

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: P324319

Luminaire Tested: **GLEON-SA5B-830-U-SLL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324319
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-SA5B-830-U-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 800mA 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: 16827 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

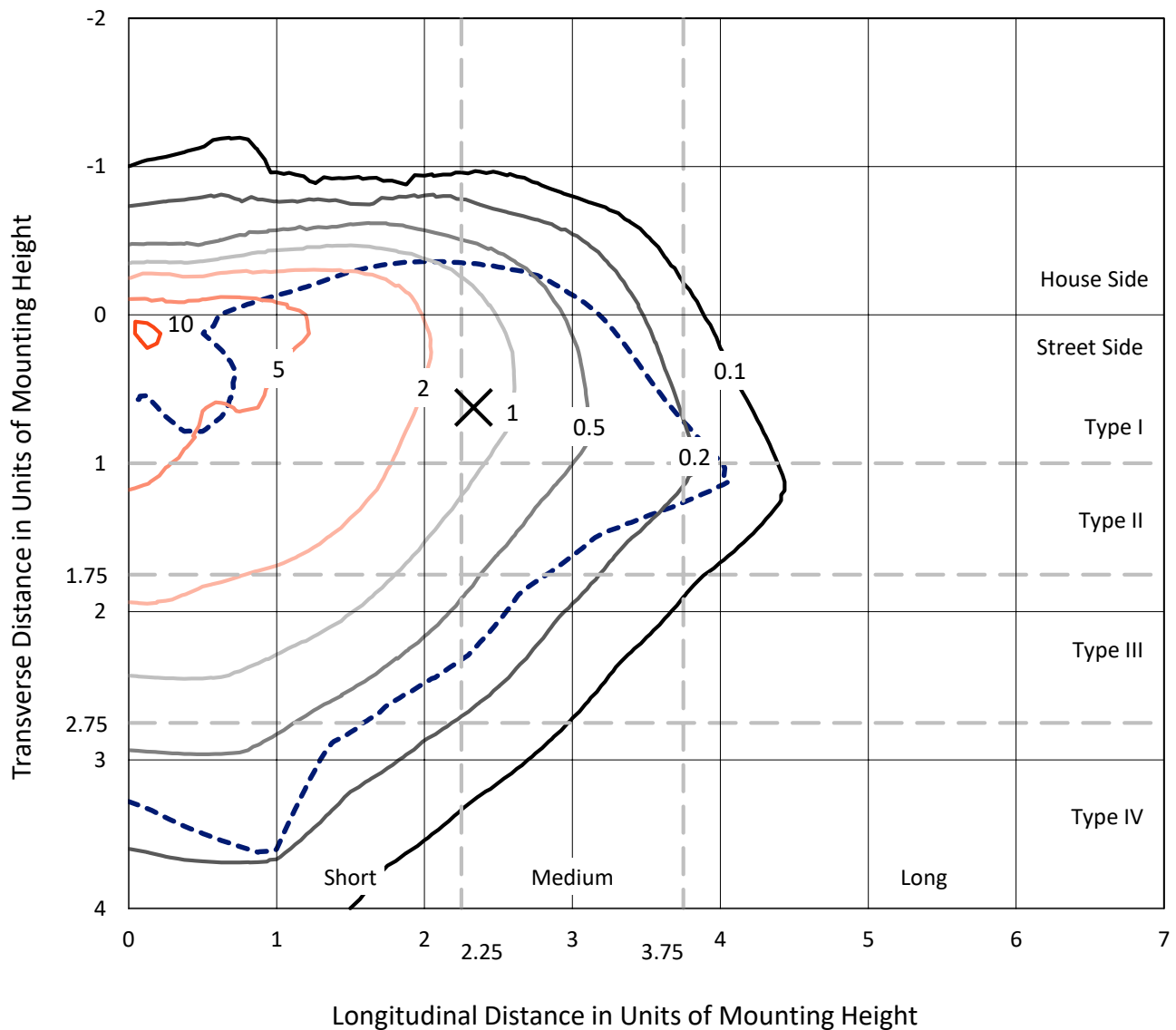
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

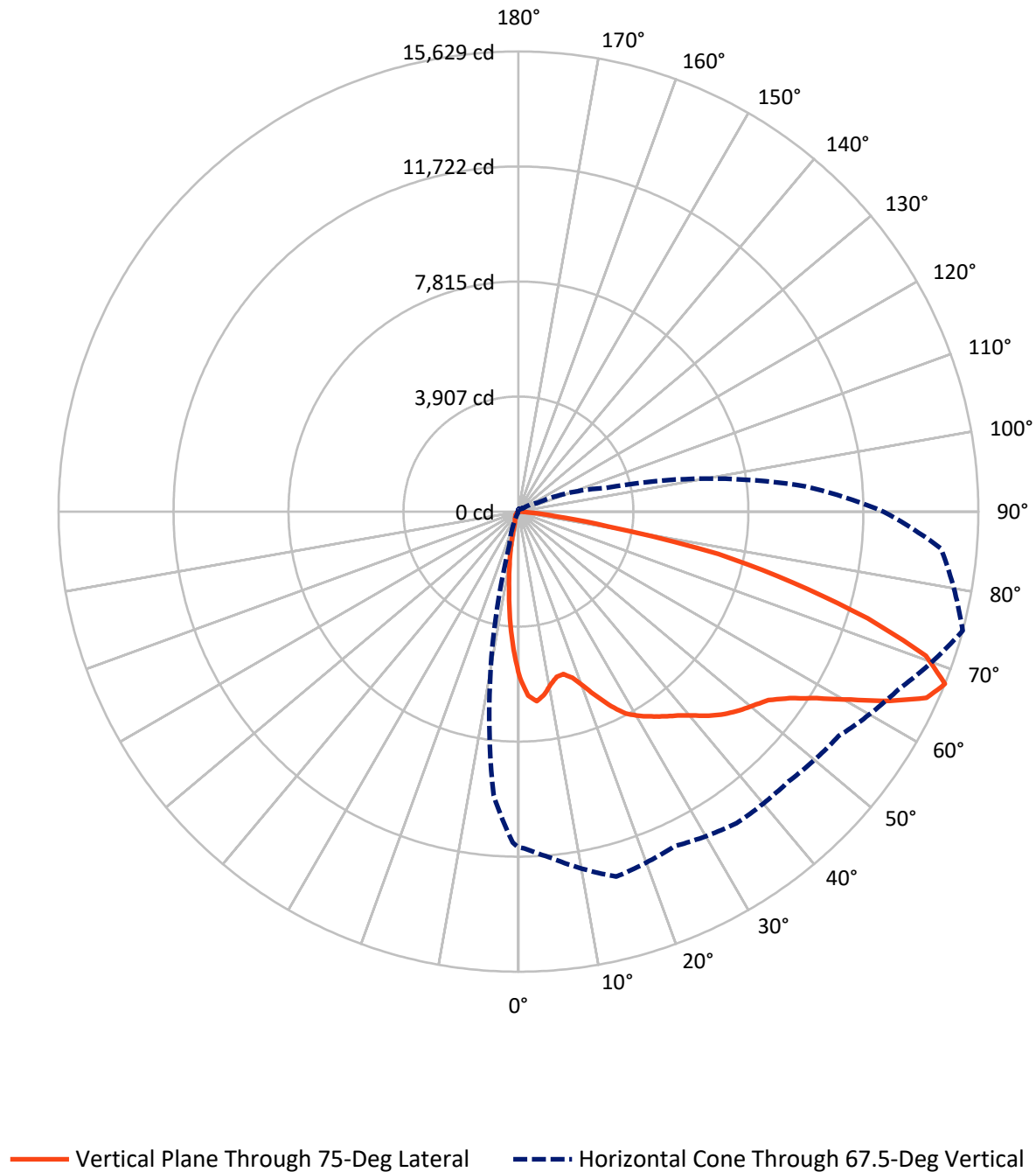
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 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	2525.1	0.0	2525.1
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	14301.9	0.0	14301.9
	% Fixture	85.0	0.0	85.0
Total	Lumens	16827.0	0.0	16827.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.2	2.5
10°-20°	843.2	5.0
20°-30°	1192.8	7.1
30°-40°	1753.8	10.4
40°-50°	2520.8	15.0
50°-60°	3548.6	21.1
60°-70°	4144.4	24.6
70°-80°	2114.4	12.6
80°-90°	280.9	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°	16827.0	100.0
0°-180°	16827.0	100.0

Coefficient of Utilization



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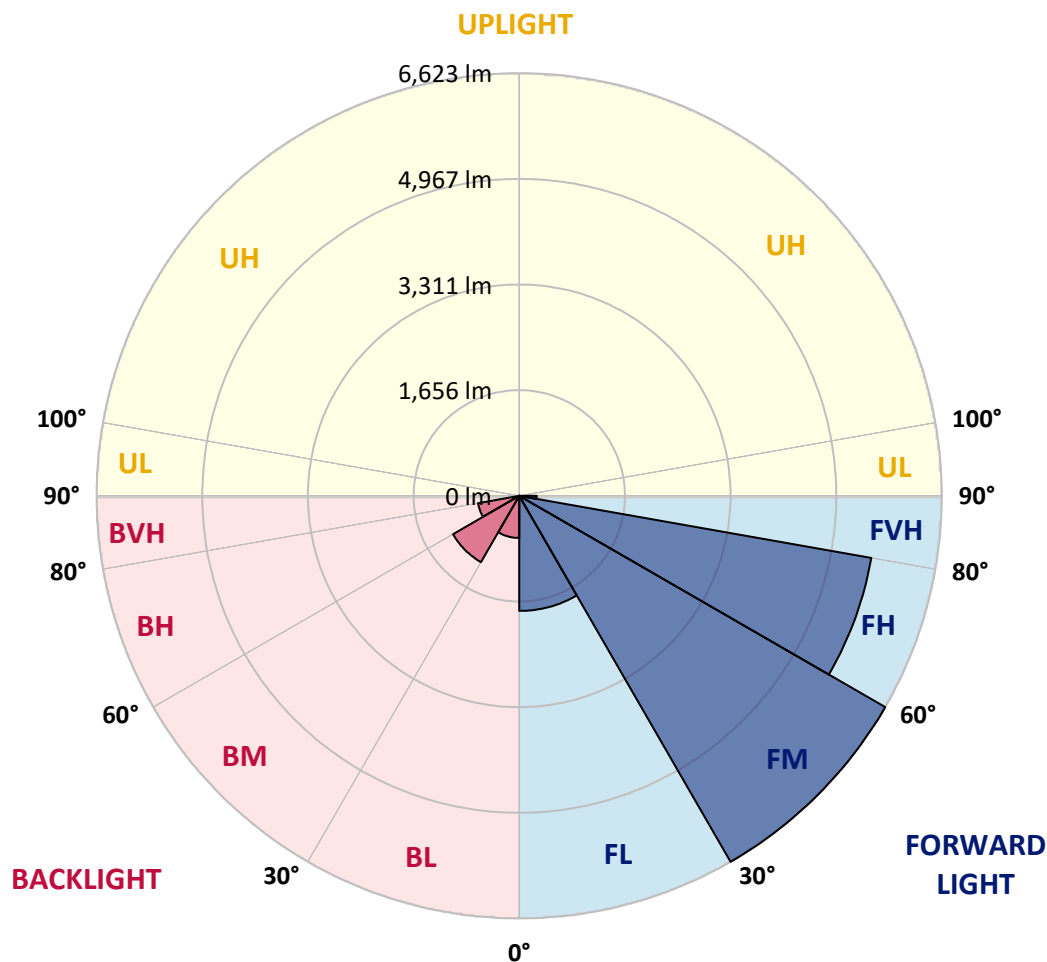
CATALOG NUMBER: GLEON-SA5B-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1803.9	10.7			
FM	(30°-60°)	6622.8	39.4			
FH	(60°-80°)	5602.9	33.3			G3/7500
FVH	(80°-90°)	272.4	1.6			G3/500
BL	(0°-30°)	660.3	3.9	B2/1000		
BM	(30°-60°)	1200.3	7.1	B2/2500		
BH	(60°-80°)	655.9	3.9	B2/1000		G2/1000
BVH	(80°-90°)	8.5	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





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	6119.5	6129.0	6178.4	6293.2	6418.4	6427.9	6512.4	6425.5	6396.1	6255.8	6110.7
5°	6165.7	6202.4	6372.1	6709.3	7001.9	7095.9	7162.9	6992.3	6812.9	6470.2	6104.3
7.5°	5793.4	5854.8	6121.8	6754.8	7277.7	7508.8	7552.7	7285.6	6846.4	6282.1	5732.1
10°	5316.8	5386.9	5708.9	6486.9	7205.1	7601.3	7661.9	7311.9	6680.6	5977.6	5329.5
12.5°	4931.0	5013.1	5342.3	6185.6	6955.6	7394.0	7513.6	7223.5	6537.1	5761.5	5054.5
15°	4753.2	4847.3	5193.2	5991.1	6679.0	7024.2	7123.0	6997.9	6457.4	5727.3	4990.7
17.5°	4855.2	4957.3	5314.4	6007.9	6419.2	6566.6	6646.3	6697.4	6457.4	5933.7	5177.3
20°	5273.7	5383.7	5761.5	6177.6	6203.9	6148.9	6234.2	6413.6	6532.4	6325.9	5625.2
22.5°	5852.4	5981.6	6408.0	6468.6	6098.7	5890.7	5901.8	6183.2	6668.7	6823.3	6247.0
25°	6557.9	6715.7	7149.3	6902.2	6142.6	5736.8	5732.9	5993.5	6801.8	7321.5	6939.7
27.5°	7258.5	7432.3	7813.3	7431.5	6323.5	5708.9	5701.0	5936.1	6931.7	7764.7	7696.1
30°	7846.0	8015.0	8343.4	7814.9	6518.8	5774.3	5736.0	5997.5	7009.0	8052.5	8247.8
32.5°	8324.3	8459.8	8725.2	8078.8	6727.7	5901.0	5818.1	6161.7	7140.6	8295.6	8754.7
35°	8850.4	8993.1	9099.1	8329.9	6962.0	6083.6	5964.8	6422.4	7343.0	8542.7	9310.3
37.5°	9450.6	9592.5	9579.7	8559.4	7259.3	6385.7	6310.0	6835.3	7657.9	8787.4	9930.5
40°	10038.1	10183.1	10079.5	8810.5	7608.5	6883.9	6828.1	7455.4	8079.6	9100.7	10657.4
42.5°	10588.1	10745.1	10523.5	9048.1	8024.6	7512.0	7607.7	8254.1	8607.3	9486.5	11284.0
45°	11031.3	11191.5	10895.8	9279.2	8463.0	8274.1	8561.8	9138.9	9241.8	9812.5	11707.2
47.5°	11353.3	11504.8	11154.0	9510.4	9024.1	9205.9	9707.3	10066.8	9814.9	10095.5	12007.7
50°	11559.0	11676.9	11229.8	9799.7	9760.7	10293.2	10900.6	11075.9	10354.5	10350.5	12372.8
52.5°	11689.7	11743.1	11285.6	10101.8	10529.1	11476.9	12069.1	12124.1	10910.1	10631.1	12864.6
55°	12140.1	12183.1	11680.9	10467.7	11164.4	12513.9	13126.1	13075.1	11539.0	11180.3	13444.9
57.5°	12908.5	12953.9	12498.0	10993.8	11678.5	13154.8	13892.1	13983.8	12276.4	11951.9	14066.7
60°	13294.3	13378.8	13216.2	11660.2	12176.7	13564.5	14414.2	14706.8	13197.8	12969.1	14669.3
62.5°	12944.4	13067.1	13303.1	12399.1	12671.7	13790.1	14576.8	14965.8	14141.6	14154.4	15040.8
65°	12246.1	12344.1	12744.3	12804.1	12958.7	13762.2	14175.1	14603.9	14719.5	15243.2	15020.8
67.5°	11402.7	11439.4	11779.0	12835.9	12542.6	12923.6	12968.3	13285.5	14262.8	15629.0	14417.4
70°	10188.7	10208.7	10505.2	11768.6	10778.6	10862.3	10796.1	10860.7	12262.0	14689.2	12894.1
72.5°	8199.9	8250.1	8671.8	9773.4	7852.4	7610.9	8130.6	8101.9	9443.4	12410.3	9576.5
75°	6037.4	6124.2	6761.1	7872.3	5511.3	4985.2	5364.6	5465.8	6713.3	9599.7	5988.7
77.5°	4227.1	4291.7	4908.6	5787.1	3988.8	3564.7	3427.6	3548.0	4431.2	6944.5	3017.1
80°	2435.2	2459.1	2852.9	3341.5	2687.9	3075.3	2785.9	2868.8	2655.2	3089.6	1297.7
82.5°	1593.4	1597.4	1751.3	1988.8	1673.9	1945.0	1439.6	1840.5	1633.3	1241.1	422.5
85°	860.9	865.7	1015.5	1411.7	947.8	535.7	314.9	646.5	1009.9	284.6	115.6
87.5°	94.9	86.9	306.1	513.3	263.0	48.6	16.7	72.5	161.8	18.3	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	6036.6	5970.4	5805.4	5630.8	5490.5	5359.0	5226.7	5064.9	4939.7	4914.2	4872.8
5°	5907.4	5697.8	5351.8	5004.3	4724.5	4371.4	4147.4	3972.8	3802.2	3791.9	3757.6
7.5°	5456.3	5180.5	4693.4	4212.8	3819.0	3482.6	3143.0	2915.8	2737.3	2674.3	2636.9
10°	5022.6	4712.5	4104.3	3555.9	3204.4	2907.1	2667.9	2430.4	2215.2	2066.9	2000.0
12.5°	4719.7	4377.0	3706.6	3233.9	2982.0	2699.8	2408.1	2111.6	1863.7	1685.1	1575.9
15°	4602.5	4236.7	3573.5	3106.4	2795.5	2438.4	2065.3	1726.6	1451.5	1289.7	1191.7
17.5°	4742.0	4316.4	3563.1	2950.9	2516.5	2072.5	1660.4	1260.2	1001.2	878.4	815.4
20°	5096.0	4569.9	3559.1	2760.4	2184.9	1638.9	1124.7	829.0	672.0	603.4	573.9
22.5°	5596.5	4893.5	3591.0	2572.3	1839.7	1171.0	776.4	609.0	528.5	491.8	475.1
25°	6240.6	5347.8	3681.1	2401.7	1515.3	873.6	605.0	510.2	453.6	424.9	412.9
27.5°	6926.9	5870.8	3821.4	2253.4	1251.5	696.7	518.1	436.8	396.2	376.2	365.1
30°	7492.9	6476.6	3963.3	2088.4	1060.2	607.4	474.3	398.6	351.5	338.8	328.4
32.5°	7987.9	6934.9	4063.7	1939.4	935.0	539.6	428.8	356.3	324.4	299.7	288.6
35°	8500.4	7316.7	4060.5	1835.0	848.9	488.6	390.6	318.8	280.6	251.9	243.1
37.5°	9055.2	7748.0	3991.2	1745.7	811.5	448.0	369.1	298.9	260.7	232.0	220.8
40°	9704.9	8200.7	3920.2	1662.0	801.1	415.3	353.9	283.0	242.3	214.4	203.3
42.5°	10337.8	8608.8	3858.0	1599.8	756.5	414.5	340.4	271.0	228.0	200.9	188.1
45°	10844.0	8989.1	3846.1	1562.3	709.4	428.8	333.2	263.0	216.8	189.7	177.8
47.5°	11264.8	9402.0	3922.6	1536.0	664.8	391.4	350.7	257.5	206.5	180.1	166.6
50°	11765.4	9908.9	4102.8	1493.0	617.8	352.3	401.7	259.1	197.7	170.6	156.2
52.5°	12463.7	10610.4	4367.4	1420.5	553.2	316.5	395.4	260.7	188.1	160.2	145.9
55°	13246.5	11486.4	4652.0	1300.1	463.1	269.4	338.8	249.5	169.8	149.1	135.5
57.5°	14069.1	12281.2	4821.0	1156.6	368.3	232.8	271.0	227.2	149.9	133.9	125.1
60°	14198.2	12583.3	4743.6	980.5	292.5	202.5	200.9	231.2	133.9	118.0	111.6
62.5°	13877.0	12203.8	4369.8	823.4	244.7	177.8	165.0	201.7	121.2	105.2	98.8
65°	13259.2	11177.9	3764.0	742.1	227.2	152.2	137.1	141.9	106.0	91.7	86.1
67.5°	12399.9	9808.5	3090.4	695.9	224.8	130.7	117.2	107.6	91.7	79.7	74.9
70°	10643.1	8171.2	2465.5	670.4	218.4	110.0	98.8	87.7	76.5	67.8	63.8
72.5°	7833.3	5790.2	1917.9	642.5	220.0	87.7	86.1	72.5	61.4	52.6	51.0
75°	4526.0	3308.0	1257.8	520.5	209.6	67.8	71.7	51.0	43.0	36.7	36.7
77.5°	2412.1	2017.5	479.1	216.8	76.5	43.0	40.7	30.3	27.1	22.3	21.5
80°	1051.4	888.0	144.3	60.6	42.2	23.1	15.1	13.6	12.0	9.6	8.8
82.5°	372.3	321.2	47.0	29.5	18.3	0.0	0.0	0.0	0.0	0.0	0.0
85°	84.5	60.6	0.0	7.2	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



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	4788.3	4770.7	4667.1	4671.1	4689.4	4715.7	4653.6	4682.3	4759.6	4833.7	4861.6
5°	3702.6	3706.6	3643.6	3682.7	3717.7	3741.7	3641.2	3642.8	3704.2	3787.9	3831.7
7.5°	2609.0	2602.6	2605.8	2699.0	2765.2	2717.4	2754.8	2624.9	2632.9	2692.7	2648.0
10°	1939.4	1851.7	1802.3	1872.4	1945.0	1918.7	1854.1	1811.8	1841.3	1907.5	1902.7
12.5°	1524.1	1398.1	1324.0	1273.8	1333.6	1284.2	1282.6	1245.9	1206.0	1213.2	1319.2
15°	1146.3	1054.6	966.9	886.4	884.8	868.1	782.8	687.1	679.1	683.9	738.9
17.5°	788.3	757.3	721.4	652.0	633.7	563.6	480.7	442.4	423.3	432.0	450.4
20°	554.0	542.0	546.0	508.6	482.3	415.3	366.7	351.5	348.3	357.1	365.9
22.5°	459.1	437.6	435.2	418.5	392.2	343.6	317.3	308.5	304.5	312.5	318.8
25°	401.7	380.2	371.5	361.1	333.2	299.7	283.8	275.8	271.8	276.6	280.6
27.5°	353.9	334.0	326.0	318.8	291.7	267.8	255.1	247.9	244.7	246.3	250.3
30°	318.0	300.5	290.1	281.4	258.3	241.5	230.4	223.2	220.0	220.0	224.0
32.5°	280.6	271.0	261.5	250.3	228.8	217.6	206.5	198.5	195.3	196.1	199.3
35°	233.6	230.4	232.8	222.4	204.1	194.5	183.3	174.6	172.2	173.0	176.2
37.5°	207.2	192.9	201.7	196.1	185.7	173.0	158.6	150.7	146.7	149.1	150.7
40°	190.5	173.0	166.6	172.2	170.6	149.9	137.1	129.1	125.9	126.7	128.3
42.5°	176.2	155.4	141.1	140.3	149.9	130.7	117.2	110.0	106.0	106.0	107.6
45°	162.6	140.3	122.8	109.2	125.9	110.8	98.0	91.7	86.9	86.9	87.7
47.5°	152.2	127.5	106.8	89.3	94.9	90.9	80.5	74.1	69.3	69.3	70.1
50°	142.7	114.8	92.5	74.9	70.9	74.9	65.4	58.2	55.0	54.2	55.8
52.5°	132.3	102.0	78.9	63.8	55.8	56.6	51.0	46.2	42.2	42.2	43.8
55°	122.0	91.7	68.6	54.2	46.2	42.2	40.7	37.5	34.3	34.3	35.9
57.5°	111.6	80.5	58.2	44.6	36.7	33.5	33.5	31.1	28.7	28.7	30.3
60°	102.0	69.3	47.8	36.7	28.7	27.9	28.7	26.3	24.7	24.7	26.3
62.5°	90.9	59.0	39.1	30.3	23.1	22.3	24.7	23.1	21.5	21.5	23.1
65°	77.3	50.2	31.1	23.1	17.5	17.5	20.7	19.1	17.5	17.5	19.1
67.5°	65.4	42.2	23.9	16.7	12.8	13.6	17.5	15.9	15.1	15.1	16.7
70°	54.2	32.7	16.7	10.4	7.2	10.4	13.6	13.6	13.6	13.6	15.1
72.5°	40.7	22.3	9.6	4.0	3.2	7.2	11.2	12.8	12.0	12.0	14.3
75°	26.3	12.8	3.2	0.0	0.0	4.0	8.8	10.4	10.4	9.6	12.0
77.5°	15.1	4.0	0.0	0.0	0.0	0.0	5.6	4.8	4.0	3.2	5.6
80°	4.0	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

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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	4974.0	5068.1	5200.4	5340.7	5556.7	5728.1	5896.3	6040.5	6096.3	6119.5
5°	3937.0	4074.9	4268.6	4517.3	4907.0	5257.8	5613.3	5971.2	6126.6	6165.7
7.5°	2825.0	3001.1	3247.4	3559.1	4015.9	4470.2	4966.8	5492.1	5732.9	5793.4
10°	2090.8	2306.1	2588.2	2916.6	3352.7	3819.8	4361.0	4961.2	5236.3	5316.8
12.5°	1483.4	1774.4	2152.2	2551.6	2929.4	3346.3	3893.9	4555.5	4844.1	4931.0
15°	871.2	1152.6	1599.8	2134.7	2618.5	3041.0	3597.4	4347.5	4665.5	4753.2
17.5°	499.8	640.1	978.1	1574.3	2231.1	2816.2	3504.1	4399.3	4773.9	4855.2
20°	381.8	426.5	563.6	1013.9	1778.4	2595.4	3504.1	4692.6	5154.1	5273.7
22.5°	334.0	366.7	422.5	605.0	1308.9	2358.7	3544.8	5116.7	5720.1	5852.4
25°	296.5	326.0	373.8	455.2	892.8	2077.3	3641.2	5637.2	6386.5	6557.9
27.5°	265.4	293.3	336.4	398.6	610.6	1737.7	3771.2	6247.8	7121.4	7258.5
30°	237.5	263.8	302.9	346.7	471.1	1352.7	3882.0	6823.3	7698.5	7846.0
32.5°	211.2	235.1	270.2	302.9	385.8	1000.4	3893.9	7279.3	8177.6	8324.3
35°	186.5	208.0	239.9	265.4	319.6	789.9	3708.2	7674.6	8656.7	8850.4
37.5°	162.6	183.3	211.2	230.4	281.4	644.1	3424.4	8115.4	9271.2	9450.6
40°	140.3	158.6	187.3	200.1	266.2	495.0	3115.9	8577.8	9873.9	10038.1
42.5°	119.6	137.1	165.0	189.7	233.6	369.9	2782.7	9011.4	10415.9	10588.1
45°	99.6	118.0	145.9	200.9	193.7	276.6	2426.4	9299.1	10844.0	11031.3
47.5°	80.5	101.2	139.5	191.3	154.6	203.3	2144.2	9571.8	11168.4	11353.3
50°	64.6	85.3	157.0	170.6	126.7	155.4	2026.3	9815.7	11381.2	11559.0
52.5°	52.6	71.7	148.3	130.7	106.0	128.3	2090.0	10211.0	11578.1	11689.7
55°	43.8	56.6	89.3	90.9	90.1	109.2	2169.0	10778.6	12087.5	12140.1
57.5°	38.3	45.4	62.2	70.1	75.7	97.2	2170.5	11593.2	12875.8	12908.5
60°	32.7	39.9	51.8	56.6	65.4	86.9	2091.6	11877.8	13185.9	13294.3
62.5°	28.7	35.1	43.0	47.0	55.0	78.1	1906.7	11465.7	12760.2	12944.4
65°	25.5	31.9	35.9	39.9	48.6	70.1	1602.2	10641.5	12054.0	12246.1
67.5°	22.3	27.9	31.9	35.9	43.8	62.2	1179.7	9684.2	11243.3	11402.7
70°	19.9	24.7	28.7	31.9	38.3	52.6	715.8	8217.5	10122.6	10188.7
72.5°	19.1	22.3	26.3	28.7	33.5	46.2	362.7	6038.9	8092.3	8199.9
75°	16.7	19.9	23.9	25.5	29.5	39.9	147.5	3966.4	5864.4	6037.4
77.5°	13.6	18.3	21.5	23.1	25.5	32.7	74.9	2534.8	4115.5	4227.1
80°	4.8	13.6	18.3	19.1	21.5	23.9	49.4	1387.8	2387.4	2435.2
82.5°	0.0	8.8	14.3	13.6	15.1	18.3	31.9	660.0	1575.9	1593.4
85°	0.0	4.0	11.2	8.8	6.4	12.8	11.2	144.3	826.6	860.9
87.5°	0.0	0.0	0.8	4.0	3.2	4.8	1.6	0.8	74.9	94.9
90°	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.

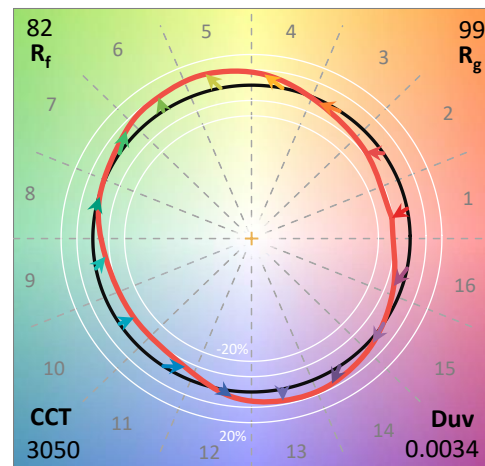
Test Information

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
 R_f: 81.5
 R_g: 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

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

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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

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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			

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

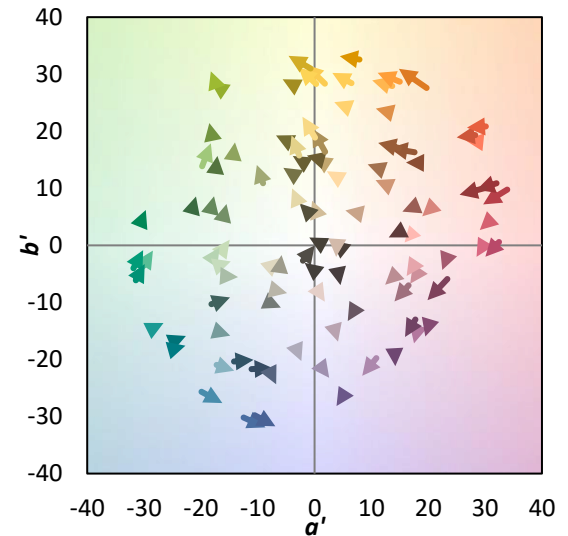
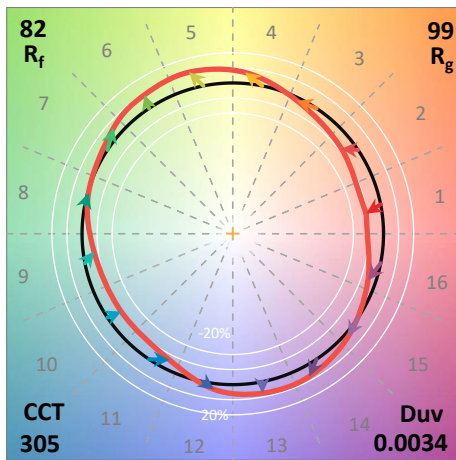
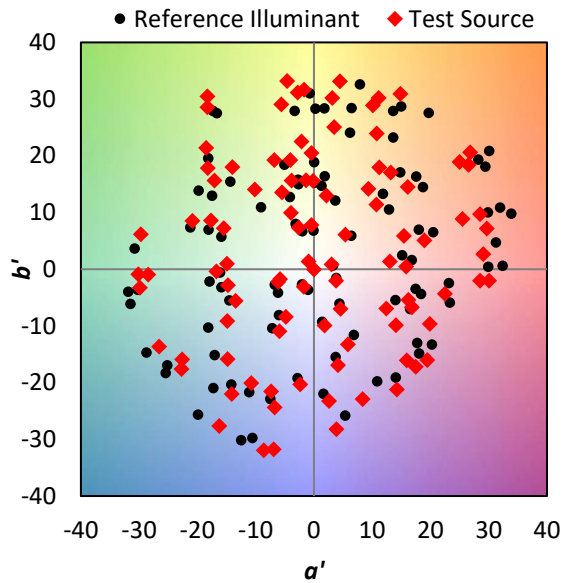
TM-30-18

Summary

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

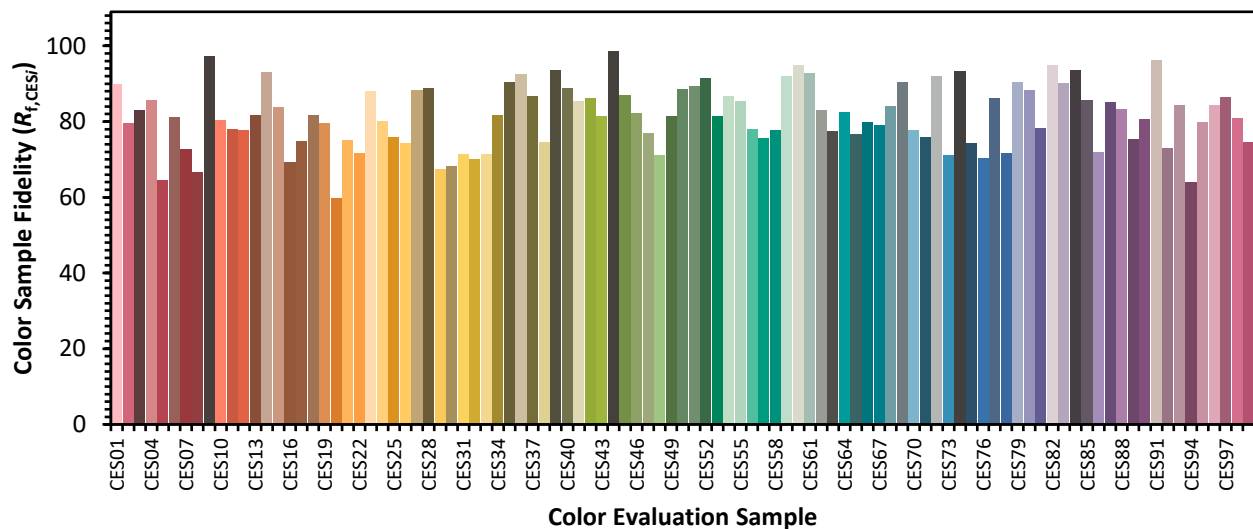


Color Vector Graphics



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

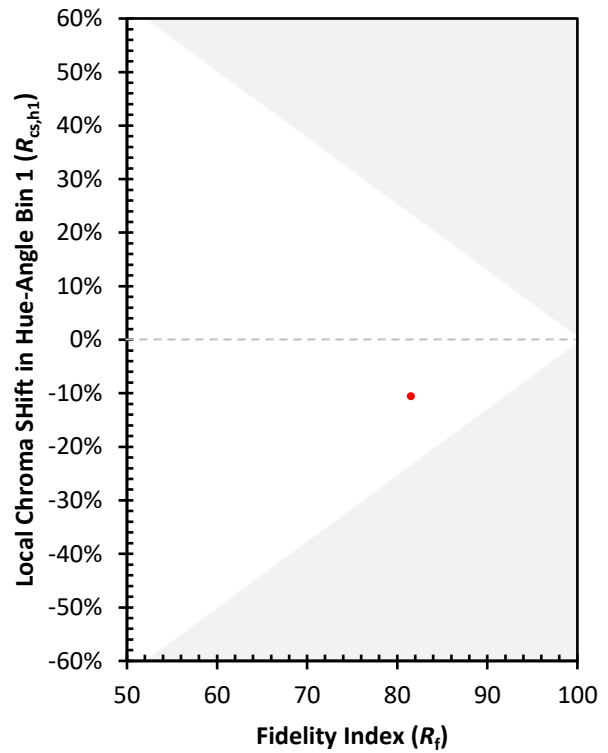
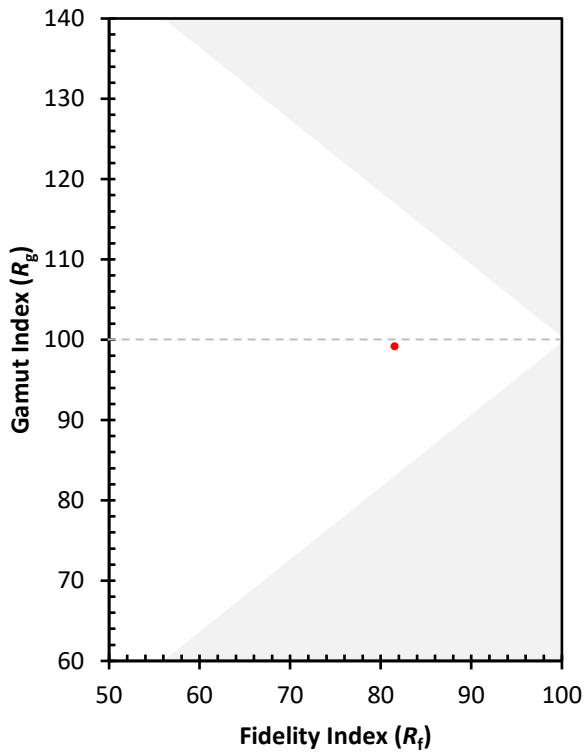
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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