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: P324339

Luminaire Tested: **GLEON-SA5D-830-U-SLL-HSS**

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:	P324339
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)
Test Lab:	INNOVATION CENTER
Issue Date:	3/3/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	GLEON-SA5D-830-U-SLL-HSS
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(5) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	22846 lumens
Efficiency:	N/A
Efficacy:	71.4 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B2 - U0 - G4

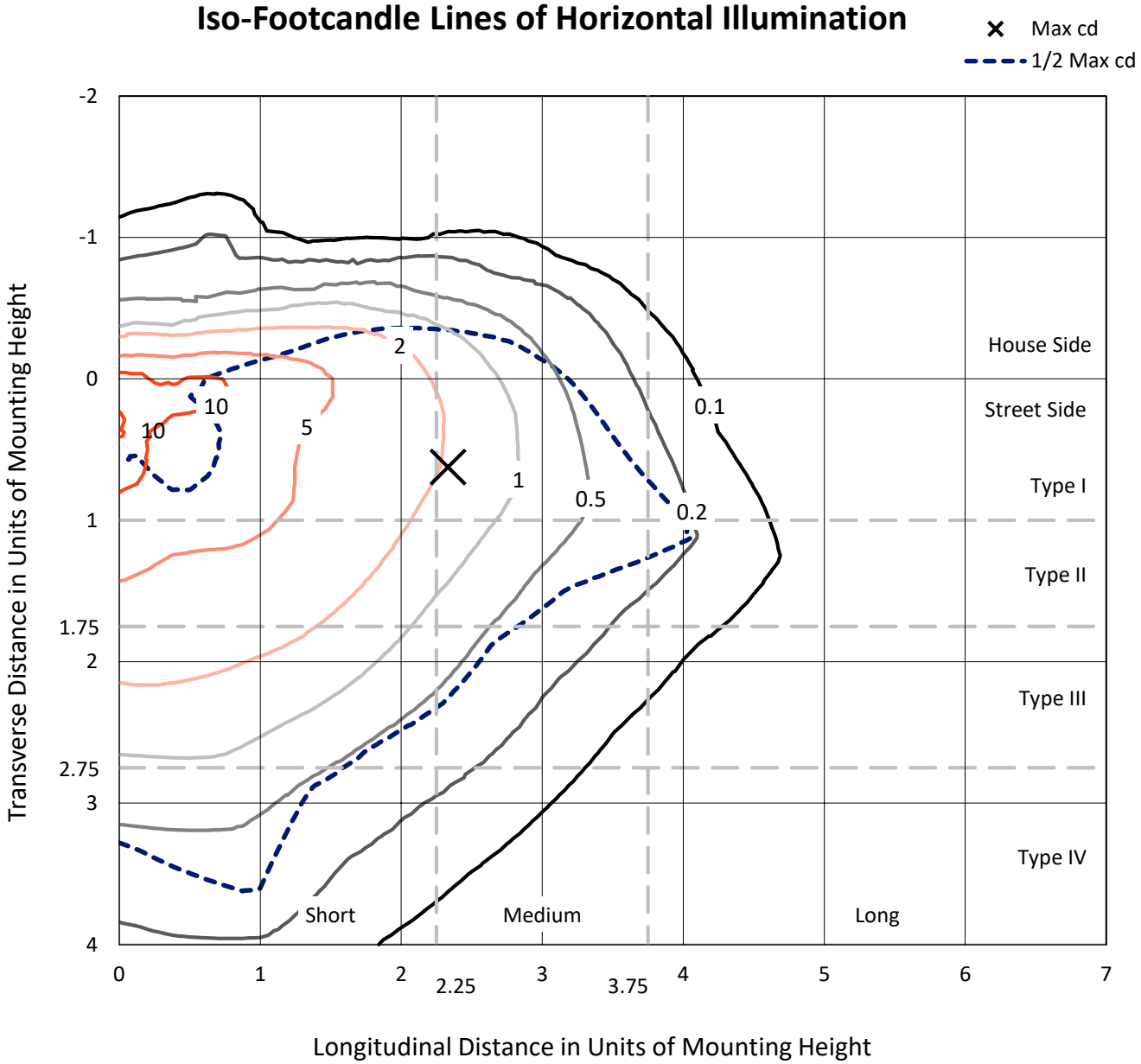
Input Watts (W):	320
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination



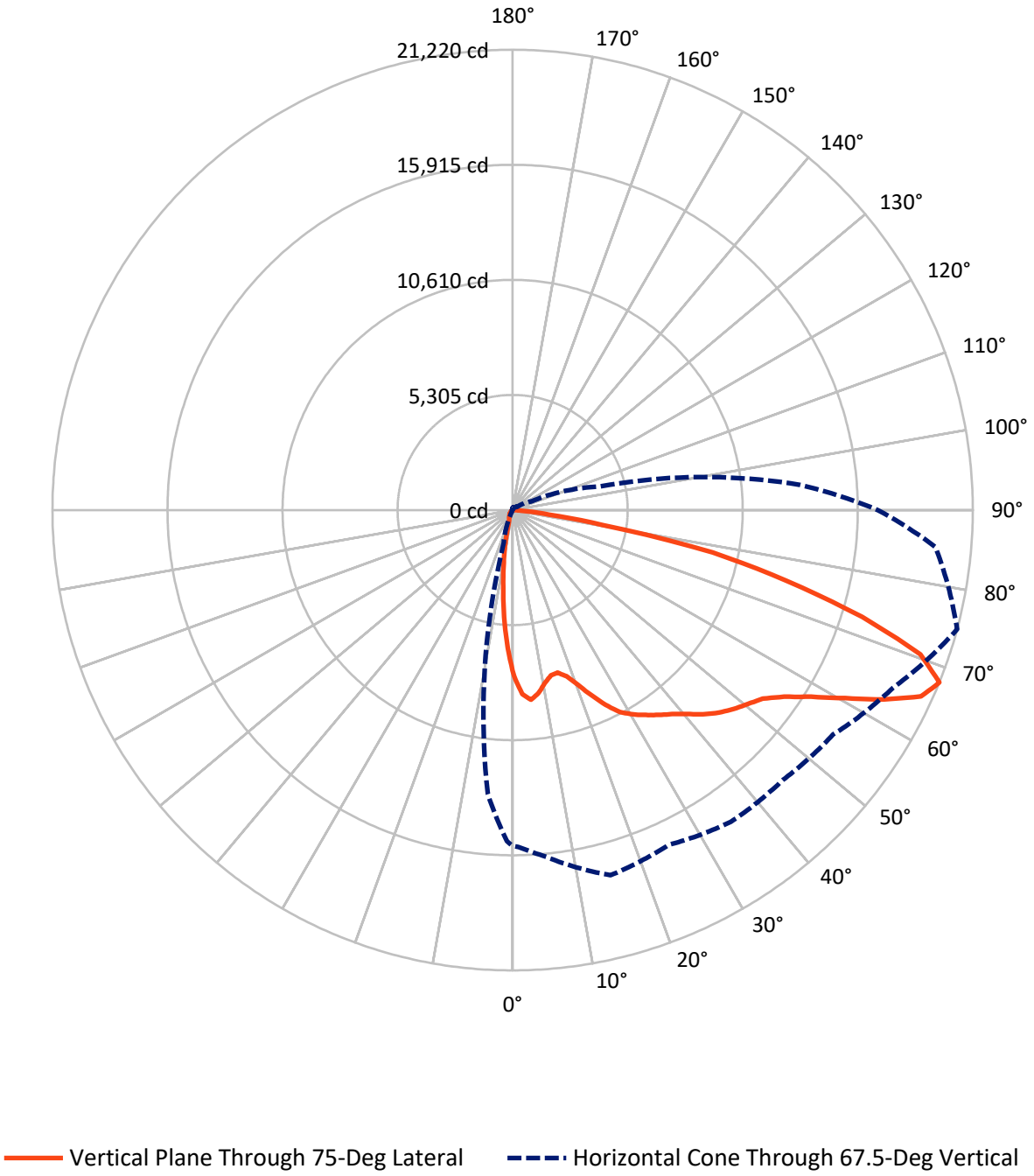
Based on 25 foot mounting height. Maximum calculated value = 15.9 fc
Type III - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

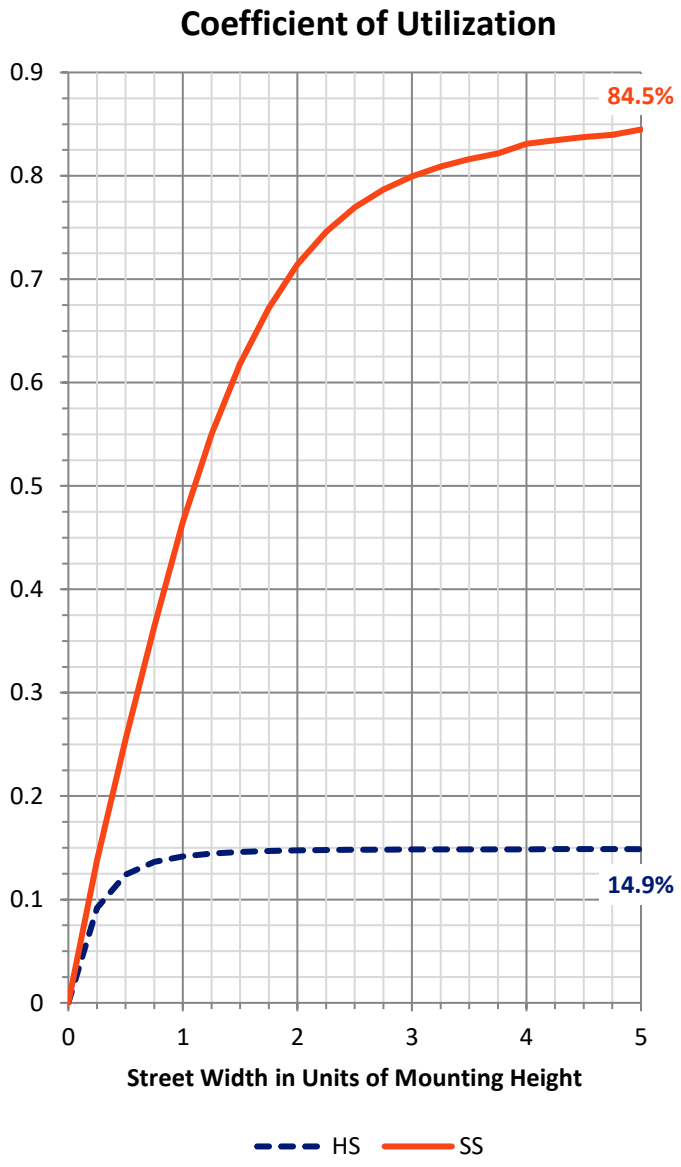
REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3428.3	0.0	3428.3
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	19417.7	0.0	19417.7
	% Fixture	85.0	0.0	85.0
Total	Lumens	22846.0	0.0	22846.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	581.4	2.5
10°-20°	1144.8	5.0
20°-30°	1619.5	7.1
30°-40°	2381.1	10.4
40°-50°	3422.5	15.0
50°-60°	4817.9	21.1
60°-70°	5626.9	24.6
70°-80°	2870.7	12.6
80°-90°	381.3	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°	22846.0	100.0
0°-180°	22846.0	100.0



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

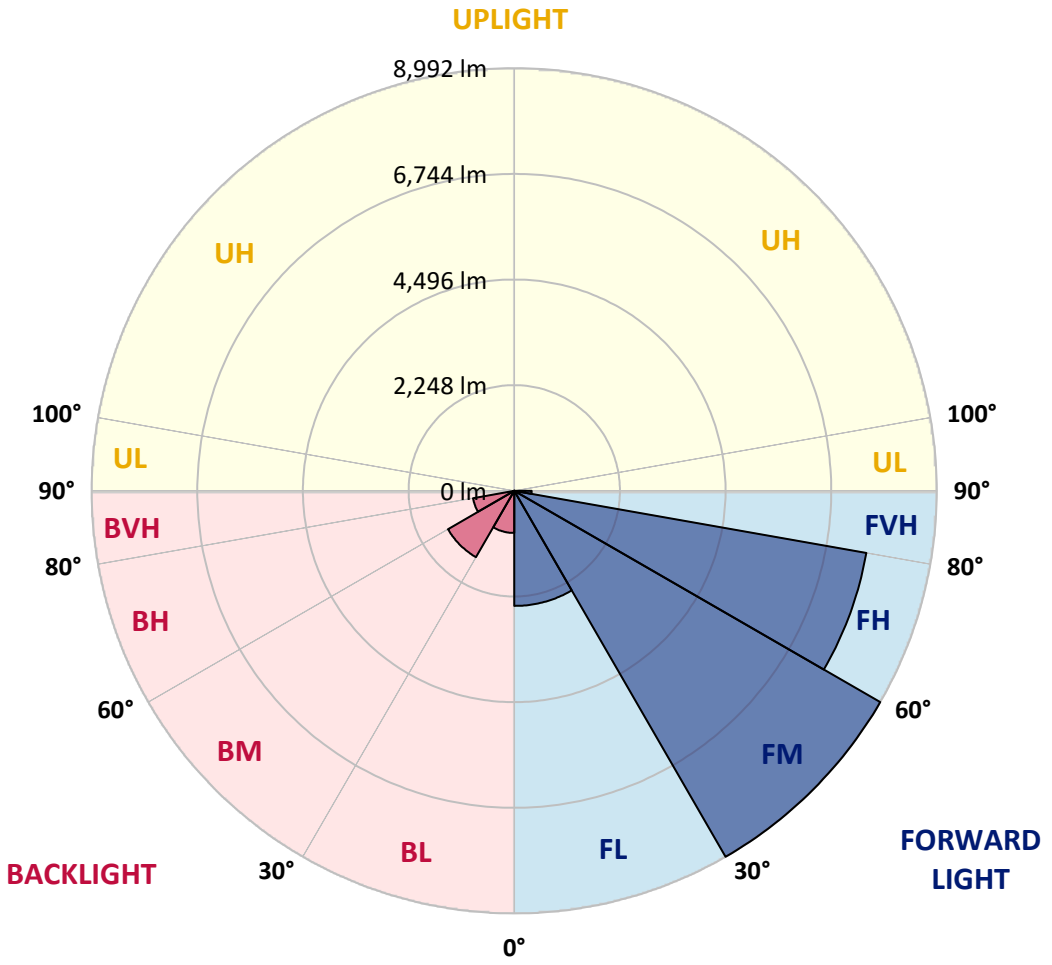
Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2449.1	10.7			
FM	(30°-60°)	8991.8	39.4			
FH	(60°-80°)	7607.1	33.3			G4/12000
FVH	(80°-90°)	369.8	1.6			G3/500
BL	(0°-30°)	896.5	3.9	B2/1000		
BM	(30°-60°)	1629.7	7.1	B2/2500		
BH	(60°-80°)	890.5	3.9	B2/1000		G2/1000
BVH	(80°-90°)	11.6	0.1			G1/100
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



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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	*7664.4*	7664.4
2.5°	8308.4	8321.4	8388.5	8544.3	8714.2	8727.2	8841.9	8724.0	8683.9	*8493.4*	8296.5
5°	8371.1	8420.9	8651.4	9109.2	9506.4	9634.1	9725.0	9493.4	9249.9	*8784.6*	8287.8
7.5°	7865.7	7949.1	8311.6	9170.9	9880.9	10194.7	10254.2	9891.7	9295.4	*8529.2*	7782.4
10°	7218.6	7313.8	7751.0	8807.3	9782.4	10320.3	10402.5	9927.4	9070.3	*8115.7*	7235.9
12.5°	6694.8	6806.2	7253.2	8398.2	9443.6	10038.9	10201.2	9807.3	8875.5	*7822.4*	6862.5
15°	6453.4	6581.1	7050.8	8134.1	9068.1	9536.7	9670.9	9501.0	8767.2	*7775.9*	6775.9
17.5°	6591.9	6730.5	7215.3	8156.9	8715.3	8915.5	9023.7	9093.0	8767.2	*8056.2*	7029.2
20°	7160.1	7309.5	7822.4	8387.4	8423.1	8348.4	8464.2	8707.7	8869.0	*8588.7*	7637.4
22.5°	7945.8	8121.1	8700.1	8782.4	8280.2	7997.8	8012.9	8395.0	9054.0	*9264.0*	8481.5
25°	8903.6	9117.9	9706.6	9371.1	8339.8	7788.9	7783.5	8137.4	9234.8	*9940.4*	9422.0
27.5°	9854.9	10090.8	10608.1	10089.7	8585.4	7751.0	7740.2	8059.5	9411.2	*10542.1*	10449.1
30°	10652.5	10881.9	11327.8	10610.3	8850.6	7839.8	7787.8	8142.8	9516.2	*10932.8*	11198.0
32.5°	11301.9	11485.8	11846.2	10968.5	9134.1	8011.8	7899.3	8365.7	9694.7	*11262.9*	11886.3
35°	12016.1	12209.9	12353.8	11309.4	9452.3	8259.7	8098.4	8719.6	9969.6	*11598.4*	12640.6
37.5°	12831.1	13023.7	13006.4	11621.1	9856.0	8669.8	8567.0	9280.2	10397.1	*11930.6*	13482.6
40°	13628.7	13825.6	13685.0	11962.0	10330.0	9346.2	9270.5	10122.2	10969.6	*12356.0*	14469.6
42.5°	14375.4	14588.6	14287.8	12284.5	10894.9	10199.1	10328.9	11206.6	11686.1	*12879.8*	15320.2
45°	14977.2	15194.7	14793.2	12598.4	11490.2	11233.7	11624.4	12407.9	12547.5	*13322.4*	15894.9
47.5°	15414.4	15620.0	15143.8	12912.2	12252.1	12498.8	13179.6	13667.6	13325.7	*13706.6*	16302.9
50°	15693.6	15853.8	15246.6	13305.1	13252.1	13975.0	14799.7	15037.8	14058.3	*14052.9*	16798.6
52.5°	15871.1	15943.6	15322.4	13715.3	14295.3	15582.1	16386.2	16460.9	14812.7	*14433.9*	17466.3
55°	16482.6	16541.0	15859.2	14212.0	15157.9	16990.1	17821.3	17752.0	15666.5	*15179.5*	18254.2
57.5°	17525.8	17587.5	16968.5	14926.3	15855.9	17860.3	18861.3	18985.8	16667.6	*16227.1*	19098.3
60°	18049.6	18164.4	17943.6	15831.0	16532.3	18416.5	19570.2	19967.4	17918.7	*17608.1*	19916.5
62.5°	17574.5	17741.2	18061.5	16834.3	17204.4	18722.8	19791.0	20319.1	19200.1	*19217.4*	20420.8
65°	16626.5	16759.6	17302.9	17384.1	17594.0	18684.9	19245.5	19827.8	19984.7	*20695.7*	20393.8
67.5°	*15481.5*	*15531.3*	*15992.3*	*17427.4*	*17029.1*	*17546.4*	*17607.0*	*18037.7*	*19364.6*	*21219.5*	*19574.5*
70°	13833.2	13860.3	14262.9	15978.2	14634.1	14747.7	14657.9	14745.6	16648.1	*19943.6*	17506.4
72.5°	11133.0	11201.2	11773.7	13269.4	10661.2	10333.3	11038.9	10999.9	12821.3	*16849.4*	13002.1
75°	8196.9	8314.9	9179.6	10688.2	7482.6	6768.3	7283.5	7420.9	9114.6	*13033.4*	8130.9
77.5°	5739.1	5826.8	6664.5	7857.1	5415.5	4839.8	4653.6	4817.1	6016.2	*9428.5*	4096.3
80°	3306.3	3338.7	3873.3	4536.8	3649.3	4175.3	3782.4	3895.0	3605.0	*4194.8*	1761.9
82.5°	2163.4	2168.8	2377.7	2700.2	2272.7	2640.7	1954.5	2498.9	2217.5	*1685.1*	573.6
85°	1168.8	1175.3	1378.8	1916.7	1286.8	727.3	427.5	877.7	1371.2	*386.4*	156.9
87.5°	128.8	118.0	415.6	697.0	357.1	66.0	22.7	98.5	219.7	*24.9*	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

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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4
2.5°	8195.8	8106.0	7882.0	7645.0	7454.5	7275.9	7096.3	6876.6	6706.7	6672.0	6615.7
5°	8020.5	7735.9	7266.2	6794.3	6414.5	5935.0	5630.9	5393.9	5162.3	5148.2	5101.7
7.5°	7408.0	7033.5	6372.2	5719.7	5185.0	4728.3	4267.3	3958.8	3716.4	3630.9	3580.1
10°	6819.2	6398.2	5572.5	4827.9	4350.6	3946.9	3622.3	3299.8	3007.6	2806.3	2715.3
12.5°	6408.0	5942.6	5032.4	4390.7	4048.7	3665.6	3269.5	2866.9	2530.3	2287.9	2139.6
15°	6248.9	5752.1	4851.7	4217.5	3795.4	3310.6	2804.1	2344.1	1970.8	1751.1	1618.0
17.5°	6438.3	5860.3	4837.6	4006.5	3416.6	2813.8	2254.3	1711.0	1359.3	1192.6	1107.1
20°	6918.8	6204.5	4832.2	3747.8	2966.4	2225.1	1527.0	1125.5	912.3	819.3	779.2
22.5°	7598.4	6643.9	4875.5	3492.4	2497.8	1589.8	1054.1	826.8	717.5	667.7	645.0
25°	8472.9	7260.8	4997.8	3260.8	2057.3	1186.1	821.4	692.6	615.8	576.8	560.6
27.5°	9404.7	7970.7	5188.3	3059.5	1699.1	945.9	703.5	593.1	537.9	510.8	495.7
30°	10173.1	8793.2	5380.9	2835.5	1439.4	824.7	643.9	541.1	477.3	460.0	445.9
32.5°	10845.2	9415.5	5517.3	2633.1	1269.5	732.7	582.2	483.8	440.5	406.9	391.8
35°	11541.0	9933.9	5512.9	2491.3	1152.6	663.4	530.3	432.9	380.9	342.0	330.1
37.5°	12294.3	10519.4	5418.8	2370.1	1101.7	608.2	501.1	405.8	353.9	314.9	299.8
40°	13176.3	11134.1	5322.5	2256.5	1087.7	563.8	480.5	384.2	329.0	291.1	276.0
42.5°	14035.6	11688.2	5238.1	2172.1	1027.0	562.8	462.1	368.0	309.5	272.7	255.4
45°	14722.8	12204.5	5221.8	2121.2	963.2	582.2	452.4	357.1	294.4	257.6	241.3
47.5°	15294.3	12765.1	5325.7	2085.5	902.6	531.4	476.2	349.6	280.3	244.6	226.2
50°	15973.9	13453.4	5570.3	2027.0	838.7	478.4	545.5	351.7	268.4	231.6	212.1
52.5°	16921.9	14405.7	5929.6	1928.6	751.1	429.7	536.8	353.9	255.4	217.5	198.1
55°	17984.7	15595.1	6316.0	1765.1	628.8	365.8	460.0	338.7	230.5	202.4	184.0
57.5°	19101.6	16674.1	6545.4	1570.3	500.0	316.0	368.0	308.4	203.5	181.8	169.9
60°	19276.9	17084.3	6440.4	1331.2	397.2	274.9	272.7	313.9	181.8	160.2	151.5
62.5°	18840.8	16569.1	5932.9	1118.0	332.2	241.3	224.0	273.8	164.5	142.9	134.2
65°	18002.0	15176.3	5110.3	1007.6	308.4	206.7	186.1	192.6	143.9	124.5	116.9
67.5°	*16835.4*	*13317.0*	*4195.9*	*944.8*	*305.2*	*177.5*	*159.1*	*146.1*	*124.5*	*108.2*	*101.7*
70°	14450.1	11094.1	3347.4	910.2	296.5	149.3	134.2	119.0	103.9	92.0	86.6
72.5°	10635.2	7861.4	2603.9	872.3	298.7	119.0	116.9	98.5	83.3	71.4	69.3
75°	6145.0	4491.3	1707.8	706.7	284.6	92.0	97.4	69.3	58.4	49.8	49.8
77.5°	3274.9	2739.2	650.4	294.4	103.9	58.4	55.2	41.1	36.8	30.3	29.2
80°	1427.5	1205.6	195.9	82.3	57.4	31.4	20.6	18.4	16.2	13.0	11.9
82.5°	505.4	436.1	63.9	40.0	24.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	114.7	82.3	0.0	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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

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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4
2.5°	6501.0	6477.2	6336.5	6341.9	6366.8	6402.5	6318.1	6357.1	6462.1	6562.7	6600.6
5°	5027.0	5032.4	4946.9	5000.0	5047.6	5080.0	4943.7	4945.8	5029.2	5142.8	5202.3
7.5°	3542.2	3533.5	3537.9	3664.5	3754.3	3689.4	3740.2	3563.8	3574.6	3655.8	3595.2
10°	2633.1	2514.0	2447.0	2542.2	2640.7	2605.0	2517.3	2459.9	2500.0	2589.8	2583.3
12.5°	2069.2	1898.3	1797.6	1729.4	1810.6	1743.5	1741.3	1691.5	1637.4	1647.2	1791.1
15°	1556.3	1431.8	1312.8	1203.5	1201.3	1178.6	1062.8	932.9	922.1	928.6	1003.2
17.5°	1070.3	1028.1	979.4	885.3	860.4	765.1	652.6	600.6	574.7	586.6	611.5
20°	752.2	735.9	741.3	690.5	654.8	563.8	497.8	477.3	472.9	484.8	496.7
22.5°	623.4	594.2	590.9	568.2	532.5	466.4	430.7	418.8	413.4	424.2	432.9
25°	545.5	516.2	504.3	490.3	452.4	406.9	385.3	374.5	369.0	375.5	380.9
27.5°	480.5	453.5	442.6	432.9	396.1	363.6	346.3	336.6	332.2	334.4	339.8
30°	431.8	408.0	393.9	382.0	350.6	327.9	312.8	303.0	298.7	298.7	304.1
32.5°	380.9	368.0	355.0	339.8	310.6	295.5	280.3	269.5	265.1	266.2	270.6
35°	317.1	312.8	316.0	301.9	277.1	264.1	248.9	237.0	233.8	234.8	239.2
37.5°	281.4	261.9	273.8	266.2	252.2	234.8	215.4	204.5	199.1	202.4	204.5
40°	258.7	234.8	226.2	233.8	231.6	203.5	186.1	175.3	171.0	172.1	174.2
42.5°	239.2	211.0	191.6	190.5	203.5	177.5	159.1	149.3	143.9	143.9	146.1
45°	220.8	190.5	166.7	148.3	171.0	150.4	133.1	124.5	118.0	118.0	119.0
47.5°	206.7	173.2	145.0	121.2	128.8	123.4	109.3	100.6	94.2	94.2	95.2
50°	193.7	155.8	125.5	101.7	96.3	101.7	88.7	79.0	74.7	73.6	75.8
52.5°	179.7	138.5	107.1	86.6	75.8	76.8	69.3	62.8	57.4	57.4	59.5
55°	165.6	124.5	93.1	73.6	62.8	57.4	55.2	50.9	46.5	46.5	48.7
57.5°	151.5	109.3	79.0	60.6	49.8	45.5	45.5	42.2	39.0	39.0	41.1
60°	138.5	94.2	64.9	49.8	39.0	37.9	39.0	35.7	33.5	33.5	35.7
62.5°	123.4	80.1	53.0	41.1	31.4	30.3	33.5	31.4	29.2	29.2	31.4
65°	105.0	68.2	42.2	31.4	23.8	23.8	28.1	26.0	23.8	23.8	26.0
67.5°	*88.7*	*57.4*	*32.5*	*22.7*	*17.3*	*18.4*	*23.8*	*21.6*	*20.6*	*20.6*	*22.7*
70°	73.6	44.4	22.7	14.1	9.7	14.1	18.4	18.4	18.4	18.4	20.6
72.5°	55.2	30.3	13.0	5.4	4.3	9.7	15.2	17.3	16.2	16.2	19.5
75°	35.7	17.3	4.3	0.0	0.0	5.4	11.9	14.1	14.1	13.0	16.2
77.5°	20.6	5.4	0.0	0.0	0.0	0.0	7.6	6.5	5.4	4.3	7.6
80°	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	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

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

Scaled Data Report

REPORT NUMBER: P324339
CATALOG NUMBER: GLEON-SA5D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4	7664.4
2.5°	6753.2	6880.9	7060.6	7251.0	7544.3	7777.0	8005.3	8201.2	8277.0	8308.4
5°	5345.2	5532.4	5795.4	6133.1	6662.3	7138.5	7621.2	8107.1	8318.1	8371.1
7.5°	3835.5	4074.6	4409.1	4832.2	5452.3	6069.2	6743.5	7456.7	7783.5	7865.7
10°	2838.7	3130.9	3514.0	3959.9	4551.9	5186.1	5920.9	6735.9	7109.3	7218.6
12.5°	2014.1	2409.1	2922.1	3464.3	3977.2	4543.3	5286.8	6185.0	6576.8	6694.8
15°	1182.9	1564.9	2172.1	2898.2	3555.2	4128.8	4884.2	5902.6	6334.4	6453.4
17.5°	678.6	869.0	1327.9	2137.4	3029.2	3823.6	4757.5	5972.9	6481.6	6591.9
20°	518.4	579.0	765.1	1376.6	2414.5	3523.8	4757.5	6371.2	6997.8	7160.1
22.5°	453.5	497.8	573.6	821.4	1777.0	3202.4	4812.7	6946.9	7766.2	7945.8
25°	402.6	442.6	507.6	618.0	1212.1	2820.3	4943.7	7653.6	8670.9	8903.6
27.5°	360.4	398.3	456.7	541.1	829.0	2359.3	5120.1	8482.6	9668.8	9854.9
30°	322.5	358.2	411.3	470.8	639.6	1836.6	5270.5	9264.0	10452.3	10652.5
32.5°	286.8	319.3	366.9	411.3	523.8	1358.2	5286.8	9883.0	11102.7	11301.9
35°	253.2	282.5	325.8	360.4	434.0	1072.5	5034.6	10419.8	11753.2	12016.1
37.5°	220.8	248.9	286.8	312.8	382.0	874.5	4649.3	11018.3	12587.6	12831.1
40°	190.5	215.4	254.3	271.6	361.5	672.1	4230.5	11646.0	13405.7	13628.7
42.5°	162.3	186.1	224.0	257.6	317.1	502.2	3778.1	12234.8	14141.7	14375.4
45°	135.3	160.2	198.1	272.7	263.0	375.5	3294.3	12625.4	14722.8	14977.2
47.5°	109.3	137.4	189.4	259.7	210.0	276.0	2911.2	12995.6	15163.3	15414.4
50°	87.7	115.8	213.2	231.6	172.1	211.0	2751.1	13326.7	15452.3	15693.6
52.5°	71.4	97.4	201.3	177.5	143.9	174.2	2837.6	13863.5	15719.6	15871.1
55°	59.5	76.8	121.2	123.4	122.3	148.3	2944.8	14634.1	16411.1	16482.6
57.5°	51.9	61.7	84.4	95.2	102.8	132.0	2946.9	15740.1	17481.5	17525.8
60°	44.4	54.1	70.3	76.8	88.7	118.0	2839.8	16126.5	17902.5	18049.6
62.5°	39.0	47.6	58.4	63.9	74.7	106.1	2588.7	15567.0	17324.5	17574.5
65°	34.6	43.3	48.7	54.1	66.0	95.2	2175.3	14447.9	16365.7	16626.5
67.5°	*30.3*	*37.9*	*43.3*	*48.7*	*59.5*	*84.4*	*1601.7*	*13148.2*	*15265.0*	*15481.5*
70°	27.1	33.5	39.0	43.3	51.9	71.4	971.9	11156.8	13743.4	13833.2
72.5°	26.0	30.3	35.7	39.0	45.5	62.8	492.4	8199.1	10986.9	11133.0
75°	22.7	27.1	32.5	34.6	40.0	54.1	200.2	5385.2	7962.1	8196.9
77.5°	18.4	24.9	29.2	31.4	34.6	44.4	101.7	3441.5	5587.6	5739.1
80°	6.5	18.4	24.9	26.0	29.2	32.5	67.1	1884.2	3241.3	3306.3
82.5°	0.0	11.9	19.5	18.4	20.6	24.9	43.3	896.1	2139.6	2163.4
85°	0.0	5.4	15.2	11.9	8.7	17.3	15.2	195.9	1122.3	1168.8
87.5°	0.0	0.0	1.1	5.4	4.3	6.5	2.2	1.1	101.7	128.8
90°	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.

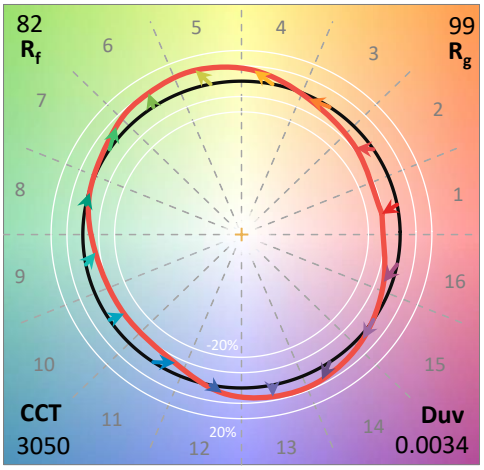
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

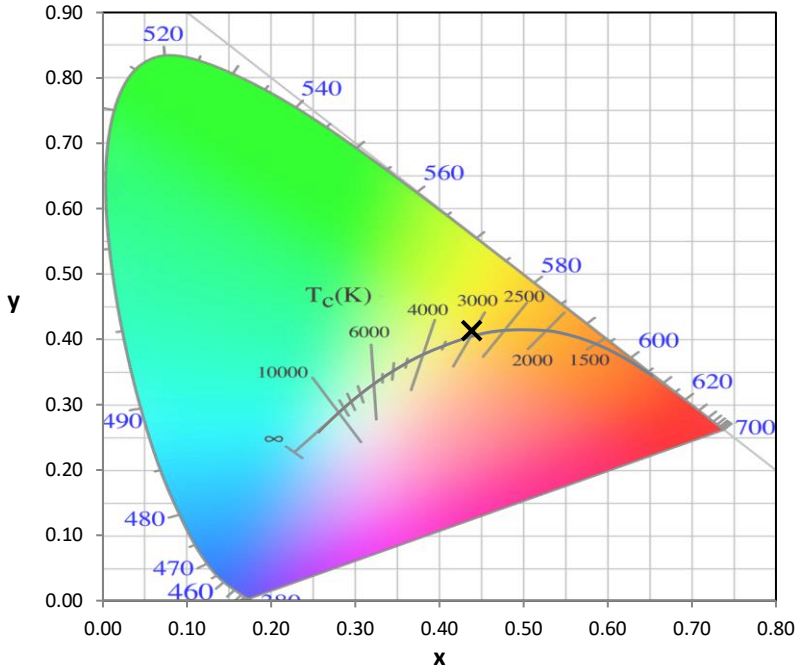
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

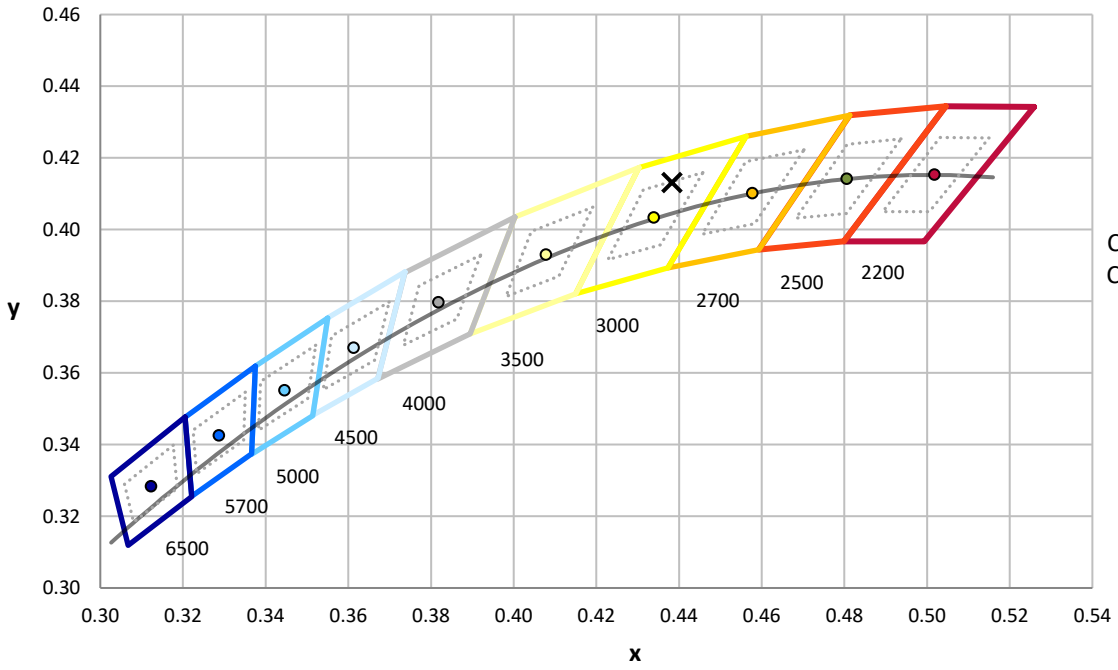
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

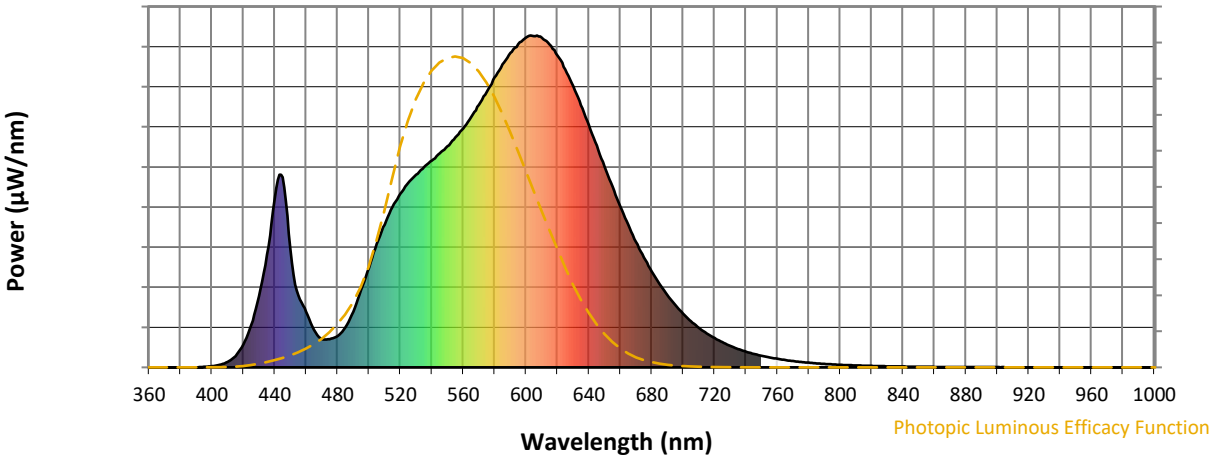


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

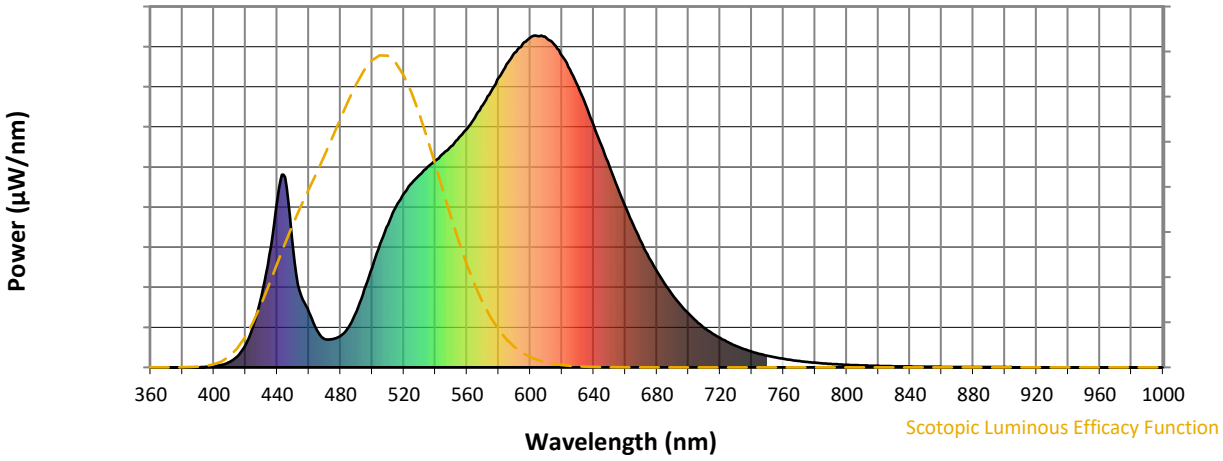


Photopic Lumens: NR

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

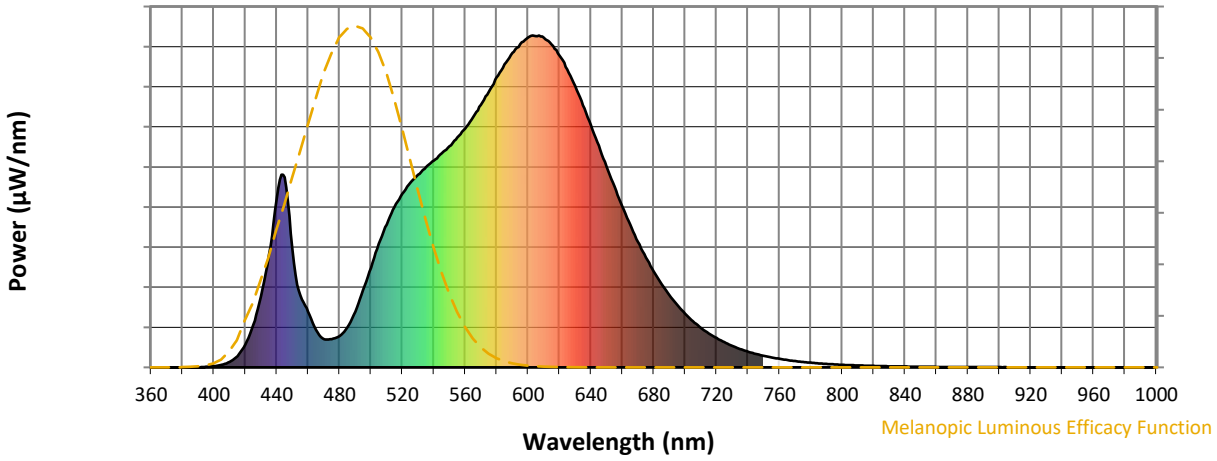


Scotopic Lumens: NR **S/P: 1.27**

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			

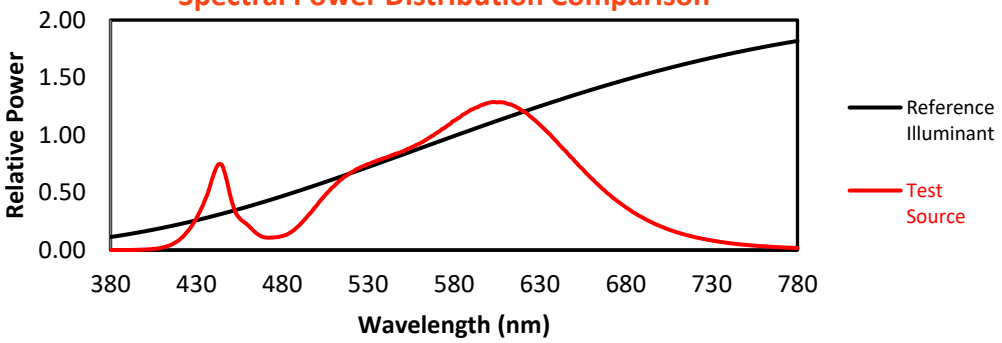
REPORT NUMBER: SP1-2408-195-9

TM-30-18

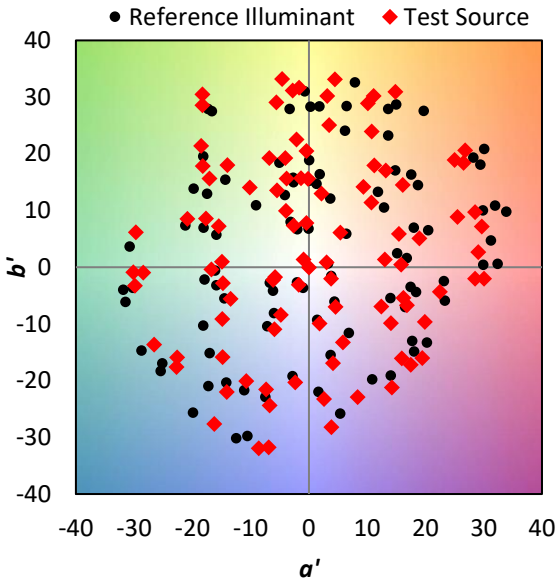
Summary

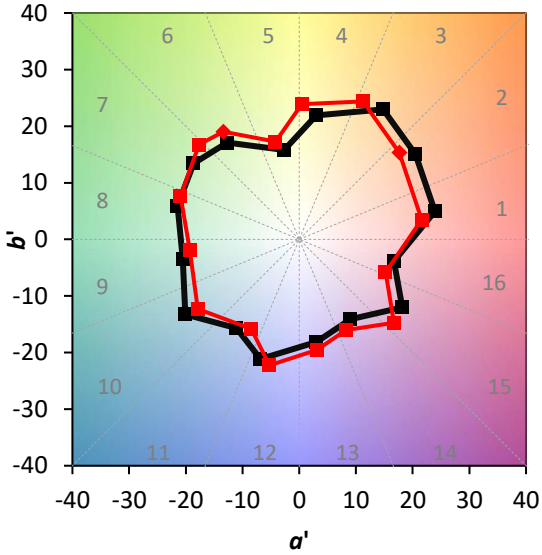
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

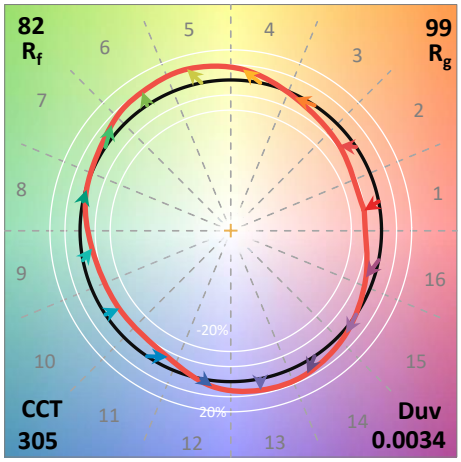
Spectral Power Distribution Comparison

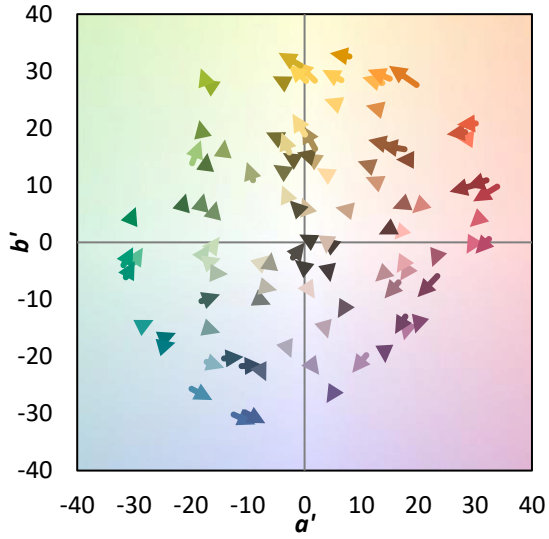


Color Vector Graphics







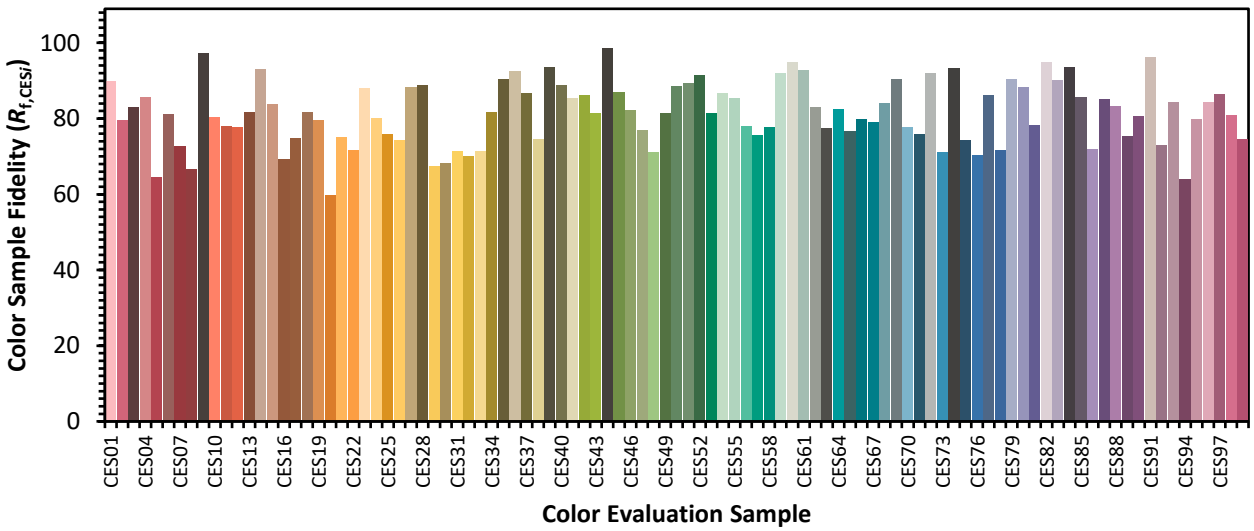


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

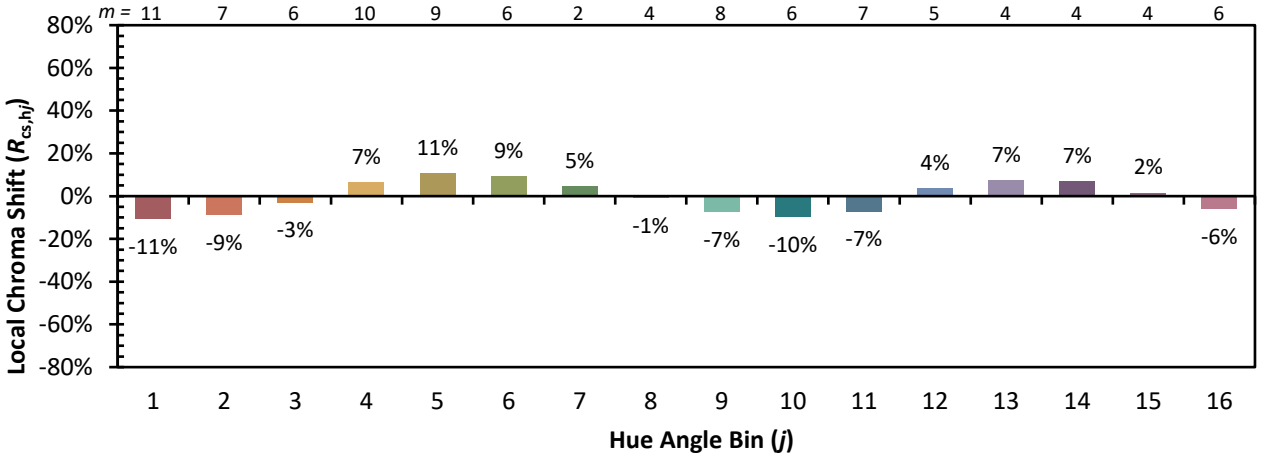
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

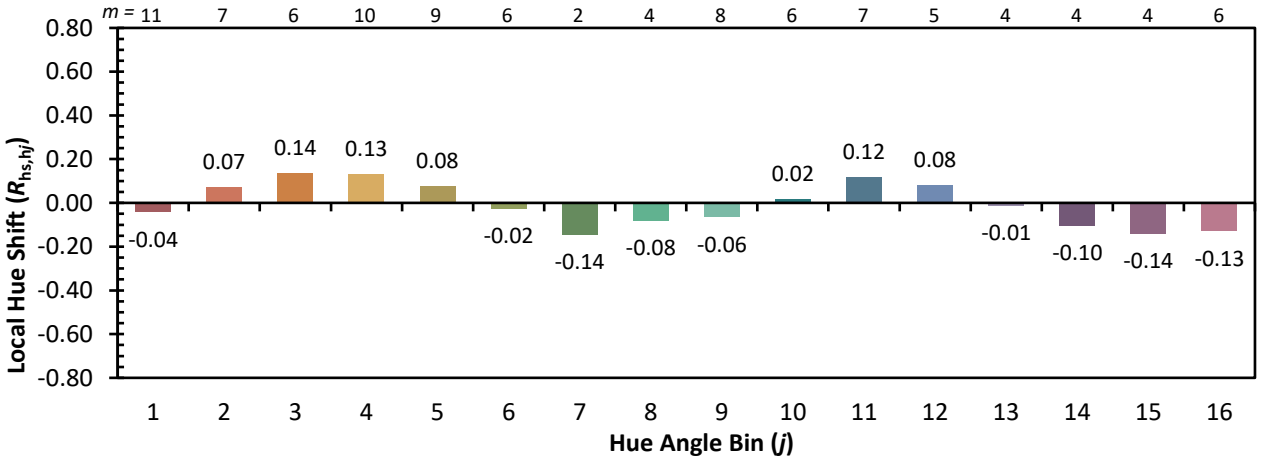


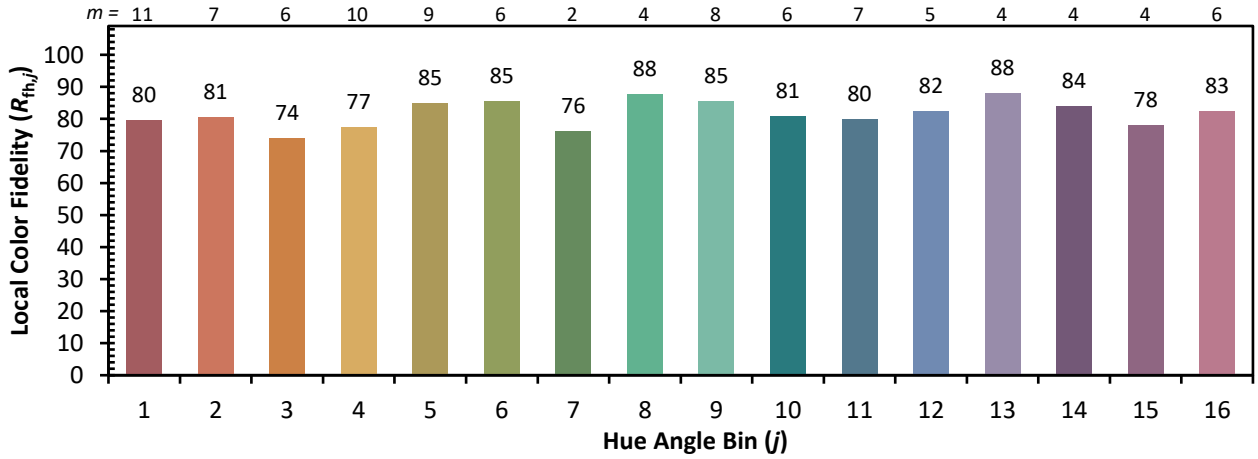
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



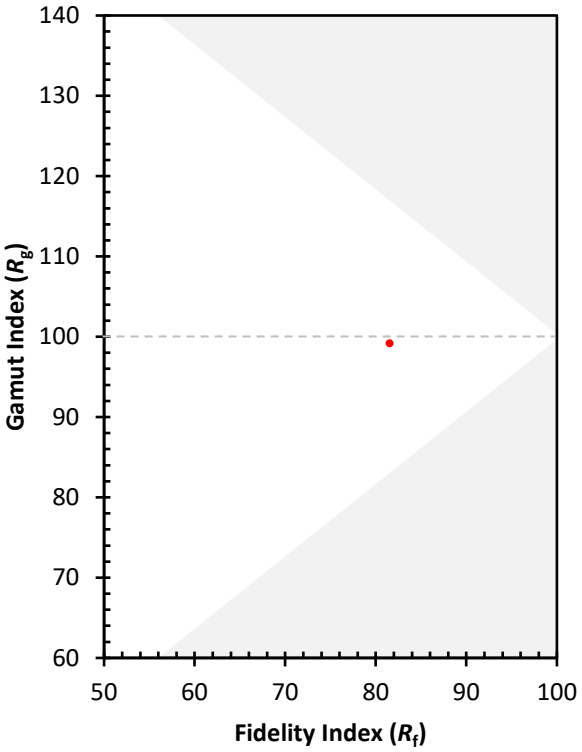


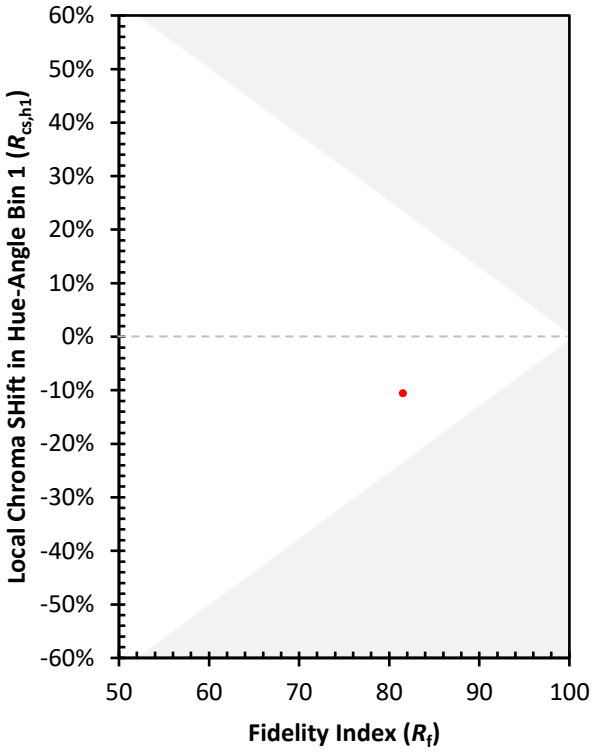


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)