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: P319523

Luminaire Tested: **GLEON-SA9B-830-U-SL2**

Issue Date: 3/3/2020

Report Generated By E0585644

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P319523
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-20)
Test Lab:	INNOVATION CENTER
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GLEON-SA9B-830-U-SL2
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(9) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	39770 lumens
Efficiency:	N/A
Efficacy:	106.3 lumens/watt
Luminous Opening:	Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B4 - U0 - G5

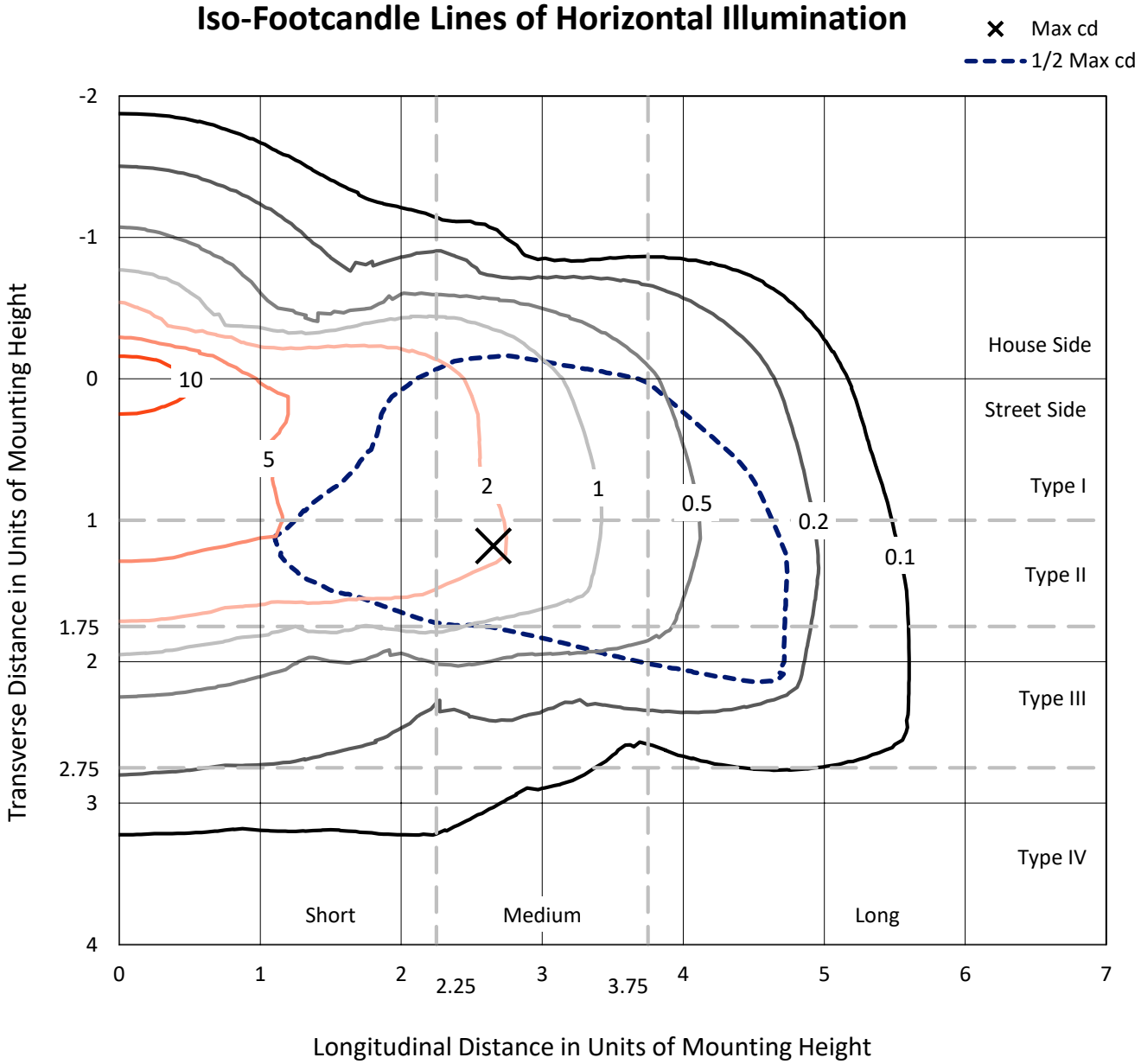
Input Watts (W):	374
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

Iso-Footcandle Lines of Horizontal Illumination



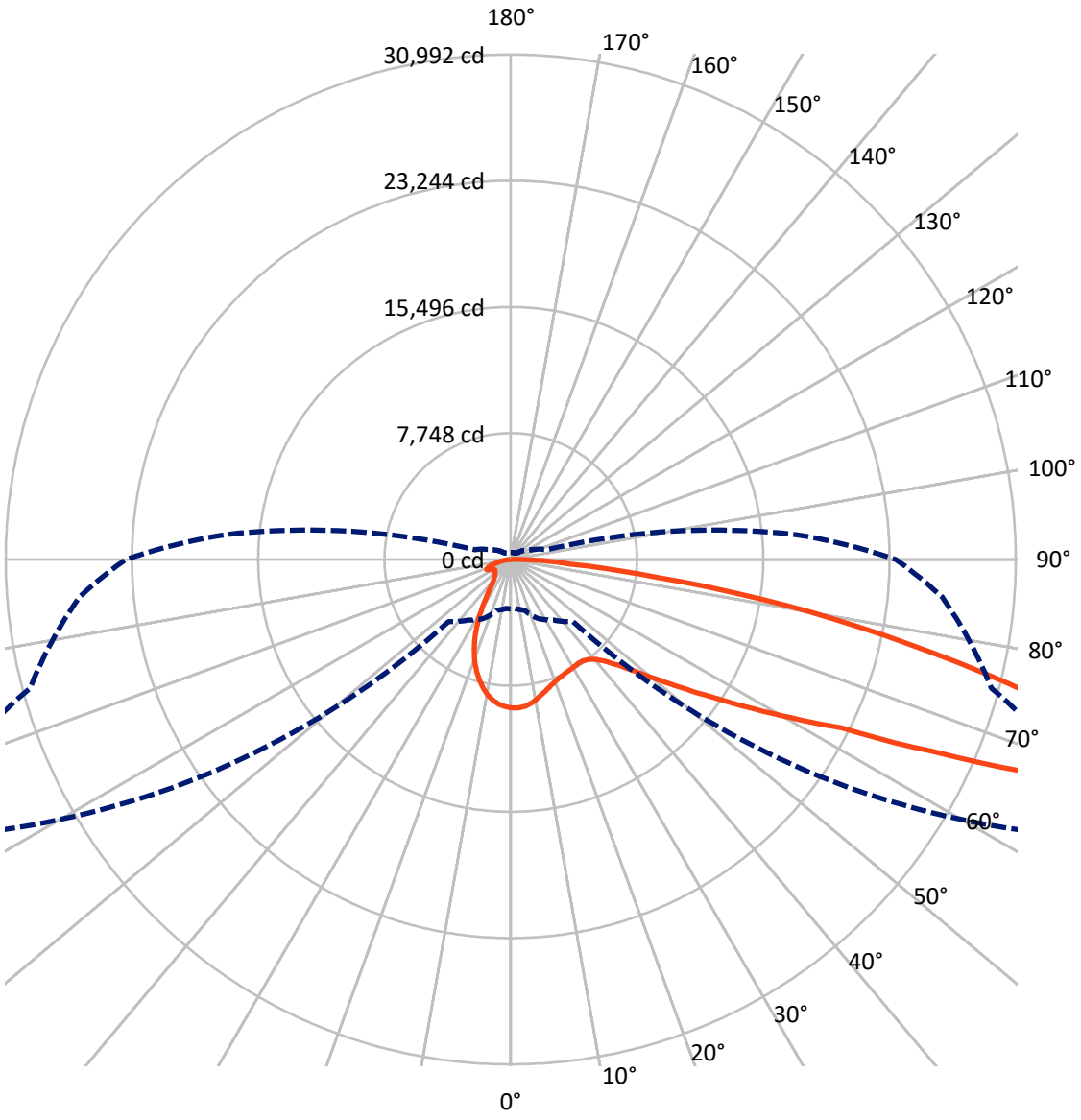
Based on 25 foot mounting height. Maximum calculated value = 14.6 fc
Type III - Medium - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

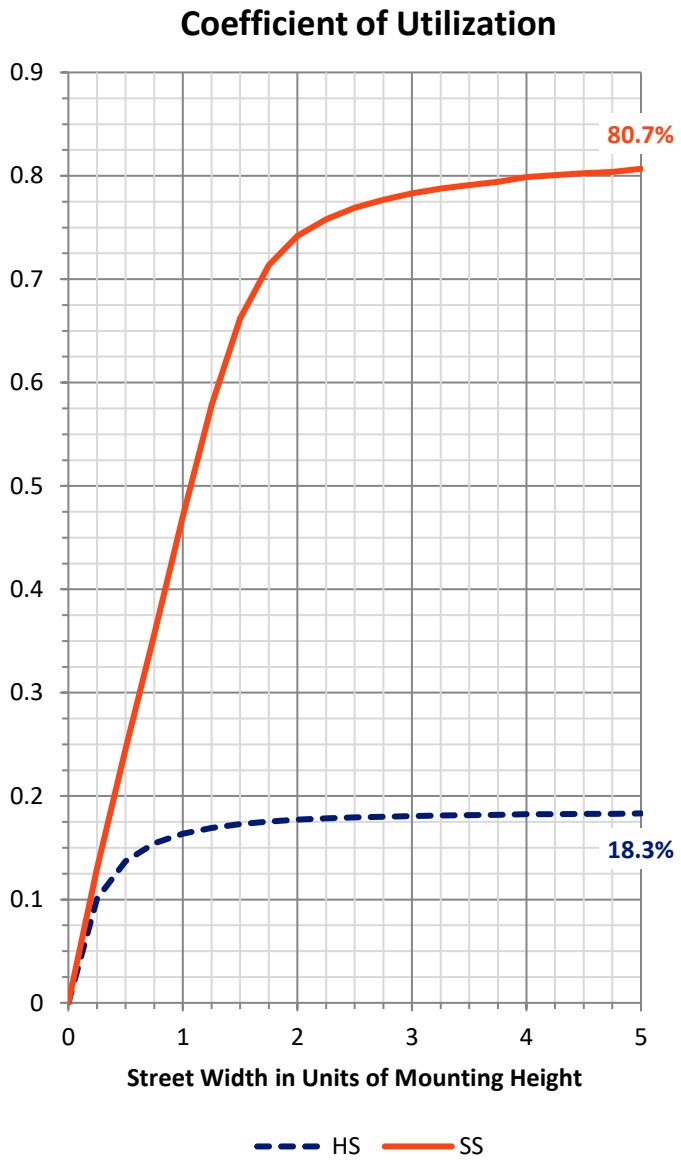
REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7370.5	0.0	7370.5
	% Fixture	18.5	0.0	18.5
Street Side	Lumens	32399.5	0.0	32399.5
	% Fixture	81.5	0.0	81.5
Total	Lumens	39770.0	0.0	39770.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	801.9	2.0
10°-20°	1923.4	4.8
20°-30°	2583.6	6.5
30°-40°	3398.7	8.5
40°-50°	4944.2	12.4
50°-60°	7723.4	19.4
60°-70°	9674.8	24.3
70°-80°	7379.7	18.6
80°-90°	1340.1	3.4
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°	39770.0	100.0
0°-180°	39770.0	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

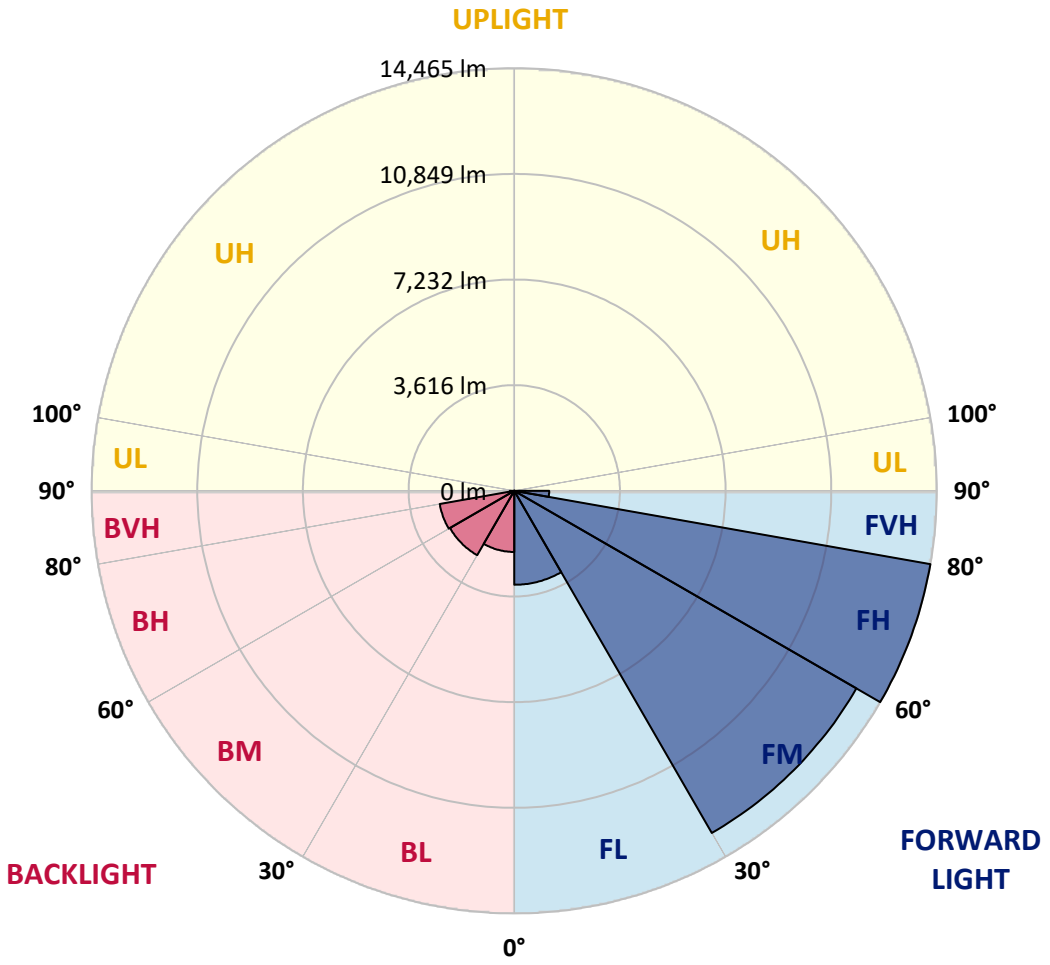
Scaled Data Report

REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	3216.0	8.1			
FM	(30°-60°)	13523.8	34.0			
FH	(60°-80°)	14464.8	36.4			G5
FVH	(80°-90°)	1195.0	3.0			G5
BL	(0°-30°)	2093.0	5.3	B3/2500		
BM	(30°-60°)	2542.6	6.4	B3/5000		
BH	(60°-80°)	2589.8	6.5	B4/5000		G4/5000
BVH	(80°-90°)	145.1	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5
Type III Medium



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	*9110.5*	9110.5	9110.5
2.5°	8941.6	8927.9	8969.1	9011.7	9028.2	9055.6	9096.8	9120.1	*9118.8*	9122.9	9109.2
5°	8348.5	8330.6	8413.0	8480.3	8609.4	8754.9	8932.0	9058.4	*9061.1*	9132.5	9151.7
7.5°	7786.9	7774.5	7869.3	7977.7	8127.4	8349.8	8636.8	8908.7	*8925.2*	9118.8	9186.1
10°	7336.5	7333.7	7425.7	7543.8	7718.2	7966.7	8296.3	8694.5	*8719.2*	9052.9	9191.6
12.5°	6985.0	6990.5	7070.1	7204.7	7388.7	7648.2	8005.2	8454.2	*8494.0*	8948.5	9160.0
15°	6725.5	6747.4	6812.0	6947.9	7129.1	7392.8	7759.4	8231.8	*8292.2*	8831.8	9142.1
17.5°	6577.2	6601.9	6647.2	6759.8	6930.0	7184.1	7531.5	8049.1	*8104.1*	8742.5	9143.5
20°	6533.2	6553.8	6579.9	6648.6	6792.7	7023.4	7351.6	7884.4	*7943.4*	8671.1	9157.2
22.5°	6619.7	6634.8	6637.6	6632.1	6720.0	6908.1	7221.1	7763.5	*7826.7*	8624.5	9166.8
25°	6805.1	6825.7	6810.6	6759.8	6730.9	6846.3	7153.9	7683.9	*7747.0*	8590.1	9147.6
27.5°	7083.8	7086.6	7074.2	7008.3	6872.4	6853.2	7133.3	7637.2	*7697.6*	8550.3	9107.8
30°	7462.8	7480.7	7458.7	7369.4	7147.0	6963.0	7158.0	7591.9	*7646.8*	8499.5	9043.3
32.5°	7906.3	7950.3	7948.9	7855.5	7537.0	7208.8	7259.6	7564.4	*7607.0*	8446.0	8965.0
35°	8366.3	8426.7	8539.3	8499.5	8105.4	7597.4	7454.6	7608.4	*7637.2*	8439.1	8910.1
37.5°	8844.2	8904.6	9136.6	9243.7	8782.4	8153.5	7762.2	7763.5	*7777.3*	8522.8	8905.9
40°	9344.0	9408.5	9757.3	10036.0	9659.8	8857.9	8257.8	8087.6	*8072.5*	8728.8	8987.0
42.5°	10044.2	10101.9	10520.7	10876.3	10633.3	9760.0	8943.0	8587.4	*8555.8*	9132.5	9246.5
45°	10929.9	10979.3	11424.2	11804.6	11679.6	10789.8	9804.0	9275.3	*9269.8*	9805.3	9772.4
47.5°	11983.1	12021.5	12421.1	12789.1	12834.4	11974.8	10886.0	10336.7	*10247.5*	10728.1	10586.6
50°	13080.2	13122.7	13394.6	13790.1	14126.5	13560.8	12278.3	11637.0	*11517.6*	11946.0	11740.0
52.5°	13806.5	13862.8	14099.0	14600.2	15579.2	15299.1	13924.6	13213.4	*13032.1*	13422.1	13264.2
55°	13482.5	13608.8	13969.9	14773.2	16740.9	17954.7	15955.5	15052.0	*14847.4*	15171.4	15078.0
57.5°	12009.2	12182.2	12675.1	13915.0	16904.3	20294.5	19025.7	17217.3	*17073.2*	16979.8	17022.4
60°	9316.5	9482.6	10093.7	11709.8	15766.0	22002.6	23646.2	19886.6	*19677.9*	18795.0	18833.5
62.5°	6593.6	6509.9	6928.7	8110.9	12811.0	22203.1	28903.8	23456.7	*22770.2*	20711.9	20543.0
65°	5028.3	5009.1	5197.2	5573.4	7759.4	19804.3	32035.9	29457.2	*28384.8*	22966.5	22568.3
67.5°	4131.7	4097.3	4282.7	4830.6	4996.7	12776.7	32104.5	36418.8	*35365.6*	25773.1	24910.8
70°	3397.1	3358.6	3531.6	4238.8	4617.7	6479.7	27019.9	40495.5	*40439.3*	29326.7	26679.4
71°	*3045.5*	*3018.1*	*3225.4*	*4010.8*	*4536.7*	*5400.4*	*23329.0*	*40506.5*	*40675.4*	*30529.6*	*26575.0*
72.5°	2479.8	2489.4	2709.1	3570.1	4476.3	4768.8	17145.9	38618.5	*38975.5*	31676.1	25626.2
75°	1647.7	1656.0	1944.3	2746.2	4340.4	4665.8	9423.6	32405.2	*33061.6*	30989.6	23383.9
77.5°	1106.7	1104.0	1300.3	1883.9	3781.5	4665.8	5525.4	24236.6	*24957.5*	24658.2	18027.5
80°	762.1	756.6	895.3	1300.3	2862.9	4722.1	4271.7	16985.3	*17203.6*	13316.4	7326.9
82.5°	466.9	471.0	584.9	918.6	1948.4	4249.8	4032.8	9261.6	*9024.0*	3734.8	1830.3
85°	267.8	266.4	373.5	622.0	1250.9	3586.5	3932.6	3986.1	*3656.6*	1124.6	661.8
87.5°	96.1	103.0	200.5	344.6	716.8	2497.7	3336.6	2073.4	*1868.8*	508.0	299.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P319523
CATALOG NUMBER: GLEON-SA9B-830-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5	9110.5
2.5°	9099.6	9107.8	9098.2	9043.3	8996.6	8921.0	8878.5	8819.4	8801.6	8793.4	8815.3
5°	9133.9	9136.6	9055.6	8911.4	8749.4	8558.5	8421.2	8252.3	8172.7	8138.4	8160.3
7.5°	9165.5	9153.1	8976.0	8700.0	8400.6	8068.4	7773.1	7502.6	7344.7	7280.2	7285.7
10°	9169.6	9117.4	8833.2	8406.1	7942.0	7454.6	7001.5	6584.0	6320.4	6148.8	6200.9
12.5°	9127.0	9039.1	8623.1	8025.8	7381.8	6717.2	6104.8	5478.7	5102.4	4928.1	4933.6
15°	9094.1	8934.8	8364.9	7578.2	6713.1	5832.9	4996.7	4260.7	3859.8	3681.3	3597.5
17.5°	9066.6	8822.2	8065.6	7074.2	5923.6	4807.2	3802.1	3145.8	2926.1	2873.9	2851.9
20°	9028.2	8702.7	7731.9	6490.7	5024.2	3659.3	2776.4	2452.4	2453.7	2514.2	2522.4
22.5°	8974.6	8566.8	7376.3	5835.7	4058.9	2665.2	2176.4	2083.0	2177.7	2293.1	2313.7
25°	8895.0	8406.1	6980.9	5112.1	3095.0	2048.7	1859.2	1855.1	1970.4	2091.2	2109.1
27.5°	8782.4	8196.1	6541.5	4334.9	2280.7	1741.1	1665.6	1694.4	1779.5	1867.4	1874.3
30°	8631.3	7951.6	6056.8	3515.1	1787.8	1550.2	1542.0	1568.1	1620.3	1682.1	1687.5
32.5°	8465.2	7703.1	5539.1	2721.5	1531.0	1447.3	1455.5	1467.8	1492.6	1517.3	1522.8
35°	8314.1	7449.1	5009.1	2067.9	1408.8	1380.0	1374.5	1371.7	1374.5	1366.2	1367.6
37.5°	8216.6	7239.0	4457.1	1646.4	1338.8	1320.9	1304.4	1283.9	1260.5	1246.8	1249.5
40°	8180.9	7082.5	3898.2	1422.5	1281.1	1268.7	1237.2	1193.2	1165.8	1157.5	1157.5
42.5°	8277.1	7001.5	3358.6	1309.9	1233.0	1212.4	1160.3	1109.5	1088.9	1087.5	1086.1
45°	8570.9	7034.4	2845.1	1248.2	1189.1	1149.3	1080.6	1038.1	1024.3	1027.1	1025.7
47.5°	9098.2	7241.7	2405.7	1207.0	1145.2	1093.0	1016.1	981.8	965.3	965.3	966.7
50°	9994.8	7726.4	2055.5	1172.6	1108.1	1040.8	969.4	926.8	904.9	903.5	903.5
52.5°	11300.6	8594.3	1837.2	1143.8	1066.9	994.1	922.7	869.2	843.1	837.6	834.8
55°	12937.4	9838.3	1776.8	1124.6	1012.0	943.3	866.4	812.9	784.0	771.7	770.3
57.5°	14767.7	11351.4	1896.3	1101.2	955.7	882.9	804.6	753.8	723.6	708.5	707.1
60°	16620.0	13003.3	2383.7	1068.3	909.0	817.0	741.5	694.8	664.6	648.1	645.4
62.5°	18475.1	14744.4	3379.2	1065.5	876.0	753.8	676.9	637.1	608.3	590.4	586.3
65°	20567.7	16650.2	4510.6	1138.3	865.1	696.2	611.0	579.4	554.7	538.3	536.9
67.5°	22970.6	18801.9	4402.2	1288.0	902.1	644.0	549.2	524.5	506.7	492.9	491.6
70°	24098.0	18465.5	2736.6	1393.7	954.3	593.2	490.2	472.3	458.6	449.0	444.9
71°	*23625.6*	*17533.1*	*2294.5*	*1381.3*	*948.8*	*571.2*	*466.9*	*453.1*	*439.4*	*431.2*	*427.0*
72.5°	22337.6	15989.8	1914.1	1285.2	887.0	531.4	436.6	422.9	410.6	400.9	398.2
75°	20044.6	14280.3	1532.4	1027.1	707.1	449.0	383.1	368.0	358.4	352.9	347.4
77.5°	14734.8	10191.2	1185.0	811.5	520.4	366.6	326.8	315.8	306.2	298.0	293.8
80°	5644.8	3947.7	797.8	605.5	381.7	289.7	263.6	258.1	248.5	243.0	243.0
82.5°	1520.0	1179.5	425.7	366.6	255.4	211.5	201.8	199.1	190.9	179.9	181.2
85°	615.2	520.4	238.9	201.8	156.5	125.0	135.9	137.3	127.7	114.0	115.3
87.5°	270.5	221.1	133.2	89.3	68.7	48.1	61.8	61.8	56.3	46.7	42.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

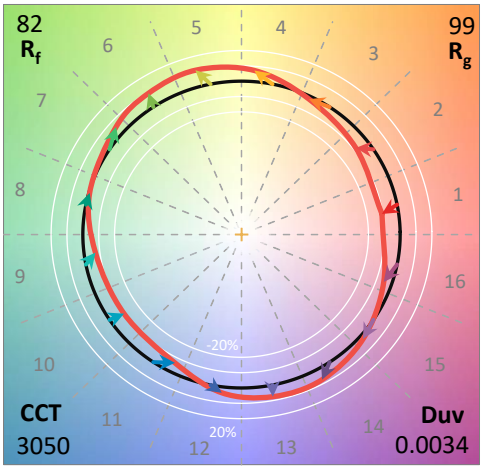
Test Information

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	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

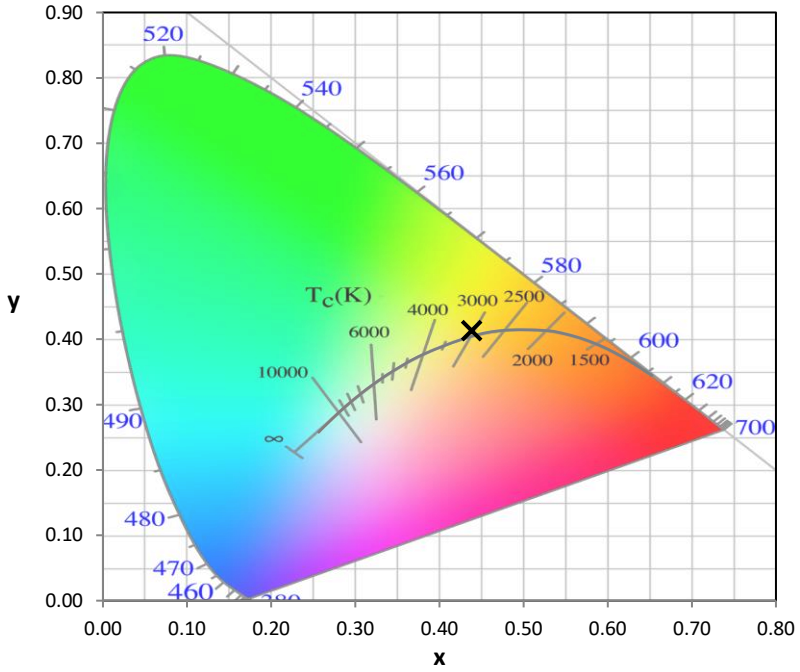
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

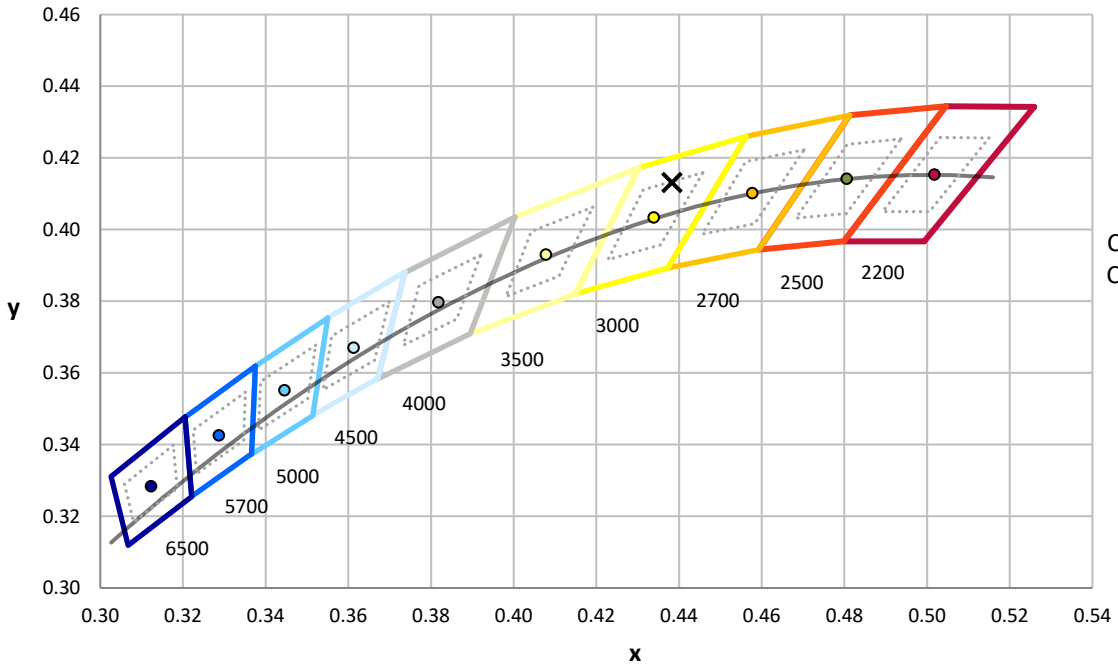
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

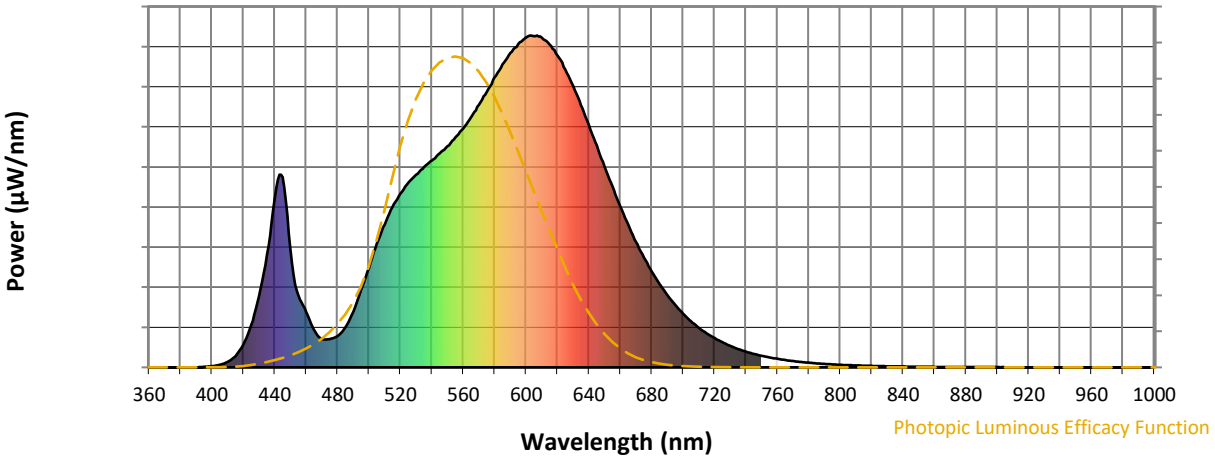


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

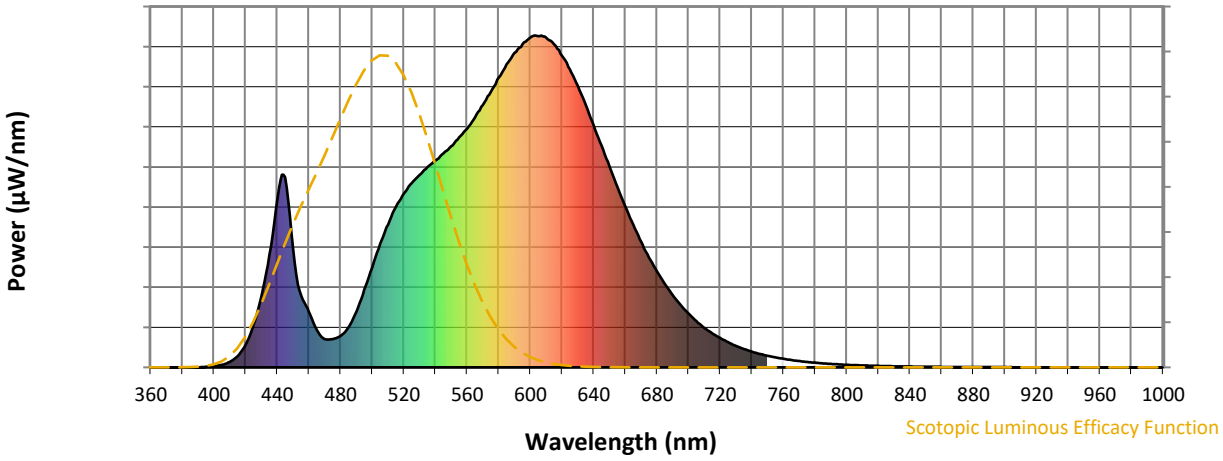


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

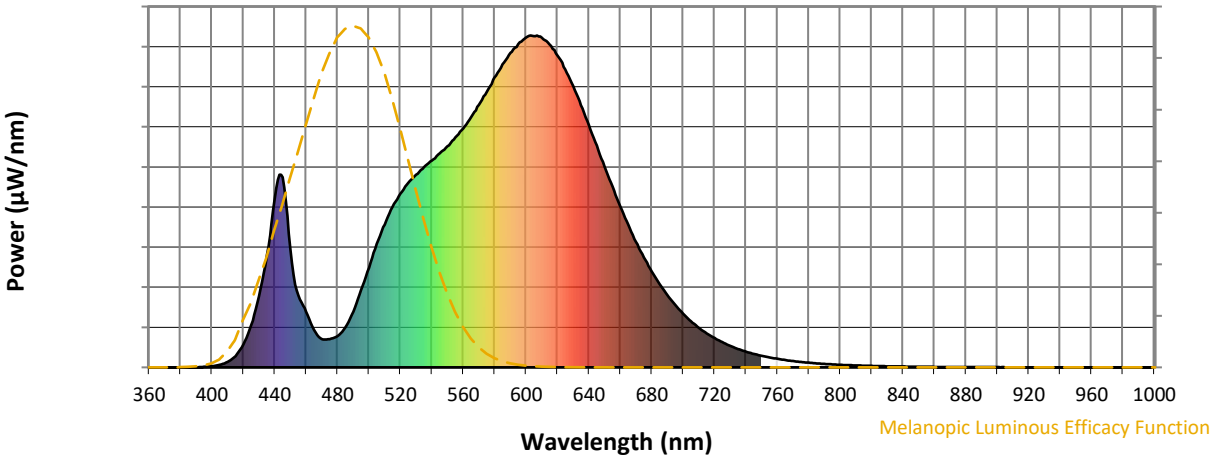


Scotopic Lumens: NR **S/P: 1.27**

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			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

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			

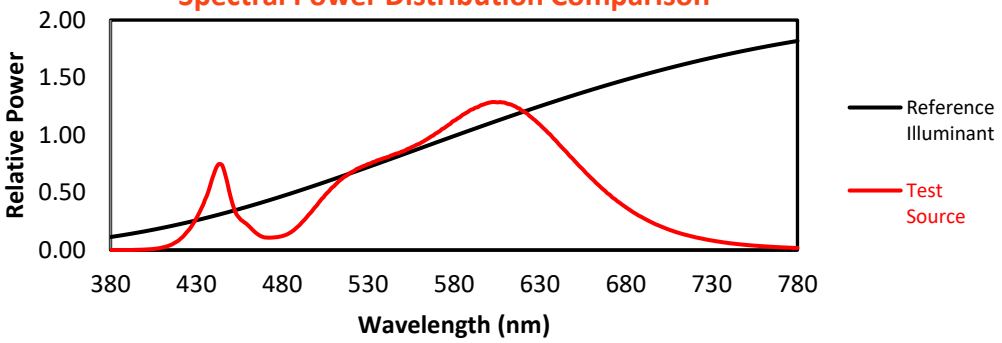
REPORT NUMBER: SP1-2408-195-9

TM-30-18

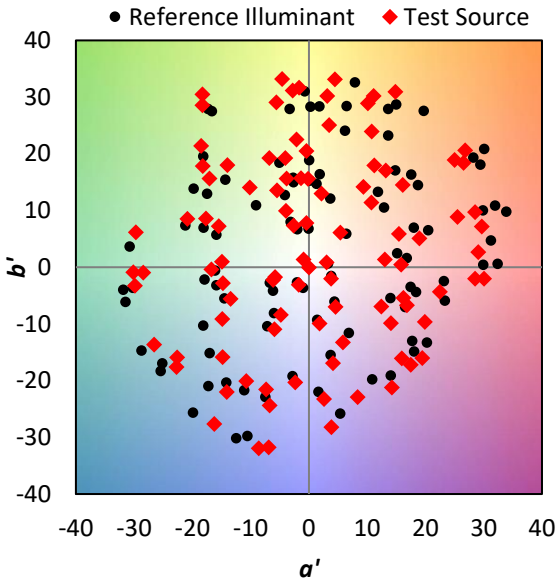
Summary

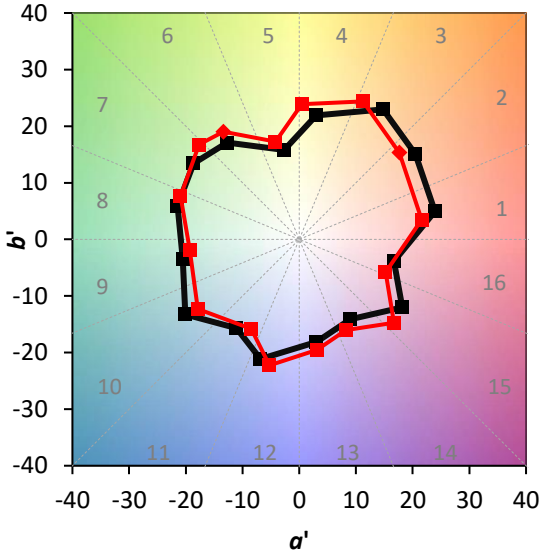
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

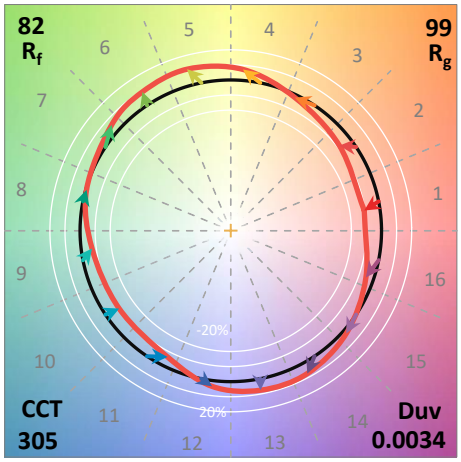
Spectral Power Distribution Comparison

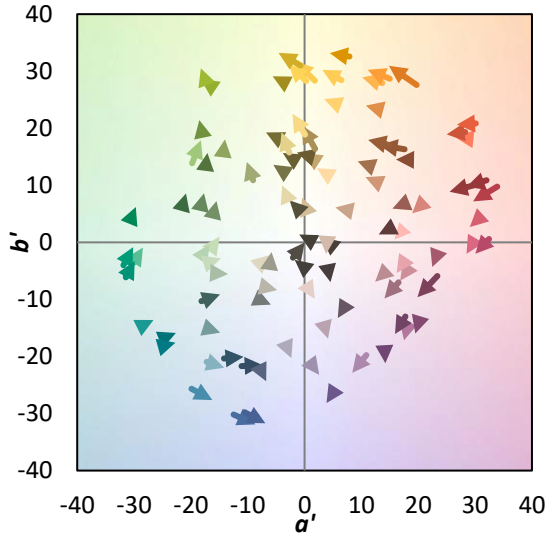


Color Vector Graphics







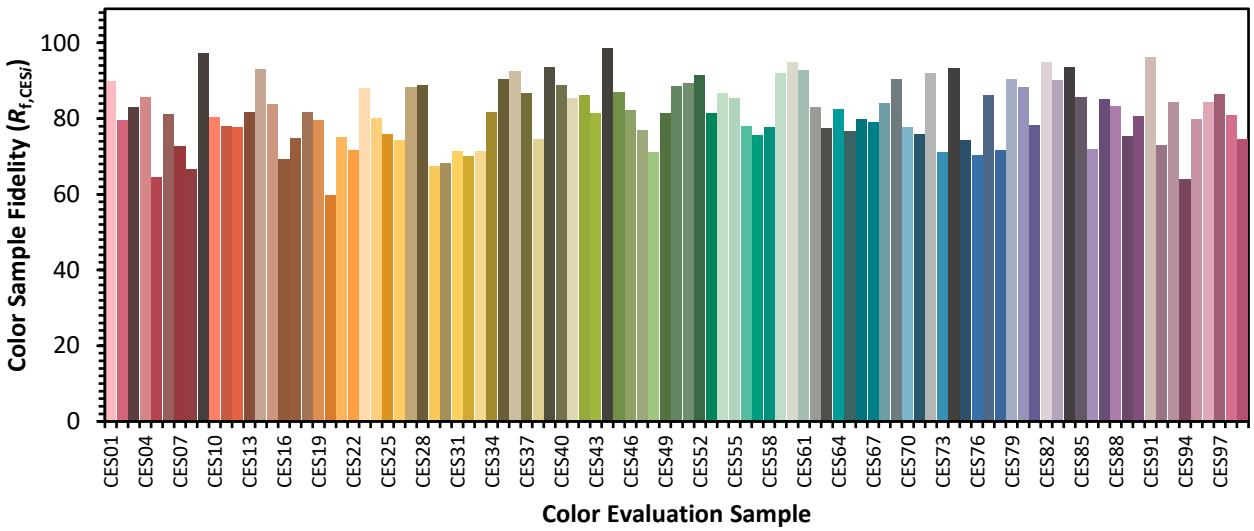


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

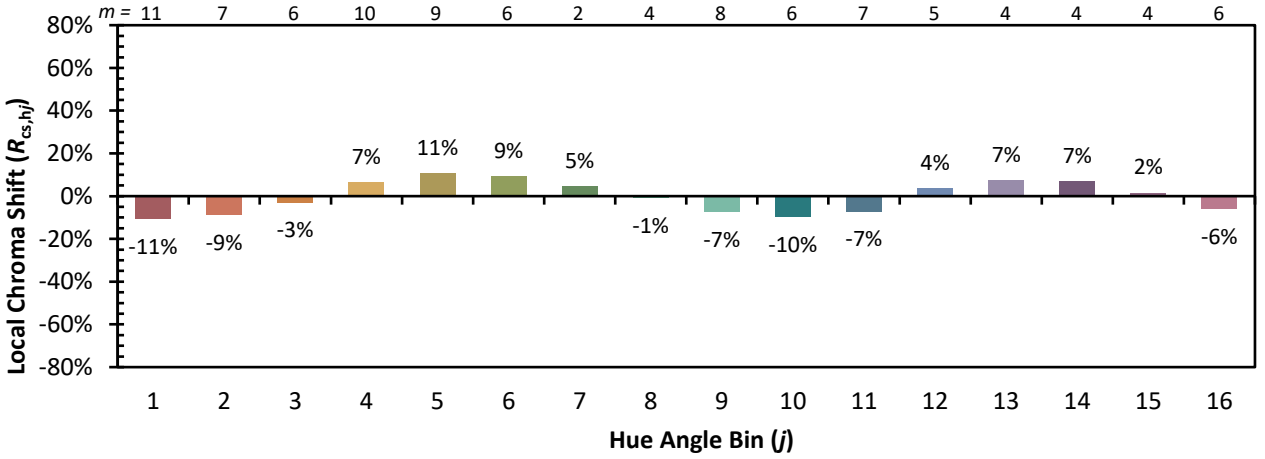
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

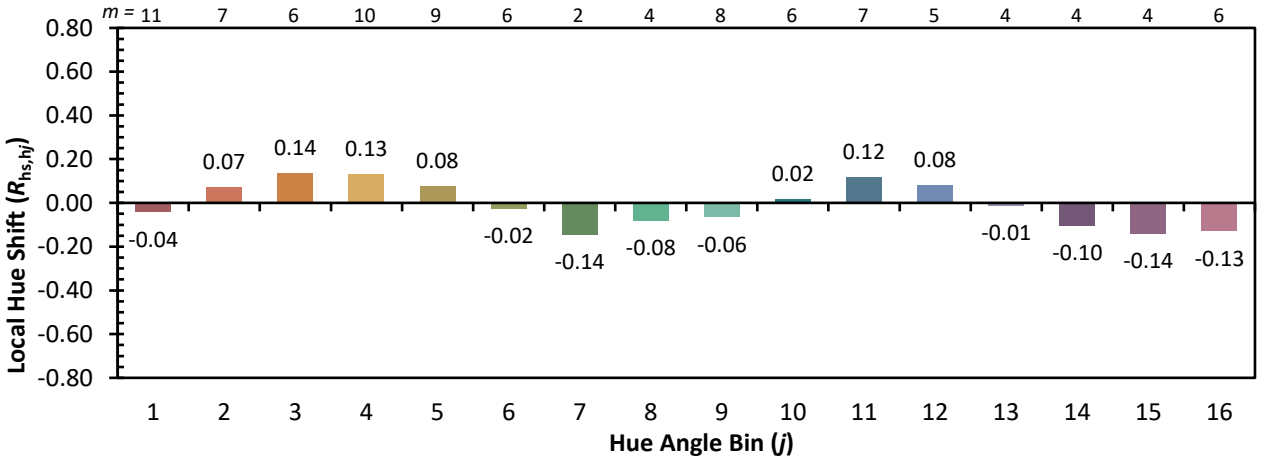


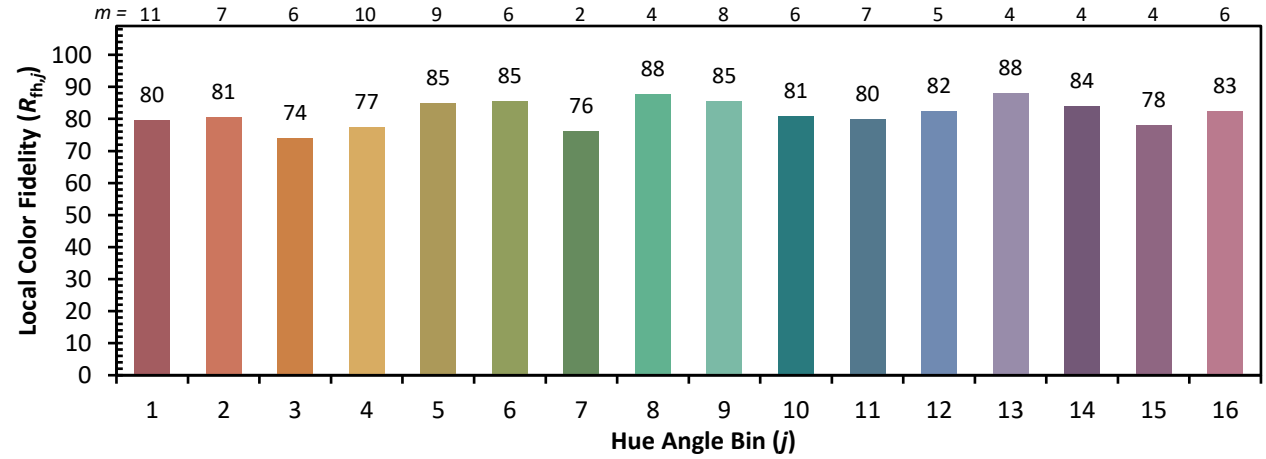
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



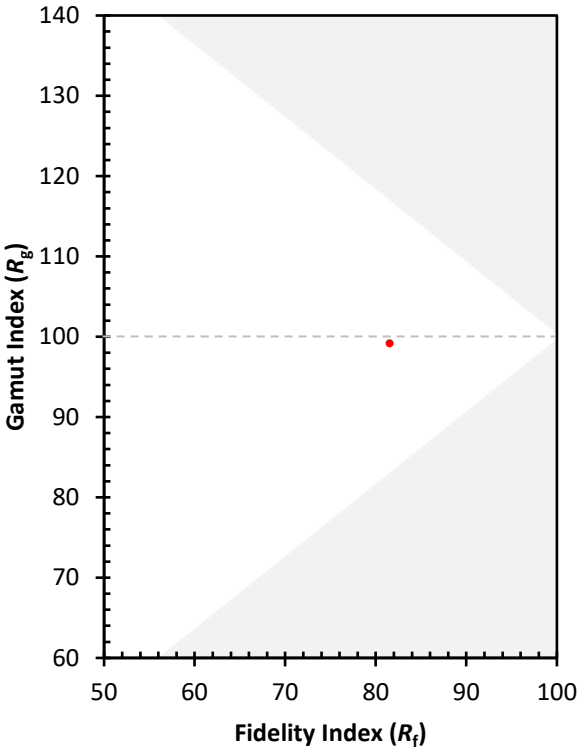


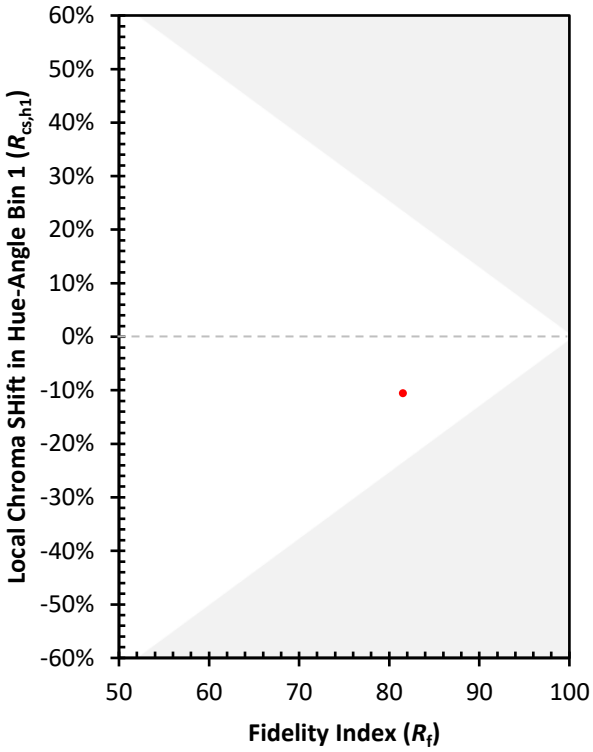


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)