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: P324337

Luminaire Tested: **GLEON-SA3D-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:	P324337
	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-SA3D-830-U-SLL-HSS
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(3) 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:	13955 lumens
Efficiency:	N/A
Efficacy:	73.1 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B2 - U0 - G3

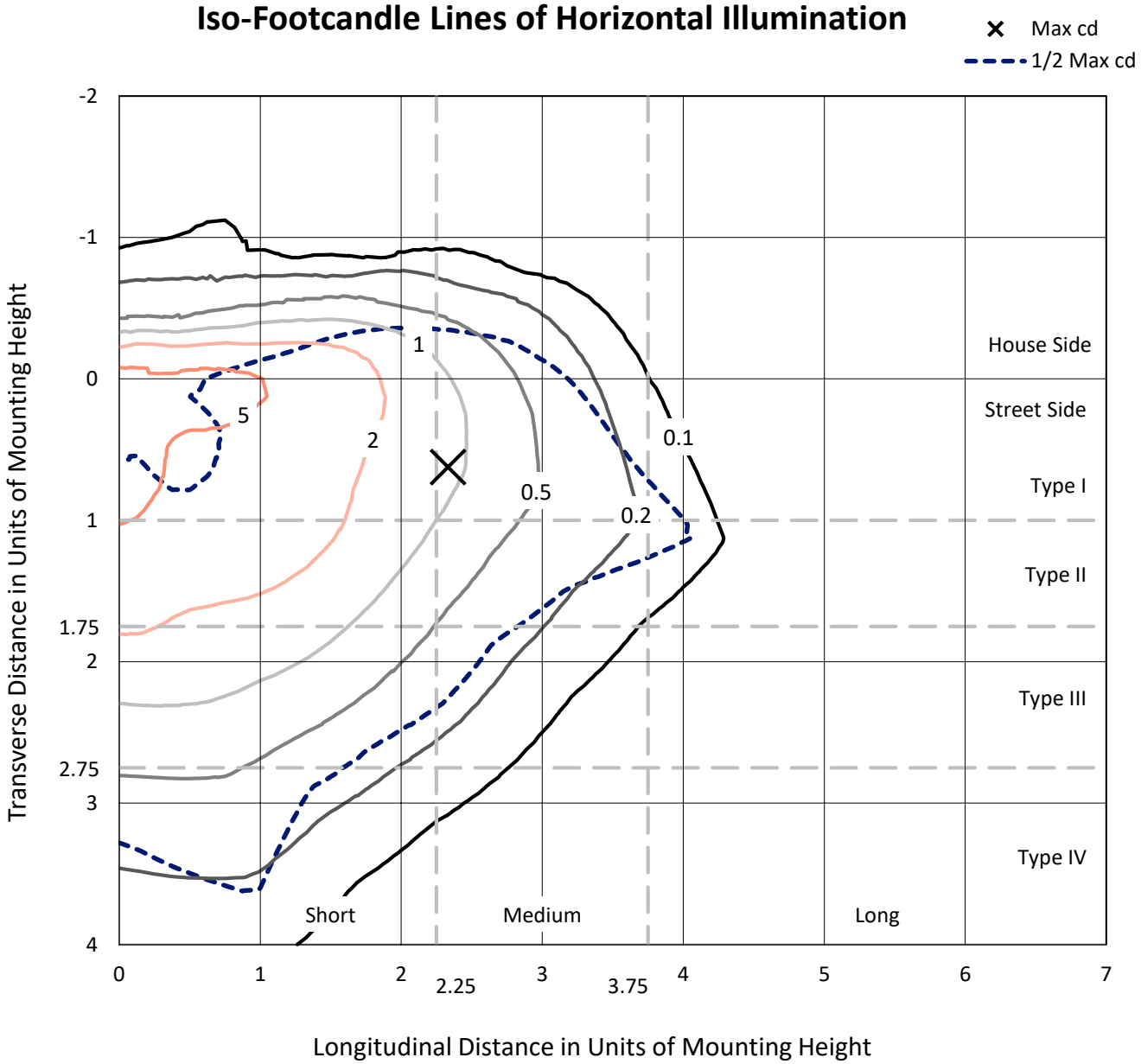
Input Watts (W):	191
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

Iso-Footcandle Lines of Horizontal Illumination



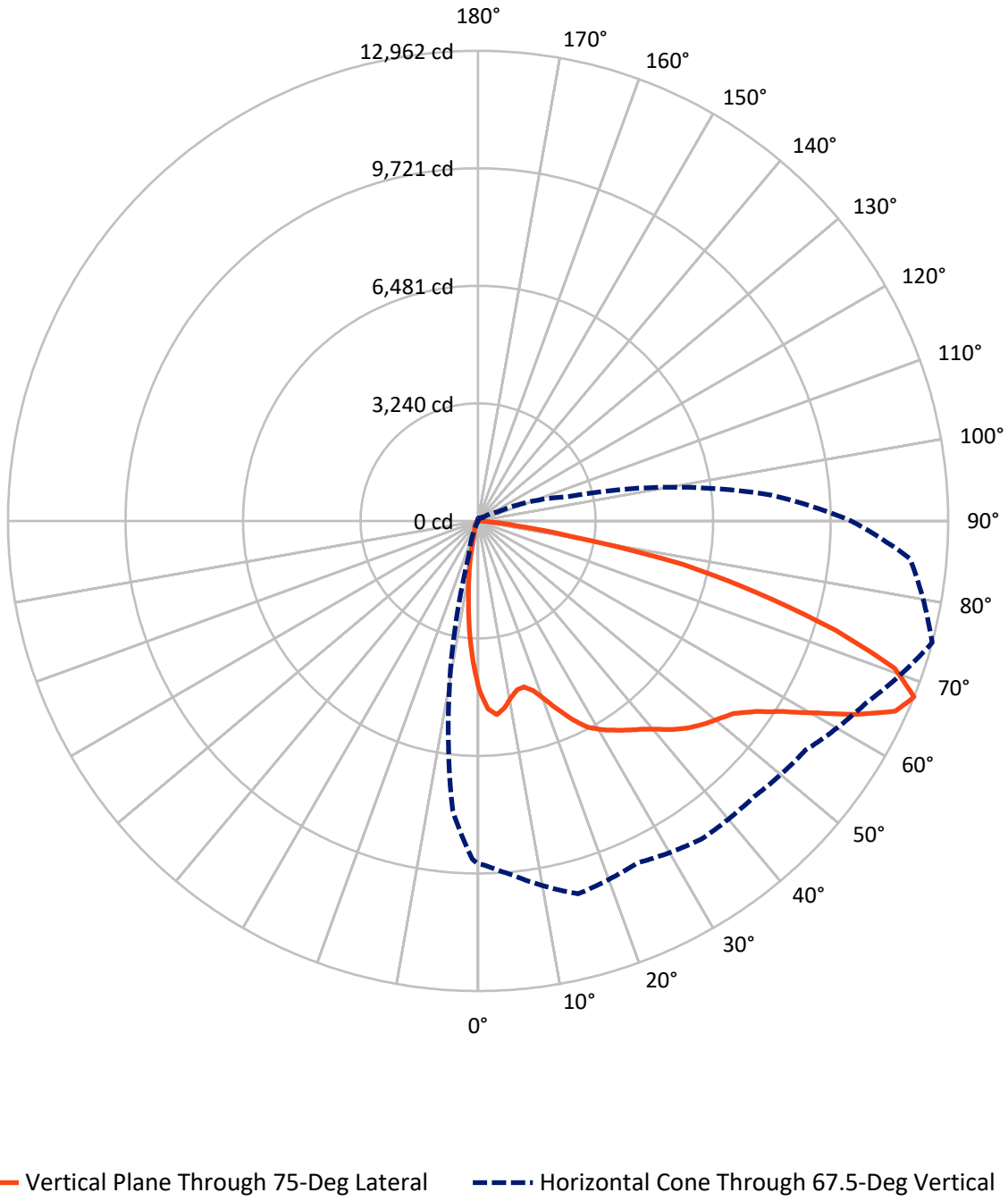
Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
Type III - Medium - N/A

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

Scaled Data Report

REPORT NUMBER: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

Luminous Intensity Polar Plot



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

Scaled Data Report

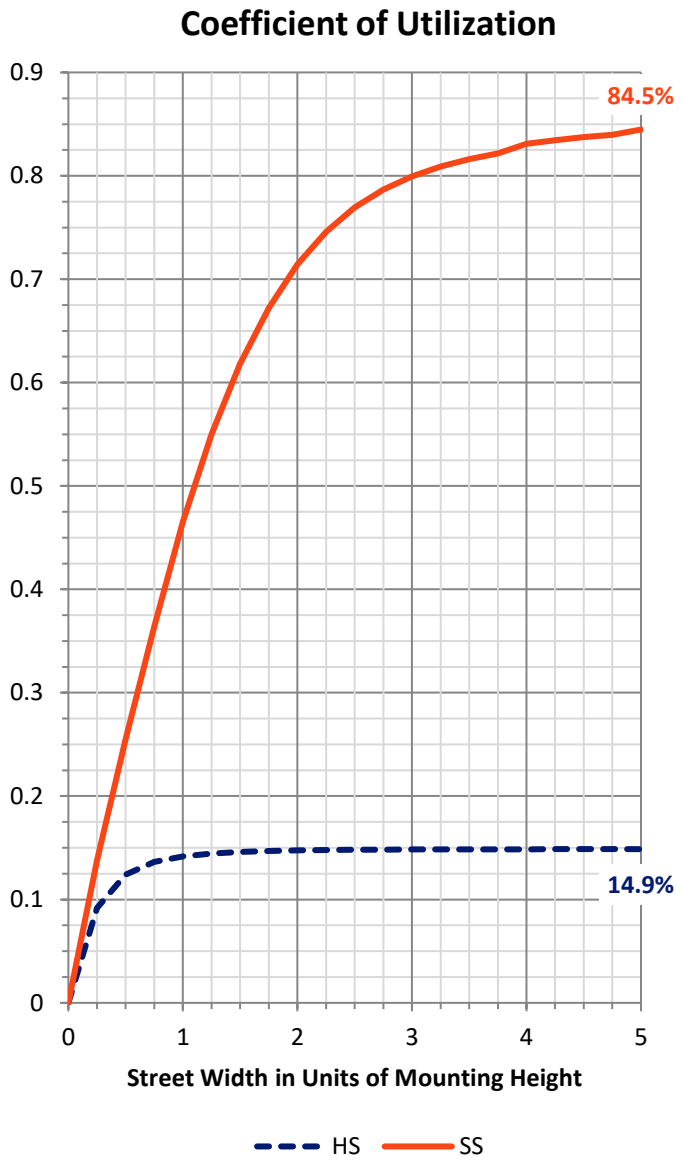
REPORT NUMBER: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2094.1	0.0	2094.1
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	11860.9	0.0	11860.9
	% Fixture	85.0	0.0	85.0
Total	Lumens	13955.0	0.0	13955.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.1	2.5
10°-20°	699.2	5.0
20°-30°	989.2	7.1
30°-40°	1454.5	10.4
40°-50°	2090.5	15.0
50°-60°	2942.9	21.1
60°-70°	3437.1	24.6
70°-80°	1753.5	12.6
80°-90°	232.9	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°	13955.0	100.0
0°-180°	13955.0	100.0



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

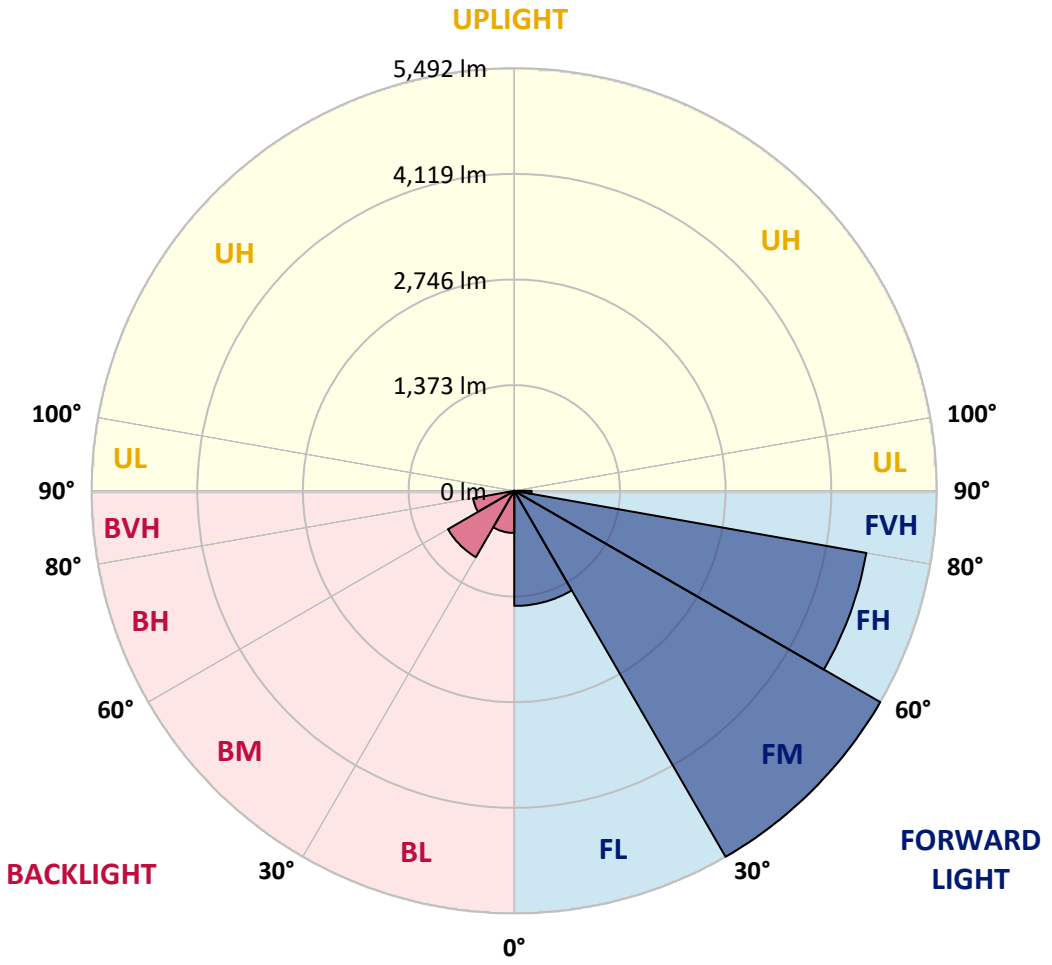
Scaled Data Report

REPORT NUMBER: P324337
CATALOG NUMBER: GLEON-SA3D-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°)	1496.0	10.7			
FM	(30°-60°)	5492.4	39.4			
FH	(60°-80°)	4646.6	33.3			G2/5000
FVH	(80°-90°)	225.9	1.6			G3/500
BL	(0°-30°)	547.6	3.9	B2/1000		
BM	(30°-60°)	995.5	7.1	B1/1000		
BH	(60°-80°)	543.9	3.9	B2/1000		G2/1000
BVH	(80°-90°)	7.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
Type III Medium



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

Scaled Data Report

REPORT NUMBER: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	*4681.7*	4681.7
2.5°	5075.0	5082.9	5123.9	5219.1	5322.9	5330.8	5400.9	5328.8	5304.4	*5188.0*	5067.7
5°	5113.3	5143.7	5284.6	5564.2	5806.8	5884.8	5940.3	5798.9	5650.1	*5365.9*	5062.4
7.5°	4804.6	4855.5	5077.0	5601.9	6035.5	6227.2	6263.6	6042.1	5677.9	*5209.9*	4753.7
10°	4409.3	4467.5	4734.5	5379.7	5975.4	6303.9	6354.2	6064.0	5540.4	*4957.3*	4419.9
12.5°	4089.3	4157.4	4430.5	5129.9	5768.5	6132.0	6231.2	5990.6	5421.4	*4778.2*	4191.8
15°	3941.9	4019.9	4306.8	4968.6	5539.1	5825.3	5907.3	5803.5	5355.3	*4749.8*	4138.9
17.5°	4026.5	4111.2	4407.3	4982.4	5323.6	5445.9	5512.0	5554.3	5355.3	*4921.0*	4293.6
20°	4373.6	4464.8	4778.2	5123.3	5145.1	5099.5	5170.2	5318.9	5417.4	*5246.2*	4665.1
22.5°	4853.5	4960.6	5314.3	5364.5	5057.8	4885.3	4894.5	5127.9	5530.5	*5658.7*	5180.8
25°	5438.6	5569.5	5929.1	5724.2	5094.2	4757.7	4754.4	4970.5	5640.9	*6071.9*	5755.2
27.5°	6019.7	6163.8	6479.8	6163.1	5244.2	4734.5	4727.9	4923.0	5748.6	*6439.4*	6382.6
30°	6506.9	6647.0	6919.4	6481.1	5406.2	4788.8	4757.0	4973.9	5812.7	*6678.1*	6840.0
32.5°	6903.5	7015.9	7236.0	6699.9	5579.4	4893.9	4825.1	5110.0	5921.8	*6879.7*	7260.5
35°	7339.8	7458.1	7546.1	6908.1	5773.7	5045.2	4946.8	5326.2	6089.7	*7084.6*	7721.2
37.5°	7837.6	7955.3	7944.7	7098.5	6020.3	5295.8	5233.0	5668.6	6350.9	*7287.6*	8235.6
40°	8324.8	8445.1	8359.2	7306.8	6309.9	5709.0	5662.7	6182.9	6700.6	*7547.4*	8838.4
42.5°	8780.9	8911.2	8727.4	7503.8	6654.9	6229.9	6309.2	6845.3	7138.2	*7867.3*	9358.0
45°	9148.5	9281.4	9036.1	7695.5	7018.5	6861.9	7100.5	7579.1	7664.4	*8137.7*	9709.1
47.5°	9415.6	9541.2	9250.3	7887.2	7483.9	7634.6	8050.5	8348.6	8139.7	*8372.4*	9958.3
50°	9586.1	9683.9	9313.1	8127.1	8094.7	8536.3	9040.1	9185.5	8587.2	*8583.9*	10261.1
52.5°	9694.5	9738.8	9359.4	8377.7	8732.0	9518.0	10009.2	10054.8	9048.0	*8816.6*	10668.9
55°	10068.0	10103.7	9687.2	8681.1	9258.9	10378.1	10885.8	10843.5	9569.6	*9272.1*	11150.2
57.5°	10705.3	10743.0	10364.8	9117.4	9685.3	10909.6	11521.0	11597.1	10181.1	*9912.0*	11665.8
60°	11025.2	11095.3	10960.5	9670.1	10098.4	11249.3	11954.0	12196.7	10945.3	*10755.5*	12165.6
62.5°	10735.0	10836.8	11032.5	10282.9	10509.0	11436.4	12088.9	12411.5	11728.0	*11738.5*	12473.6
65°	10155.9	10237.3	10569.1	10618.7	10746.9	11413.3	11755.7	12111.4	12207.2	*12641.6*	12457.1
67.5°	*9456.5*	*9486.9*	*9768.6*	*10645.1*	*10401.9*	*10717.9*	*10754.9*	*11018.0*	*11828.4*	*12961.5*	*11956.7*
70°	8449.7	8466.3	8712.2	9760.0	8938.9	9008.3	8953.5	9007.0	10169.2	*12182.1*	10693.4
72.5°	6800.4	6842.0	7191.7	8105.3	6512.2	6311.9	6742.9	6719.1	7831.6	*10292.1*	7942.0
75°	5006.9	5079.0	5607.2	6528.7	4570.6	4134.3	4449.0	4532.9	5567.5	*7961.2*	4966.6
77.5°	3505.6	3559.2	4070.8	4799.3	3308.0	2956.3	2842.6	2942.4	3674.9	*5759.2*	2502.1
80°	2019.6	2039.4	2366.0	2771.2	2229.1	2550.4	2310.4	2379.2	2202.0	*2562.3*	1076.2
82.5°	1321.5	1324.8	1452.4	1649.4	1388.2	1613.0	1193.9	1526.4	1354.5	*1029.3*	350.4
85°	714.0	717.9	842.2	1170.7	786.0	444.2	261.1	536.1	837.6	*236.0*	95.9
87.5°	78.7	72.1	253.8	425.7	218.2	40.3	13.9	60.2	134.2	*15.2*	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: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7
2.5°	5006.2	4951.4	4814.5	4669.8	4553.4	4444.3	4334.6	4200.4	4096.6	4075.5	4041.1
5°	4899.2	4725.3	4438.4	4150.2	3918.1	3625.3	3439.5	3294.7	3153.3	3144.7	3116.3
7.5°	4525.0	4296.3	3892.4	3493.7	3167.2	2888.2	2606.6	2418.2	2270.1	2217.9	2186.8
10°	4165.4	3908.2	3403.8	2949.0	2657.5	2410.9	2212.6	2015.6	1837.1	1714.1	1658.6
12.5°	3914.2	3629.9	3074.0	2681.9	2473.0	2239.0	1997.1	1751.2	1545.6	1397.5	1306.9
15°	3817.0	3513.6	2963.6	2576.2	2318.4	2022.2	1712.8	1431.9	1203.8	1069.6	988.3
17.5°	3932.7	3579.7	2955.0	2447.3	2087.0	1718.8	1377.0	1045.1	830.3	728.5	676.3
20°	4226.2	3789.9	2951.7	2289.3	1812.0	1359.2	932.8	687.5	557.3	500.4	476.0
22.5°	4641.3	4058.3	2978.1	2133.3	1525.7	971.1	643.9	505.1	438.3	407.9	394.0
25°	5175.5	4435.1	3052.8	1991.8	1256.7	724.5	501.7	423.1	376.1	352.3	342.4
27.5°	5744.7	4868.7	3169.1	1868.8	1037.9	577.8	429.7	362.3	328.5	312.0	302.8
30°	6214.0	5371.2	3286.8	1732.0	879.2	503.7	393.3	330.5	291.5	281.0	272.4
32.5°	6624.5	5751.3	3370.1	1608.4	775.4	447.5	355.7	295.5	269.1	248.6	239.3
35°	7049.6	6067.9	3367.5	1521.8	704.0	405.2	323.9	264.4	232.7	208.9	201.6
37.5°	7509.7	6425.6	3310.0	1447.7	673.0	371.5	306.1	247.9	216.2	192.4	183.1
40°	8048.5	6801.0	3251.1	1378.3	664.4	344.4	293.5	234.7	201.0	177.8	168.6
42.5°	8573.4	7139.5	3199.6	1326.8	627.4	343.8	282.3	224.8	189.1	166.6	156.0
45°	8993.1	7454.8	3189.6	1295.7	588.3	355.7	276.3	218.2	179.8	157.3	147.4
47.5°	9342.2	7797.3	3253.1	1273.9	551.3	324.6	290.9	213.5	171.2	149.4	138.2
50°	9757.3	8217.7	3402.5	1238.2	512.3	292.2	333.2	214.8	163.9	141.5	129.6
52.5°	10336.4	8799.4	3622.0	1178.0	458.8	262.4	327.9	216.2	156.0	132.9	121.0
55°	10985.6	9525.9	3858.0	1078.2	384.1	223.4	281.0	206.9	140.8	123.6	112.4
57.5°	11667.8	10185.0	3998.1	959.2	305.4	193.0	224.8	188.4	124.3	111.1	103.8
60°	11774.9	10435.6	3934.0	813.1	242.6	167.9	166.6	191.7	111.1	97.8	92.5
62.5°	11508.5	10120.9	3624.0	682.9	202.9	147.4	136.8	167.2	100.5	87.3	82.0
65°	10996.2	9270.1	3121.5	615.5	188.4	126.3	113.7	117.7	87.9	76.0	71.4
67.5°	*10283.5*	*8134.4*	*2562.9*	*577.1*	*186.4*	*108.4*	*97.2*	*89.2*	*76.0*	*66.1*	*62.1*
70°	8826.5	6776.6	2044.7	556.0	181.1	91.2	82.0	72.7	63.5	56.2	52.9
72.5°	6496.3	4802.0	1590.5	532.8	182.5	72.7	71.4	60.2	50.9	43.6	42.3
75°	3753.5	2743.4	1043.2	431.7	173.9	56.2	59.5	42.3	35.7	30.4	30.4
77.5°	2000.4	1673.2	397.3	179.8	63.5	35.7	33.7	25.1	22.5	18.5	17.8
80°	871.9	736.4	119.7	50.2	35.0	19.2	12.6	11.2	9.9	7.9	7.3
82.5°	308.7	266.4	39.0	24.5	15.2	0.0	0.0	0.0	0.0	0.0	0.0
85°	70.1	50.2	0.0	5.9	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: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7
2.5°	3971.0	3956.5	3870.5	3873.8	3889.0	3910.9	3859.3	3883.1	3947.2	4008.7	4031.8
5°	3070.6	3074.0	3021.7	3054.1	3083.2	3103.0	3019.7	3021.1	3072.0	3141.4	3177.7
7.5°	2163.7	2158.4	2161.0	2238.4	2293.2	2253.6	2284.6	2176.9	2183.5	2233.1	2196.1
10°	1608.4	1535.7	1494.7	1552.8	1613.0	1591.2	1537.6	1502.6	1527.1	1581.9	1578.0
12.5°	1264.0	1159.5	1098.0	1056.4	1106.0	1065.0	1063.7	1033.2	1000.2	1006.1	1094.1
15°	950.6	874.6	801.9	735.1	733.8	719.9	649.2	569.8	563.2	567.2	612.8
17.5°	653.8	628.0	598.3	540.8	525.5	467.4	398.6	366.9	351.0	358.3	373.5
20°	459.4	449.5	452.8	421.8	399.9	344.4	304.1	291.5	288.9	296.2	303.4
22.5°	380.8	362.9	360.9	347.1	325.2	284.9	263.1	255.8	252.5	259.1	264.4
25°	333.2	315.3	308.1	299.5	276.3	248.6	235.3	228.7	225.4	229.4	232.7
27.5°	293.5	277.0	270.4	264.4	241.9	222.1	211.5	205.6	202.9	204.3	207.6
30°	263.8	249.2	240.6	233.4	214.2	200.3	191.0	185.1	182.5	182.5	185.8
32.5°	232.7	224.8	216.8	207.6	189.7	180.5	171.2	164.6	162.0	162.6	165.3
35°	193.7	191.0	193.0	184.4	169.2	161.3	152.0	144.8	142.8	143.5	146.1
37.5°	171.9	160.0	167.2	162.6	154.0	143.5	131.6	124.9	121.6	123.6	124.9
40°	158.0	143.5	138.2	142.8	141.5	124.3	113.7	107.1	104.4	105.1	106.4
42.5°	146.1	128.9	117.0	116.3	124.3	108.4	97.2	91.2	87.9	87.9	89.2
45°	134.9	116.3	101.8	90.6	104.4	91.9	81.3	76.0	72.1	72.1	72.7
47.5°	126.3	105.8	88.6	74.0	78.7	75.4	66.8	61.5	57.5	57.5	58.2
50°	118.3	95.2	76.7	62.1	58.8	62.1	54.2	48.3	45.6	45.0	46.3
52.5°	109.7	84.6	65.4	52.9	46.3	46.9	42.3	38.3	35.0	35.0	36.4
55°	101.1	76.0	56.9	45.0	38.3	35.0	33.7	31.1	28.4	28.4	29.7
57.5°	92.5	66.8	48.3	37.0	30.4	27.8	27.8	25.8	23.8	23.8	25.1
60°	84.6	57.5	39.7	30.4	23.8	23.1	23.8	21.8	20.5	20.5	21.8
62.5°	75.4	48.9	32.4	25.1	19.2	18.5	20.5	19.2	17.8	17.8	19.2
65°	64.1	41.6	25.8	19.2	14.5	14.5	17.2	15.9	14.5	14.5	15.9
67.5°	*54.2*	*35.0*	*19.8*	*13.9*	*10.6*	*11.2*	*14.5*	*13.2*	*12.6*	*12.6*	*13.9*
70°	45.0	27.1	13.9	8.6	5.9	8.6	11.2	11.2	11.2	11.2	12.6
72.5°	33.7	18.5	7.9	3.3	2.6	5.9	9.3	10.6	9.9	9.9	11.9
75°	21.8	10.6	2.6	0.0	0.0	3.3	7.3	8.6	8.6	7.9	9.9
77.5°	12.6	3.3	0.0	0.0	0.0	0.0	4.6	4.0	3.3	2.6	4.6
80°	3.3	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: P324337
CATALOG NUMBER: GLEON-SA3D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7	4681.7
2.5°	4125.0	4203.1	4312.8	4429.1	4608.3	4750.4	4889.9	5009.6	5055.8	5075.0
5°	3265.0	3379.4	3540.0	3746.3	4069.5	4360.4	4655.2	4952.0	5080.9	5113.3
7.5°	2342.8	2488.9	2693.2	2951.7	3330.4	3707.3	4119.1	4554.7	4754.4	4804.6
10°	1734.0	1912.5	2146.5	2418.8	2780.4	3167.8	3616.7	4114.5	4342.5	4409.3
12.5°	1230.2	1471.5	1784.9	2116.1	2429.4	2775.2	3229.3	3778.0	4017.3	4089.3
15°	722.5	955.9	1326.8	1770.3	2171.6	2522.0	2983.4	3605.4	3869.2	3941.9
17.5°	414.5	530.8	811.1	1305.6	1850.3	2335.5	2906.0	3648.4	3959.1	4026.5
20°	316.7	353.7	467.4	840.9	1474.8	2152.4	2906.0	3891.7	4274.4	4373.6
22.5°	277.0	304.1	350.4	501.7	1085.5	1956.1	2939.8	4243.4	4743.8	4853.5
25°	245.9	270.4	310.0	377.5	740.4	1722.7	3019.7	4675.1	5296.5	5438.6
27.5°	220.1	243.3	279.0	330.5	506.4	1441.1	3127.5	5181.4	5906.0	6019.7
30°	197.0	218.8	251.2	287.6	390.7	1121.8	3219.4	5658.7	6384.6	6506.9
32.5°	175.2	195.0	224.1	251.2	320.0	829.6	3229.3	6036.8	6781.9	6903.5
35°	154.7	172.5	199.0	220.1	265.1	655.1	3075.3	6364.7	7179.2	7339.8
37.5°	134.9	152.0	175.2	191.0	233.4	534.1	2839.9	6730.3	7688.8	7837.6
40°	116.3	131.6	155.4	165.9	220.8	410.5	2584.1	7113.7	8188.6	8324.8
42.5°	99.2	113.7	136.8	157.3	193.7	306.7	2307.8	7473.3	8638.1	8780.9
45°	82.6	97.8	121.0	166.6	160.6	229.4	2012.3	7712.0	8993.1	9148.5
47.5°	66.8	84.0	115.7	158.7	128.2	168.6	1778.3	7938.1	9262.2	9415.6
50°	53.5	70.7	130.2	141.5	105.1	128.9	1680.4	8140.4	9438.7	9586.1
52.5°	43.6	59.5	123.0	108.4	87.9	106.4	1733.3	8468.2	9602.0	9694.5
55°	36.4	46.9	74.0	75.4	74.7	90.6	1798.8	8938.9	10024.4	10068.0
57.5°	31.7	37.7	51.6	58.2	62.8	80.6	1800.1	9614.5	10678.2	10705.3
60°	27.1	33.1	43.0	46.9	54.2	72.1	1734.6	9850.5	10935.3	11025.2
62.5°	23.8	29.1	35.7	39.0	45.6	64.8	1581.3	9508.8	10582.3	10735.0
65°	21.2	26.4	29.7	33.1	40.3	58.2	1328.7	8825.2	9996.6	10155.9
67.5°	*18.5*	*23.1*	*26.4*	*29.7*	*36.4*	*51.6*	*978.4*	*8031.3*	*9324.3*	*9456.5*
70°	16.5	20.5	23.8	26.4	31.7	43.6	593.6	6814.9	8394.9	8449.7
72.5°	15.9	18.5	21.8	23.8	27.8	38.3	300.8	5008.2	6711.1	6800.4
75°	13.9	16.5	19.8	21.2	24.5	33.1	122.3	3289.5	4863.5	5006.9
77.5°	11.2	15.2	17.8	19.2	21.2	27.1	62.1	2102.2	3413.1	3505.6
80°	4.0	11.2	15.2	15.9	17.8	19.8	41.0	1150.9	1979.9	2019.6
82.5°	0.0	7.3	11.9	11.2	12.6	15.2	26.4	547.4	1306.9	1321.5
85°	0.0	3.3	9.3	7.3	5.3	10.6	9.3	119.7	685.5	714.0
87.5°	0.0	0.0	0.7	3.3	2.6	4.0	1.3	0.7	62.1	78.7
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.

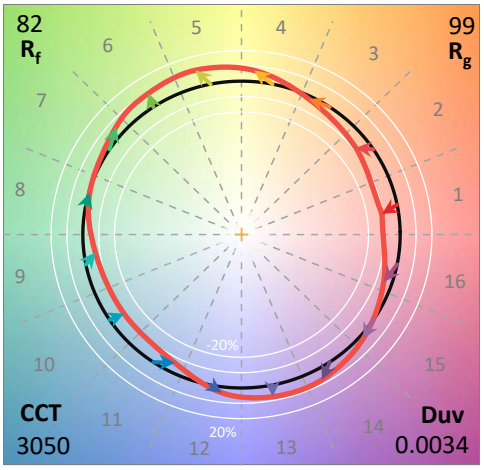
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

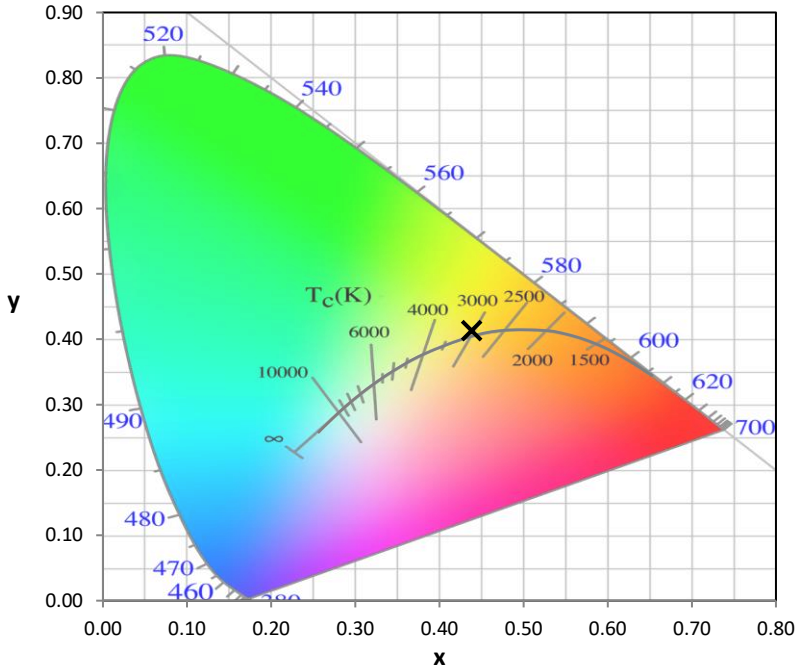
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

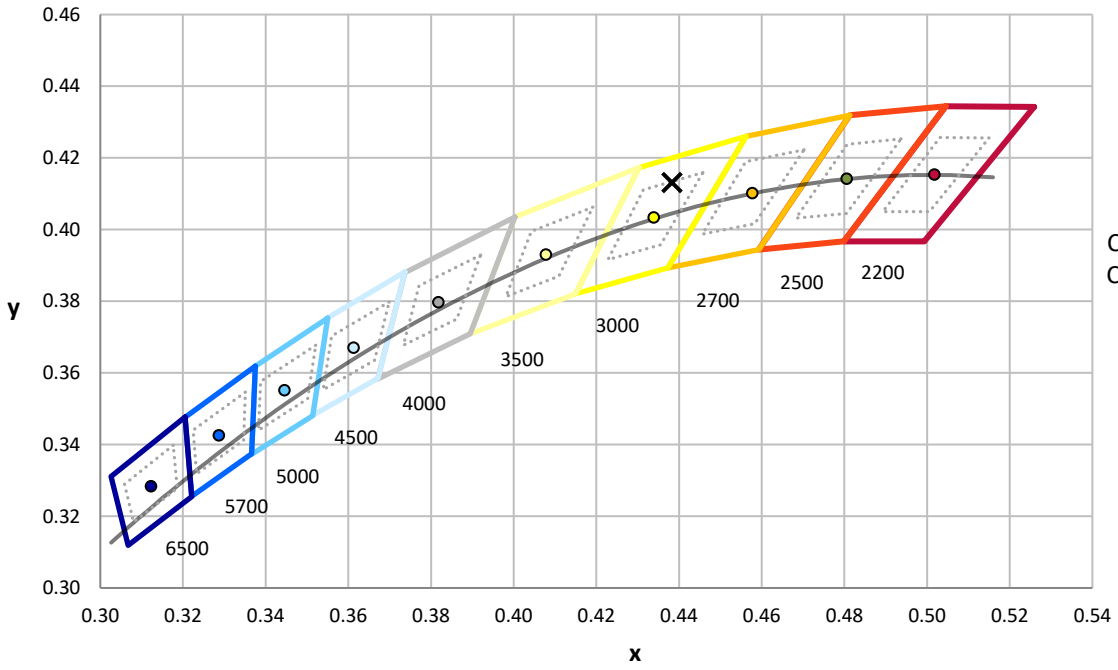
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

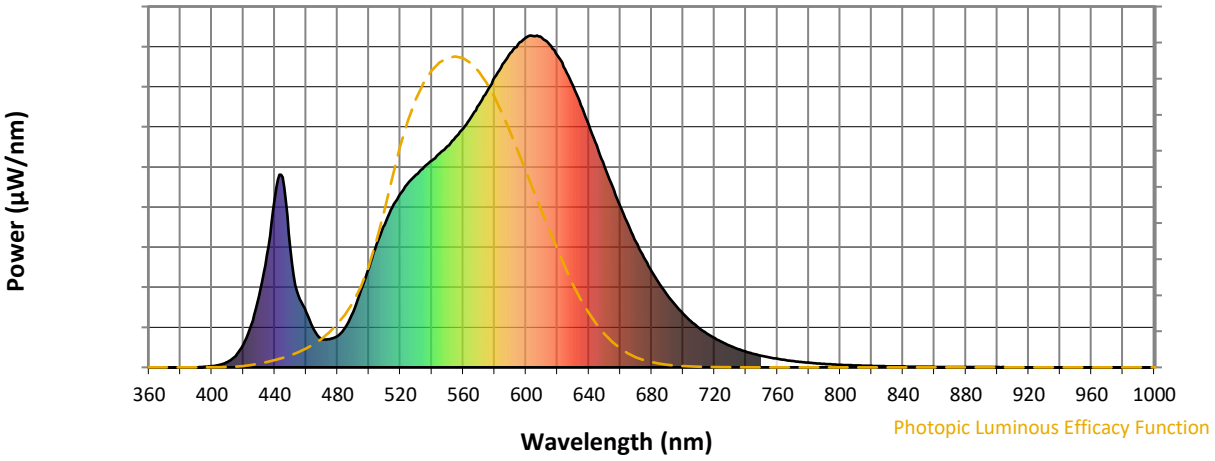


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

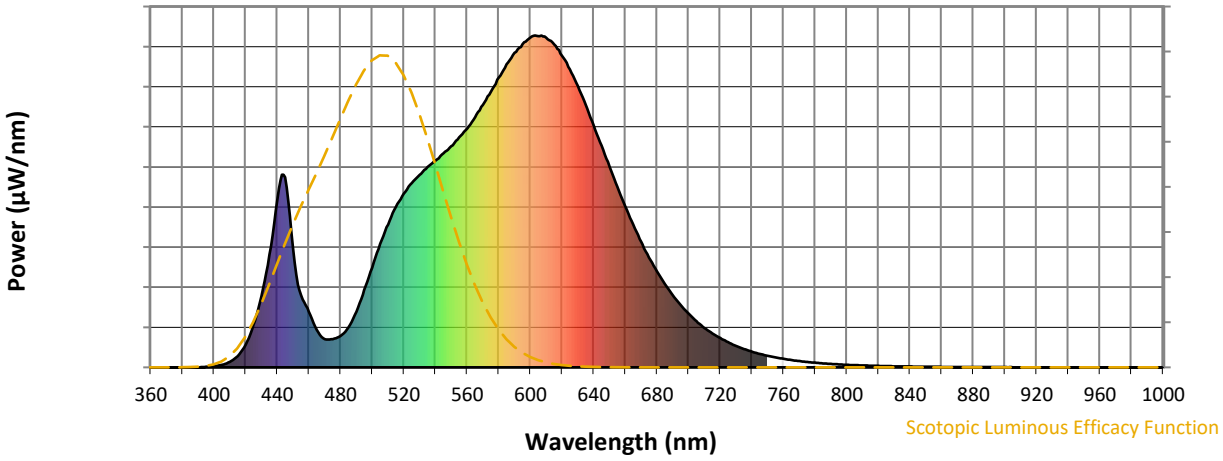


Photopic Lumens: NR

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

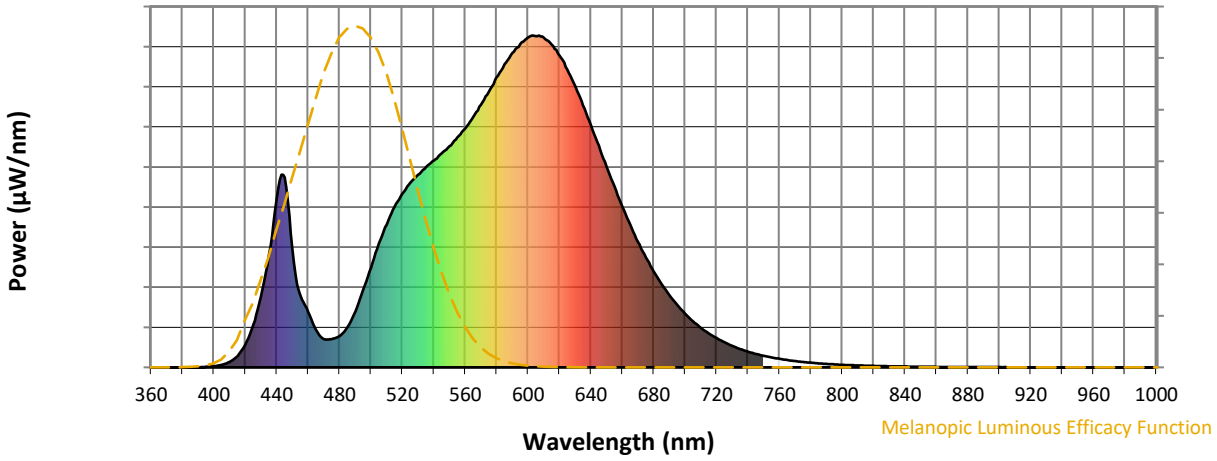


Scotopic Lumens: NR **S/P: 1.27**

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			

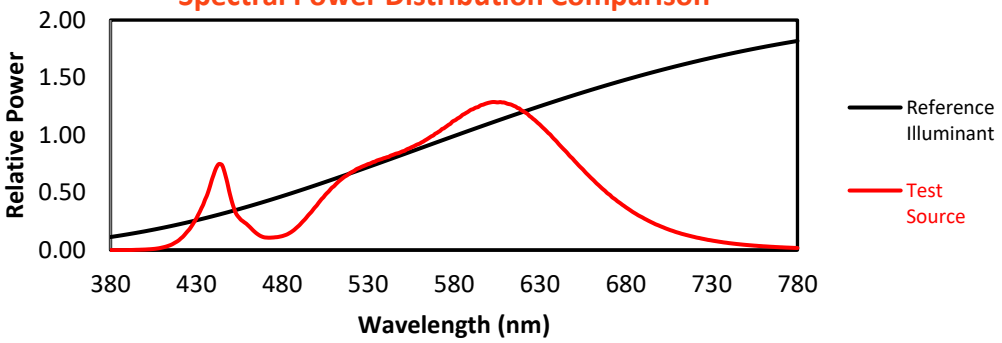
REPORT NUMBER: SP1-2408-195-9

TM-30-18

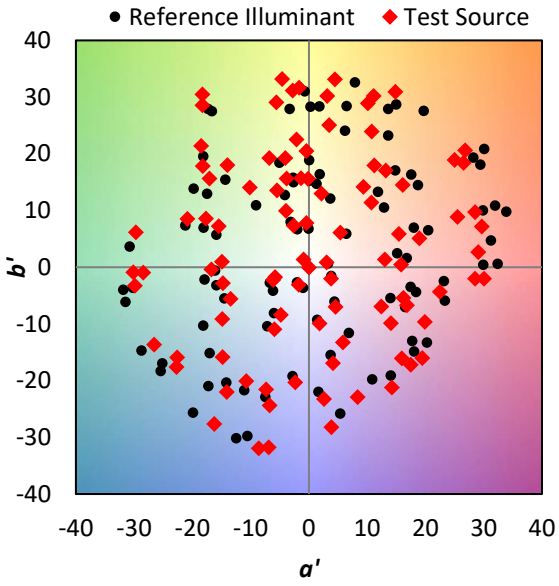
Summary

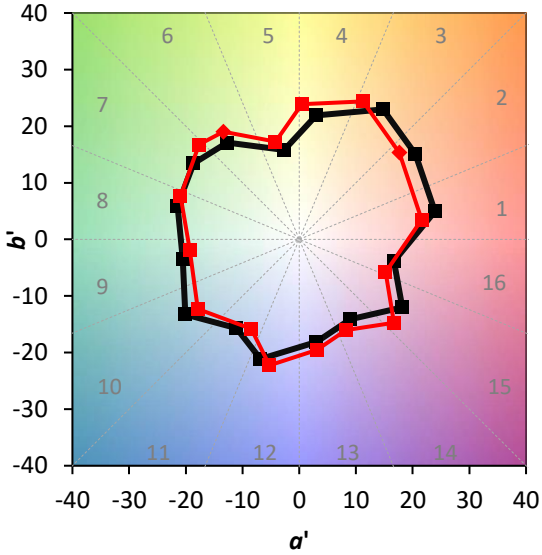
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

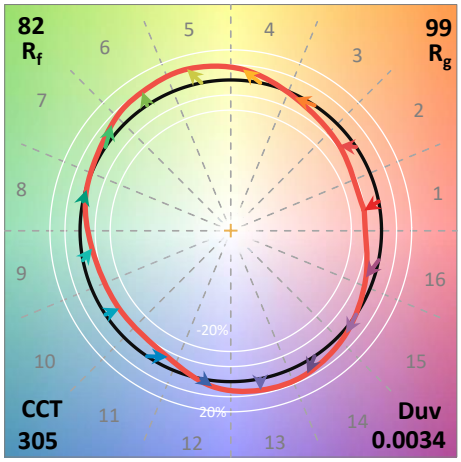
Spectral Power Distribution Comparison

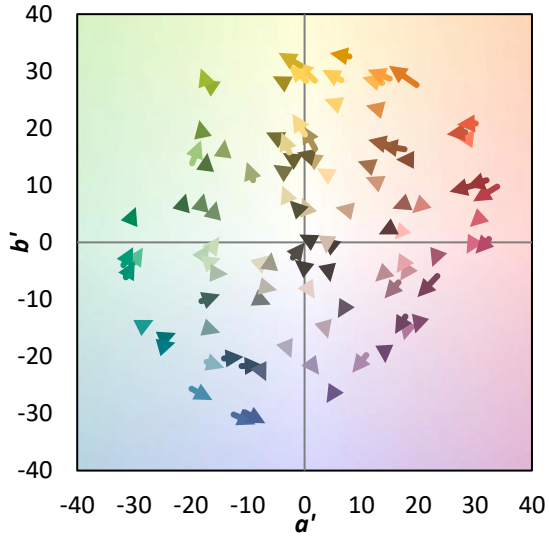


Color Vector Graphics







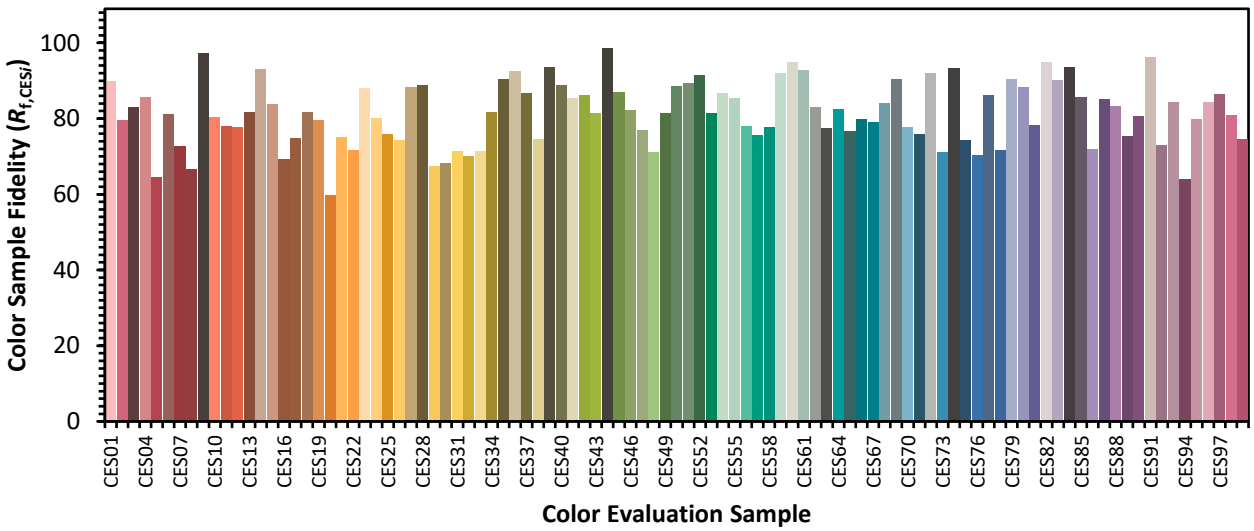


REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

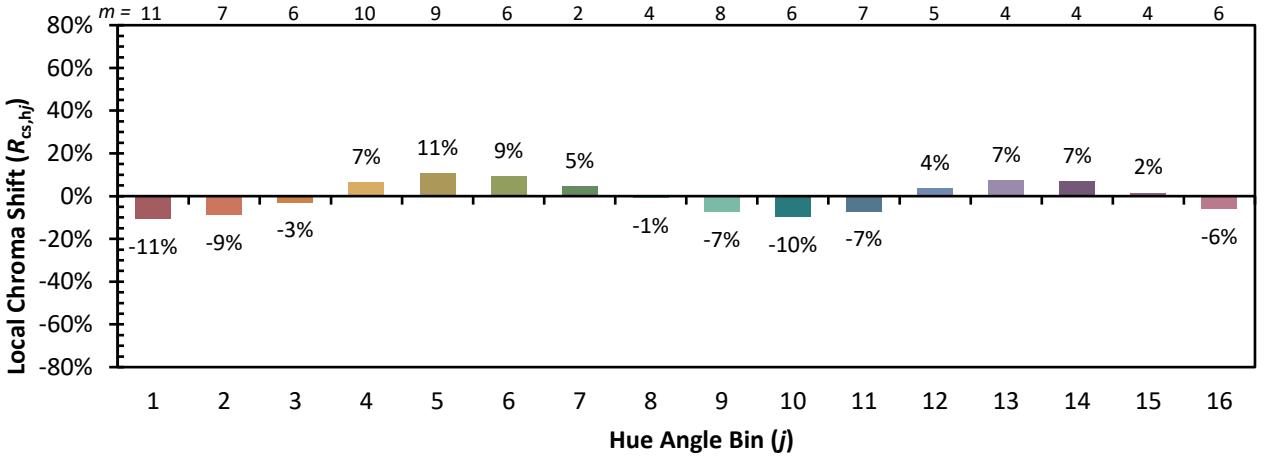
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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

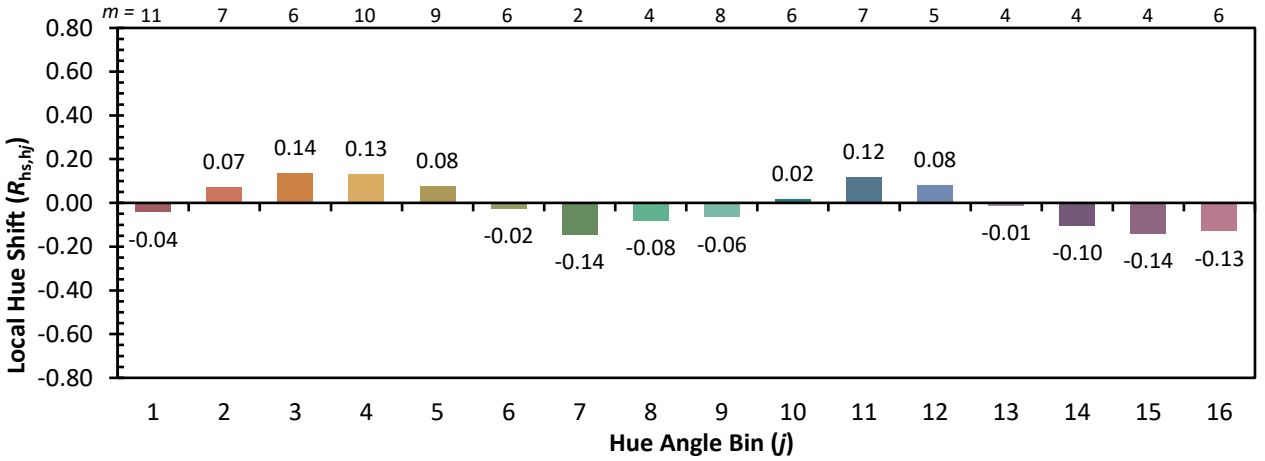


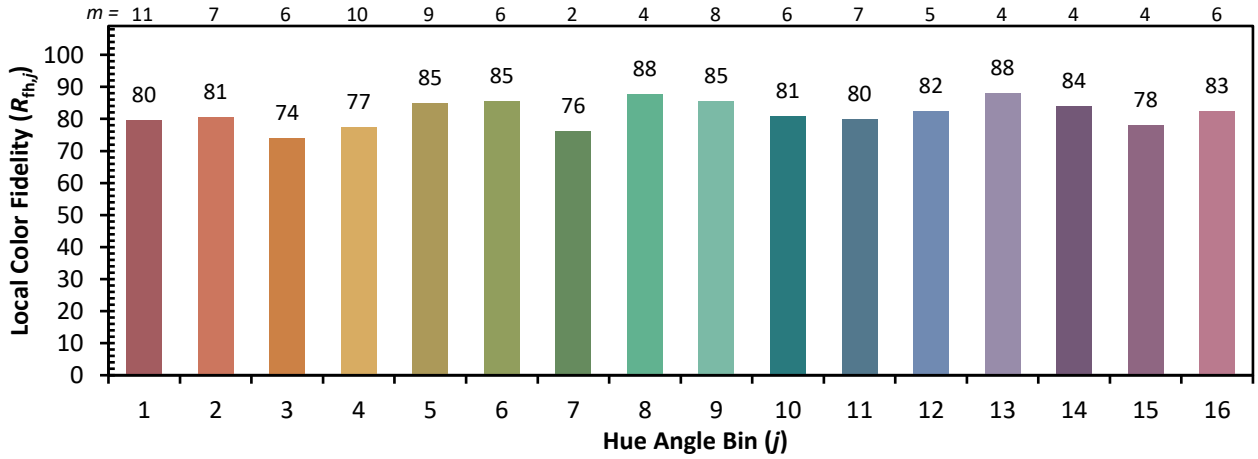
REPORT NUMBER: SP1-2408-195-9

TM-30-18

Color Rendition by Hue-Angle Bin



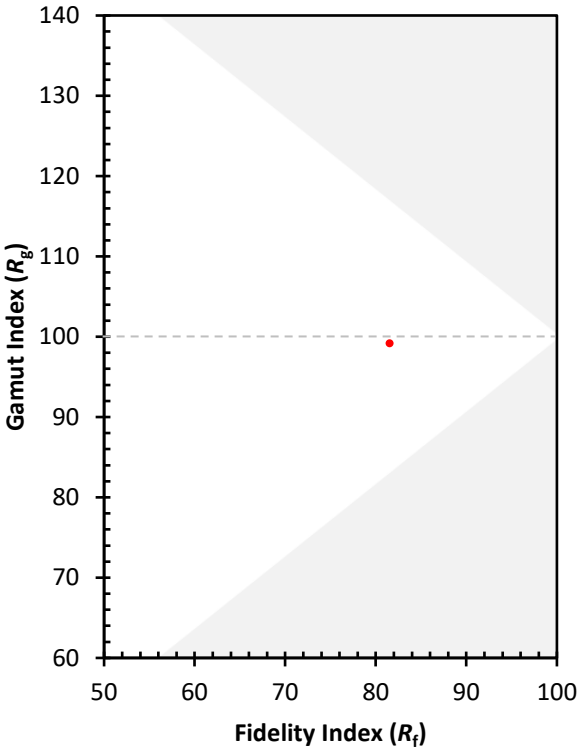


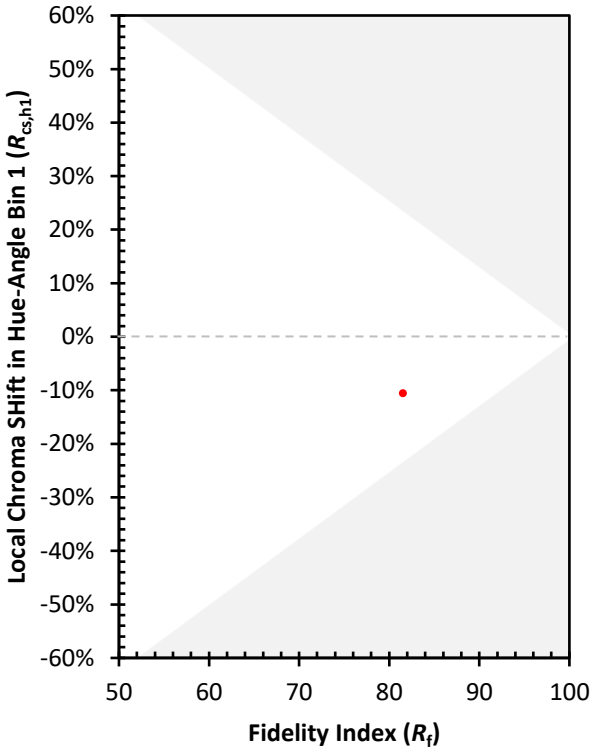


REPORT NUMBER: SP1-2408-195-9

TM-30-18

Measure Comparisons





(END OF REPORT)