

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: P323369

Luminaire Tested: **GLEON-SA5C-830-U-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323369
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-21)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5C-830-U-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23269 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

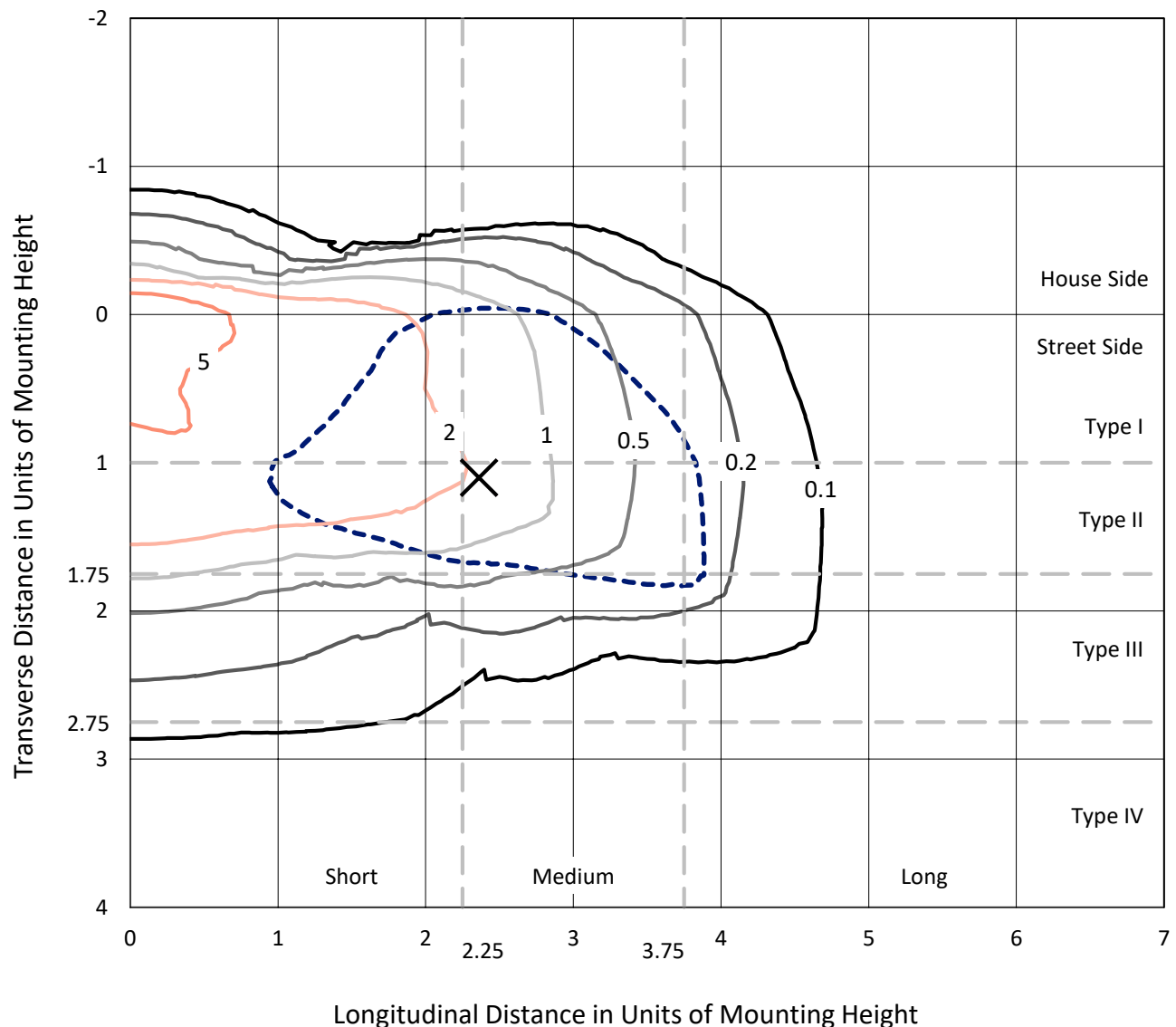
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

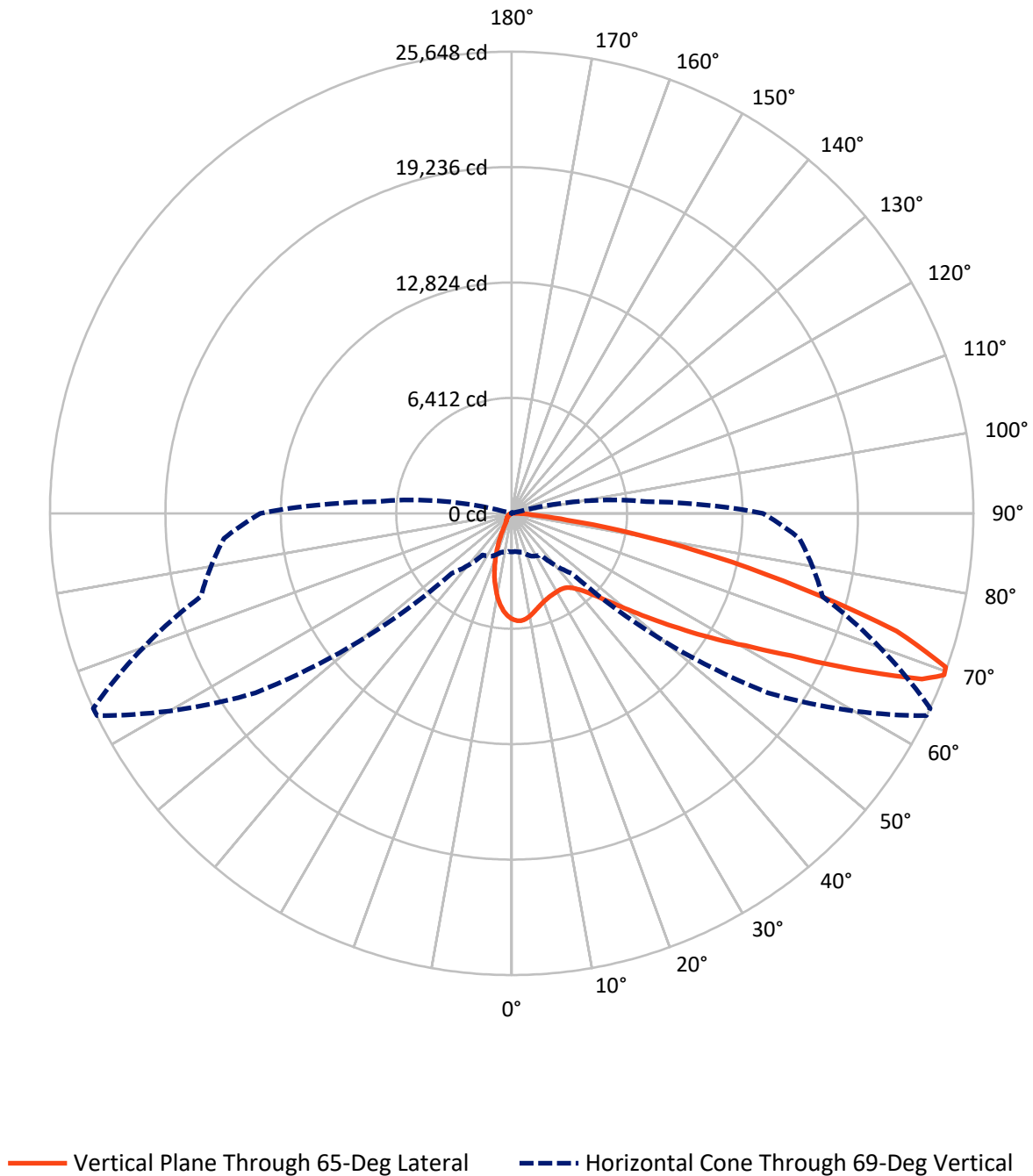
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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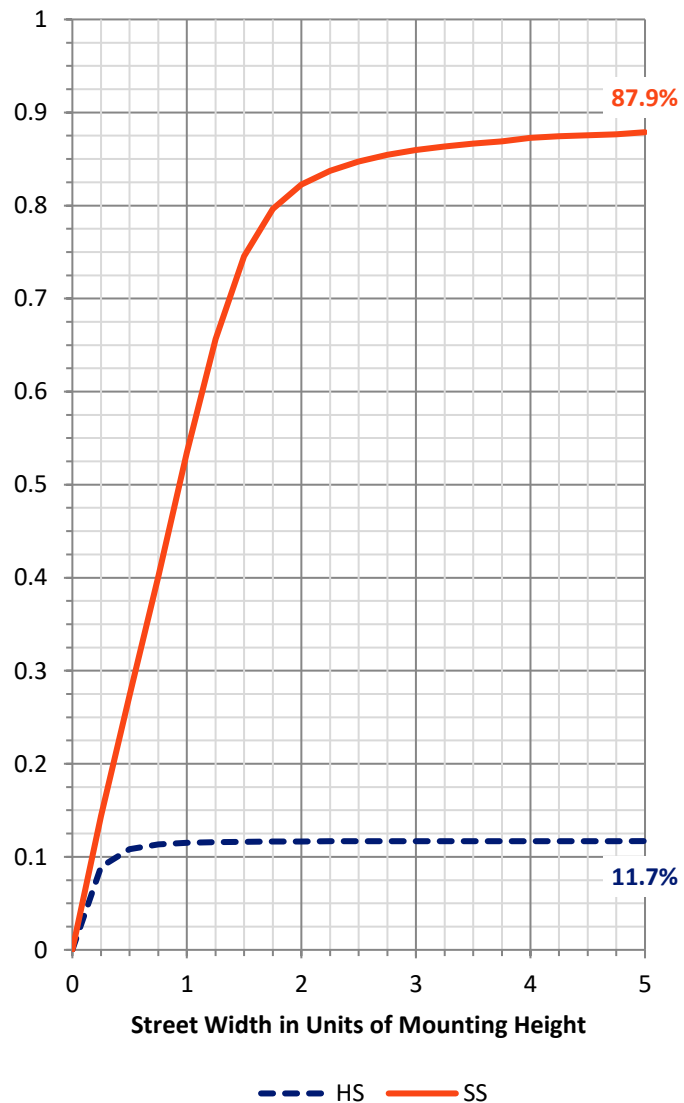
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2742.9	0.0	2742.9
	% Fixture	11.8	0.0	11.8
Street Side	Lumens	20526.1	0.0	20526.1
	% Fixture	88.2	0.0	88.2
Total	Lumens	23269.0	0.0	23269.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	491.7	2.1
10°-20°	1076.4	4.6
20°-30°	1490.8	6.4
30°-40°	2078.6	8.9
40°-50°	3230.9	13.9
50°-60°	5186.8	22.3
60°-70°	5867.2	25.2
70°-80°	3445.8	14.8
80°-90°	400.8	1.7
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°	23269.0	100.0
0°-180°	23269.0	100.0

Coefficient of Utilization



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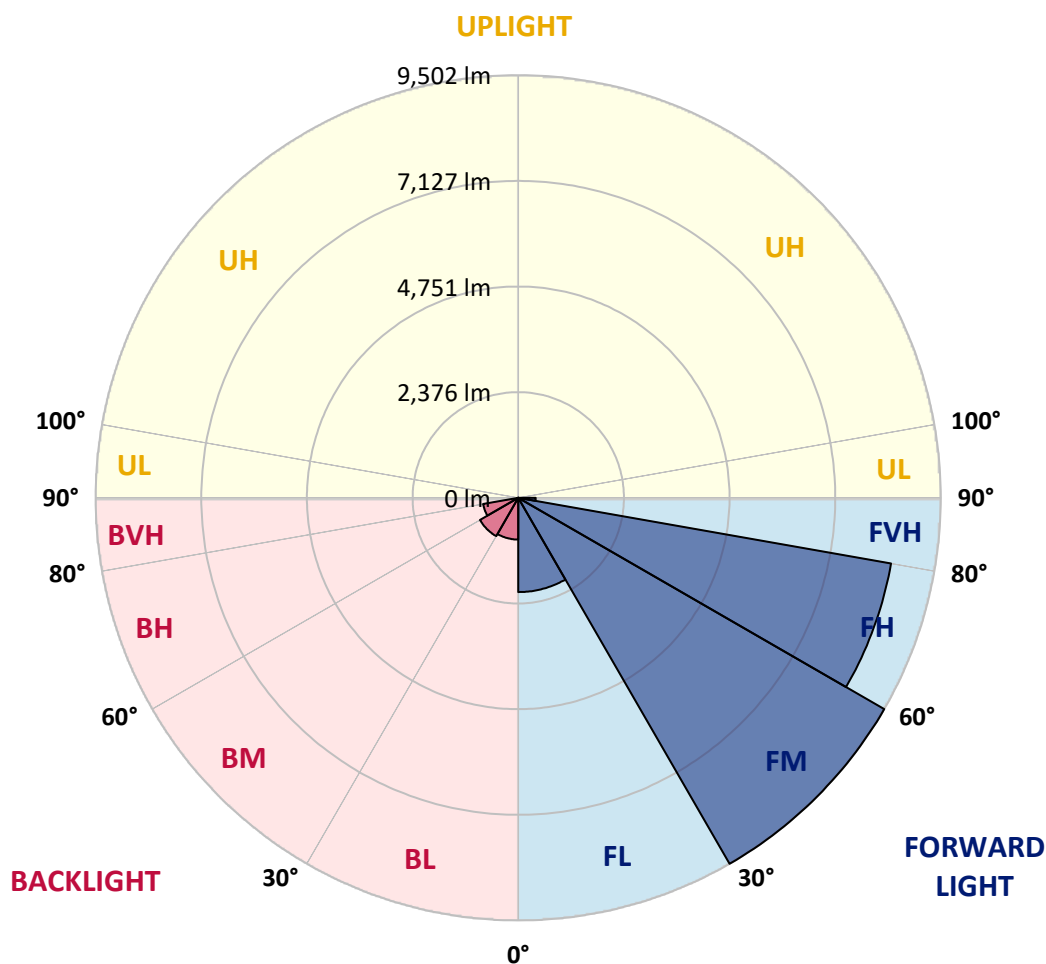
CATALOG NUMBER: GLEON-SA5C-830-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2120.3	9.1			
FM	(30°-60°)	9502.4	40.8			
FH	(60°-80°)	8511.6	36.6			G4/12000
FVH	(80°-90°)	391.8	1.7			G3/500
BL	(0°-30°)	938.5	4.0	B2/1000		
BM	(30°-60°)	993.9	4.3	B1/1000		
BH	(60°-80°)	801.4	3.4	B2/1000		G2/1000
BVH	(80°-90°)	9.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Medium





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CATALOG NUMBER: GLEON-SA5C-830-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1
2.5°	5932.3	5917.5	5929.3	5954.9	5967.7	5967.7	5977.6	5965.8	5969.7	5941.2	5899.8
5°	5561.1	5538.5	5570.9	5642.8	5731.4	5807.3	5919.5	5978.6	5984.5	5985.5	5937.2
7.5°	5161.3	5140.7	5188.9	5273.6	5387.8	5528.6	5724.5	5895.9	5905.7	5998.3	5962.8
10°	4836.4	4821.7	4877.8	4968.4	5102.3	5259.8	5500.1	5738.3	5766.9	5971.7	5958.9
12.5°	4578.5	4566.6	4619.8	4724.2	4861.0	5035.3	5286.4	5563.1	5601.5	5911.6	5939.2
15°	4390.4	4388.4	4432.7	4533.2	4684.8	4847.3	5104.2	5400.6	5444.9	5846.6	5936.2
17.5°	4291.9	4294.9	4327.4	4413.0	4543.0	4704.5	4950.6	5263.7	5312.0	5788.5	5951.0
20°	4282.1	4285.0	4302.8	4351.0	4456.4	4599.1	4825.6	5148.5	5198.8	5745.2	5974.6
22.5°	4368.7	4366.8	4371.7	4366.8	4425.8	4534.1	4742.9	5059.9	5118.0	5716.7	5993.3
25°	4535.1	4532.2	4530.2	4493.8	4454.4	4512.5	4708.4	5009.7	5064.9	5696.0	6004.2
27.5°	4766.5	4764.5	4761.6	4701.5	4583.4	4546.9	4712.4	4991.0	5037.3	5679.3	6002.2
30°	5070.8	5084.5	5080.6	4996.9	4812.8	4652.3	4753.7	4981.2	5021.5	5646.8	5981.5
32.5°	5428.2	5455.7	5477.4	5387.8	5157.4	4861.0	4849.2	4992.0	5021.5	5622.1	5944.1
35°	5799.4	5834.8	5914.6	5883.1	5579.8	5175.1	5013.7	5057.0	5081.6	5635.9	5926.4
37.5°	6164.7	6207.0	6380.3	6471.9	6133.2	5590.6	5269.7	5217.5	5230.3	5719.6	5946.1
40°	6589.0	6653.0	6915.9	7063.6	6793.8	6146.9	5652.7	5493.2	5498.1	5903.7	6037.7
42.5°	7146.3	7212.3	7496.9	7728.2	7538.2	6850.0	6172.5	5914.6	5909.7	6248.4	6253.3
45°	7825.7	7894.6	8189.0	8446.0	8360.4	7682.9	6838.1	6530.0	6524.1	6791.9	6661.9
47.5°	8595.7	8663.6	8926.5	9191.4	9283.9	8655.7	7685.9	7369.8	7356.1	7547.1	7293.0
50°	9256.4	9300.7	9542.9	9899.3	10316.8	9851.1	8740.4	8436.2	8421.4	8550.4	8219.6
52.5°	9496.6	9522.2	9768.4	10267.6	11309.3	11469.8	10125.8	9733.9	9723.1	9779.2	9453.3
55°	9010.2	9056.5	9358.8	10099.2	11846.9	13299.2	11874.4	11340.8	11259.1	11138.0	10743.1
57.5°	7684.9	7758.8	8083.7	9068.3	11595.8	14750.5	14444.3	13158.4	13038.3	12297.8	11791.7
60°	5758.0	5848.6	6118.4	7180.8	10255.7	15267.4	17252.4	15183.7	14913.0	13221.4	12755.7
62.5°	3951.3	3996.5	4179.7	4871.9	7553.0	14420.7	19601.7	17896.4	17402.1	14225.7	13798.4
65°	3017.8	3033.6	3108.4	3346.7	4497.7	11714.0	20536.1	21475.4	20877.8	15426.9	14880.5
67.5°	2432.0	2419.2	2522.6	2863.3	3011.9	7146.3	19446.1	24861.5	24581.9	17032.8	15969.5
69°	2144.5	2126.8	2232.1	2627.9	2828.8	4724.2	17384.4	25630.5	25648.2	17880.6	16044.3
70°	1929.8	1941.7	2046.0	2488.1	2766.8	3708.1	15415.1	25434.6	25574.4	18197.6	15595.3
72.5°	1288.9	1320.4	1530.1	2065.7	2660.4	2806.2	9307.6	21825.9	22363.5	17483.8	13379.9
75°	726.6	750.3	999.4	1557.7	2506.8	2672.2	4916.2	16079.7	16599.6	14620.5	10317.8
77.5°	356.4	369.2	565.2	1005.3	2096.2	2546.2	2788.4	10922.3	11516.0	9542.9	5835.8
80°	150.6	157.5	282.6	620.3	1498.6	2430.0	2070.6	6722.0	6795.8	3738.6	1554.7
82.5°	58.1	60.1	119.1	387.0	952.1	1894.4	1731.9	3187.2	3110.4	704.0	354.5
85°	6.9	7.9	43.3	232.4	529.7	974.8	1407.0	1373.5	1271.1	139.8	182.2
87.5°	0.0	0.0	3.0	70.9	157.5	456.9	731.6	570.1	514.0	45.3	94.5
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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CATALOG NUMBER: GLEON-SA5C-830-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1	5880.1
2.5°	5865.3	5855.5	5802.3	5725.5	5652.7	5562.1	5475.4	5423.3	5381.9	5354.3	5386.8
5°	5881.1	5837.8	5676.3	5469.5	5266.7	5038.3	4825.6	4645.4	4574.5	4495.7	4531.2
7.5°	5876.2	5794.5	5504.0	5135.7	4763.6	4378.6	4014.3	3733.7	3587.9	3445.2	3481.6
10°	5851.6	5713.7	5273.6	4728.1	4170.8	3617.5	3100.6	2707.7	2488.1	2289.2	2317.8
12.5°	5797.4	5605.4	5001.8	4261.4	3516.1	2786.5	2180.9	1677.8	1408.0	1288.9	1303.6
15°	5764.9	5500.1	4714.3	3788.8	2817.0	1940.7	1333.2	991.5	868.4	829.0	834.0
17.5°	5749.2	5398.6	4417.0	3248.2	2102.2	1235.7	861.5	760.1	733.5	726.6	728.6
20°	5733.4	5296.2	4110.8	2713.6	1448.4	831.0	707.9	678.4	668.6	659.7	661.7
22.5°	5706.8	5197.8	3781.9	2172.1	976.7	674.5	638.0	609.5	588.8	578.0	579.9
25°	5674.3	5094.4	3446.2	1617.7	712.9	601.6	567.1	526.8	502.2	482.5	483.4
27.5°	5622.1	4967.4	3099.6	1177.6	598.6	538.6	492.3	448.0	406.6	384.0	384.0
30°	5549.3	4823.6	2714.6	842.8	536.6	476.6	420.4	365.3	321.0	300.3	298.3
32.5°	5468.5	4674.0	2325.7	639.0	487.4	418.5	354.5	296.4	257.0	240.2	239.3
35°	5399.6	4512.5	1937.7	535.6	438.2	362.3	292.4	243.2	211.7	197.9	196.9
37.5°	5355.3	4351.0	1559.6	478.5	393.8	310.2	245.2	200.9	178.2	167.4	166.4
40°	5348.4	4230.9	1214.0	435.2	352.5	263.9	204.8	170.3	149.7	137.8	136.9
42.5°	5438.0	4162.0	931.4	398.8	310.2	223.5	174.3	145.7	124.1	112.2	111.3
45°	5673.3	4183.6	716.8	366.3	267.8	189.0	147.7	121.1	101.4	92.6	90.6
47.5°	6102.6	4333.3	570.1	333.8	227.4	160.5	126.0	100.4	83.7	74.8	73.8
50°	6866.7	4684.8	476.6	298.3	190.0	136.9	104.4	81.7	67.9	60.1	59.1
52.5°	7880.9	5311.0	425.4	263.9	157.5	116.2	85.7	65.0	53.2	47.3	46.3
55°	8999.4	6069.2	391.9	226.5	129.0	96.5	67.9	51.2	41.4	36.4	34.5
57.5°	10091.3	6725.9	360.4	190.0	107.3	78.8	54.2	40.4	32.5	27.6	26.6
60°	11094.6	7329.5	323.9	152.6	87.6	62.0	42.3	31.5	25.6	20.7	20.7
62.5°	12168.8	7796.2	273.7	119.1	71.9	47.3	34.5	28.6	20.7	17.7	16.7
65°	13307.1	8142.8	214.6	92.6	56.1	35.4	28.6	29.5	16.7	12.8	11.8
67.5°	14147.9	8073.8	158.5	72.9	43.3	27.6	27.6	31.5	14.8	9.8	8.9
69°	13962.8	7513.6	132.9	63.0	37.4	23.6	25.6	31.5	13.8	8.9	7.9
70°	13426.2	6893.3	117.2	56.1	33.5	21.7	24.6	30.5	12.8	8.9	7.9
72.5°	11181.3	5191.9	91.6	42.3	26.6	17.7	20.7	26.6	12.8	8.9	6.9
75°	8410.6	3323.1	69.9	30.5	19.7	13.8	15.8	19.7	12.8	7.9	6.9
77.5°	4576.5	1198.3	50.2	20.7	13.8	10.8	10.8	14.8	11.8	5.9	3.9
80°	1176.6	301.3	31.5	13.8	10.8	7.9	6.9	9.8	6.9	1.0	0.0
82.5°	290.5	67.9	16.7	9.8	7.9	3.0	3.0	4.9	3.0	0.0	0.0
85°	159.5	33.5	10.8	6.9	3.9	0.0	0.0	1.0	0.0	0.0	0.0
87.5°	81.7	9.8	3.0	2.0	1.0	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.

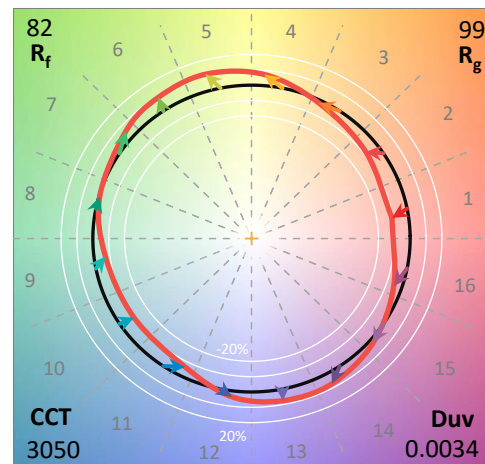
Test Information

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

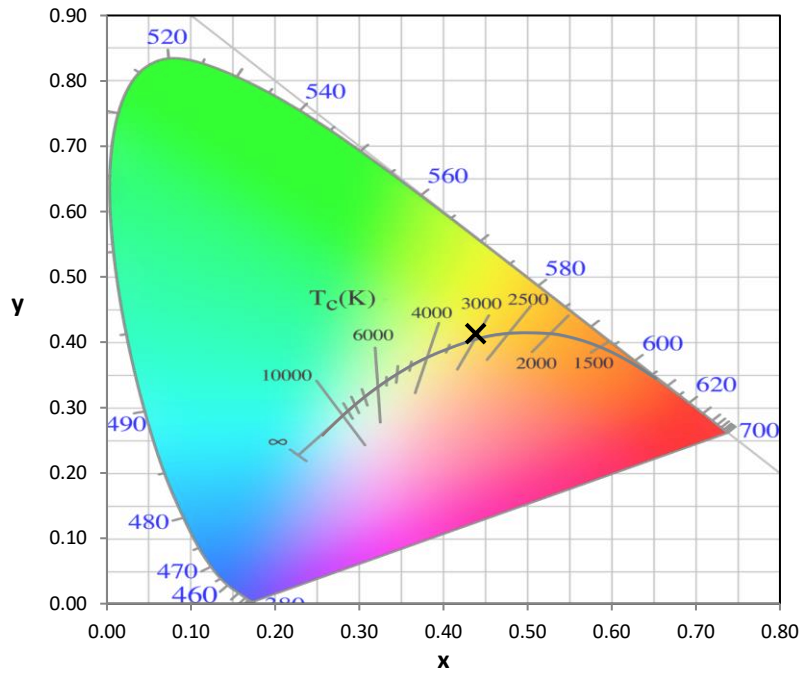
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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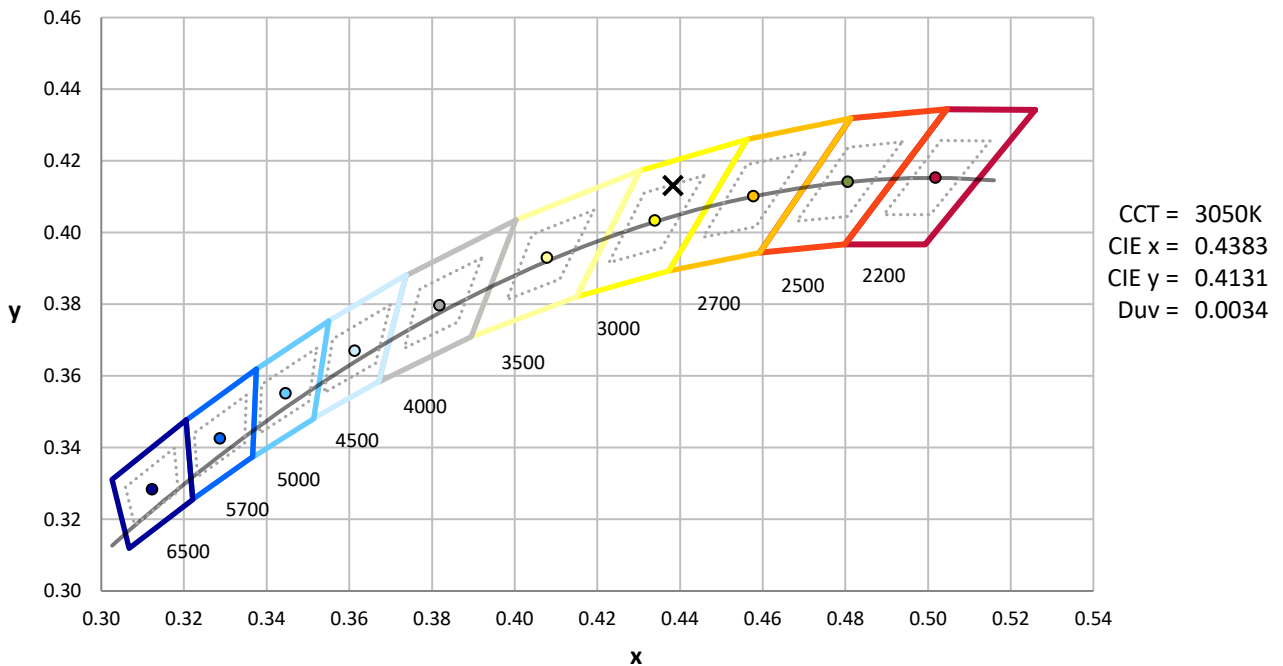
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



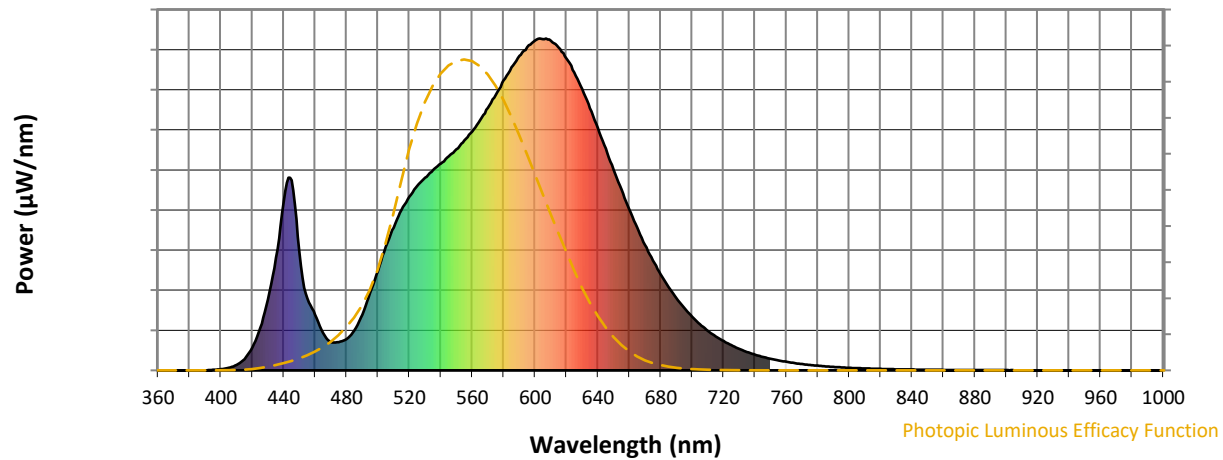
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

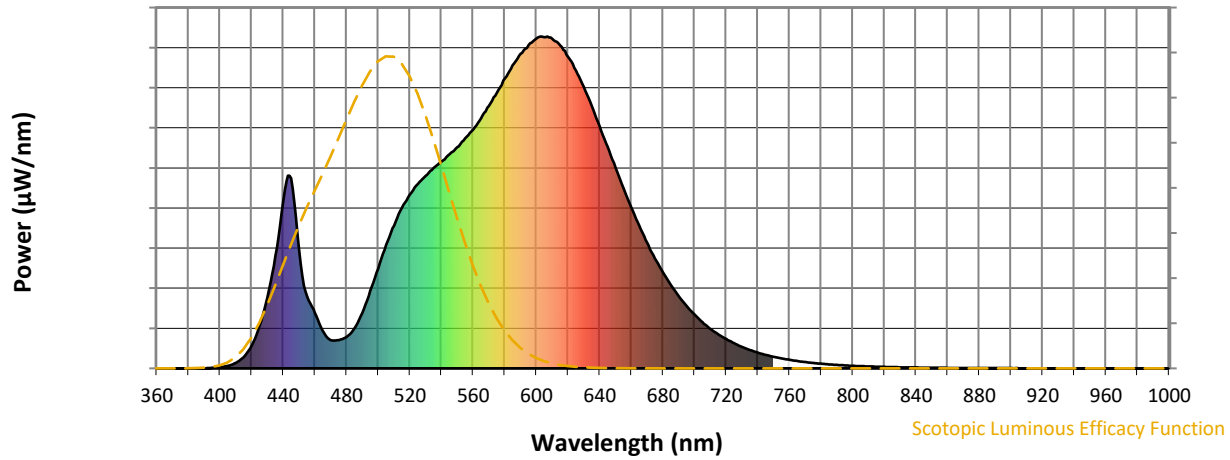


Photopic Lumens: NR

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



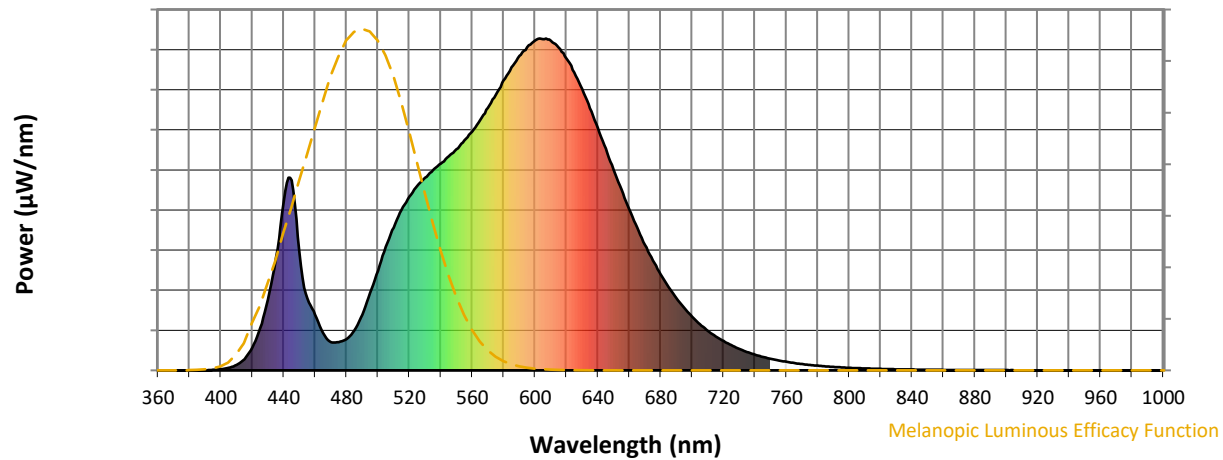
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power 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

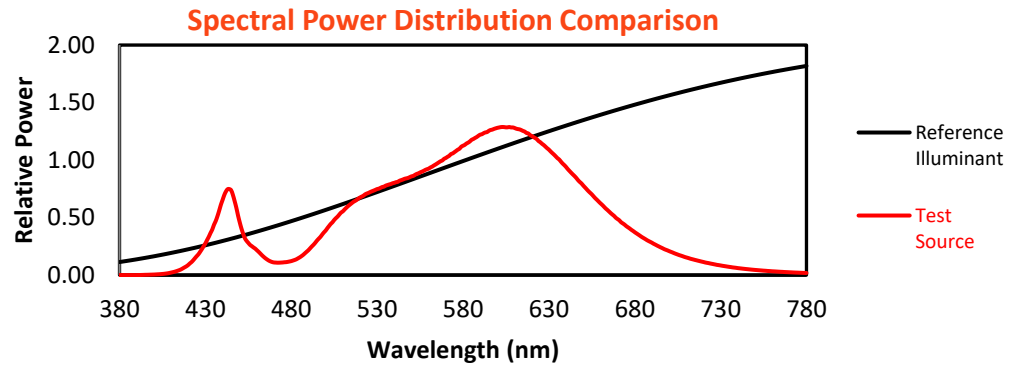
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940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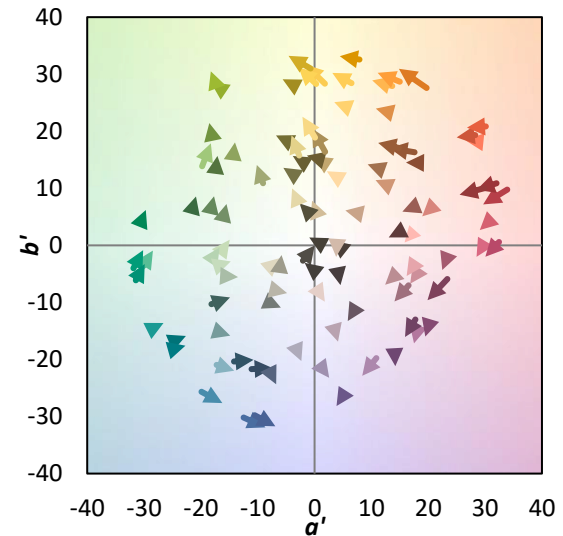
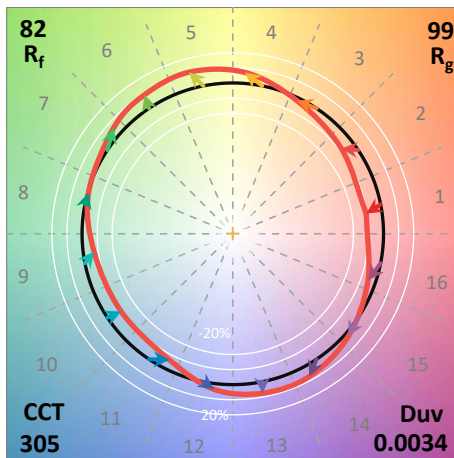
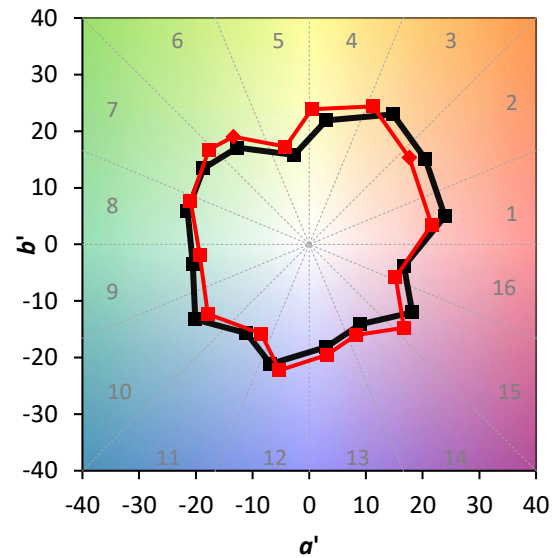
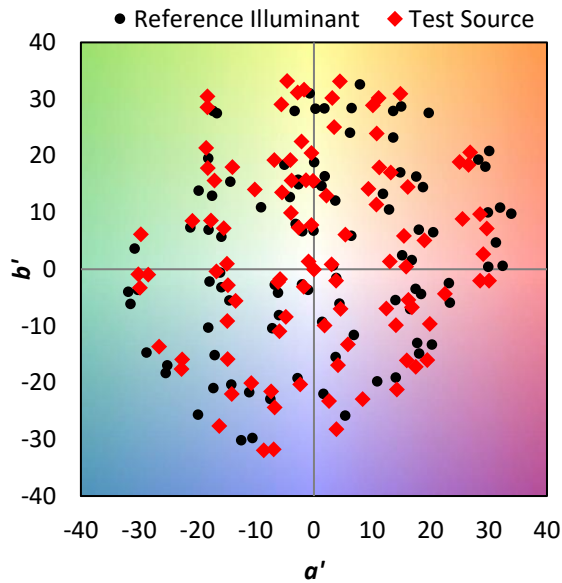
TM-30-18

Summary

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

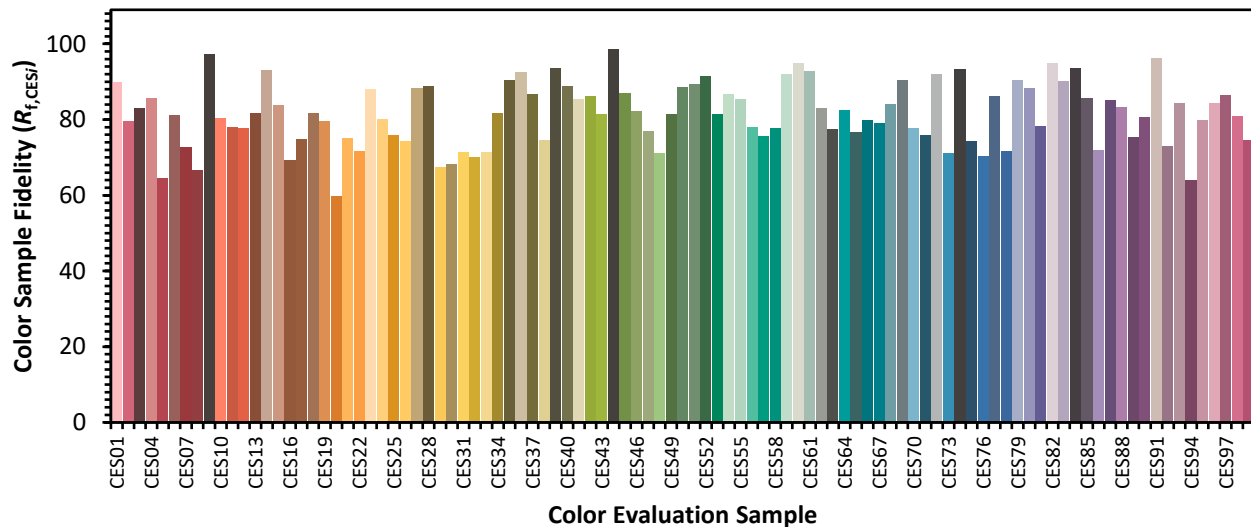


Color Vector Graphics

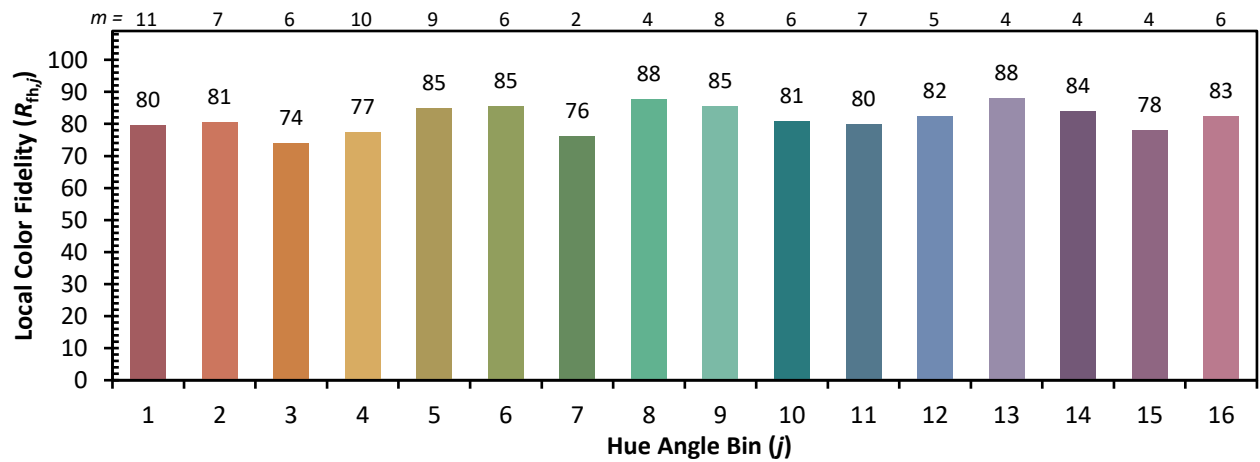
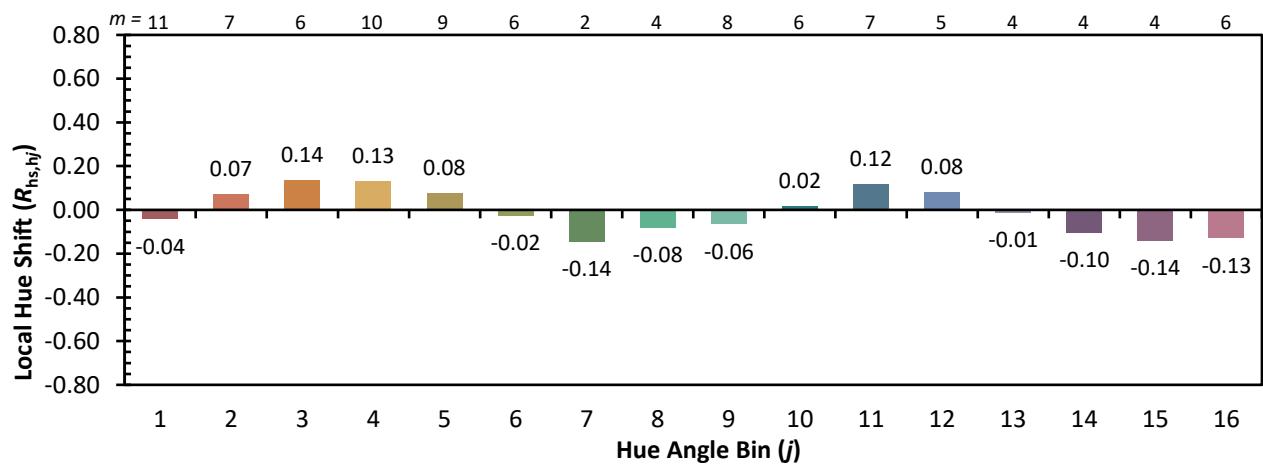
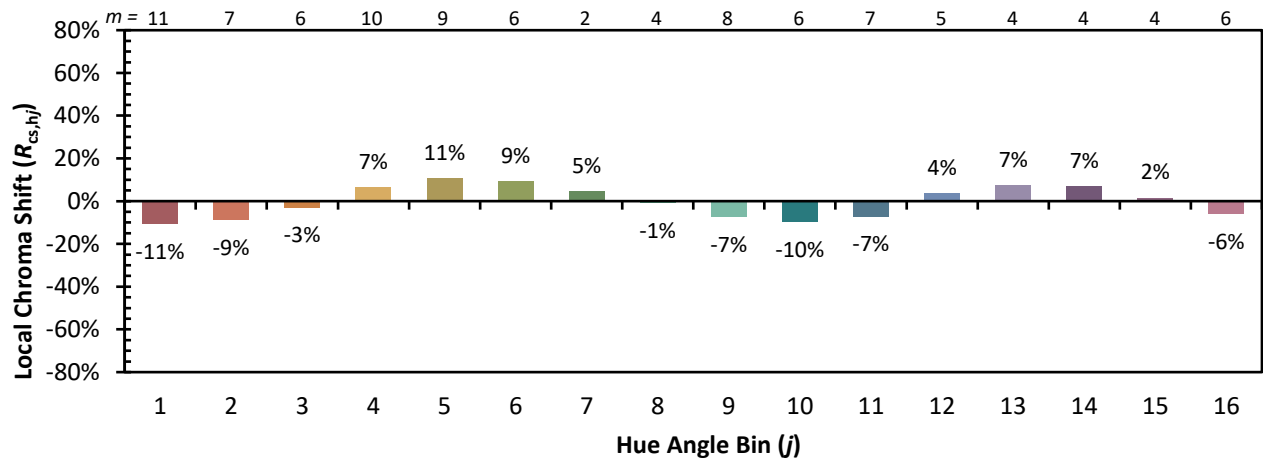


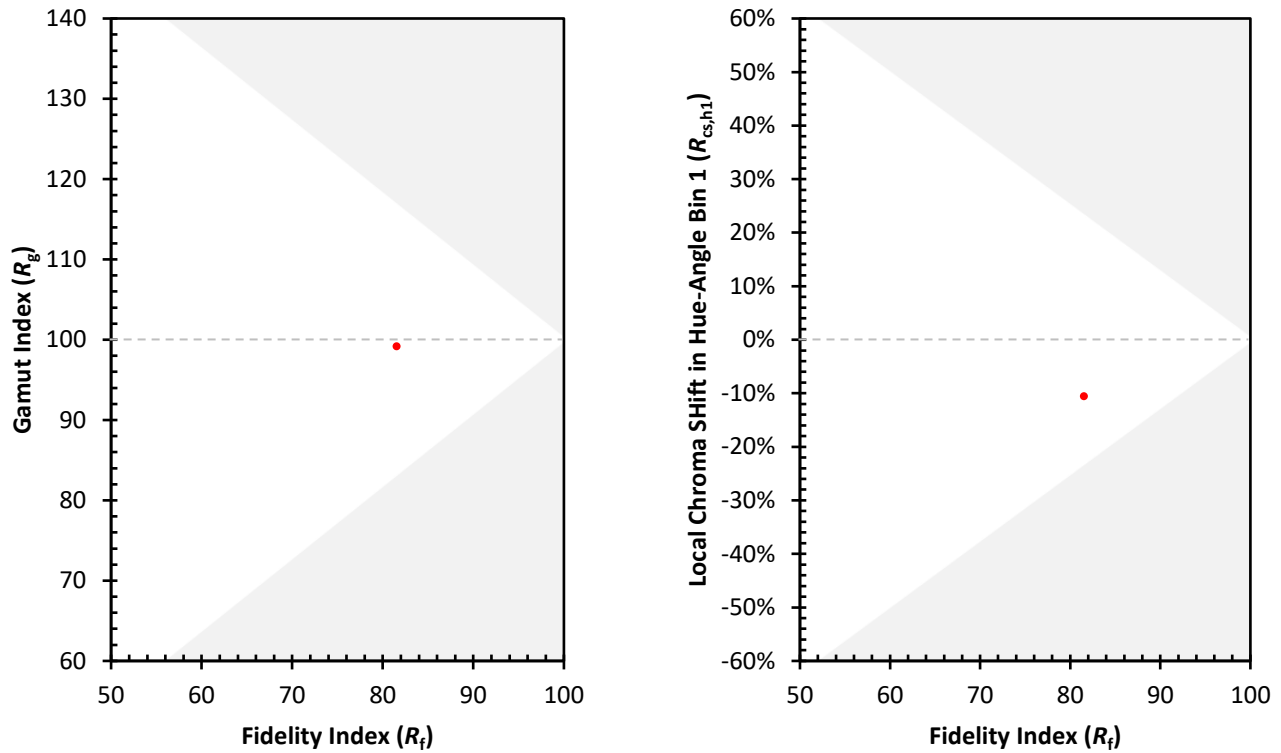
Individual Sample Fidelity Index ($R_{f,i}$)

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)