

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: P324627

Luminaire Tested: **GLEON-SA3A-830-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324627
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-SA3A-830-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 615mA 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: 8380 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

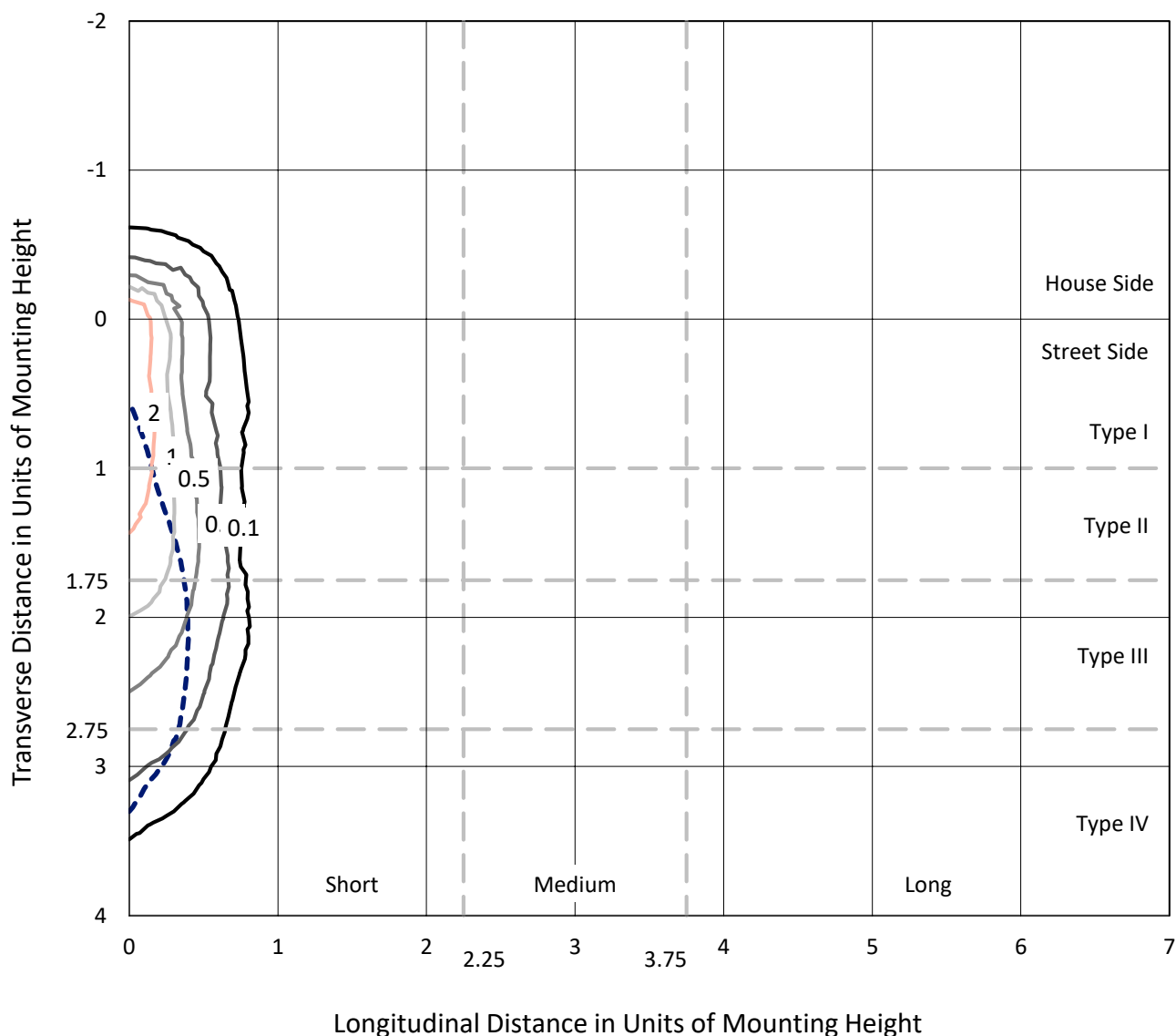
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

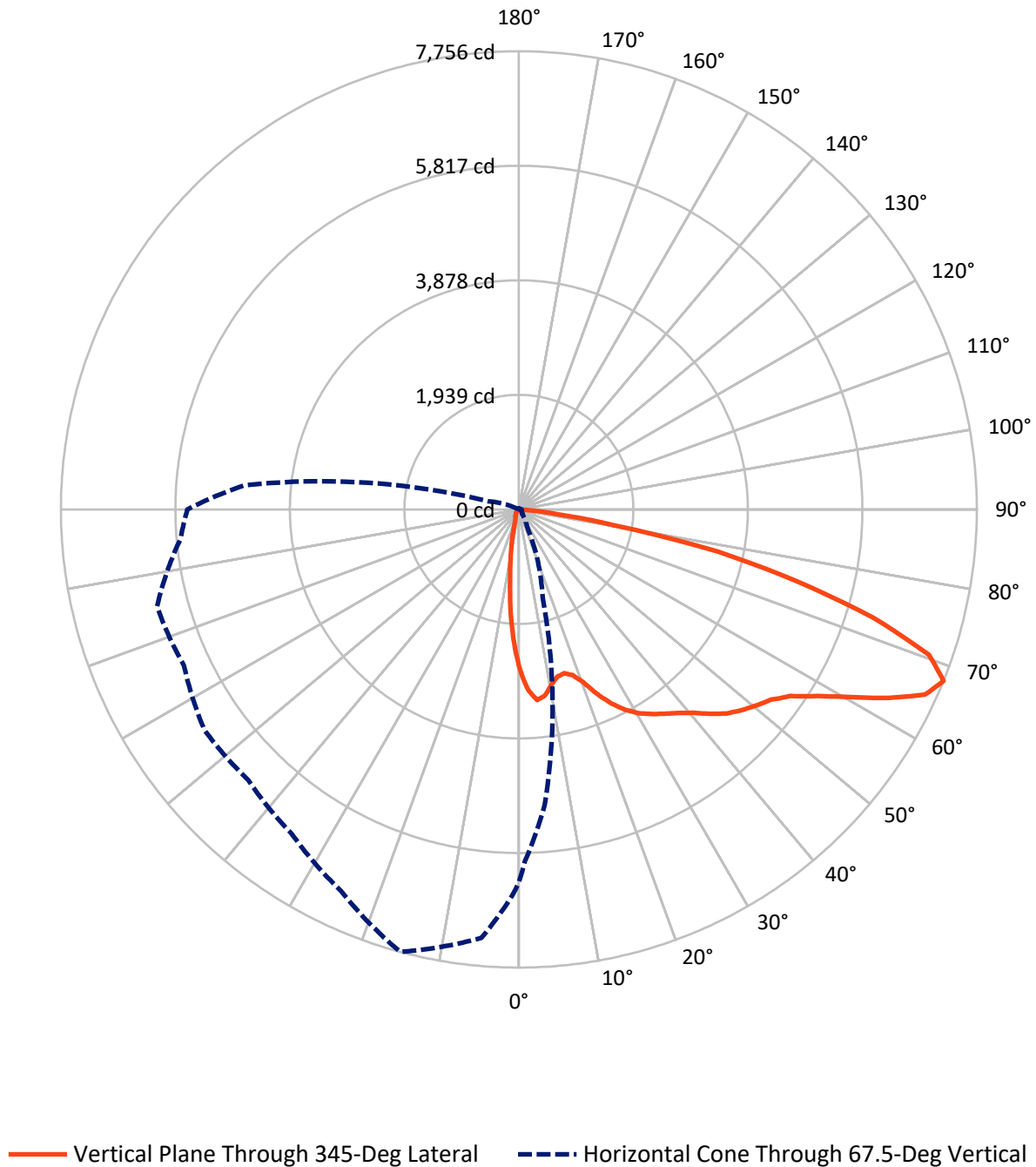
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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	1014.2	0.0	1014.2
	% Fixture	12.1	0.0	12.1
Street Side	Lumens	7365.7	0.0	7365.7
	% Fixture	87.9	0.0	87.9
Total	Lumens	8380.0	0.0	8380.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.5	2.5
10°-20°	417.0	5.0
20°-30°	592.2	7.1
30°-40°	874.7	10.4
40°-50°	1261.5	15.1
50°-60°	1770.8	21.1
60°-70°	2064.3	24.6
70°-80°	1055.3	12.6
80°-90°	134.8	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°	8380.0	100.0
0°-180°	8380.0	100.0

Coefficient of Utilization



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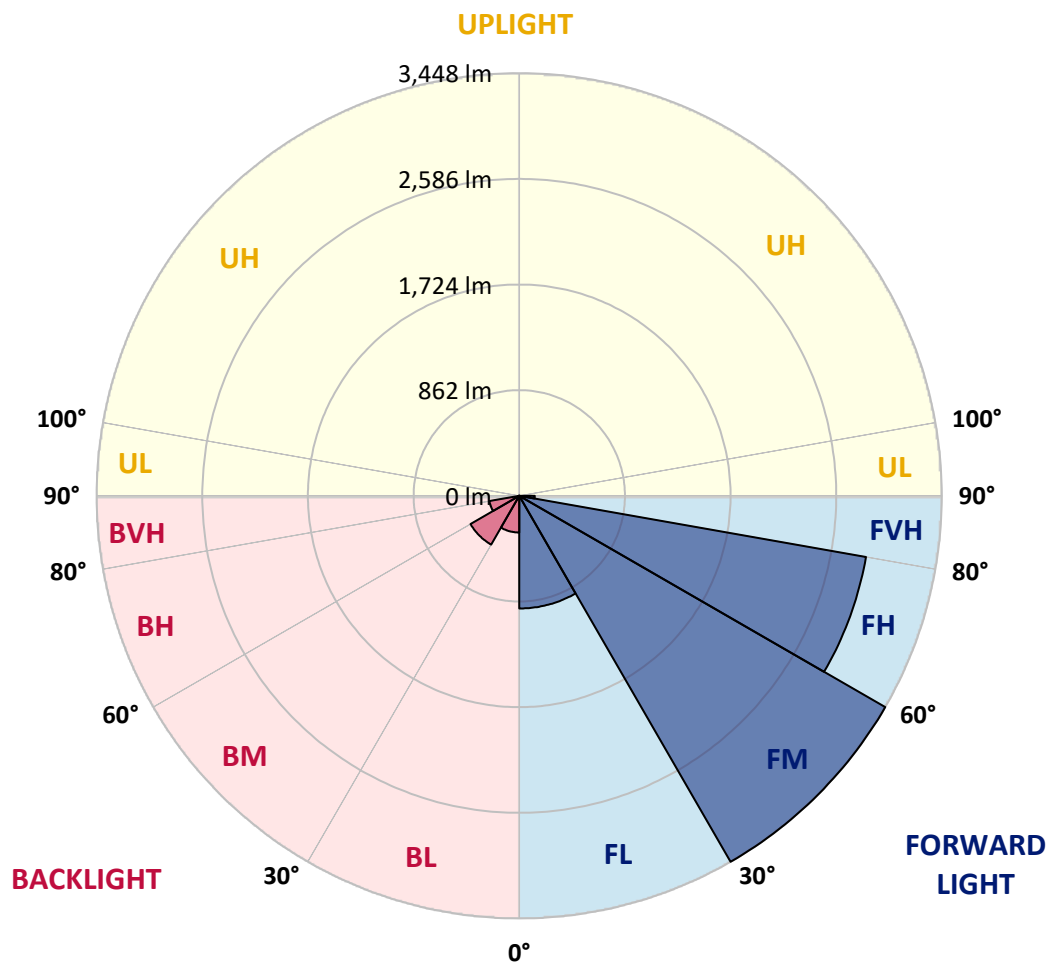
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	919.1	11.0			
FM	(30°-60°)	3447.7	41.1			
FH	(60°-80°)	2872.4	34.3			G2/5000
FVH	(80°-90°)	126.6	1.5			G2/225
BL	(0°-30°)	299.6	3.6	B1/500		
BM	(30°-60°)	459.3	5.5	B1/1000		
BH	(60°-80°)	247.2	2.9	B1/500		G1/500
BVH	(80°-90°)	8.2	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	2989.0	2966.0	2940.6	2857.6	2780.6	2692.5	2620.6	2570.6	2507.8	2426.5	2405.8
5°	2967.6	2943.0	2863.2	2678.6	2517.0	2359.8	2208.1	2119.2	2008.8	1896.9	1869.1
7.5°	2752.0	2726.2	2611.1	2358.2	2140.6	1913.5	1716.6	1594.7	1470.1	1367.7	1313.3
10°	2527.7	2499.5	2370.1	2063.2	1795.2	1590.0	1445.5	1329.2	1211.2	1101.7	1014.3
12.5°	2373.3	2336.3	2195.8	1848.0	1614.6	1475.3	1340.3	1200.9	1041.3	923.8	827.7
15°	2308.6	2266.5	2118.0	1765.1	1550.7	1387.1	1211.2	1040.1	853.2	718.6	630.4
17.5°	2358.6	2303.8	2144.6	1759.5	1470.5	1247.8	1025.5	824.6	621.7	485.5	422.8
20°	2528.5	2456.6	2254.6	1757.9	1373.2	1082.2	800.4	573.3	409.7	329.5	296.6
22.5°	2796.1	2701.2	2412.6	1770.6	1272.8	908.3	578.0	389.5	307.7	266.0	246.5
25°	3119.2	3009.3	2640.0	1815.5	1184.6	739.2	420.0	307.7	259.6	229.1	212.8
27.5°	3426.5	3337.2	2927.5	1880.2	1116.4	602.6	341.0	260.8	221.9	201.7	188.6
30°	3733.4	3621.0	3222.4	1957.2	1034.2	510.1	299.7	237.8	198.9	177.5	169.1
32.5°	3956.5	3863.2	3453.5	2012.8	946.4	449.8	268.0	217.6	185.8	164.0	151.7
35°	4218.9	4113.3	3651.6	2025.1	890.1	411.7	241.0	195.7	161.2	141.7	128.6
37.5°	4502.4	4371.0	3880.3	1998.1	846.0	393.0	220.7	185.8	150.5	130.6	116.7
40°	4816.0	4667.5	4099.8	1959.2	802.7	386.7	205.2	178.3	142.1	121.9	107.6
42.5°	5146.3	4971.2	4290.0	1918.3	775.3	364.8	203.7	170.7	135.8	113.9	99.6
45°	5423.8	5246.4	4485.3	1904.8	755.9	341.0	210.4	165.5	131.4	107.6	93.7
47.5°	5644.9	5477.0	4685.4	1935.0	744.8	319.2	191.8	172.3	129.0	102.0	88.5
50°	5908.9	5718.8	4967.3	2025.1	728.5	297.4	173.5	197.3	129.0	98.5	84.2
52.5°	6240.0	6051.9	5281.7	2164.8	695.9	267.2	156.0	197.7	130.2	93.7	78.6
55°	6656.5	6519.9	5730.7	2318.1	643.9	222.7	135.0	169.9	125.5	85.0	73.4
57.5°	7055.9	6944.3	6140.0	2422.9	574.5	173.9	117.5	137.0	114.7	74.6	65.5
59°	7165.0	7043.2	6290.1	2427.7	522.5	151.7	108.8	113.1	112.4	69.9	60.7
60°	7165.0	7035.6	6333.3	2402.2	484.7	139.3	103.2	100.8	117.1	66.7	58.0
62.5°	7035.2	6853.4	6192.8	2230.3	395.4	118.7	90.1	83.4	105.2	59.9	51.2
65°	6765.3	6500.5	5714.0	1919.5	352.5	108.8	77.8	68.3	73.0	52.8	44.9
67.5°	6315.1	5956.2	5023.6	1550.7	335.5	106.0	67.1	58.0	55.2	45.3	39.3
70°	5522.3	5124.1	4185.6	1219.2	320.8	104.8	56.4	48.8	44.5	38.1	33.3
72.5°	4019.2	3604.0	2971.5	953.2	312.0	107.2	45.3	40.9	36.5	29.8	25.8
75°	2299.0	2027.1	1670.2	629.6	266.0	102.4	34.9	34.1	26.2	21.4	17.9
77.5°	1187.8	1151.7	1000.8	241.8	127.4	44.9	23.0	19.8	15.5	13.1	10.7
80°	512.5	507.0	438.7	69.9	33.7	25.0	13.1	8.3	7.1	5.6	4.4
82.5°	177.1	177.1	156.0	23.4	15.1	12.3	1.6	0.0	0.0	0.0	0.0
85°	35.7	40.1	28.2	0.0	5.2	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°	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	2380.8	2332.8	2329.6	2299.4	2261.7	2244.6	2234.7	2252.2	2273.6	2276.0	2308.2
5°	1848.0	1797.6	1818.7	1765.1	1775.8	1765.1	1747.6	1750.8	1760.3	1730.5	1767.4
7.5°	1297.8	1259.7	1283.9	1269.6	1288.7	1296.2	1285.5	1269.6	1222.8	1217.2	1249.4
10°	978.2	934.9	909.1	882.1	888.1	900.4	896.4	884.9	855.1	856.7	887.7
12.5°	786.1	737.6	686.4	620.1	603.8	613.0	603.8	597.1	568.5	570.9	598.3
15°	596.3	556.6	503.0	449.8	420.8	423.6	398.2	380.3	362.5	341.0	357.7
17.5°	402.6	378.3	362.5	346.6	312.0	304.1	271.9	237.4	223.9	214.0	221.1
20°	285.0	271.9	265.6	264.8	244.9	235.0	203.7	182.2	175.5	173.5	177.9
22.5°	238.2	228.7	219.5	214.4	204.5	192.9	169.1	158.4	153.6	151.3	154.4
25°	207.2	200.1	190.6	181.8	177.9	165.5	148.5	140.5	137.4	135.0	136.6
27.5°	184.2	177.9	166.7	161.2	158.0	147.3	132.6	126.2	123.5	122.7	122.3
30°	165.9	160.0	149.7	143.3	137.8	128.2	119.5	113.1	110.4	109.6	108.8
32.5°	147.7	142.9	136.2	129.8	123.9	115.1	107.6	102.4	98.1	97.3	96.9
35°	124.7	119.9	116.3	115.9	110.4	102.0	96.5	89.7	86.1	85.0	85.4
37.5°	110.8	104.4	96.5	99.2	97.7	91.7	84.2	77.4	73.8	73.0	73.0
40°	102.0	95.3	86.1	81.4	86.1	85.0	73.0	66.3	62.7	62.3	61.5
42.5°	93.7	86.9	76.6	68.7	71.1	74.6	63.1	56.8	53.2	52.4	51.2
45°	87.7	80.6	69.1	59.9	55.2	62.7	54.0	46.1	44.1	42.5	41.7
47.5°	82.2	75.4	62.3	52.0	44.1	45.3	43.3	37.7	35.3	33.7	33.3
50°	77.4	70.3	56.4	44.5	36.5	33.3	34.9	29.8	27.8	26.2	25.4
52.5°	71.9	65.1	50.0	38.5	30.6	26.2	26.6	23.4	21.4	20.2	19.8
55°	67.5	60.7	44.9	33.7	27.0	21.4	19.1	18.3	17.1	16.3	15.9
57.5°	61.5	55.2	39.7	28.6	23.0	17.5	14.7	14.7	14.3	13.5	13.1
59°	58.0	52.4	36.5	25.8	21.0	15.1	13.1	13.5	13.1	12.3	11.9
60°	55.2	50.0	34.1	23.8	19.8	13.9	11.9	12.7	12.3	11.5	11.1
62.5°	48.8	45.3	29.4	19.8	17.5	11.1	9.9	10.7	10.7	10.3	9.9
65°	42.9	38.9	25.0	16.7	16.3	9.5	7.9	9.5	9.9	9.1	8.3
67.5°	37.3	33.3	21.8	13.5	15.1	7.5	6.0	7.9	10.7	8.3	7.5
70°	31.8	27.8	17.1	10.7	15.9	5.2	4.8	7.1	12.7	9.1	7.1
72.5°	24.6	21.4	11.9	7.9	17.1	3.6	3.6	6.0	14.3	9.9	6.7
75°	17.1	13.9	7.1	4.8	13.9	2.4	2.4	5.6	13.5	9.1	6.4
77.5°	9.9	7.5	2.4	0.4	7.1	0.0	0.4	4.0	9.5	5.6	2.8
80°	3.6	1.6	0.0	0.0	4.4	0.0	0.0	0.0	0.8	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°	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	2316.5	2370.1	2418.1	2490.8	2576.9	2676.2	2761.5	2853.2	2939.4	2975.1	2999.7
5°	1775.0	1841.3	1918.7	2025.5	2167.6	2342.7	2506.7	2692.1	2891.3	2991.0	3084.7
7.5°	1254.9	1322.4	1418.5	1532.0	1703.9	1912.3	2126.7	2382.8	2652.8	2810.4	2965.6
10°	902.4	985.4	1075.1	1230.3	1405.0	1602.7	1823.4	2109.3	2410.2	2584.9	2771.9
12.5°	614.2	708.6	844.4	1018.3	1223.6	1417.3	1609.0	1881.8	2231.1	2404.2	2604.7
15°	368.4	420.8	564.5	765.8	1017.5	1258.9	1468.9	1742.4	2114.8	2326.8	2535.2
17.5°	227.1	251.3	329.5	494.7	759.1	1064.4	1352.2	1695.2	2131.5	2389.5	2612.7
20°	181.0	190.6	215.6	292.2	503.0	850.0	1220.8	1685.7	2267.7	2585.3	2824.7
22.5°	157.2	166.3	183.0	212.4	316.4	636.4	1096.1	1694.4	2463.0	2878.6	3158.1
25°	138.6	146.5	162.4	186.6	231.8	448.2	962.7	1733.3	2717.5	3242.7	3539.6
27.5°	123.9	130.6	145.3	167.5	198.9	312.8	811.5	1780.5	3019.2	3615.1	3908.1
30°	110.4	116.3	129.4	150.1	172.7	240.6	645.5	1812.7	3321.3	3908.1	4171.3
32.5°	98.9	103.2	115.1	132.6	150.1	191.8	490.7	1807.5	3545.6	4151.8	4360.6
35°	86.9	91.3	101.6	116.7	130.6	158.4	385.9	1711.1	3740.9	4404.7	4577.4
37.5°	73.8	79.4	89.3	102.8	112.4	139.3	312.0	1594.7	3939.0	4693.7	4819.2
40°	62.7	68.3	77.0	91.7	97.7	132.2	239.8	1453.0	4161.7	5016.9	5084.4
42.5°	52.0	57.2	66.3	79.0	92.1	113.9	177.5	1291.0	4375.7	5293.2	5326.1
45°	42.1	47.2	56.8	69.5	98.5	94.5	137.4	1117.6	4548.4	5523.1	5533.8
47.5°	33.3	38.1	48.0	65.5	91.7	75.4	98.1	981.4	4693.3	5702.5	5674.3
50°	25.8	29.8	40.1	75.0	80.2	62.3	74.2	936.1	4823.1	5813.7	5740.6
52.5°	20.2	23.8	33.0	70.3	62.3	51.6	62.3	978.6	5001.0	5905.8	5777.9
55°	16.3	19.8	25.8	40.1	42.5	43.7	53.2	1018.3	5307.9	6121.7	5998.3
57.5°	13.5	17.1	21.0	28.2	32.2	36.9	47.2	1022.7	5669.6	6480.6	6363.9
59°	12.3	15.5	19.1	25.0	28.2	33.7	44.5	998.9	5797.0	6611.2	6552.9
60°	11.5	14.7	17.9	23.0	26.2	31.8	42.9	976.2	5802.5	6606.5	6633.5
62.5°	9.9	13.1	15.9	19.5	22.2	27.0	38.5	892.5	5567.5	6390.1	6585.0
65°	8.7	11.5	14.3	16.7	19.1	24.2	34.9	739.6	5166.2	6041.1	6253.5
67.5°	7.9	9.9	13.1	14.7	17.1	21.4	31.0	527.2	4664.7	5614.4	5752.1
70°	7.1	9.5	11.9	13.5	15.5	18.7	26.6	302.9	3939.0	4989.5	5087.6
72.5°	6.7	9.1	10.7	12.7	13.9	16.7	24.2	142.5	2884.2	3997.0	4253.1
75°	6.0	8.3	9.9	11.9	13.1	15.1	20.6	68.3	1918.3	2892.5	3183.5
77.5°	3.6	6.7	9.1	10.7	11.5	13.1	17.1	39.3	1224.3	2002.1	2358.2
80°	0.0	2.4	6.7	9.1	9.9	11.1	13.1	31.0	655.0	1143.8	1372.8
82.5°	0.0	0.0	4.8	7.1	6.7	7.5	9.9	19.5	295.4	747.6	842.4
85°	0.0	0.0	1.6	5.6	4.8	3.6	6.7	6.7	64.7	378.3	472.0
87.5°	0.0	0.0	0.0	0.4	2.4	1.6	2.8	0.8	0.4	28.2	114.3
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°	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	3085.9	3115.3	3164.9	3188.3	3176.8	3128.0	3069.6	3010.1	2975.1	2989.0
5°	3275.6	3426.9	3514.2	3543.2	3494.8	3385.2	3241.9	3052.9	2985.8	2967.6
7.5°	3275.6	3560.3	3740.5	3772.3	3664.3	3449.5	3180.8	2885.8	2787.7	2752.0
10°	3160.5	3548.0	3799.3	3849.7	3698.8	3377.7	3017.6	2680.9	2564.6	2527.7
12.5°	3030.7	3447.9	3712.7	3782.2	3658.4	3306.2	2904.4	2542.4	2405.4	2373.3
15°	2950.9	3324.9	3544.0	3594.4	3542.0	3264.5	2877.5	2500.7	2339.5	2308.6
17.5°	2979.5	3229.6	3308.6	3338.0	3373.3	3249.8	2950.9	2592.0	2388.0	2358.6
20°	3087.1	3129.2	3088.3	3125.2	3220.5	3264.1	3126.0	2812.7	2567.8	2528.5
22.5°	3269.7	3077.1	2962.4	2977.1	3093.0	3311.4	3393.6	3128.0	2845.3	2796.1
25°	3482.5	3119.2	2892.5	2879.4	2998.5	3373.7	3638.1	3471.0	3173.6	3119.2
27.5°	3750.1	3213.7	2878.2	2865.1	2965.6	3432.1	3841.4	3810.0	3519.4	3426.5
30°	3956.5	3306.6	2920.7	2890.6	2998.5	3472.6	4004.5	4097.8	3794.9	3733.4
32.5°	4104.6	3416.2	2989.8	2946.1	3091.4	3542.4	4130.4	4361.4	4049.8	3956.5
35°	4217.3	3535.3	3101.4	3029.5	3219.3	3648.4	4248.3	4642.1	4320.9	4218.9
37.5°	4322.9	3702.4	3275.6	3189.9	3419.8	3819.1	4373.0	4960.5	4624.3	4502.4
40°	4470.2	3891.8	3544.4	3468.2	3756.8	4051.8	4528.6	5292.4	4969.2	4816.0
42.5°	4617.5	4095.1	3819.5	3840.2	4177.2	4334.4	4729.5	5643.3	5309.9	5146.3
45°	4752.1	4304.7	4211.4	4306.7	4567.5	4644.5	4929.1	5846.2	5581.8	5423.8
47.5°	4872.0	4566.7	4600.8	4854.5	5011.3	4925.2	5078.4	6021.3	5784.3	5644.9
50°	5011.3	4905.7	5114.1	5473.0	5522.3	5179.3	5214.2	6228.5	6020.9	5908.9
52.5°	5163.8	5263.0	5682.7	5999.1	5983.2	5455.2	5350.8	6460.8	6345.2	6240.0
55°	5336.9	5551.6	6183.3	6491.3	6477.8	5763.2	5577.1	6747.8	6751.8	6656.5
57.5°	5593.7	5800.2	6523.1	6889.5	6912.2	6119.0	5960.6	7069.4	7119.4	7055.9
59°	5777.9	5961.3	6657.7	7055.9	7148.0	6394.1	6240.8	7256.0	7223.0	7165.0
60°	5914.5	6063.8	6724.4	7142.8	7284.9	6580.7	6447.7	7365.5	7235.3	7165.0
62.5°	6252.3	6286.9	6844.7	7241.3	7442.6	6995.1	7029.7	7552.1	7150.0	7035.2
65°	6410.0	6427.8	6843.1	7065.0	7290.1	7317.9	7557.7	7557.7	6941.5	6765.3
67.5°	6344.1	6257.9	6503.6	6480.6	6705.3	7126.1	7756.2	7280.6	6543.0	6315.1
70°	5808.1	5476.6	5367.4	5377.4	5549.3	6198.4	7363.2	6465.1	5788.7	5522.3
72.5°	4832.7	4037.5	3767.9	4075.6	4120.5	4763.6	6275.0	4868.8	4268.9	4019.2
75°	3887.0	2846.1	2407.8	2732.5	2808.8	3486.1	4854.1	3032.3	2493.6	2299.0
77.5°	2792.5	2043.0	1727.7	1705.1	1803.6	2210.9	3444.4	1526.1	1272.8	1187.8
80°	1586.4	1344.6	1447.9	1366.1	1415.7	1382.4	1636.4	669.3	548.3	512.5
82.5°	957.6	794.8	860.7	716.6	906.7	789.6	630.4	214.4	186.2	177.1
85°	622.9	434.3	226.3	151.7	312.4	504.6	140.9	58.4	44.9	35.7
87.5°	214.8	110.8	11.1	4.8	33.3	94.1	5.2	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

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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			

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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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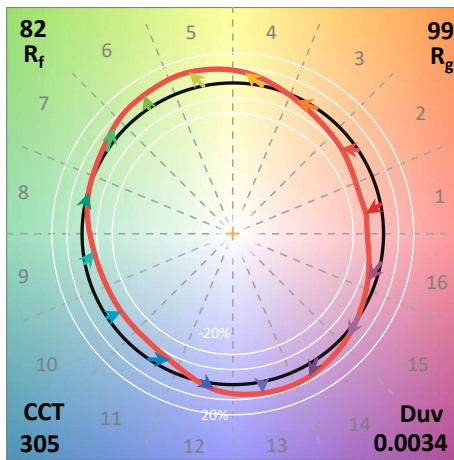
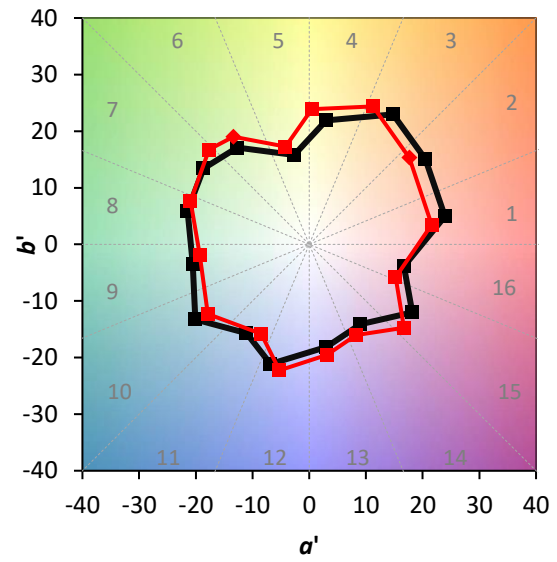
TM-30-18

Summary

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



Color Vector Graphics

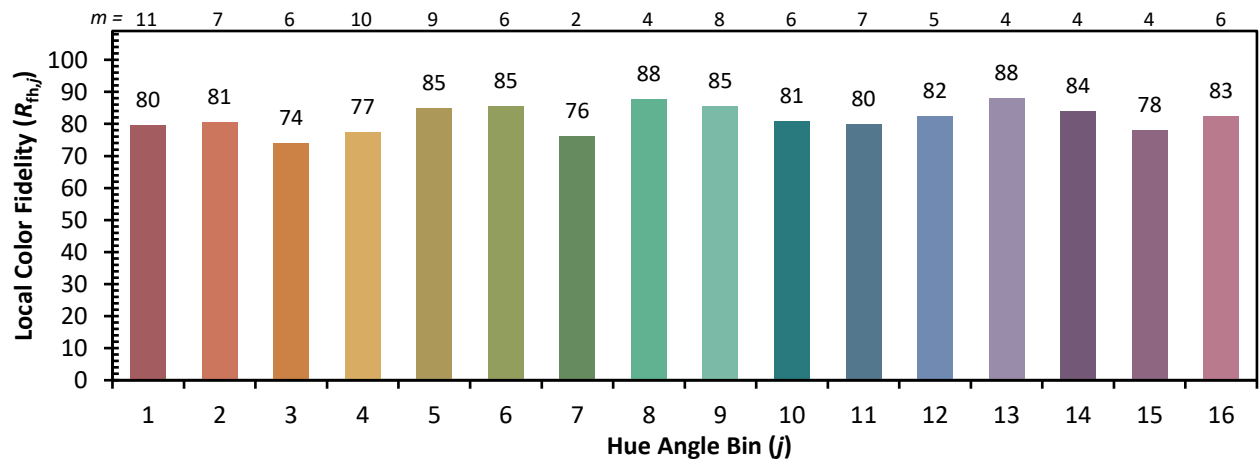


Individual Sample Fidelity Index ($R_{f,i}$)

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)