

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: P324343

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324343
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-SA9D-830-U-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 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: 40865 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

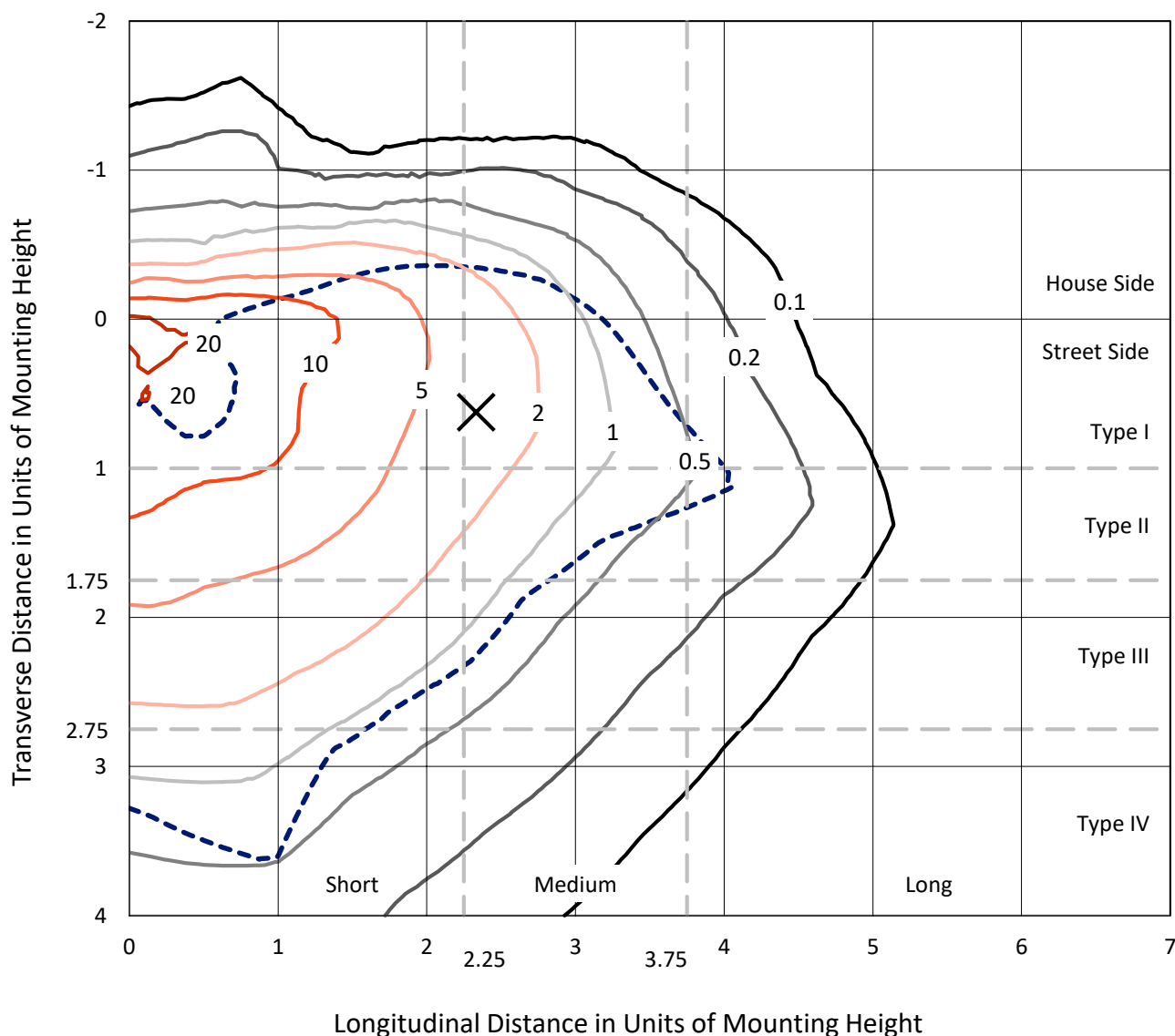
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

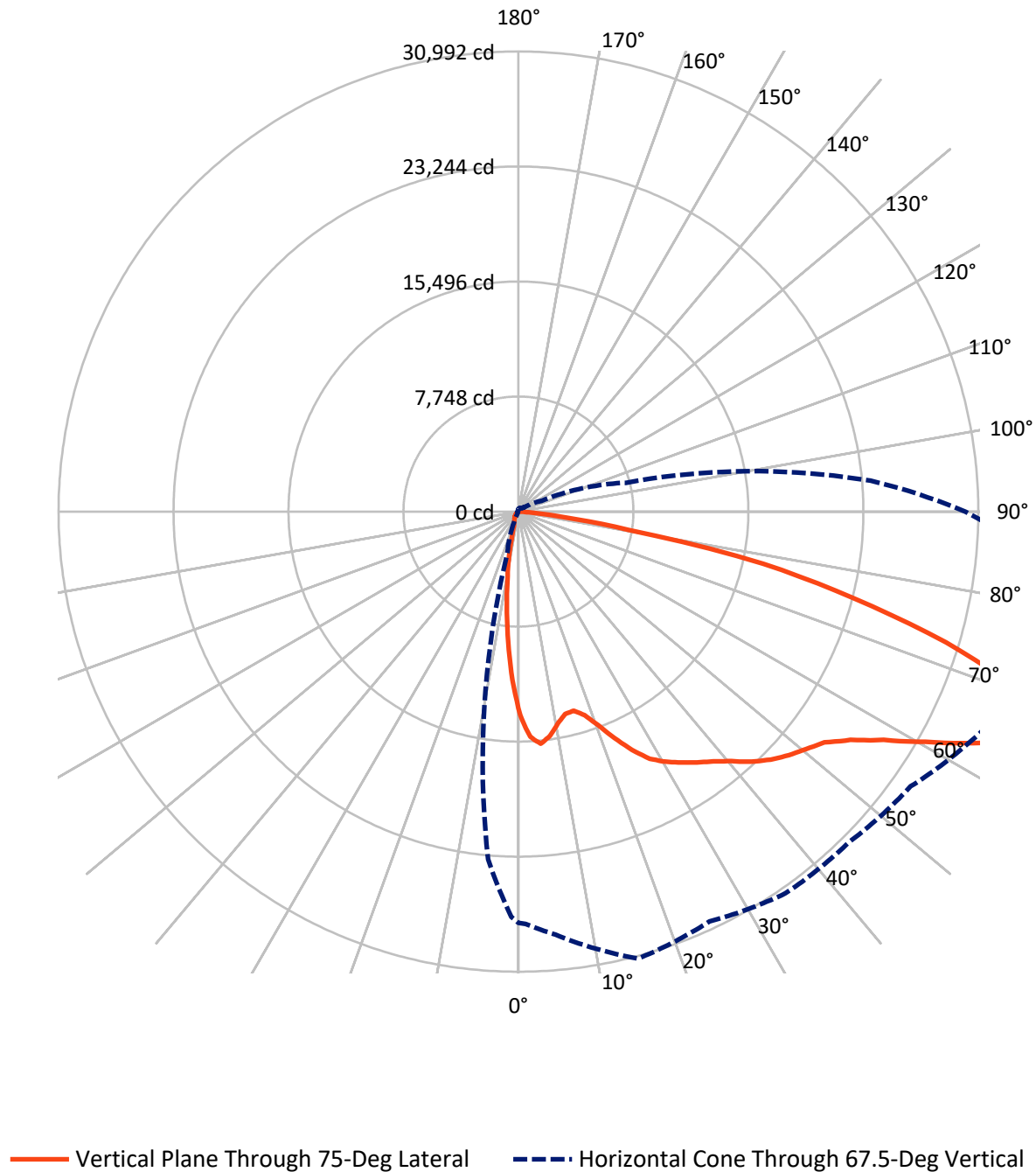
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 28.4 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	6132.2	0.0	6132.2
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	34732.8	0.0	34732.8
	% Fixture	85.0	0.0	85.0
Total	Lumens	40865.0	0.0	40865.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1039.9	2.5
10°-20°	2047.6	5.0
20°-30°	2896.8	7.1
30°-40°	4259.1	10.4
40°-50°	6121.8	15.0
50°-60°	8617.9	21.1
60°-70°	10064.9	24.6
70°-80°	5134.8	12.6
80°-90°	682.1	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°	40865.0	100.0
0°-180°	40865.0	100.0

Coefficient of Utilization



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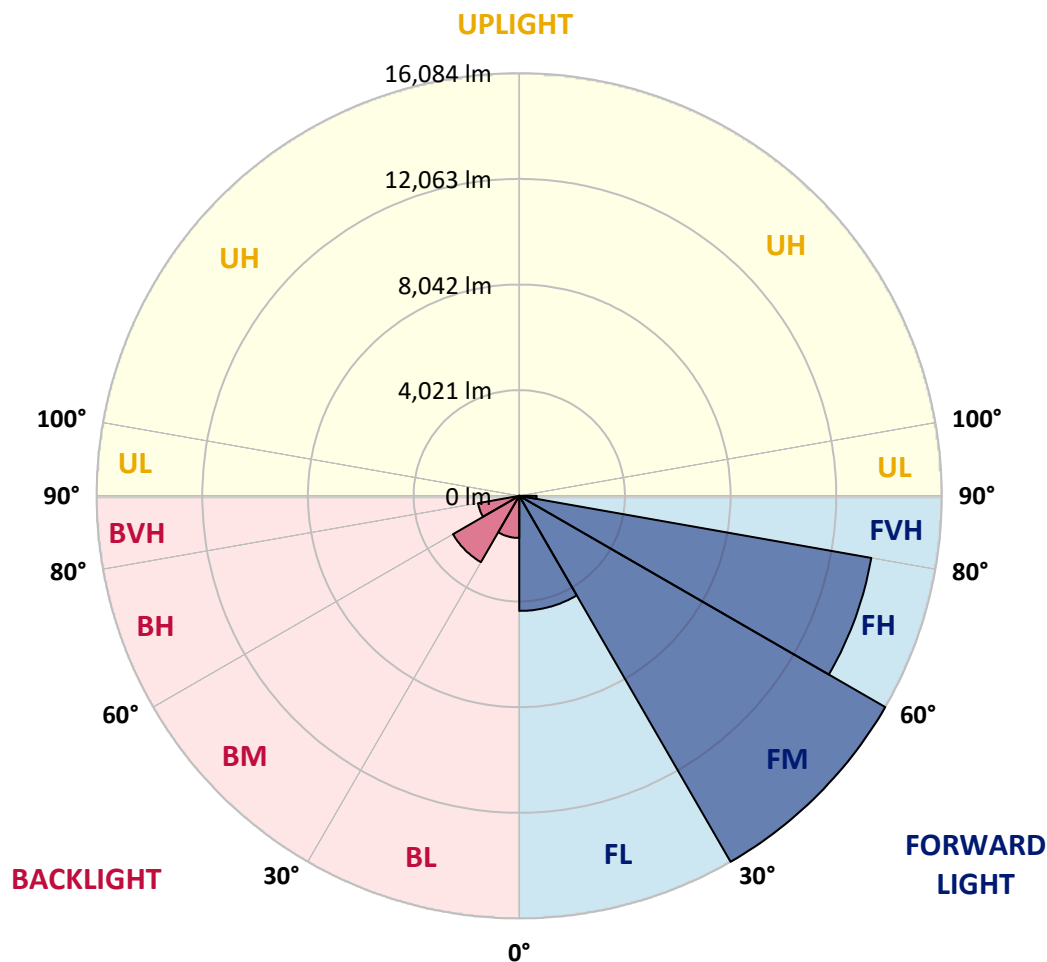
CATALOG NUMBER: GLEON-SA9D-830-U-SLL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4380.7	10.7			
FM	(30°-60°)	16083.7	39.4			
FH	(60°-80°)	13606.9	33.3			G5
FVH	(80°-90°)	661.4	1.6			G4/750
BL	(0°-30°)	1603.7	3.9	B3/2500		
BM	(30°-60°)	2915.1	7.1	B3/5000		
BH	(60°-80°)	1592.8	3.9	B3/2500		G3/2500
BVH	(80°-90°)	20.7	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5
2.5°	14861.3	14884.6	15004.6	15283.3	15587.3	15610.5	15815.7	15604.7	15533.1	15192.4	14840.0
5°	14973.6	15062.6	15475.0	16293.8	17004.3	17232.7	17395.3	16981.1	16545.5	15713.1	14824.5
7.5°	14069.6	14218.6	14867.1	16404.2	17674.1	18235.5	18341.9	17693.4	16626.8	15256.2	13920.5
10°	12911.9	13082.3	13864.4	15753.7	17497.9	18460.0	18607.1	17757.3	16224.1	14516.7	12942.9
12.5°	11975.0	12174.4	12973.9	15022.0	16892.0	17956.7	18247.1	17542.4	15875.7	13992.1	12275.1
15°	11543.3	11771.7	12611.9	14549.7	16220.3	17058.5	17298.5	16994.6	15682.1	13908.9	12120.2
17.5°	11791.1	12038.9	12906.1	14590.3	15589.2	15947.3	16140.9	16264.8	15682.1	14410.3	12573.2
20°	12807.4	13074.6	13992.1	15002.6	15066.5	14932.9	15140.1	15575.6	15864.1	15362.7	13661.1
22.5°	14212.8	14526.4	15562.1	15709.2	14811.0	14305.7	14332.8	15016.2	16195.1	16570.7	15171.1
25°	15926.0	16309.3	17362.4	16762.3	14917.5	13932.1	13922.4	14555.5	16518.4	17780.5	16853.3
27.5°	17627.6	18049.6	18975.0	18047.7	15356.9	13864.4	13845.0	14416.1	16833.9	18856.9	18690.4
30°	19054.3	19464.7	20262.3	18978.8	15831.2	14023.1	13930.2	14565.1	17021.7	19555.7	20030.0
32.5°	20215.8	20544.9	21189.5	19619.6	16338.4	14330.9	14129.6	14963.9	17341.1	20146.1	21261.2
35°	21493.5	21840.0	22097.4	20229.4	16907.5	14774.2	14485.8	15596.9	17832.8	20746.2	22610.4
37.5°	22951.1	23295.7	23264.7	20786.9	17629.6	15507.9	15324.0	16599.7	18597.5	21340.5	24116.5
40°	24377.8	24730.2	24478.5	21396.7	18477.4	16717.8	16582.3	18105.8	19621.5	22101.3	25882.0
42.5°	25713.6	26094.9	25556.8	21973.5	19487.9	18243.2	18475.5	20045.5	20903.0	23038.2	27403.5
45°	26789.9	27179.0	26460.8	22534.9	20552.6	20093.9	20792.7	22194.2	22443.9	23830.0	28431.5
47.5°	27571.9	27939.8	27088.0	23096.3	21915.5	22356.8	23574.5	24447.5	23835.8	24517.2	29161.3
50°	28071.4	28357.9	27271.9	23799.0	23704.2	24997.3	26472.4	26898.3	25146.4	25136.7	30047.9
52.5°	28388.9	28518.6	27407.4	24532.7	25570.3	27872.0	29310.3	29443.9	26495.6	25818.1	31242.3
55°	29482.6	29587.1	28367.6	25421.2	27113.2	30390.5	31877.2	31753.3	28023.0	27151.9	32651.6
57.5°	31348.7	31459.1	30351.8	26698.9	28361.8	31946.9	33737.5	33960.2	29813.6	29025.8	34161.5
60°	32285.7	32490.9	32096.0	28317.2	29571.7	32941.9	35005.5	35716.0	32051.4	31495.9	35625.0
62.5°	31435.9	31734.0	32307.0	30111.7	30773.8	33489.8	35400.4	36345.1	34343.5	34374.4	36527.1
65°	29740.1	29978.2	30950.0	31095.1	31470.7	33422.0	34424.8	35466.2	35746.9	37018.8	36478.7
67.5°	27692.0	27781.0	28605.7	31172.6	30460.2	31385.5	31493.9	32264.4	34637.7	37955.7	35013.3
70°	24743.7	24792.1	25512.2	28580.5	26176.2	26379.5	26218.8	26375.6	29778.8	35673.4	31313.9
72.5°	19913.8	20035.8	21059.8	23735.1	19069.8	18483.3	19745.4	19675.7	22933.7	30138.9	23257.0
75°	14661.9	14872.9	16419.7	19118.2	13384.3	12106.6	13028.1	13273.9	16303.5	23313.1	14543.8
77.5°	10265.7	10422.5	11920.8	14054.1	9686.9	8657.0	8324.0	8616.4	10761.2	16864.9	7327.1
80°	5913.9	5972.0	6928.3	8115.0	6527.6	7468.4	6765.7	6967.0	6448.2	7503.3	3151.5
82.5°	3869.7	3879.4	4253.0	4829.9	4065.2	4723.4	3496.1	4469.8	3966.5	3014.1	1026.0
85°	2090.7	2102.3	2466.2	3428.3	2301.7	1300.9	764.7	1570.0	2452.7	691.1	280.7
87.5°	230.4	211.0	743.4	1246.7	638.8	118.1	40.7	176.2	393.0	44.5	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°	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5
2.5°	14660.0	14499.3	14098.6	13674.7	13334.0	13014.5	12693.2	12300.2	11996.3	11934.4	11833.7
5°	14346.4	13837.3	12997.1	12153.1	11473.6	10616.1	10072.1	9648.1	9233.9	9208.7	9125.5
7.5°	13250.7	12580.9	11398.1	10230.8	9274.5	8457.6	7633.0	7081.2	6647.6	6494.7	6403.7
10°	12197.6	11444.6	9967.6	8635.7	7782.0	7060.0	6479.2	5902.3	5379.7	5019.6	4857.0
12.5°	11462.0	10629.6	9001.6	7853.6	7241.9	6556.6	5848.1	5128.0	4526.0	4092.3	3827.1
15°	11177.5	10288.9	8678.3	7543.9	6788.9	5921.7	5015.7	4193.0	3525.1	3132.2	2894.1
17.5°	11516.2	10482.5	8653.1	7166.4	6111.4	5033.1	4032.3	3060.5	2431.4	2133.3	1980.3
20°	12375.7	11098.1	8643.5	6703.8	5306.1	3980.1	2731.4	2013.3	1631.9	1465.4	1393.8
22.5°	13591.4	11884.0	8720.9	6246.9	4467.9	2843.7	1885.5	1479.0	1283.5	1194.4	1153.8
25°	15155.6	12987.4	8939.6	5832.6	3680.0	2121.7	1469.3	1238.9	1101.5	1031.8	1002.8
27.5°	16822.3	14257.3	9280.3	5472.6	3039.2	1691.9	1258.3	1060.8	962.1	913.7	886.6
30°	18196.7	15728.6	9624.9	5071.9	2574.6	1475.1	1151.8	967.9	853.7	822.7	797.6
32.5°	19398.9	16841.7	9868.8	4709.9	2270.7	1310.6	1041.5	865.3	787.9	727.9	700.8
35°	20643.6	17768.9	9861.1	4456.3	2061.7	1186.7	948.6	774.3	681.4	611.7	590.4
37.5°	21991.0	18816.2	9692.7	4239.5	1970.7	1087.9	896.3	725.9	633.0	563.3	536.2
40°	23568.7	19915.8	9520.4	4036.2	1945.5	1008.6	859.5	687.2	588.5	520.7	493.6
42.5°	25105.7	20906.9	9369.4	3885.2	1837.1	1006.6	826.6	658.2	553.6	487.8	456.9
45°	26335.0	21830.3	9340.4	3794.2	1722.9	1041.5	809.2	638.8	526.5	460.7	431.7
47.5°	27357.1	22833.0	9526.2	3730.3	1614.5	950.5	851.8	625.3	501.4	437.5	404.6
50°	28572.8	24064.2	9963.7	3625.8	1500.3	855.6	975.7	629.1	480.1	414.3	379.4
52.5°	30268.6	25767.8	10606.4	3449.6	1343.5	768.5	960.2	633.0	456.9	389.1	354.3
55°	32169.5	27895.2	11297.5	3157.3	1124.7	654.3	822.7	605.9	412.3	362.0	329.1
57.5°	34167.3	29825.2	11707.9	2808.9	894.4	565.3	658.2	551.7	363.9	325.2	303.9
60°	34480.9	30558.9	11520.1	2381.1	710.4	491.7	487.8	561.4	325.2	286.5	271.0
62.5°	33700.8	29637.5	10612.2	1999.7	594.3	431.7	400.7	489.8	294.2	255.5	240.0
65°	32200.5	27146.1	9141.0	1802.3	551.7	369.7	333.0	344.6	257.5	222.6	209.1
67.5°	30113.7	23820.3	7505.2	1690.0	545.9	317.5	284.6	261.3	222.6	193.6	182.0
70°	25847.1	19844.1	5987.5	1628.0	530.4	267.1	240.0	212.9	185.8	164.5	154.9
72.5°	19023.3	14061.8	4657.6	1560.3	534.3	212.9	209.1	176.2	149.1	127.8	123.9
75°	10991.6	8033.7	3054.7	1264.1	509.1	164.5	174.2	123.9	104.5	89.0	89.0
77.5°	5857.8	4899.6	1163.4	526.5	185.8	104.5	98.7	73.6	65.8	54.2	52.3
80°	2553.4	2156.5	350.4	147.1	102.6	56.1	36.8	32.9	29.0	23.2	21.3
82.5°	904.0	780.1	114.2	71.6	44.5	0.0	0.0	0.0	0.0	0.0	0.0
85°	205.2	147.1	0.0	17.4	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°	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5
2.5°	11628.5	11585.9	11334.3	11343.9	11388.5	11452.3	11301.3	11371.0	11558.8	11738.8	11806.6
5°	8991.9	9001.6	8848.7	8943.5	9028.7	9086.8	8842.8	8846.7	8995.8	9199.0	9305.5
7.5°	6336.0	6320.5	6328.2	6554.7	6715.4	6599.2	6690.2	6374.7	6394.0	6539.2	6430.8
10°	4709.9	4496.9	4376.9	4547.3	4723.4	4659.5	4502.7	4400.1	4471.8	4632.4	4620.8
12.5°	3701.3	3395.4	3215.4	3093.4	3238.6	3118.6	3114.7	3025.7	2928.9	2946.3	3203.8
15°	2783.7	2561.1	2348.2	2152.6	2148.8	2108.1	1901.0	1668.7	1649.3	1660.9	1794.5
17.5°	1914.5	1839.0	1751.9	1583.5	1539.0	1368.6	1167.3	1074.4	1027.9	1049.2	1093.7
20°	1345.4	1316.4	1326.0	1235.1	1171.2	1008.6	890.5	853.7	846.0	867.2	888.5
22.5°	1115.0	1062.8	1057.0	1016.3	952.4	834.3	770.5	749.2	739.5	758.8	774.3
25°	975.7	923.4	902.1	876.9	809.2	727.9	689.2	669.8	660.1	671.7	681.4
27.5°	859.5	811.1	791.8	774.3	708.5	650.4	619.5	602.0	594.3	598.2	607.8
30°	772.4	729.8	704.6	683.3	627.2	586.6	559.5	542.0	534.3	534.3	544.0
32.5°	681.4	658.2	635.0	607.8	555.6	528.5	501.4	482.0	474.3	476.2	484.0
35°	567.2	559.5	565.3	540.1	495.6	472.3	445.2	423.9	418.1	420.1	427.8
37.5°	503.3	468.5	489.8	476.2	451.0	420.1	385.2	365.9	356.2	362.0	365.9
40°	462.7	420.1	404.6	418.1	414.3	363.9	333.0	313.6	305.9	307.8	311.7
42.5°	427.8	377.5	342.6	340.7	363.9	317.5	284.6	267.1	257.5	257.5	261.3
45°	394.9	340.7	298.1	265.2	305.9	269.1	238.1	222.6	211.0	211.0	212.9
47.5°	369.7	309.7	259.4	216.8	230.4	220.7	195.5	180.0	168.4	168.4	170.4
50°	346.5	278.8	224.6	182.0	172.3	182.0	158.7	141.3	133.6	131.6	135.5
52.5°	321.3	247.8	191.6	154.9	135.5	137.4	123.9	112.3	102.6	102.6	106.5
55°	296.2	222.6	166.5	131.6	112.3	102.6	98.7	91.0	83.2	83.2	87.1
57.5°	271.0	195.5	141.3	108.4	89.0	81.3	81.3	75.5	69.7	69.7	73.6
60°	247.8	168.4	116.1	89.0	69.7	67.8	69.7	63.9	60.0	60.0	63.9
62.5°	220.7	143.3	94.9	73.6	56.1	54.2	60.0	56.1	52.3	52.3	56.1
65°	187.8	122.0	75.5	56.1	42.6	42.6	50.3	46.5	42.6	42.6	46.5
67.5°	158.7	102.6	58.1	40.7	31.0	32.9	42.6	38.7	36.8	36.8	40.7
70°	131.6	79.4	40.7	25.2	17.4	25.2	32.9	32.9	32.9	32.9	36.8
72.5°	98.7	54.2	23.2	9.7	7.7	17.4	27.1	31.0	29.0	29.0	34.8
75°	63.9	31.0	7.7	0.0	0.0	9.7	21.3	25.2	25.2	23.2	29.0
77.5°	36.8	9.7	0.0	0.0	0.0	0.0	13.6	11.6	9.7	7.7	13.6
80°	9.7	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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CATALOG NUMBER: GLEON-SA9D-830-U-SLL-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5	13709.5
2.5°	12079.5	12308.0	12629.3	12970.0	13494.6	13910.8	14319.3	14669.7	14805.2	14861.3
5°	9561.0	9895.9	10366.3	10970.3	11916.9	12768.7	13632.1	14501.3	14878.7	14973.6
7.5°	6860.6	7288.4	7886.5	8643.5	9752.7	10856.1	12062.1	13337.8	13922.4	14069.6
10°	5077.7	5600.3	6285.6	7083.2	8142.1	9276.5	10590.9	12048.6	12716.4	12911.9
12.5°	3602.6	4309.1	5226.7	6196.6	7114.2	8126.6	9456.5	11063.2	11764.0	11975.0
15°	2115.9	2799.2	3885.2	5184.1	6359.2	7385.2	8736.4	10558.0	11330.4	11543.3
17.5°	1213.8	1554.5	2375.3	3823.3	5418.4	6839.3	8509.9	10683.8	11593.7	11791.1
20°	927.3	1035.7	1368.6	2462.4	4318.8	6303.0	8509.9	11396.2	12517.0	12807.4
22.5°	811.1	890.5	1026.0	1469.3	3178.6	5728.1	8608.6	12426.1	13891.5	14212.8
25°	720.1	791.8	907.9	1105.4	2168.1	5044.8	8842.8	13690.2	15509.8	15926.0
27.5°	644.6	712.4	816.9	967.9	1482.8	4220.1	9158.4	15173.0	17294.7	17627.6
30°	576.9	640.8	735.6	842.1	1144.1	3285.1	9427.5	16570.7	18696.2	19054.3
32.5°	513.0	571.1	656.2	735.6	936.9	2429.5	9456.5	17677.9	19859.6	20215.8
35°	453.0	505.3	582.7	644.6	776.3	1918.4	9005.5	18638.1	21023.1	21493.5
37.5°	394.9	445.2	513.0	559.5	683.3	1564.1	8316.3	19708.6	22515.6	22951.1
40°	340.7	385.2	454.9	485.9	646.6	1202.1	7567.1	20831.4	23979.1	24377.8
42.5°	290.4	333.0	400.7	460.7	567.2	898.2	6758.0	21884.5	25295.4	25713.6
45°	242.0	286.5	354.3	487.8	470.4	671.7	5892.6	22583.3	26335.0	26789.9
47.5°	195.5	245.8	338.8	464.6	375.5	493.6	5207.4	23245.4	27122.8	27571.9
50°	156.8	207.1	381.4	414.3	307.8	377.5	4920.9	23837.7	27639.7	28071.4
52.5°	127.8	174.2	360.1	317.5	257.5	311.7	5075.7	24797.9	28117.8	28388.9
55°	106.5	137.4	216.8	220.7	218.7	265.2	5267.4	26176.2	29354.8	29482.6
57.5°	92.9	110.3	151.0	170.4	183.9	236.2	5271.2	28154.6	31269.4	31348.7
60°	79.4	96.8	125.8	137.4	158.7	211.0	5079.6	28845.7	32022.4	32285.7
62.5°	69.7	85.2	104.5	114.2	133.6	189.7	4630.5	27844.9	30988.7	31435.9
65°	61.9	77.4	87.1	96.8	118.1	170.4	3891.0	25843.3	29273.5	29740.1
67.5°	54.2	67.8	77.4	87.1	106.5	151.0	2865.0	23518.3	27304.8	27692.0
70°	48.4	60.0	69.7	77.4	92.9	127.8	1738.4	19956.4	24583.0	24743.7
72.5°	46.5	54.2	63.9	69.7	81.3	112.3	880.8	14665.8	19652.5	19913.8
75°	40.7	48.4	58.1	61.9	71.6	96.8	358.1	9632.7	14241.9	14661.9
77.5°	32.9	44.5	52.3	56.1	61.9	79.4	182.0	6155.9	9994.7	10265.7
80°	11.6	32.9	44.5	46.5	52.3	58.1	120.0	3370.3	5797.8	5913.9
82.5°	0.0	21.3	34.8	32.9	36.8	44.5	77.4	1602.9	3827.1	3869.7
85°	0.0	9.7	27.1	21.3	15.5	31.0	27.1	350.4	2007.4	2090.7
87.5°	0.0	0.0	1.9	9.7	7.7	11.6	3.9	1.9	182.0	230.4
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 [^] /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 $\text{W}^\wedge/\text{nm}$	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

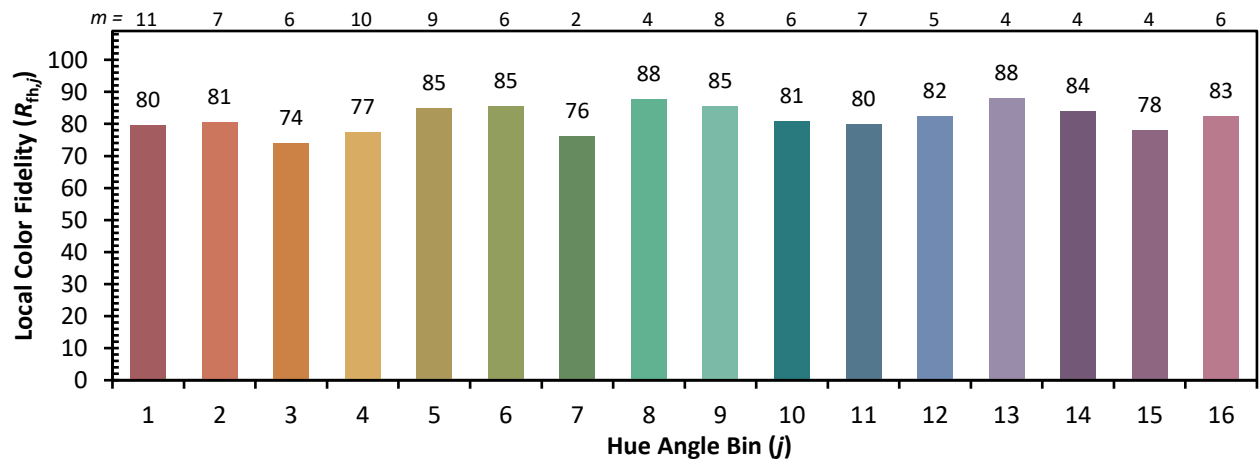
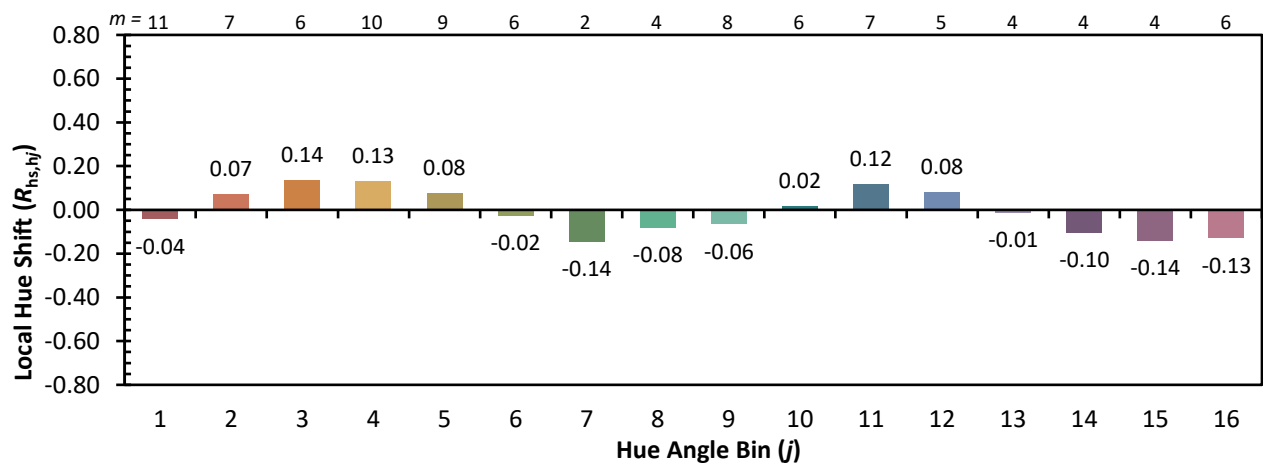
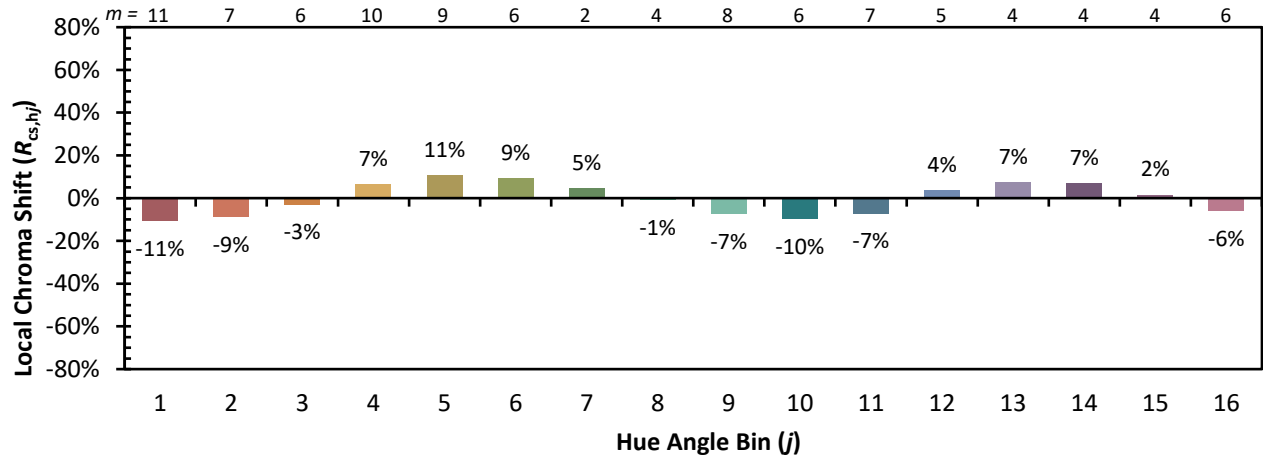


Individual Sample Fidelity Index ($R_{f,i}$)

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)