

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P643931

Luminaire Tested: GWS-SA6F-830-U-SLR-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643931  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGF-830-U-SLR-W  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND  
SPILL LIGHT ELIMINATOR RIGHT OPTICS  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

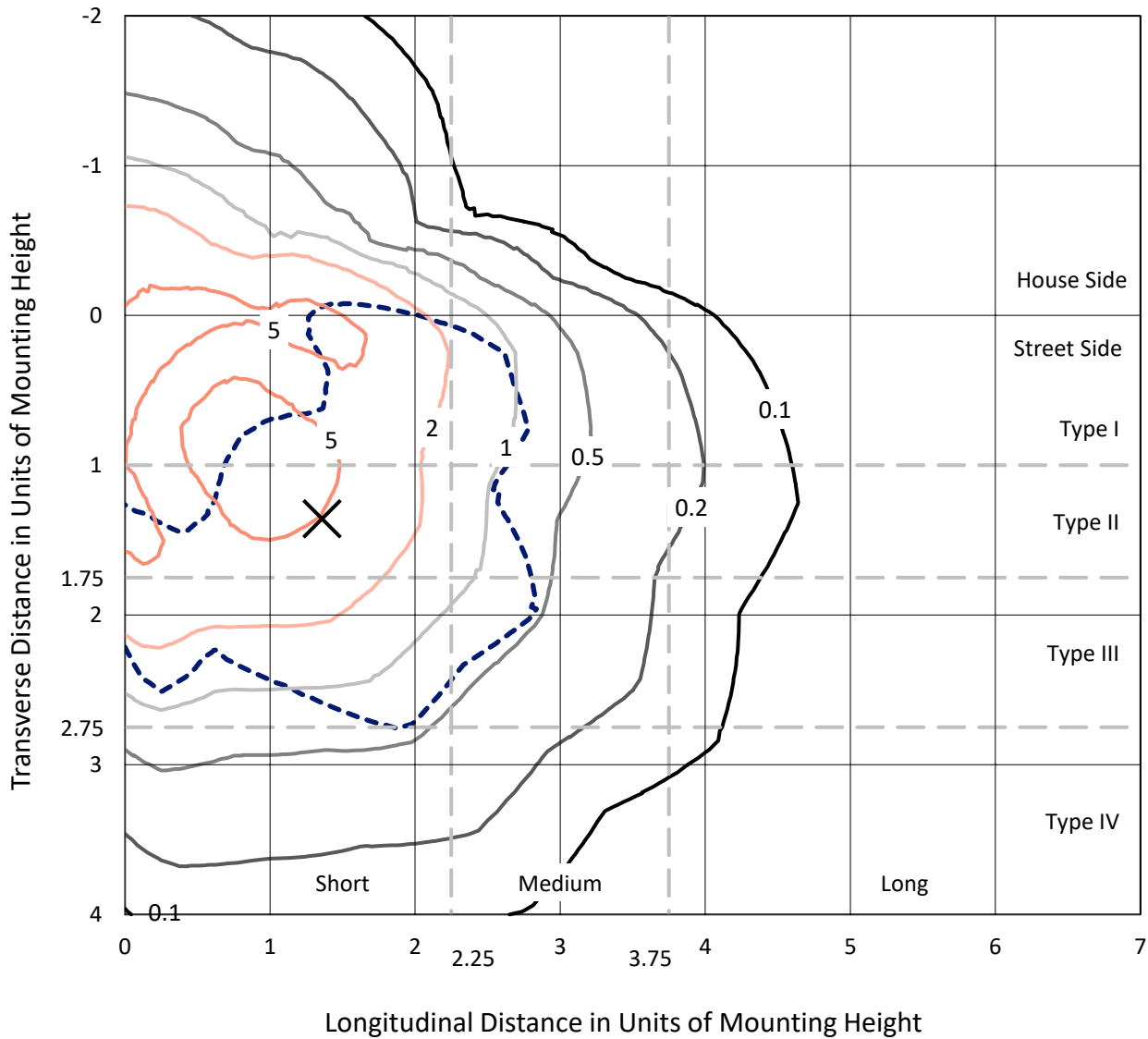
Lumens per Lamp: N/A  
Luminaire Lumens: 37435.1 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 372.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

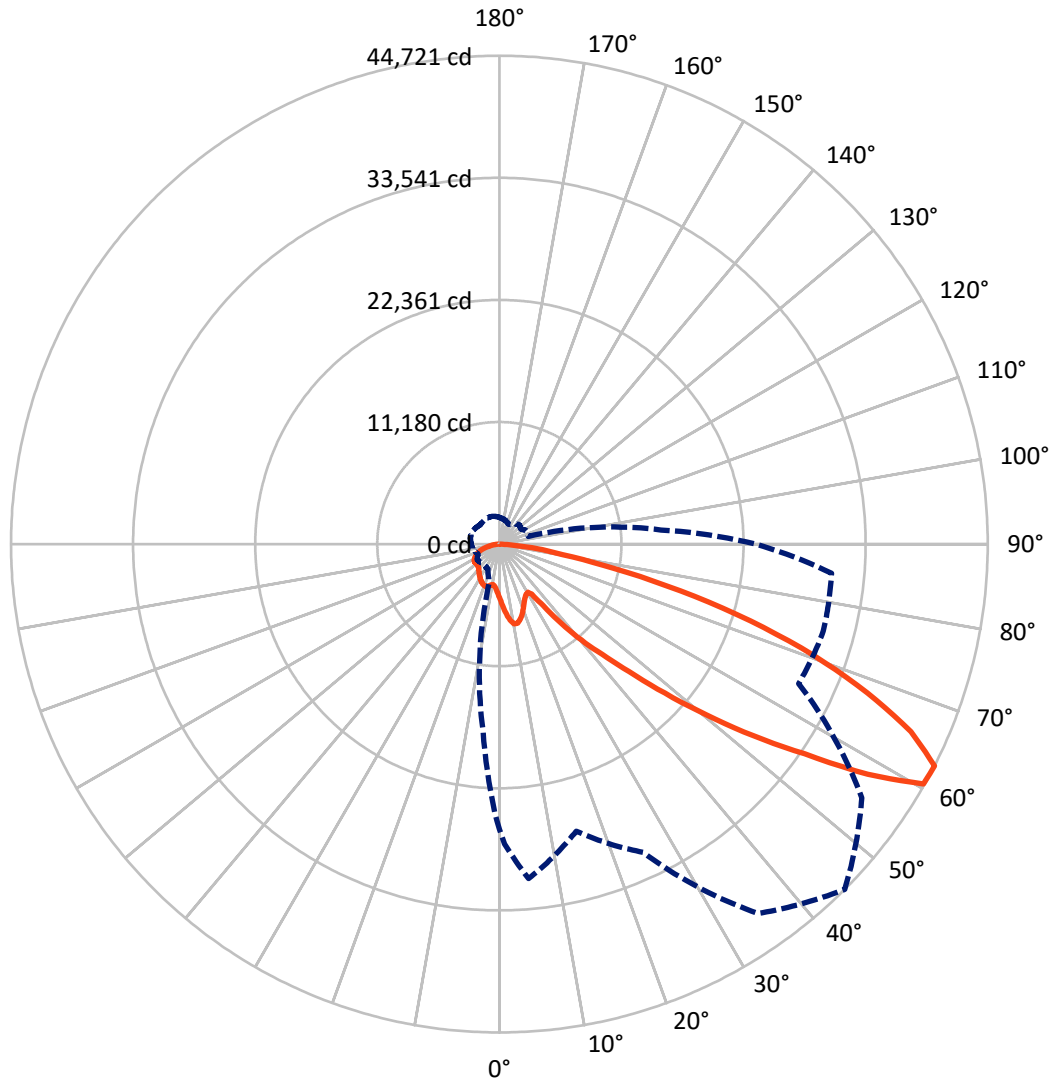
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8932.7	0.0	8932.7
	% Fixture	23.9	0.0	23.9
<b>Street Side</b>	Lumens	28502.4	0.0	28502.4
	% Fixture	76.1	0.0	76.1
<b>Total</b>	Lumens	37435.1	0.0	37435.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	485.2	1.3
10°-20°	1521.1	4.1
20°-30°	2362.6	6.3
30°-40°	3207.8	8.6
40°-50°	5084.1	13.6
50°-60°	8968.4	24.0
60°-70°	9978.7	26.7
70°-80°	5060.8	13.5
80°-90°	766.3	2.0
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°	37435.1	100.0
0°-180°	37435.1	100.0

**Coefficient of Utilization**



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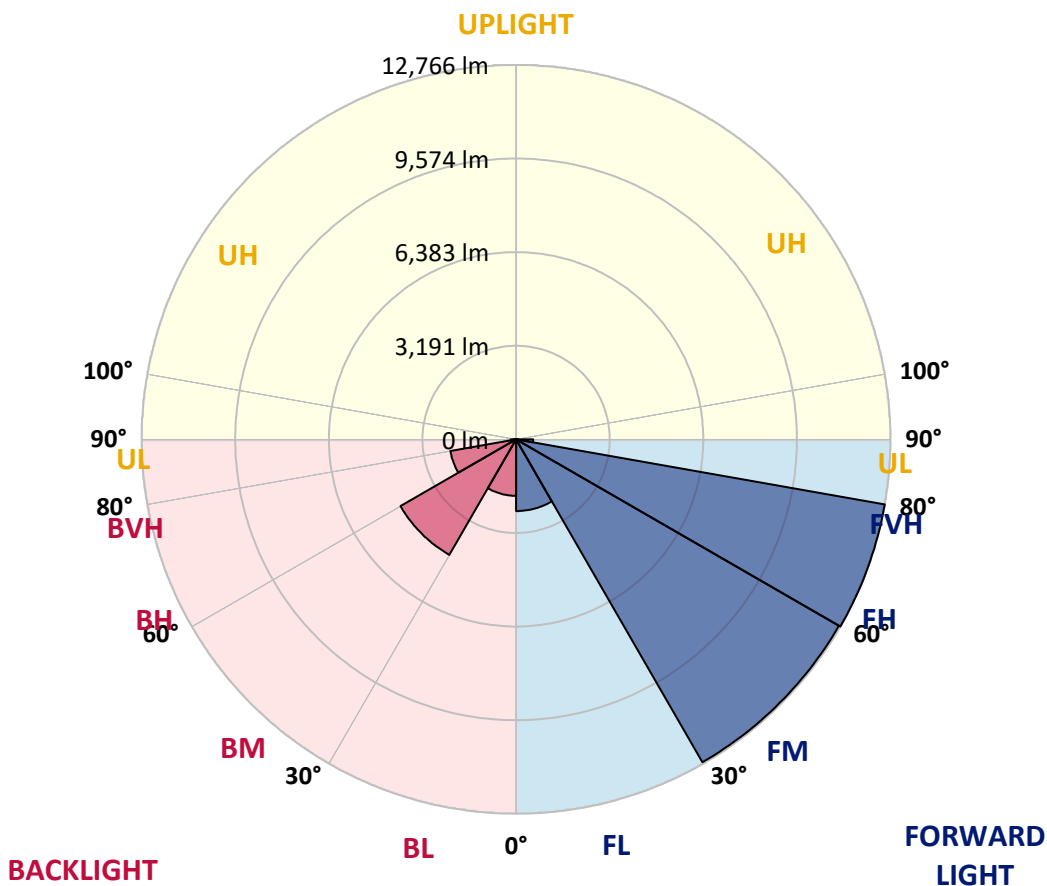
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2444.2	6.5			
FM (30°-60°)	12710.8	34.0			
FH (60°-80°)	12765.7	34.1			G5
FVH (80°-90°)	581.6	1.6			G4/750
BL (0°-30°)	1924.8	5.1	B3/2500		
BM (30°-60°)	4549.5	12.2	B3/5000		
BH (60°-80°)	2273.8	6.1	B3/2500		G3/2500
BVH (80°-90°)	184.7	0.5			G2/225
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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4
2.5°	5339.7	5336.9	5390.7	5472.9	5549.4	5583.4	5640.1	5634.4	5589.1	5529.6	5509.7
5°	5759.2	5770.5	5864.0	6045.4	6246.6	6331.7	6368.5	6354.3	6272.1	6167.3	5983.1
7.5°	6138.9	6158.8	6303.3	6575.4	6824.8	6938.2	7028.9	7011.9	6892.8	6697.3	6425.2
10°	6416.7	6439.4	6612.3	6932.5	7210.3	7309.5	7425.7	7431.3	7326.5	7062.9	6785.1
12.5°	6694.4	6717.1	6878.7	7170.6	7352.0	7354.8	7422.8	7459.7	7465.4	7343.5	7065.7
15°	6983.5	7003.4	7150.8	7315.1	7306.6	7147.9	7147.9	7218.8	7374.7	7462.5	7269.8
17.5°	7230.1	7255.6	7369.0	7315.1	7062.9	6776.6	6742.6	6833.3	7105.4	7442.7	7422.8
20°	7434.2	7454.0	7516.4	7159.3	6700.1	6326.0	6260.8	6365.7	6734.1	7320.8	7539.0
22.5°	7629.7	7641.1	7607.1	6955.2	6309.0	5881.0	5801.7	5912.2	6309.0	7105.4	7638.2
25°	7862.1	7850.8	7689.3	6742.6	5951.9	5529.6	5447.4	5572.1	5985.9	6819.2	7745.9
27.5°	8131.4	8088.9	7760.1	6513.1	5677.0	5268.8	5212.1	5345.4	5730.8	6555.6	7831.0
30°	8361.0	8278.8	7771.5	6309.0	5535.2	5158.3	5124.3	5249.0	5606.1	6377.0	7938.7
32.5°	8616.1	8502.7	7836.6	6255.1	5614.6	5424.7	5470.1	5478.6	5640.1	6326.0	8100.2
35°	8981.7	8834.3	8015.2	6411.0	6430.9	6751.1	6915.5	6694.4	6153.1	6439.4	8406.3
37.5°	9534.3	9347.3	8378.0	7085.6	8117.2	8834.3	9231.1	8726.6	7711.9	6867.3	8868.3
40°	10206.1	9968.0	8842.8	8332.6	9693.1	10840.9	11546.6	10806.9	9316.1	7935.8	9517.3
42.5°	11144.2	10894.8	9744.1	9557.0	11152.7	12861.7	13782.9	12680.3	10730.4	9316.1	10557.5
45°	12779.5	12538.6	11396.4	10784.2	12861.7	15350.2	16642.6	15109.3	12167.3	10702.0	12501.8
47.5°	15800.8	15517.4	13850.9	12144.7	14811.7	18581.2	20389.4	18156.1	13661.0	12289.2	15766.8
50°	19428.6	19156.5	16931.7	13754.5	16965.7	22036.1	24550.1	21735.7	15381.4	14219.3	19669.5
52.5°	23793.3	23742.3	21327.6	15789.5	19207.6	25720.6	29167.0	25700.8	17266.1	16818.3	24090.9
55°	27727.3	28226.1	26911.0	18893.0	22104.1	30348.9	33914.4	30025.8	19822.6	21115.0	29269.1
57.5°	29847.3	31187.8	33208.7	25224.6	26315.8	35881.3	39772.7	35306.0	24215.6	28268.6	34070.3
60°	28447.1	29966.3	33628.1	29991.8	30493.5	40314.1	44607.9	39744.4	28529.3	33234.2	33798.2
62.5°	26117.4	27480.7	30737.2	27208.6	31139.7	41289.0	44721.3	40518.1	30244.1	30714.5	30530.3
65°	23354.0	24728.6	28177.9	23750.8	29084.9	38973.5	41422.2	38242.2	27163.2	27749.9	27818.0
67.5°	19683.7	20953.4	24465.1	21117.8	26511.4	35575.2	36357.5	34999.9	25014.9	25950.2	24972.4
70°	14706.8	15851.8	18952.5	17161.3	22347.9	31148.2	30516.1	30717.4	22603.0	23532.6	20859.9
72.5°	10050.2	10911.8	13570.3	13485.3	17113.1	24935.5	24054.1	25961.5	18878.8	20111.7	15902.9
75°	7028.9	7700.6	9809.3	10653.9	12935.4	18482.0	17130.1	19431.5	14743.7	16503.7	11603.3
77.5°	4313.7	4758.7	6195.6	7893.3	8321.3	12649.2	10639.7	14621.8	10353.4	12037.0	7740.3
80°	2156.8	2372.2	3010.0	4962.7	5518.2	7454.0	5875.4	8488.5	7006.2	7454.0	4282.5
82.5°	651.9	719.9	881.4	1884.8	2859.7	4291.0	3471.9	4931.6	3826.2	3494.6	1686.4
85°	172.9	195.6	243.7	558.3	1003.3	1539.0	1173.4	2389.3	1833.7	1289.6	634.9
87.5°	14.2	14.2	11.3	11.3	5.7	0.0	0.0	170.1	342.9	195.6	110.5
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°	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4
2.5°	5410.5	5399.2	5283.0	5198.0	5098.8	5002.4	4903.2	4815.4	4716.2	4617.0	4588.6
5°	5847.0	5767.7	5521.1	5314.2	5110.1	4931.6	4775.7	4614.1	4483.7	4356.2	4308.0
7.5°	6232.5	6093.6	5736.5	5421.9	5138.5	4917.4	4687.8	4452.6	4268.3	4087.0	4041.6
10°	6581.1	6396.9	5946.2	5549.4	5234.8	4982.6	4713.3	4398.7	4132.3	3911.2	3851.7
12.5°	6839.0	6637.8	6127.6	5671.3	5314.2	5030.8	4764.3	4486.6	4206.0	3919.7	3854.6
15°	7043.1	6833.3	6277.8	5764.8	5317.0	4951.4	4693.5	4597.1	4509.3	4228.7	4109.6
17.5°	7207.4	6986.4	6408.2	5821.5	5240.5	4710.5	4486.6	4628.3	4852.2	4676.5	4452.6
20°	7357.7	7133.8	6507.4	5861.2	5070.4	4378.9	4254.2	4554.6	4891.9	4886.2	4685.0
22.5°	7522.0	7303.8	6651.9	5883.9	4832.4	4041.6	4115.3	4446.9	4721.8	4804.0	4679.3
25°	7731.8	7539.0	6853.2	5934.9	4563.1	3809.2	4013.3	4308.0	4537.6	4557.4	4483.7
27.5°	7975.5	7831.0	7153.6	6053.9	4302.4	3690.2	3894.2	4112.5	4322.2	4330.7	4242.8
30°	8241.9	8145.6	7431.3	6153.1	4106.8	3653.3	3741.2	3916.9	4050.1	4072.8	3996.3
32.5°	8582.0	8497.0	7677.9	6087.9	3990.6	3644.8	3599.5	3690.2	3800.7	3800.7	3741.2
35°	9049.7	8930.7	7938.7	5838.5	3848.9	3610.8	3449.3	3474.8	3522.9	3531.4	3497.4
37.5°	9712.9	9517.3	8202.3	5345.4	3616.5	3488.9	3276.4	3245.2	3262.2	3284.9	3276.4
40°	10534.8	10214.6	8587.7	4753.0	3338.7	3253.7	3097.8	3038.3	3024.1	3069.5	3086.5
42.5°	11569.3	11079.0	9001.5	4200.3	3086.5	2984.4	2888.1	2837.1	2814.4	2890.9	2936.3
45°	13221.7	12413.9	9398.3	3653.3	2944.8	2754.9	2689.7	2652.8	2664.2	2754.9	2811.6
47.5°	16075.7	14451.7	9775.3	3307.5	2933.4	2590.5	2511.1	2519.6	2550.8	2647.2	2715.2
50°	19686.5	17181.1	10027.5	3163.0	2967.4	2491.3	2386.4	2431.8	2479.9	2573.5	2652.8
52.5°	23362.5	19723.4	9727.1	3083.6	2964.6	2494.1	2270.2	2406.3	2428.9	2522.5	2607.5
55°	25890.7	20006.8	8403.5	2961.8	2919.3	2607.5	2179.5	2394.9	2409.1	2494.1	2570.6
57.5°	26854.3	19037.5	6408.2	2995.8	2783.2	2695.4	2139.8	2315.6	2417.6	2491.3	2570.6
60°	25689.4	17209.4	3894.2	3083.6	2565.0	2689.7	2165.4	2171.0	2346.7	2471.4	2550.8
62.5°	23492.9	14862.7	2735.0	2834.2	2406.3	2539.5	2224.9	2001.0	2222.0	2372.2	2443.1
65°	20976.1	12102.2	2086.0	2440.3	2329.7	2307.1	2244.7	1850.8	2052.0	2199.4	2261.7
67.5°	18354.5	9406.8	1694.9	1819.6	2105.8	2086.0	2052.0	1717.5	1850.8	1955.6	2026.5
70°	15052.6	6581.1	1431.3	1366.1	1805.4	1870.6	1794.1	1550.3	1592.8	1700.5	1757.2
72.5°	11011.0	4101.1	1176.2	1128.0	1451.1	1635.3	1595.7	1366.1	1385.9	1488.0	1533.3
75°	7918.8	2346.7	943.8	929.6	1108.2	1400.1	1320.8	1176.2	1198.9	1275.4	1306.6
77.5°	5033.6	1306.6	728.4	748.2	793.6	1045.8	1128.0	1006.2	1006.2	1051.5	1077.0
80°	2695.4	748.2	532.8	541.3	555.5	799.3	889.9	779.4	779.4	748.2	779.4
82.5°	1099.7	430.8	365.6	340.1	371.3	547.0	623.5	496.0	518.7	467.6	479.0
85°	362.8	215.4	181.4	178.6	175.7	240.9	300.4	246.6	294.8	187.1	195.6
87.5°	48.2	39.7	22.7	17.0	19.8	8.5	17.0	19.8	19.8	14.2	14.2
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°	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4
2.5°	4568.8	4546.1	4463.9	4483.7	4469.6	4446.9	4469.6	4427.1	4461.1	4472.4	4543.3
5°	4271.2	4217.3	4138.0	4098.3	4089.8	4067.1	4070.0	4050.1	4055.8	4104.0	4183.3
7.5°	4004.8	3953.7	3891.4	3863.1	3837.5	3812.0	3809.2	3806.4	3829.0	3871.6	3948.1
10°	3812.0	3783.7	3758.2	3769.5	3758.2	3746.8	3727.0	3727.0	3763.9	3840.4	3933.9
12.5°	3812.0	3806.4	3812.0	3846.0	3843.2	3846.0	3820.5	3834.7	3936.7	4067.1	4200.3
15°	4016.1	3970.8	3970.8	3987.8	3982.1	3982.1	3982.1	4041.6	4274.0	4475.2	4617.0
17.5°	4265.5	4132.3	4075.6	4067.1	4064.3	4064.3	4075.6	4203.2	4565.9	4778.5	4860.7
20°	4438.4	4186.2	4092.6	4055.8	4058.6	4064.3	4098.3	4274.0	4673.6	4781.3	4761.5
22.5°	4469.6	4143.6	4030.3	3976.4	3984.9	3990.6	4041.6	4228.7	4526.3	4543.3	4503.6
25°	4325.0	4024.6	3902.7	3860.2	3871.6	3868.7	3914.1	4050.1	4262.7	4257.0	4234.3
27.5°	4109.6	3834.7	3744.0	3715.7	3735.5	3712.8	3727.0	3831.9	3996.3	3990.6	3982.1
30°	3888.6	3650.5	3568.3	3554.1	3579.6	3545.6	3548.5	3636.3	3749.7	3744.0	3741.2
32.5°	3667.5	3466.3	3392.6	3392.6	3418.1	3381.2	3386.9	3463.4	3540.0	3517.3	3517.3
35°	3457.8	3316.0	3256.5	3245.2	3265.0	3239.5	3250.9	3321.7	3350.1	3318.9	3299.0
37.5°	3273.5	3211.2	3151.7	3112.0	3114.8	3117.7	3151.7	3205.5	3188.5	3143.2	3117.7
40°	3103.5	3103.5	3046.8	2973.1	2964.6	2984.4	3041.1	3100.6	3052.5	3001.4	2970.3
42.5°	2981.6	3007.1	2953.3	2879.6	2862.6	2896.6	2958.9	3001.4	2944.8	2888.1	2845.6
45°	2868.2	2930.6	2893.7	2811.6	2788.9	2828.6	2907.9	2924.9	2848.4	2794.5	2763.4
47.5°	2788.9	2873.9	2848.4	2769.0	2735.0	2791.7	2873.9	2871.1	2774.7	2718.0	2692.5
50°	2732.2	2839.9	2837.1	2769.0	2732.2	2803.1	2876.7	2839.9	2735.0	2675.5	2650.0
52.5°	2686.8	2837.1	2856.9	2817.2	2791.7	2854.1	2899.4	2828.6	2706.7	2644.3	2624.5
55°	2667.0	2848.4	2862.6	2825.7	2803.1	2859.7	2899.4	2851.2	2706.7	2650.0	2633.0
57.5°	2672.7	2834.2	2837.1	2786.0	2746.4	2817.2	2879.6	2865.4	2737.9	2672.7	2652.8
60°	2638.7	2757.7	2763.4	2684.0	2638.7	2723.7	2834.2	2825.7	2723.7	2655.7	2618.8
62.5°	2525.3	2630.2	2633.0	2559.3	2494.1	2616.0	2737.9	2735.0	2641.5	2573.5	2531.0
65°	2335.4	2445.9	2474.3	2403.4	2352.4	2482.8	2610.3	2604.7	2511.1	2448.8	2406.3
67.5°	2100.2	2219.2	2273.1	2224.9	2205.0	2324.1	2443.1	2440.3	2363.7	2304.2	2267.4
70°	1813.9	1913.1	2003.8	2003.8	1989.6	2125.7	2253.2	2241.9	2171.0	2125.7	2097.3
72.5°	1575.8	1652.4	1680.7	1709.0	1751.6	1893.3	2001.0	2009.5	1958.5	1935.8	1958.5
75°	1340.6	1388.8	1414.3	1391.6	1465.3	1612.7	1754.4	1768.6	1714.7	1677.9	1686.4
77.5°	1102.5	1156.4	1181.9	1130.9	1125.2	1312.2	1485.1	1516.3	1471.0	1414.3	1431.3
80°	796.4	867.3	909.8	875.8	864.4	946.6	1184.7	1218.7	1176.2	1130.9	1156.4
82.5°	487.5	527.2	538.5	572.5	643.4	677.4	762.4	875.8	844.6	804.9	875.8
85°	192.7	229.6	255.1	289.1	337.3	399.6	470.5	561.2	510.2	493.2	581.0
87.5°	11.3	2.8	0.0	5.7	48.2	93.5	201.2	277.8	232.4	249.4	300.4
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: P643931  
 CATALOG NUMBER: GWS-SA6F-830-U-SLR-W

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4	4968.4
2.5°	4600.0	4673.6	4772.8	4855.0	4959.9	5059.1	5161.1	5263.2	5317.0	5339.7
5°	4274.0	4410.1	4568.8	4744.5	4948.6	5164.0	5382.2	5606.1	5747.8	5759.2
7.5°	4078.5	4274.0	4492.3	4713.3	4965.6	5263.2	5608.9	5954.7	6099.3	6138.9
10°	4140.8	4359.0	4531.9	4738.8	5016.6	5387.9	5796.0	6201.3	6368.5	6416.7
12.5°	4390.2	4432.7	4486.6	4676.5	5016.6	5495.6	5988.7	6470.5	6649.1	6694.4
15°	4597.1	4393.1	4296.7	4497.9	4948.6	5589.1	6192.8	6725.6	6941.0	6983.5
17.5°	4614.1	4262.7	4052.9	4234.3	4829.5	5654.3	6388.4	7009.0	7190.4	7230.1
20°	4441.2	4123.8	3851.7	3962.3	4668.0	5682.6	6530.1	7215.9	7394.5	7434.2
22.5°	4245.7	4010.4	3715.7	3710.0	4472.4	5713.8	6700.1	7411.5	7604.2	7629.7
25°	4061.4	3854.6	3605.1	3525.8	4245.7	5773.3	6929.7	7706.3	7853.6	7862.1
27.5°	3846.0	3687.3	3517.3	3440.8	4047.3	5886.7	7269.8	8057.7	8145.6	8131.4
30°	3650.5	3531.4	3454.9	3432.3	3922.6	5971.7	7592.9	8403.5	8409.2	8361.0
32.5°	3443.6	3398.2	3398.2	3471.9	3820.5	5951.9	7856.5	8740.8	8686.9	8616.1
35°	3259.4	3267.9	3327.4	3500.3	3650.5	5753.5	8108.7	9163.1	9083.7	8981.7
37.5°	3083.6	3148.8	3233.9	3401.1	3426.6	5458.7	8403.5	9761.1	9661.9	9534.3
40°	2933.4	3032.6	3131.8	3214.0	3188.5	5039.3	8814.5	10464.0	10353.4	10206.1
42.5°	2814.4	2910.8	3021.3	3029.8	3038.3	4602.8	9250.9	11325.6	11305.7	11144.2
45°	2737.9	2800.2	2905.1	2890.9	3029.8	4121.0	9653.4	12640.7	12901.4	12779.5
47.5°	2686.8	2735.0	2746.4	2805.9	3103.5	3690.2	10172.0	15214.1	15939.7	15800.8
50°	2658.5	2706.7	2579.1	2811.6	3114.8	3412.4	10889.1	18445.2	19612.9	19428.6
52.5°	2655.7	2644.3	2451.6	2871.1	3052.5	3242.4	11263.2	20803.2	23393.7	23793.3
55°	2661.3	2519.6	2386.4	2888.1	2927.8	3180.0	10010.5	21936.9	26882.7	27727.3
57.5°	2610.3	2383.6	2423.3	2820.1	2692.5	3347.2	7400.2	21531.6	28277.1	29847.3
60°	2514.0	2253.2	2491.3	2635.8	2451.6	3061.0	5095.9	19723.4	26831.6	28447.1
62.5°	2375.1	2162.5	2482.8	2397.8	2363.7	2505.5	3503.1	17192.4	24538.7	26117.4
65°	2219.2	2088.8	2349.6	2168.2	2188.0	1927.3	2477.1	14335.5	21800.9	23354.0
67.5°	2052.0	2043.5	2154.0	1930.1	1847.9	1527.6	1805.4	11490.0	18283.6	19683.7
70°	1862.1	1924.4	1958.5	1714.7	1499.3	1198.9	1340.6	8035.0	13488.1	14706.8
72.5°	1672.2	1677.9	1726.0	1490.8	1122.4	960.8	1006.2	4866.4	9163.1	10050.2
75°	1479.5	1425.6	1471.0	1213.0	836.1	787.9	776.6	3007.1	6328.8	7028.9
77.5°	1272.6	1213.0	1153.5	912.6	671.7	609.4	595.2	1686.4	3882.9	4313.7
80°	1034.5	955.1	861.6	668.9	490.3	436.5	433.6	821.9	1935.8	2156.8
82.5°	804.9	654.7	629.2	416.6	303.3	266.4	283.4	314.6	583.9	651.9
85°	564.0	476.2	334.4	167.2	136.0	110.5	107.7	93.5	155.9	172.9
87.5°	314.6	206.9	107.7	19.8	22.7	25.5	19.8	14.2	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

**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  
 Rf: 81.5  
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



**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**

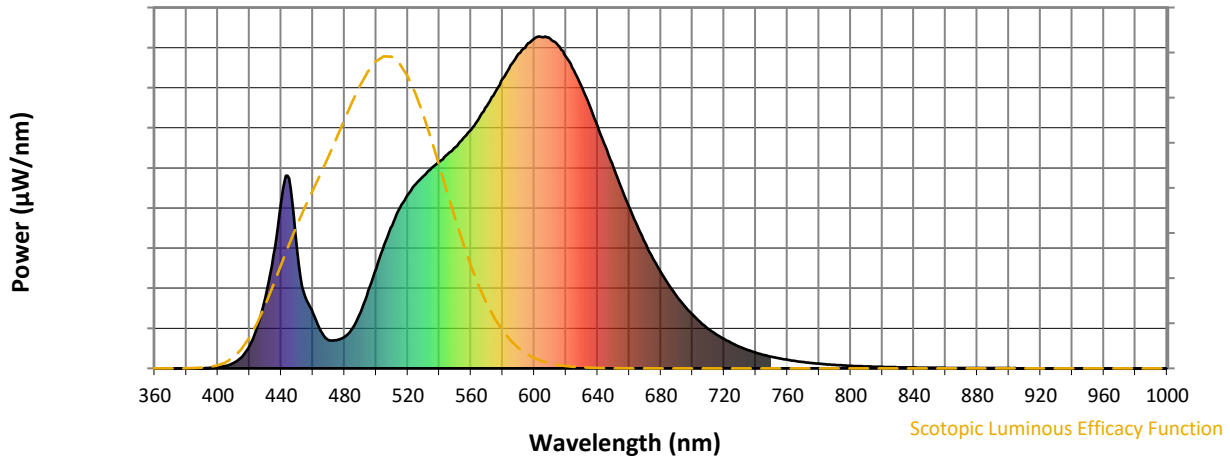


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**

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



REPORT NUMBER: SP1-2408-195-9

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.32**

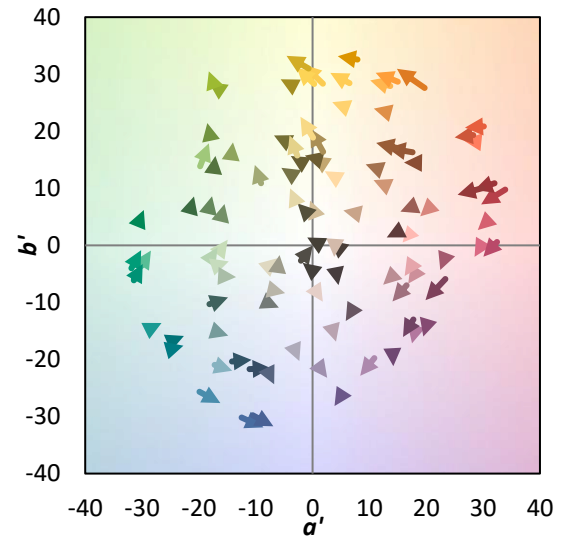
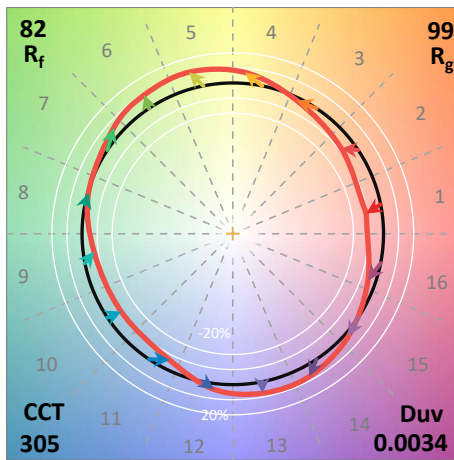
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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			

**Summary**

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

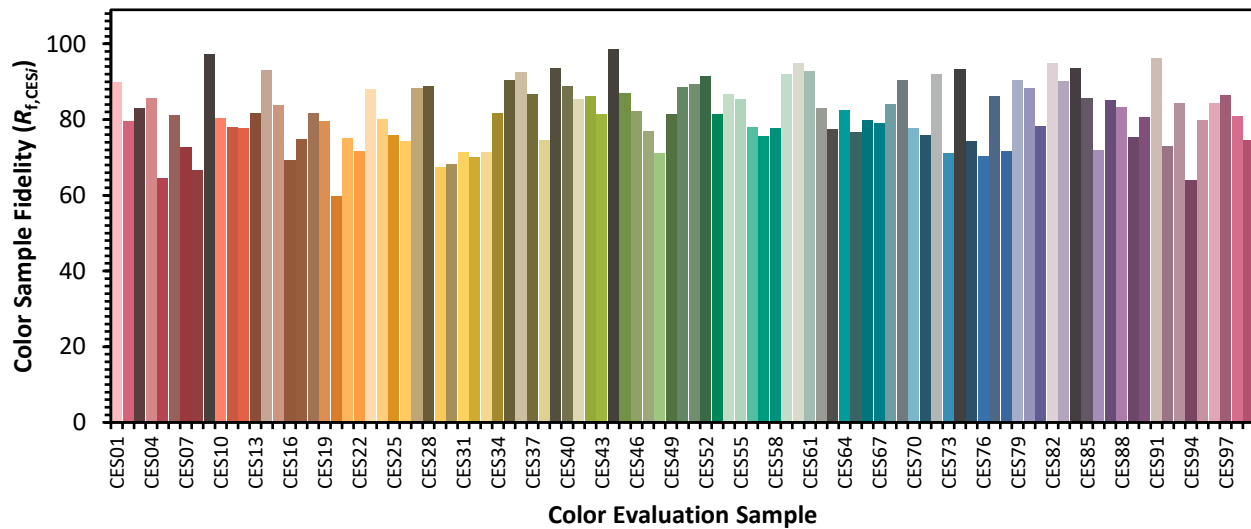


**Color Vector Graphics**

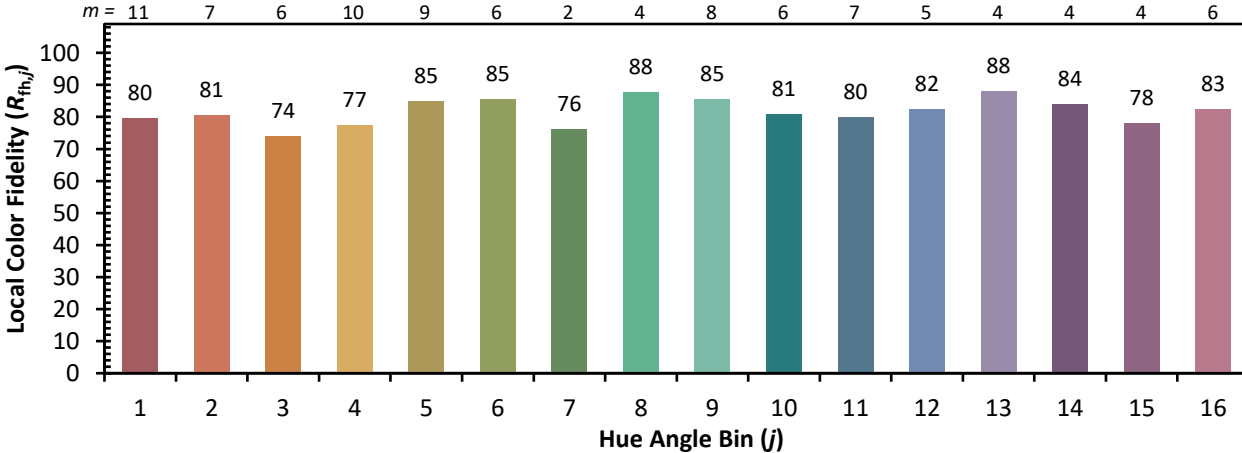


Individual Sample Fidelity Index ( $R_{f,i}$ )

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)