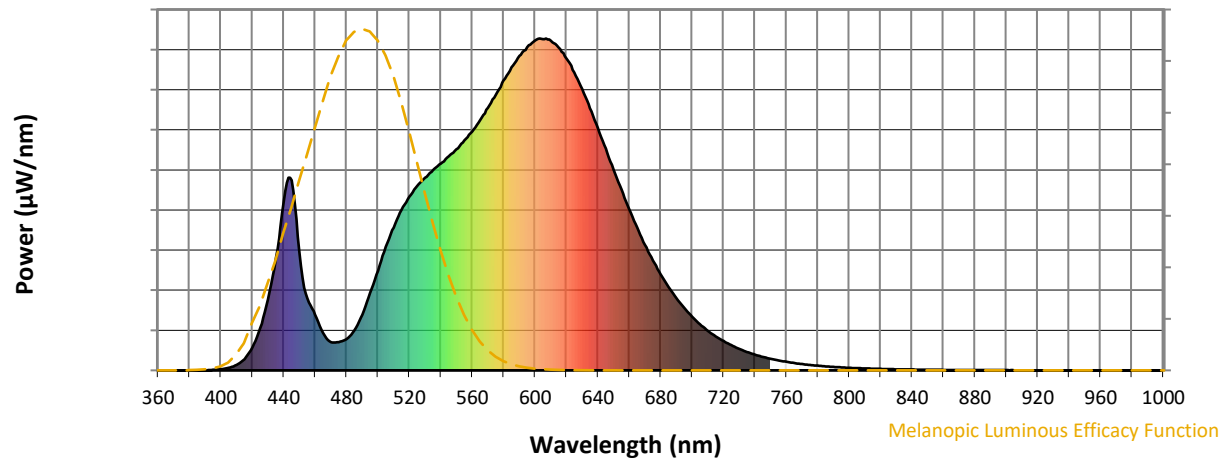
Scotopic Lumens: NR

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

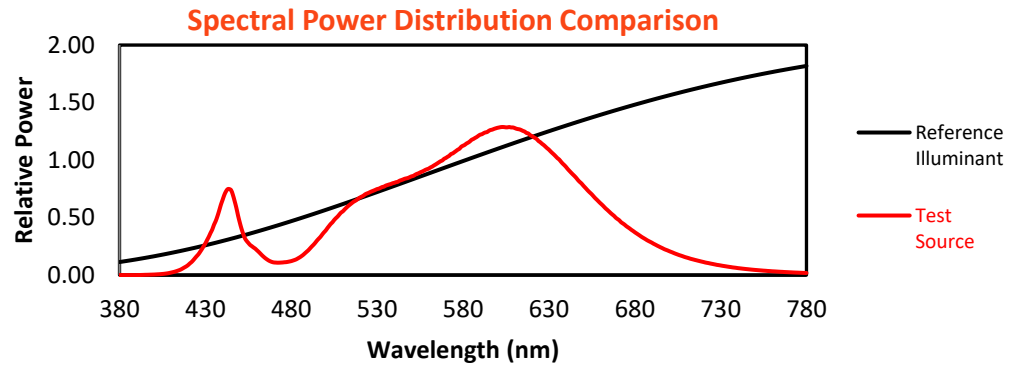
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168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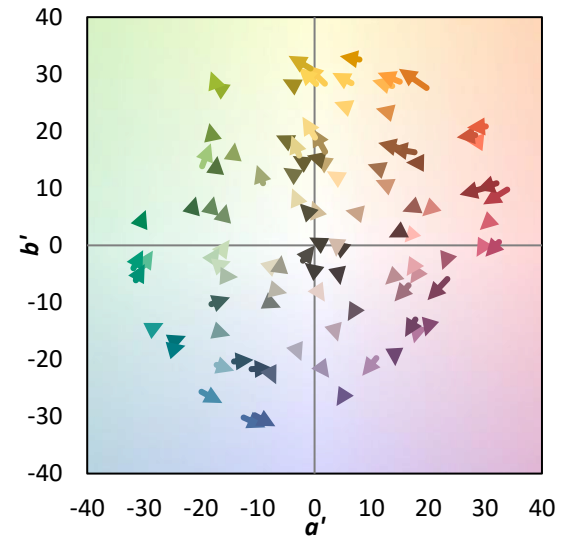
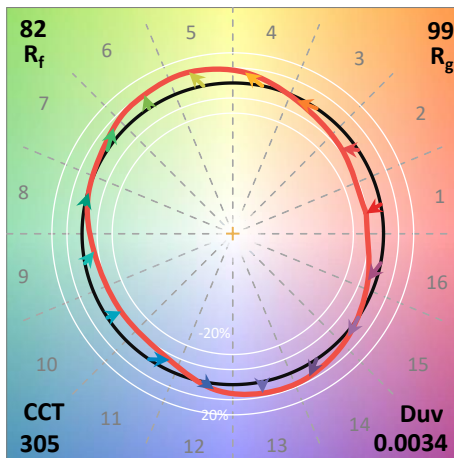
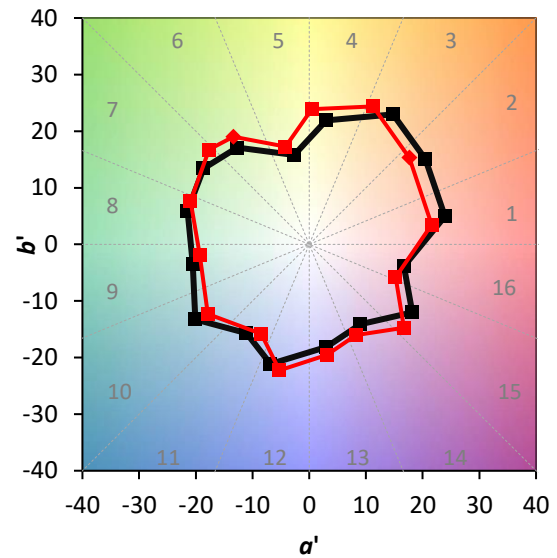
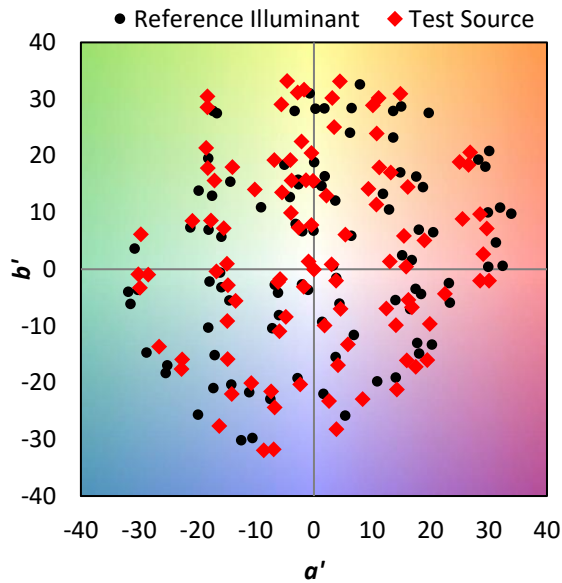
TM-30-18

Summary

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

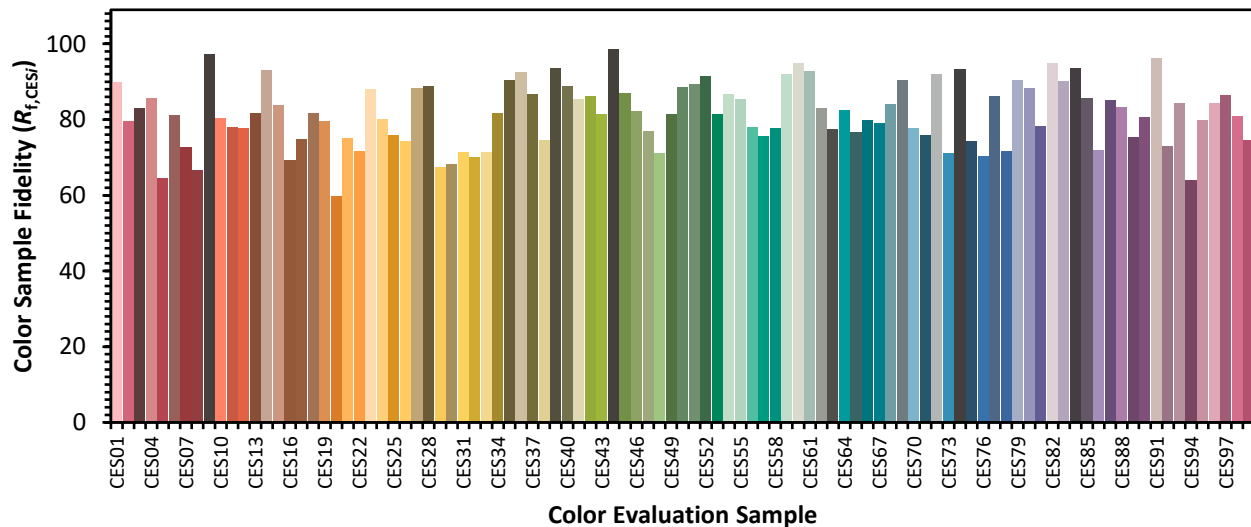


Color Vector Graphics

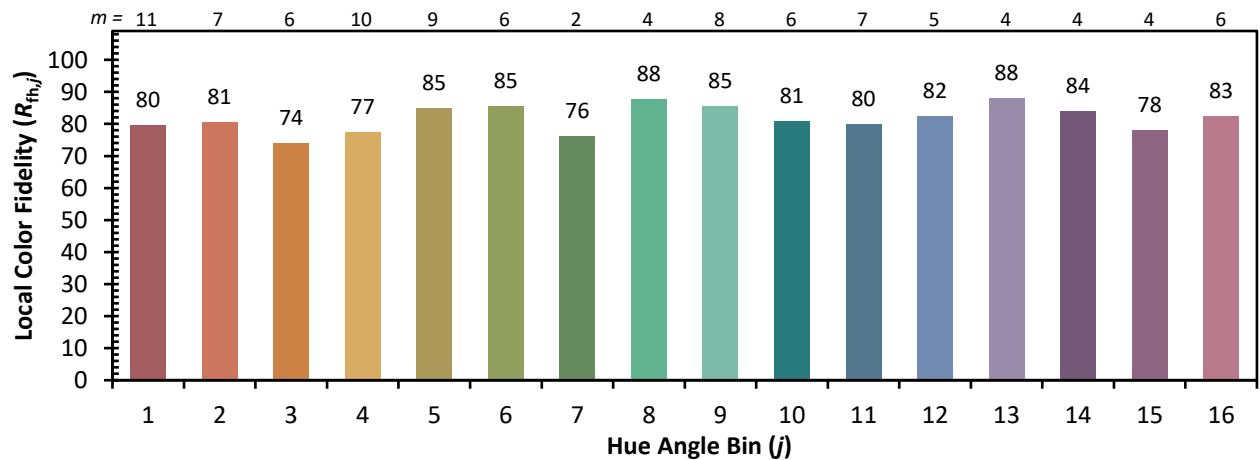
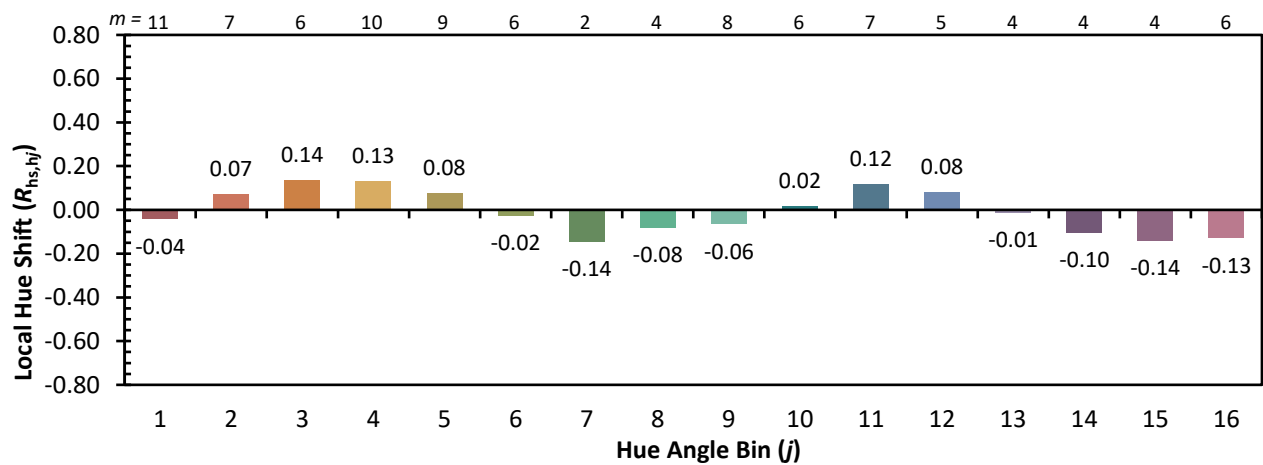
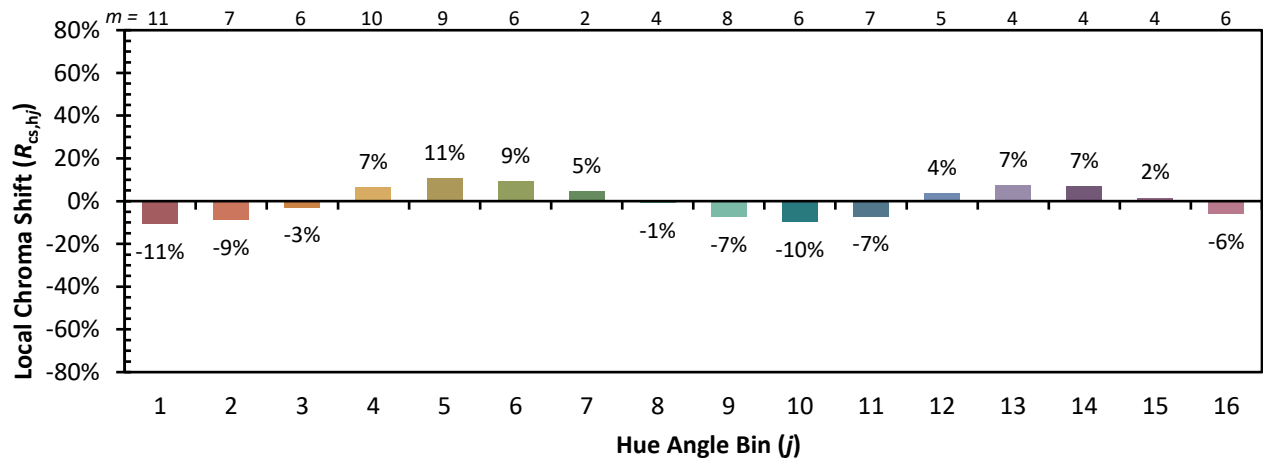


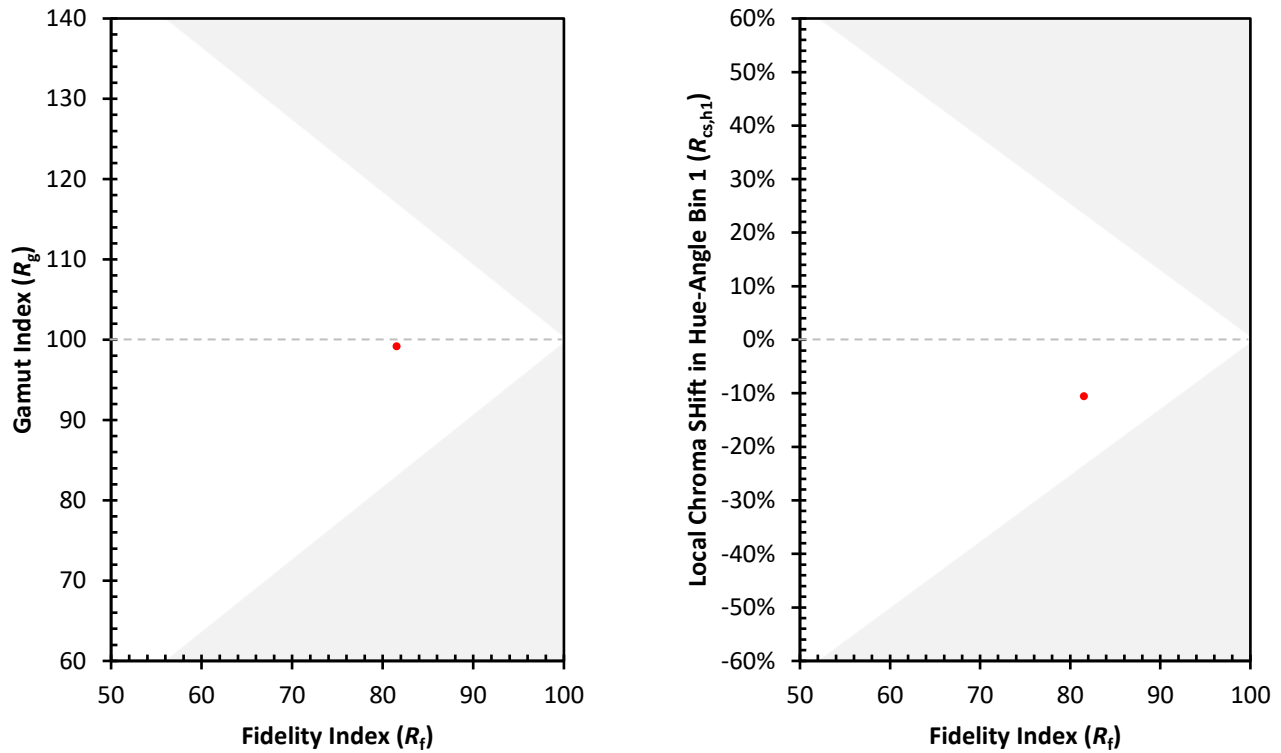
Individual Sample Fidelity Index ($R_{f,i}$)

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)