

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: P324663

Luminaire Tested: **GLEON-SA9D-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9D-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40861 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

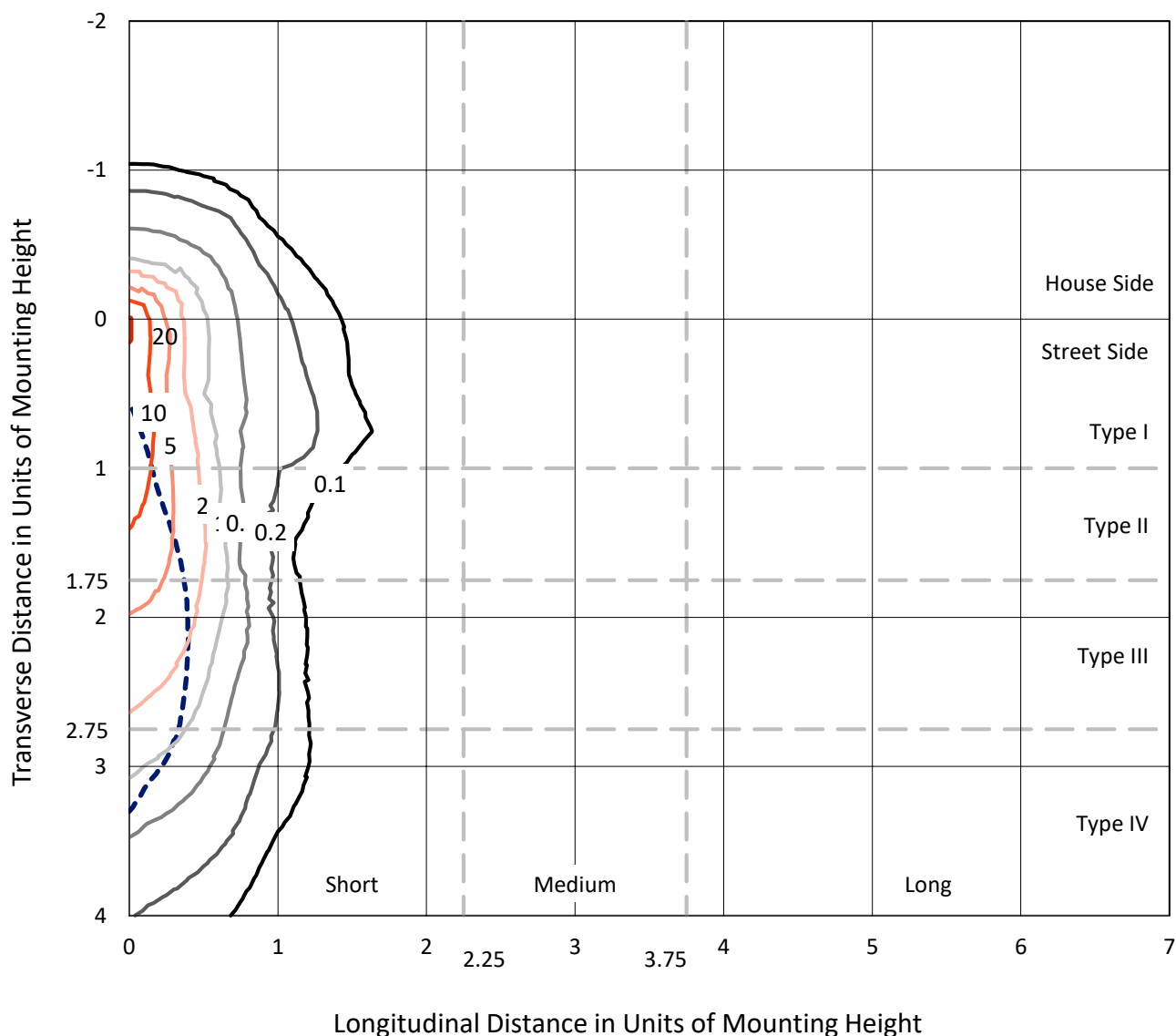
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

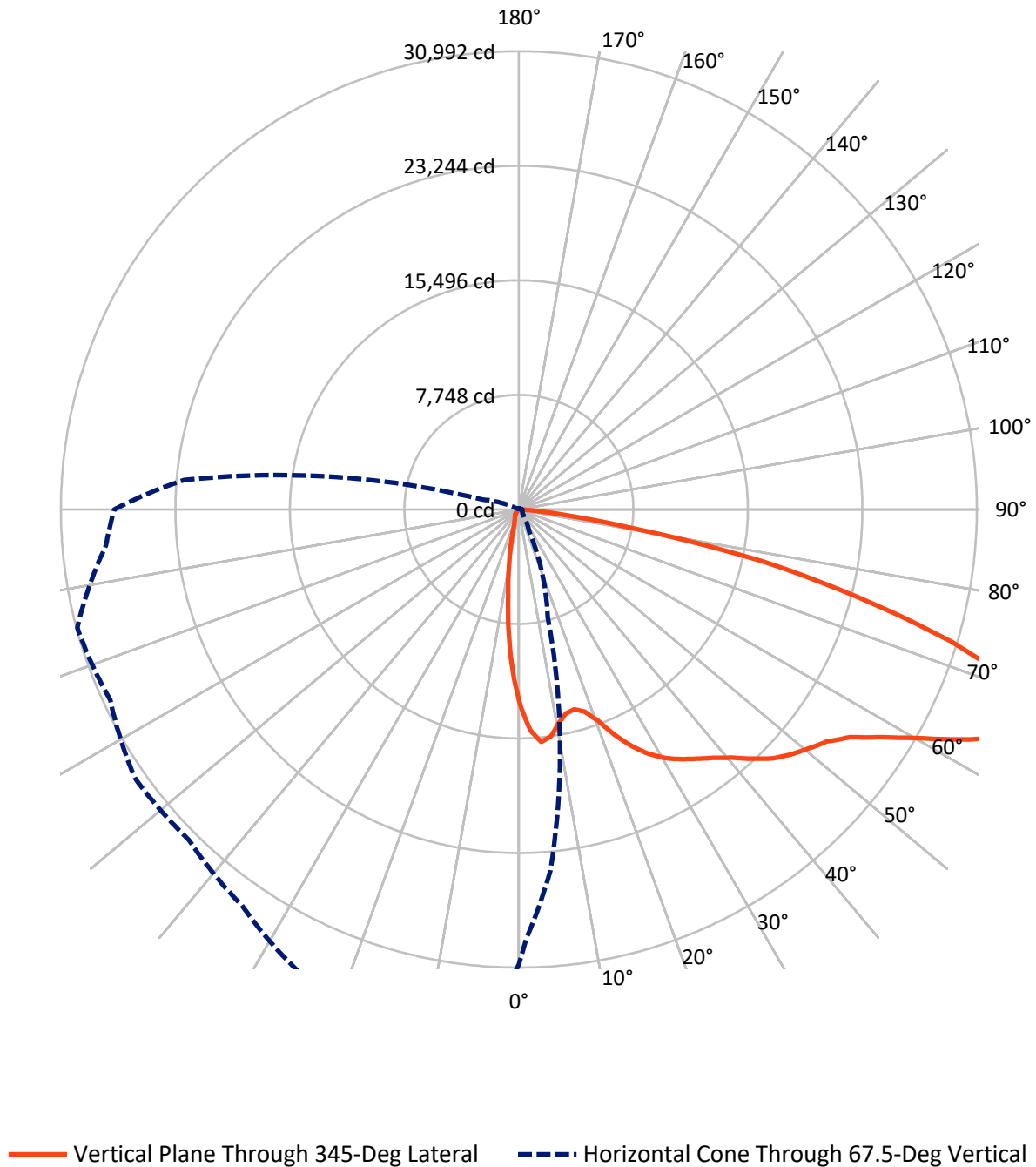
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 21.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4945.5	0.0	4945.5
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	35915.5	0.0	35915.5
	% Fixture	87.9	0.0	87.9
Total	Lumens	40861.0	0.0	40861.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1021.6	2.5
10°-20°	2033.4	5.0
20°-30°	2887.4	7.1
30°-40°	4264.9	10.4
40°-50°	6150.9	15.1
50°-60°	8634.6	21.1
60°-70°	10065.4	24.6
70°-80°	5145.6	12.6
80°-90°	657.2	1.6
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°	40861.0	100.0
0°-180°	40861.0	100.0

Coefficient of Utilization



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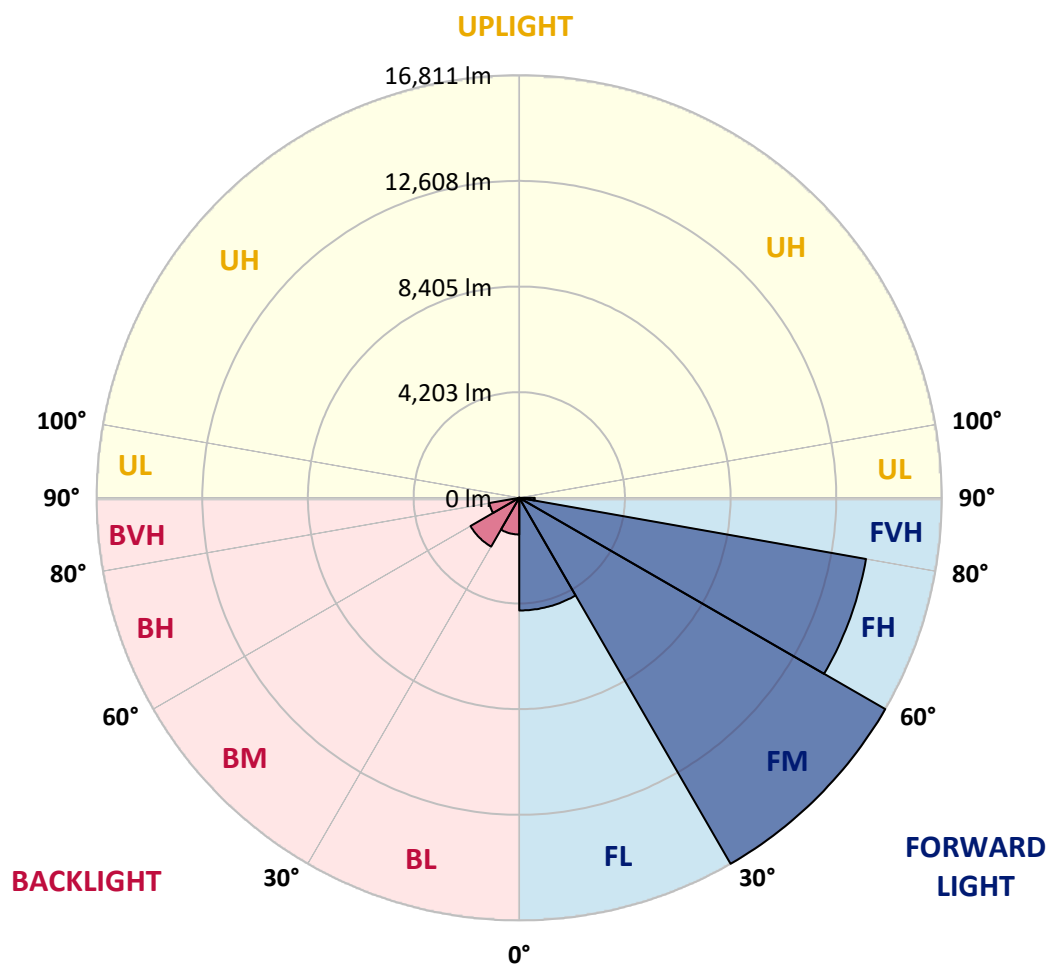
CATALOG NUMBER: GLEON-SA9D-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4481.7	11.0			
FM	(30°-60°)	16810.9	41.1			
FH	(60°-80°)	14005.7	34.3			G5
FVH	(80°-90°)	617.2	1.5			G4/750
BL	(0°-30°)	1460.7	3.6	B3/2500		
BM	(30°-60°)	2239.5	5.5	B2/2500		
BH	(60°-80°)	1205.4	2.9	B3/2500		G3/2500
BVH	(80°-90°)	39.9	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4
2.5°	14574.5	14462.2	14338.3	13933.7	13558.2	13128.4	12778.1	12534.1	12228.3	11831.5	11730.8
5°	14469.9	14349.9	13960.8	13060.7	12272.8	11506.3	10766.8	10333.2	9795.0	9249.1	9113.6
7.5°	13418.8	13293.0	12731.6	11498.5	10437.7	9330.4	8370.3	7776.0	7168.2	6668.7	6403.5
10°	12325.1	12187.6	11556.6	10060.2	8753.6	7752.8	7048.2	6481.0	5906.1	5371.8	4945.9
12.5°	11572.1	11392.0	10706.8	9011.0	7872.8	7193.3	6535.2	5855.7	5077.5	4504.6	4036.1
15°	11256.5	11051.3	10327.4	8606.5	7561.1	6763.6	5906.1	5071.7	4160.0	3503.8	3074.0
17.5°	11500.4	11233.3	10457.1	8579.4	7170.1	6084.1	5000.1	4020.6	3031.4	2367.5	2061.6
20°	12329.0	11978.6	10993.3	8571.6	6695.8	5276.9	3902.5	2795.3	1997.7	1606.7	1446.0
22.5°	13633.7	13171.0	11763.7	8633.6	6206.1	4429.1	2818.5	1899.0	1500.2	1297.0	1202.1
25°	15209.4	14673.2	12872.9	8852.3	5776.4	3604.4	2048.1	1500.2	1266.0	1116.9	1037.6
27.5°	16707.7	16272.1	14274.4	9167.8	5443.4	2938.5	1662.8	1271.8	1082.1	983.4	919.5
30°	18204.0	17656.2	15712.7	9543.4	5042.7	2487.5	1461.5	1159.5	969.8	865.3	824.6
32.5°	19291.9	18837.0	16839.3	9814.4	4614.9	2193.2	1306.6	1060.8	905.9	799.5	739.5
35°	20571.5	20056.6	17805.3	9874.4	4340.0	2007.4	1175.0	954.3	785.9	691.1	627.2
37.5°	21953.6	21312.9	18920.3	9742.8	4125.1	1916.4	1076.3	905.9	733.7	636.9	569.1
40°	23482.9	22758.9	19990.8	9553.1	3914.1	1885.4	1000.8	869.2	693.0	594.3	524.6
42.5°	25093.5	24239.8	20918.0	9353.7	3780.6	1779.0	993.1	832.4	662.0	555.6	485.9
45°	26446.6	25581.3	21870.4	9287.9	3685.7	1662.8	1026.0	807.2	640.7	524.6	456.8
47.5°	27524.8	26706.0	22846.0	9435.0	3631.5	1556.4	935.0	840.1	629.1	497.5	431.7
50°	28812.1	27884.9	24220.4	9874.4	3552.1	1449.9	845.9	962.1	629.1	480.1	410.4
52.5°	30426.5	29509.0	25753.6	10555.8	3393.4	1302.8	760.8	964.0	634.9	456.8	383.3
55°	32457.2	31791.2	27942.9	11303.0	3139.8	1086.0	658.2	828.5	611.7	414.3	358.1
57.5°	34404.5	33860.6	29938.7	11814.0	2801.1	847.9	573.0	667.8	559.4	363.9	319.4
59°	34936.9	34342.6	30670.4	11837.3	2547.5	739.5	530.4	551.7	547.8	340.7	296.2
60°	34936.9	34305.8	30881.4	11713.4	2363.6	679.5	503.3	491.7	571.1	325.2	282.6
62.5°	34303.9	33417.3	30196.2	10875.2	1928.0	578.8	439.4	406.5	513.0	292.3	249.7
65°	32987.6	31696.4	27861.6	9359.5	1719.0	530.4	379.4	333.0	356.2	257.5	218.7
67.5°	30792.4	29042.4	24495.3	7561.1	1635.7	516.9	327.1	282.6	269.1	220.7	191.6
70°	26926.6	24985.1	20408.9	5944.8	1564.1	511.0	274.9	238.1	216.8	185.8	162.6
72.5°	19597.8	17573.0	14489.3	4647.8	1521.5	522.7	220.7	199.4	178.1	145.2	125.8
75°	11210.1	9884.1	8143.8	3070.1	1297.0	499.4	170.3	166.5	127.8	104.5	87.1
77.5°	5791.8	5615.7	4880.1	1178.9	621.4	218.7	112.3	96.8	75.5	63.9	52.3
80°	2499.1	2472.0	2139.0	340.7	164.5	122.0	63.9	40.7	34.8	27.1	21.3
82.5°	863.4	863.4	760.8	114.2	73.6	60.0	7.7	0.0	0.0	0.0	0.0
85°	174.2	195.5	137.4	0.0	25.2	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4
2.5°	11608.8	11374.6	11359.1	11212.0	11028.1	10944.9	10896.5	10981.7	11086.2	11097.8	11254.6
5°	9011.0	8765.2	8867.8	8606.5	8658.7	8606.5	8521.3	8536.8	8583.2	8438.0	8618.1
7.5°	6328.1	6142.2	6260.3	6190.6	6283.5	6320.3	6268.0	6190.6	5962.2	5935.1	6091.9
10°	4769.8	4558.8	4432.9	4301.3	4330.3	4390.3	4371.0	4314.8	4169.7	4177.4	4328.4
12.5°	3832.8	3596.7	3347.0	3023.7	2944.3	2988.8	2944.3	2911.4	2772.0	2783.6	2917.2
15°	2907.5	2714.0	2452.6	2193.2	2051.9	2065.5	1941.6	1854.5	1767.4	1662.8	1744.1
17.5°	1962.9	1844.8	1767.4	1689.9	1521.5	1482.8	1326.0	1157.6	1091.8	1043.4	1078.2
20°	1389.9	1326.0	1295.0	1291.2	1194.4	1146.0	993.1	888.5	855.6	845.9	867.2
22.5°	1161.5	1115.0	1070.5	1045.3	996.9	940.8	824.6	772.4	749.1	737.5	753.0
25°	1010.5	975.6	929.2	886.6	867.2	807.2	724.0	685.3	669.8	658.2	665.9
27.5°	898.2	867.2	813.0	785.9	770.4	718.2	646.5	615.6	602.0	598.2	596.2
30°	809.2	780.1	729.8	698.8	671.7	625.3	582.7	551.7	538.1	534.3	530.4
32.5°	720.1	696.9	664.0	633.0	604.0	561.4	524.6	499.4	478.1	474.3	472.3
35°	607.8	584.6	567.2	565.2	538.1	497.5	470.4	437.5	420.1	414.3	416.2
37.5°	540.1	509.1	470.4	483.9	476.2	447.2	410.4	377.5	360.1	356.2	356.2
40°	497.5	464.6	420.1	396.8	420.1	414.3	356.2	323.3	305.9	303.9	300.0
42.5°	456.8	423.9	373.6	334.9	346.5	363.9	307.8	276.8	259.4	255.5	249.7
45°	427.8	393.0	336.8	292.3	269.1	305.9	263.3	224.6	214.9	207.1	203.3
47.5°	400.7	367.8	303.9	253.6	214.9	220.7	211.0	183.9	172.3	164.5	162.6
50°	377.5	342.6	274.9	216.8	178.1	162.6	170.3	145.2	135.5	127.8	123.9
52.5°	350.4	317.5	243.9	187.8	149.1	127.8	129.7	114.2	104.5	98.7	96.8
55°	329.1	296.2	218.7	164.5	131.6	104.5	92.9	89.0	83.2	79.4	77.4
57.5°	300.0	269.1	193.6	139.4	112.3	85.2	71.6	71.6	69.7	65.8	63.9
59°	282.6	255.5	178.1	125.8	102.6	73.6	63.9	65.8	63.9	60.0	58.1
60°	269.1	243.9	166.5	116.1	96.8	67.8	58.1	61.9	60.0	56.1	54.2
62.5°	238.1	220.7	143.2	96.8	85.2	54.2	48.4	52.3	52.3	50.3	48.4
65°	209.1	189.7	122.0	81.3	79.4	46.5	38.7	46.5	48.4	44.5	40.7
67.5°	182.0	162.6	106.5	65.8	73.6	36.8	29.0	38.7	52.3	40.7	36.8
70°	154.9	135.5	83.2	52.3	77.4	25.2	23.2	34.8	61.9	44.5	34.8
72.5°	120.0	104.5	58.1	38.7	83.2	17.4	17.4	29.0	69.7	48.4	32.9
75°	83.2	67.8	34.8	23.2	67.8	11.6	11.6	27.1	65.8	44.5	31.0
77.5°	48.4	36.8	11.6	1.9	34.8	0.0	1.9	19.4	46.5	27.1	13.6
80°	17.4	7.7	0.0	0.0	21.3	0.0	0.0	0.0	3.9	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4
2.5°	11295.3	11556.6	11790.8	12145.1	12565.1	13049.1	13465.3	13912.4	14332.5	14506.7	14626.7
5°	8654.9	8978.1	9355.6	9876.3	10569.3	11423.0	12222.5	13126.5	14098.3	14584.1	15041.0
7.5°	6119.0	6448.1	6916.5	7470.2	8308.4	9324.6	10370.0	11618.5	12934.9	13703.4	14460.2
10°	4400.0	4804.6	5242.1	5999.0	6850.7	7814.7	8891.0	10284.8	11752.1	12603.8	13515.6
12.5°	2994.6	3455.4	4117.4	4965.3	5966.1	6910.7	7845.7	9175.6	10879.1	11723.1	12700.6
15°	1796.4	2051.9	2752.7	3734.1	4961.4	6138.3	7162.4	8496.1	10311.9	11345.6	12361.9
17.5°	1107.3	1225.3	1606.7	2412.0	3701.2	5189.8	6593.3	8265.8	10393.2	11651.4	12739.3
20°	882.7	929.2	1051.1	1424.7	2452.6	4144.5	5952.5	8219.3	11057.2	12605.8	13773.0
22.5°	766.6	811.1	892.4	1035.6	1542.8	3103.0	5344.7	8261.9	12009.6	14036.3	15399.1
25°	675.6	714.3	791.7	909.8	1130.5	2185.5	4694.3	8451.6	13250.4	15811.4	17259.4
27.5°	604.0	636.9	708.5	816.9	969.8	1525.4	3956.7	8682.0	14721.6	17627.2	19055.8
30°	538.1	567.2	631.1	731.7	842.1	1173.1	3147.6	8838.8	16194.7	19055.8	20339.2
32.5°	482.0	503.3	561.4	646.5	731.7	935.0	2392.6	8813.6	17288.4	20244.3	21262.6
35°	423.9	445.2	495.6	569.1	636.9	772.4	1881.6	8343.2	18240.8	21477.4	22319.5
37.5°	360.1	387.2	435.5	501.4	547.8	679.5	1521.5	7776.0	19206.8	22886.7	23498.4
40°	305.9	333.0	375.5	447.2	476.2	644.6	1169.2	7084.9	20292.7	24462.4	24791.5
42.5°	253.6	278.8	323.3	385.2	449.1	555.6	865.3	6295.1	21336.1	25809.7	25970.4
45°	205.2	230.4	276.8	338.8	480.1	460.7	669.8	5449.2	22178.2	26930.5	26982.8
47.5°	162.6	185.8	234.2	319.4	447.2	367.8	478.1	4785.2	22884.7	27805.5	27668.0
50°	125.8	145.2	195.5	365.9	391.0	303.9	362.0	4564.6	23517.7	28347.5	27991.3
52.5°	98.7	116.1	160.7	342.6	303.9	251.7	303.9	4771.7	24385.0	28796.6	28173.3
55°	79.4	96.8	125.8	195.5	207.1	212.9	259.4	4965.3	25881.3	29849.7	29247.6
57.5°	65.8	83.2	102.6	137.4	156.8	180.0	230.4	4986.6	27644.8	31599.6	31030.5
59°	60.0	75.5	92.9	122.0	137.4	164.5	216.8	4870.4	28266.2	32236.5	31951.9
60°	56.1	71.6	87.1	112.3	127.8	154.9	209.1	4760.1	28293.3	32213.2	32344.9
62.5°	48.4	63.9	77.4	94.9	108.4	131.6	187.8	4351.6	27147.3	31158.2	32108.7
65°	42.6	56.1	69.7	81.3	92.9	118.1	170.3	3606.4	25190.3	29456.7	30492.3
67.5°	38.7	48.4	63.9	71.6	83.2	104.5	151.0	2570.7	22745.4	27375.7	28047.5
70°	34.8	46.5	58.1	65.8	75.5	91.0	129.7	1477.0	19206.8	24328.8	24807.0
72.5°	32.9	44.5	52.3	61.9	67.8	81.3	118.1	694.9	14063.4	19489.4	20738.0
75°	29.0	40.7	48.4	58.1	63.9	73.6	100.7	333.0	9353.7	14104.1	15523.0
77.5°	17.4	32.9	44.5	52.3	56.1	63.9	83.2	191.6	5969.9	9762.1	11498.5
80°	0.0	11.6	32.9	44.5	48.4	54.2	63.9	151.0	3194.0	5577.0	6693.9
82.5°	0.0	0.0	23.2	34.8	32.9	36.8	48.4	94.9	1440.2	3645.1	4107.7
85°	0.0	0.0	7.7	27.1	23.2	17.4	32.9	32.9	315.5	1844.8	2301.6
87.5°	0.0	0.0	0.0	1.9	11.6	7.7	13.6	3.9	1.9	137.4	557.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P324663

CATALOG NUMBER: GLEON-SA9D-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4	13310.4
2.5°	15046.8	15190.0	15432.0	15546.2	15490.1	15252.0	14967.4	14677.1	14506.7	14574.5
5°	15972.1	16709.6	17135.5	17276.8	17040.6	16506.4	15807.5	14886.1	14559.0	14469.9
7.5°	15972.1	17360.0	18238.9	18393.7	17867.2	16820.0	15509.4	14071.2	13593.0	13418.8
10°	15410.7	17300.0	18525.4	18771.2	18035.6	16469.6	14713.8	13072.3	12505.1	12325.1
12.5°	14777.7	16812.2	18103.4	18442.1	17838.2	16121.1	14162.1	12396.7	11728.9	11572.1
15°	14388.6	16212.1	17280.7	17526.5	17271.0	15917.9	14030.5	12193.5	11407.5	11256.5
17.5°	14528.0	15747.5	16132.8	16276.0	16448.3	15846.3	14388.6	12638.7	11643.7	11500.4
20°	15052.6	15257.8	15058.4	15238.4	15703.0	15915.9	15242.3	13715.0	12520.6	12329.0
22.5°	15943.1	15004.2	14444.8	14516.4	15081.6	16146.3	16547.0	15252.0	13873.7	13633.7
25°	16980.6	15209.4	14104.1	14040.2	14620.9	16450.2	17739.5	16924.5	15474.6	15209.4
27.5°	18285.3	15670.1	14034.4	13970.5	14460.2	16734.8	18730.6	18577.6	17160.7	16707.7
30°	19291.9	16123.1	14241.5	14094.4	14620.9	16932.2	19526.2	19981.1	18504.1	18204.0
32.5°	20014.0	16657.4	14578.3	14365.4	15073.9	17272.9	20139.8	21266.4	19746.8	19291.9
35°	20563.7	17238.1	15122.3	14771.9	15697.2	17789.8	20714.7	22635.0	21069.0	20571.5
37.5°	21078.7	18053.0	15972.1	15554.0	16674.8	18622.2	21322.6	24187.5	22547.9	21953.6
40°	21796.8	18976.4	17282.6	16910.9	18318.2	19756.5	22081.4	25805.8	24230.1	23482.9
42.5°	22515.0	19967.5	18624.1	18724.8	20368.2	21134.8	23060.9	27517.1	25891.0	25093.5
45°	23171.2	20989.6	20534.7	20999.3	22271.1	22646.6	24034.6	28506.2	27217.0	26446.6
47.5°	23755.8	22267.2	22433.7	23670.7	24435.3	24015.2	24762.4	29359.9	28204.3	27524.8
50°	24435.3	23920.4	24936.7	26686.6	26926.6	25254.1	25424.5	30370.4	29358.0	28812.1
52.5°	25178.6	25662.6	27708.7	29251.5	29174.1	26599.5	26090.4	31502.8	30939.5	30426.5
55°	26022.6	27069.9	30149.7	31651.9	31586.1	28101.7	27193.8	32902.4	32921.7	32457.2
57.5°	27275.1	28281.7	31806.7	33593.5	33703.8	29836.1	29063.7	34470.4	34714.3	34404.5
59°	28173.3	29067.6	32463.0	34404.5	34853.6	31177.6	30430.4	35380.2	35219.5	34936.9
60°	28839.2	29567.0	32788.2	34828.5	35521.5	32087.4	31438.9	35914.4	35279.5	34936.9
62.5°	30486.5	30654.9	33374.7	35308.6	36290.0	34108.4	34276.8	36824.3	34863.3	34303.9
65°	31255.0	31342.1	33367.0	34449.1	35546.7	35682.2	36851.4	36851.4	33847.0	32987.6
67.5°	30933.7	30513.6	31711.9	31599.6	32695.3	34747.2	37819.3	35500.2	31903.5	30792.4
70°	28320.4	26704.0	26171.7	26220.1	27058.3	30223.3	35902.8	31524.1	28225.5	26926.6
72.5°	23564.2	19686.8	18372.4	19872.7	20091.4	23227.4	30596.9	23740.4	20815.4	19597.8
75°	18953.2	13877.6	11740.5	13323.9	13695.6	16998.0	23668.7	14785.5	12158.6	11210.1
77.5°	13616.2	9961.5	8424.5	8314.2	8794.2	10780.3	16794.8	7441.1	6206.1	5791.8
80°	7735.4	6556.5	7059.8	6661.0	6903.0	6740.4	7979.3	3263.7	2673.3	2499.1
82.5°	4669.1	3875.4	4196.8	3494.1	4421.3	3850.3	3074.0	1045.3	907.9	863.4
85°	3037.2	2117.7	1103.4	739.5	1523.5	2460.4	687.2	284.6	218.7	174.2
87.5°	1047.3	540.1	54.2	23.2	162.6	458.8	25.2	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

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

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

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CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.27

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

Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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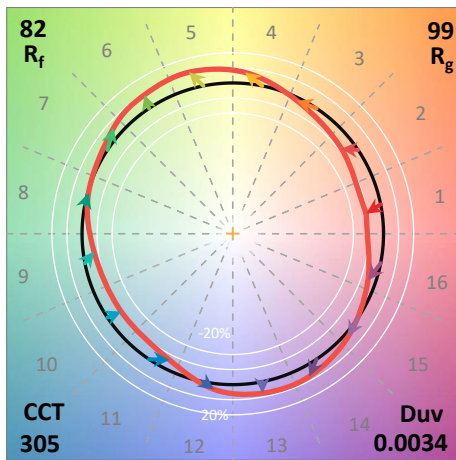
TM-30-18

Summary

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



Color Vector Graphics

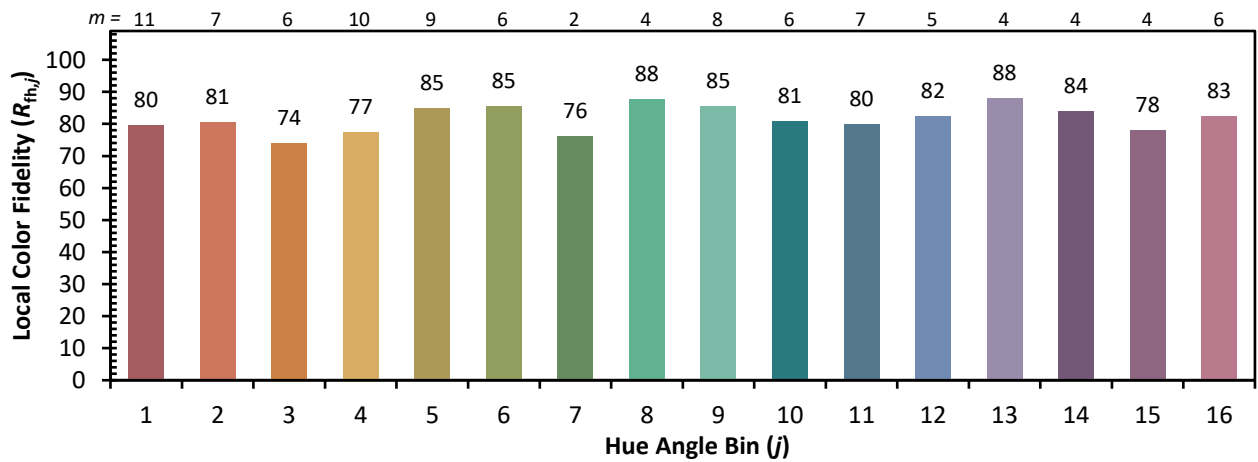
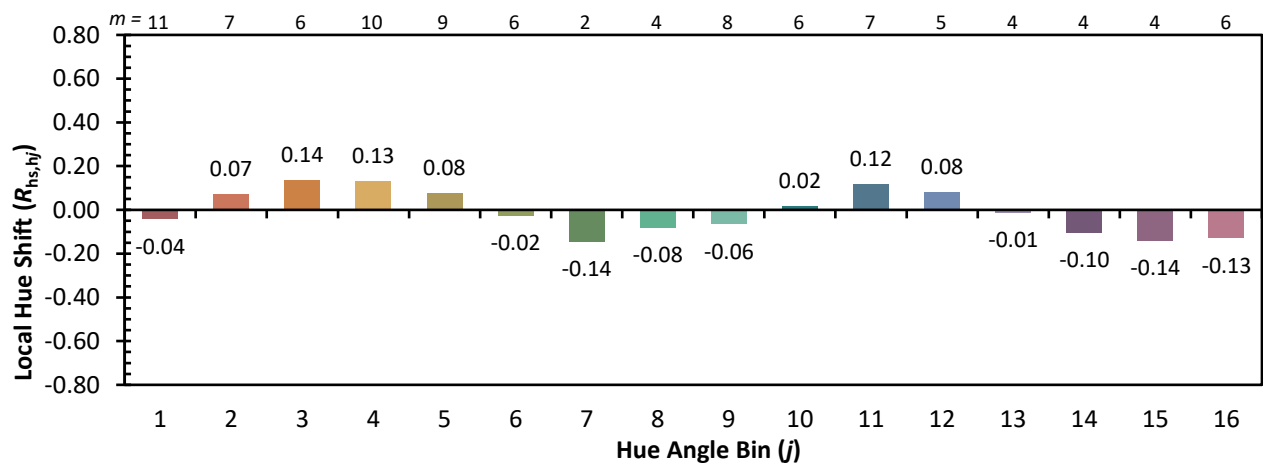
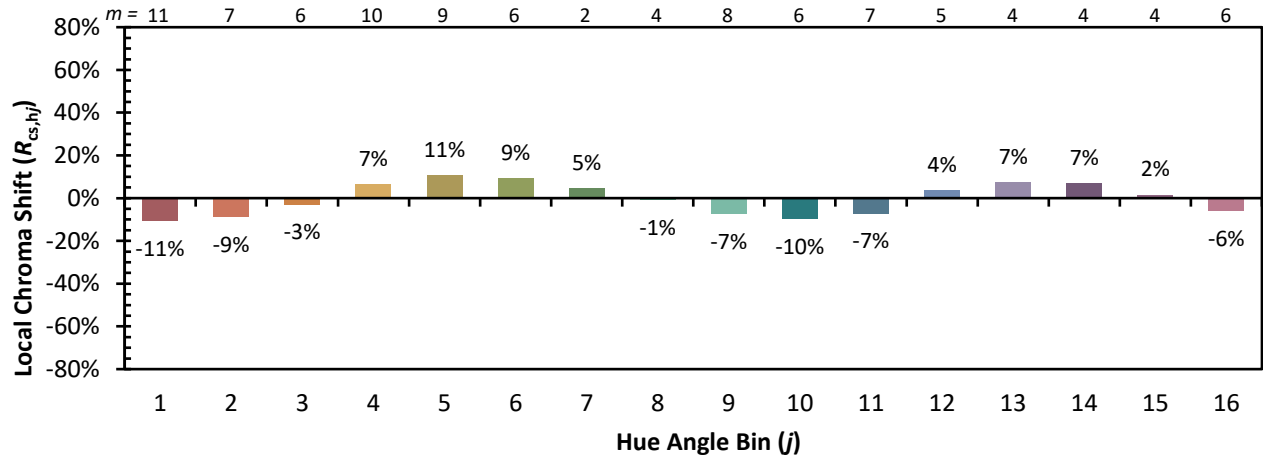


Individual Sample Fidelity Index ($R_{f,i}$)

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)