

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: P643925

Luminaire Tested: GWS-SA6F-830-U-SLL-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P643925  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-39)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SAGF-830-U-SLL-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (96) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

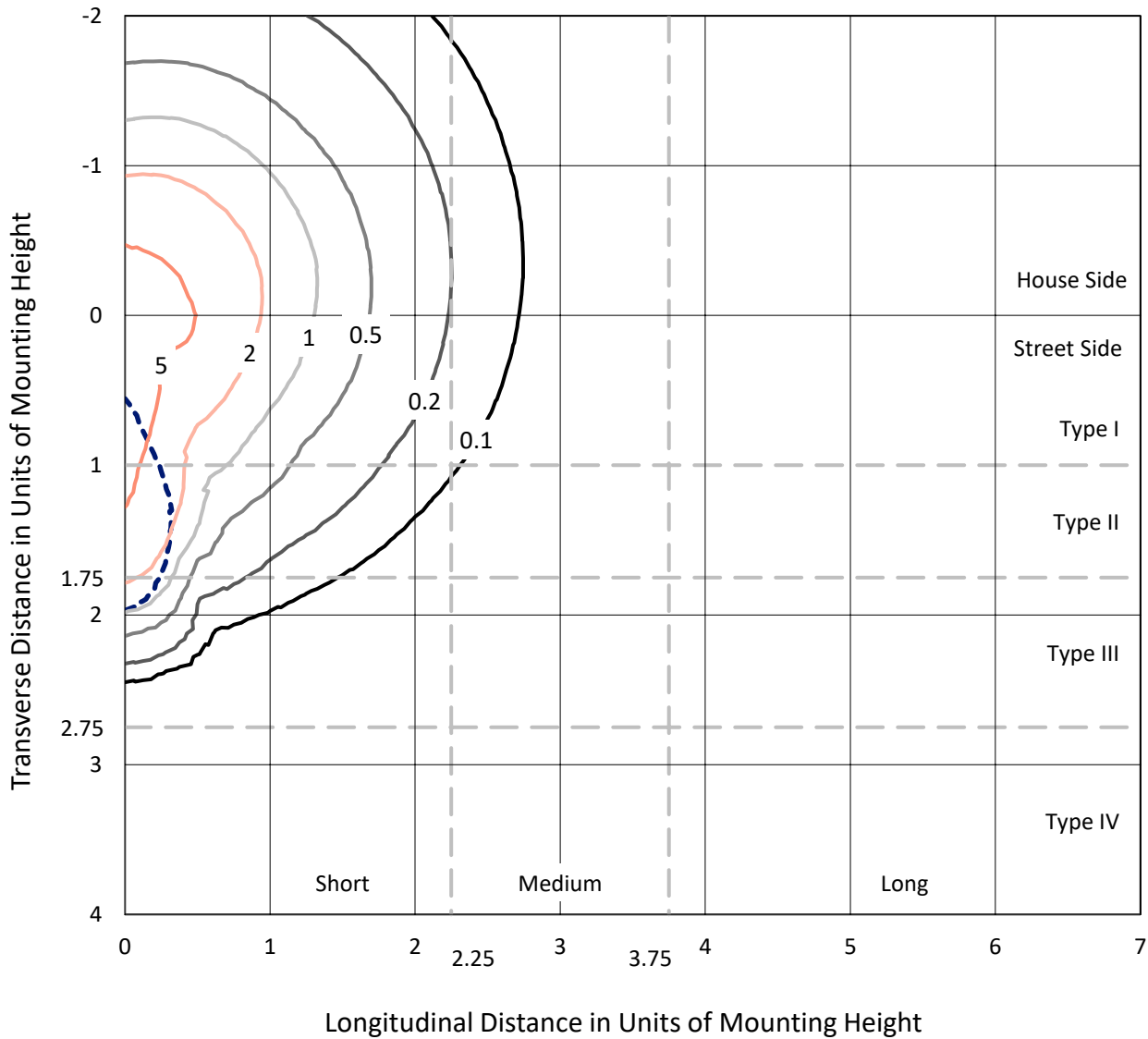
Lumens per Lamp: N/A  
Luminaire Lumens: 30774.6 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B4 - U0 - G3  
  
Input Watts (W): 372.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

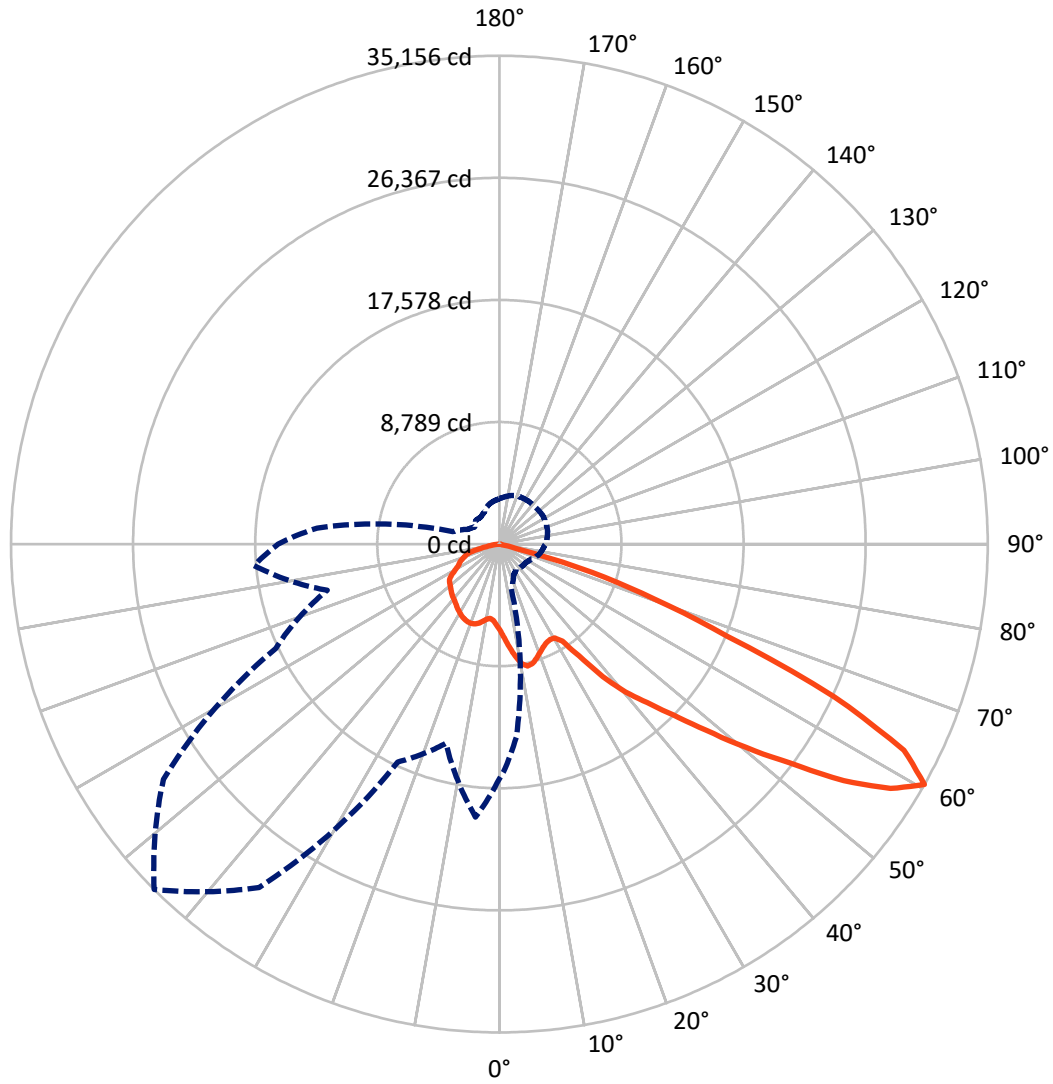
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10527.7	0.0	10527.7
	% Fixture	34.2	0.0	34.2
<b>Street Side</b>	Lumens	20246.9	0.0	20246.9
	% Fixture	65.8	0.0	65.8
<b>Total</b>	Lumens	30774.6	0.0	30774.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	606.4	2.0
10°-20°	1945.1	6.3
20°-30°	3167.7	10.3
30°-40°	4450.0	14.5
40°-50°	6089.3	19.8
50°-60°	7812.3	25.4
60°-70°	5260.5	17.1
70°-80°	1315.1	4.3
80°-90°	128.2	0.4
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°	30774.6	100.0
0°-180°	30774.6	100.0

**Coefficient of Utilization**



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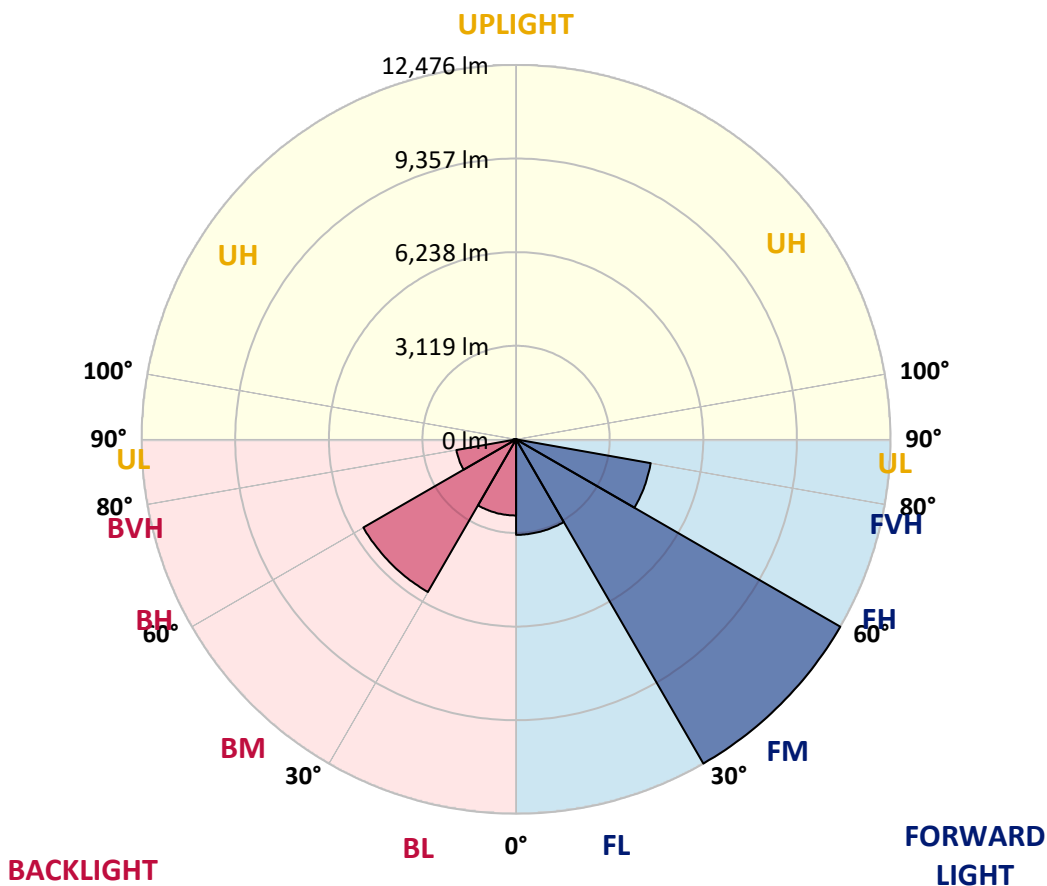
CATALOG NUMBER: GWS-SA6F-830-U-SLL-W-GRSWH

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3181.4	10.3			
FM (30°-60°)	12476.3	40.5			
FH (60°-80°)	4555.9	14.8			G2/5000
FVH (80°-90°)	33.3	0.1			G1/100
BL (0°-30°)	2537.8	8.2	B4/5000		
BM (30°-60°)	5875.3	19.1	B4/8500		
BH (60°-80°)	2019.7	6.6	B3/2500		G3/2500
BVH (80°-90°)	94.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6566.9	6552.7	6538.5	6428.0	6399.6	6320.3	6263.6	6192.7	6090.7	6034.0	5985.8
5°	6977.8	6955.1	6878.6	6651.9	6504.5	6343.0	6209.7	6062.4	5906.5	5804.5	5725.1
7.5°	7366.1	7360.4	7230.1	6855.9	6617.9	6385.5	6204.1	5988.7	5764.8	5611.7	5509.7
10°	7726.0	7683.5	7527.6	7040.2	6728.4	6462.0	6266.4	6028.4	5767.6	5560.7	5424.7
12.5°	8043.5	7989.6	7774.2	7210.2	6824.8	6496.0	6283.4	6087.9	5915.0	5742.1	5586.2
15°	8304.2	8239.0	8020.8	7368.9	6909.8	6476.2	6178.6	6025.5	6085.0	6161.6	5988.7
17.5°	8548.0	8479.9	8213.5	7485.1	6935.3	6354.3	5920.7	5855.5	6155.9	6504.5	6425.1
20°	8752.0	8675.5	8366.6	7541.8	6890.0	6121.9	5586.2	5699.6	6096.4	6513.0	6640.5
22.5°	8973.1	8910.7	8539.5	7624.0	6833.3	5801.6	5305.6	5583.4	5994.3	6360.0	6552.7
25°	9327.4	9250.8	8808.7	7768.6	6804.9	5501.2	5104.4	5470.0	5852.6	6184.2	6334.4
27.5°	9840.4	9698.7	9177.2	8020.8	6836.1	5217.8	4976.9	5331.1	5688.3	5971.7	6093.5
30°	10398.7	10228.6	9585.3	8281.5	6881.5	5044.9	4908.8	5172.4	5436.0	5719.4	5852.6
32.5°	11059.1	10908.9	10021.8	8477.1	6785.1	4965.5	4857.8	4999.5	5209.3	5436.0	5546.5
35°	11847.0	11577.7	10497.9	8635.8	6473.3	4849.3	4812.5	4809.6	4920.2	5141.2	5266.0
37.5°	12694.4	12405.3	11084.6	8805.9	5988.7	4665.1	4704.8	4585.7	4687.8	4863.5	5005.2
40°	13388.8	13085.5	11676.9	9038.3	5382.2	4376.0	4466.7	4339.2	4401.5	4582.9	4741.6
42.5°	14069.0	13745.9	12229.6	9301.9	4795.5	4092.6	4137.9	4089.8	4109.6	4299.5	4520.6
45°	14961.8	14599.0	12909.8	9488.9	4268.3	3868.7	3826.2	3744.0	3848.9	4095.4	4330.7
47.5°	16452.6	16018.9	14023.6	9610.8	3885.7	3741.2	3545.6	3497.4	3627.8	3902.7	4146.4
50°	18195.6	17821.5	15803.5	9605.1	3599.4	3633.5	3273.5	3231.0	3446.4	3724.1	3982.1
52.5°	19624.0	19244.3	17325.5	9321.7	3364.2	3403.9	3114.8	2995.8	3290.5	3548.4	3806.3
55°	20777.6	20349.6	18025.5	8137.0	3066.6	3038.3	2941.9	2723.7	3095.0	3372.7	3613.6
57.5°	20156.9	19646.7	17178.1	6187.1	2760.5	2582.0	2644.3	2482.8	2828.5	3177.1	3409.5
60°	16900.4	16441.2	13955.6	3293.3	2428.9	2156.8	2287.2	2312.7	2536.6	2941.9	3180.0
62.5°	11608.9	11274.5	9457.7	1998.1	1915.9	1731.7	1935.8	2120.0	2287.2	2630.1	2837.0
65°	5679.7	5580.6	4730.3	1281.1	1340.6	1400.1	1604.2	1828.1	2074.6	2375.1	2593.3
67.5°	1564.5	1575.8	1434.1	1000.5	1057.2	1221.5	1383.1	1561.6	1808.2	2086.0	2307.0
70°	688.7	700.0	722.7	770.9	878.6	1028.8	1196.0	1380.3	1607.0	1839.4	2052.0
72.5°	479.0	490.3	524.3	586.7	683.0	824.8	983.5	1159.2	1394.4	1590.0	1765.7
75°	294.8	303.3	334.4	388.3	453.5	561.2	717.1	878.6	1085.5	1264.1	1419.9
77.5°	155.9	150.2	170.1	206.9	263.6	320.3	425.1	527.2	674.5	819.1	949.5
80°	85.0	82.2	93.5	113.4	130.4	175.7	246.6	314.6	399.6	481.8	552.7
82.5°	36.8	34.0	36.8	48.2	59.5	85.0	124.7	172.9	221.1	277.8	323.1
85°	0.0	0.0	0.0	2.8	14.2	22.7	42.5	62.4	90.7	124.7	153.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	25.5
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°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	5957.5	5886.6	5881.0	5824.3	5830.0	5832.8	5776.1	5753.4	5773.3	5795.9	5784.6
5°	5696.8	5623.1	5591.9	5538.0	5532.4	5506.9	5484.2	5455.8	5475.7	5495.5	5506.9
7.5°	5470.0	5421.8	5402.0	5387.8	5393.5	5382.2	5336.8	5311.3	5308.5	5317.0	5328.3
10°	5396.3	5356.6	5382.2	5421.8	5450.2	5470.0	5421.8	5379.3	5339.6	5322.6	5322.6
12.5°	5555.0	5504.0	5555.0	5597.6	5654.2	5668.4	5614.6	5569.2	5555.0	5572.0	5606.1
15°	5906.5	5787.4	5784.6	5810.1	5855.5	5878.1	5827.1	5804.5	5804.5	5912.2	5997.2
17.5°	6257.9	6062.4	5980.2	5966.0	5994.3	6002.8	5960.3	5940.5	5991.5	6201.2	6360.0
20°	6504.5	6266.4	6087.9	6053.9	6062.4	6065.2	6031.2	6017.0	6090.7	6345.8	6479.0
22.5°	6479.0	6303.3	6085.0	6042.5	6056.7	6051.0	6019.9	6014.2	6073.7	6294.8	6357.1
25°	6303.3	6167.2	5983.0	5954.7	5977.3	5974.5	5943.3	5929.2	5954.7	6102.0	6107.7
27.5°	6102.0	5983.0	5824.3	5815.8	5852.6	5872.5	5818.6	5776.1	5767.6	5866.8	5844.1
30°	5861.1	5773.3	5645.7	5651.4	5719.4	5730.8	5665.6	5603.2	5586.2	5640.1	5608.9
32.5°	5574.9	5546.5	5478.5	5492.7	5557.9	5580.6	5512.5	5447.3	5427.5	5444.5	5379.3
35°	5331.1	5319.8	5325.5	5351.0	5407.7	5424.7	5368.0	5317.0	5288.6	5229.1	5144.1
37.5°	5078.9	5110.1	5192.3	5240.4	5271.6	5266.0	5234.8	5197.9	5152.6	5042.1	4937.2
40°	4843.7	4923.0	5070.4	5124.2	5135.6	5138.4	5115.7	5084.6	5027.9	4880.5	4761.5
42.5°	4662.3	4750.1	4945.7	5027.9	5033.5	5039.2	5016.5	4991.0	4911.7	4716.1	4599.9
45°	4472.4	4588.6	4818.1	4917.3	4911.7	4908.8	4889.0	4877.7	4784.1	4557.4	4429.9
47.5°	4310.8	4446.9	4693.4	4778.5	4775.6	4772.8	4758.6	4758.6	4665.1	4418.5	4274.0
50°	4152.1	4308.0	4565.9	4636.8	4642.4	4636.8	4631.1	4639.6	4529.1	4265.5	4123.8
52.5°	3979.2	4154.9	4424.2	4489.4	4523.4	4537.6	4537.6	4517.7	4387.3	4112.4	3956.6
55°	3789.3	3956.6	4268.3	4356.2	4384.5	4410.0	4410.0	4370.3	4248.5	3970.7	3803.5
57.5°	3554.1	3701.5	3948.0	4035.9	4103.9	4120.9	4120.9	4055.7	3956.6	3690.1	3554.1
60°	3299.0	3426.6	3593.8	3687.3	3738.3	3704.3	3729.8	3712.8	3633.5	3386.9	3273.5
62.5°	2958.9	3089.3	3273.5	3369.9	3392.5	3358.5	3392.5	3389.7	3282.0	3060.9	2924.9
65°	2715.2	2842.7	3024.1	3148.8	3185.6	3177.1	3199.8	3165.8	3032.6	2822.9	2692.5
67.5°	2426.1	2562.1	2771.9	2910.7	2987.3	2995.8	3026.9	2956.1	2820.0	2590.5	2426.1
70°	2151.2	2267.4	2428.9	2559.3	2667.0	2720.8	2726.5	2624.5	2454.4	2264.5	2145.5
72.5°	1862.1	1981.1	2176.7	2318.4	2454.4	2516.8	2516.8	2392.1	2207.8	1998.1	1870.6
75°	1510.6	1621.2	1799.7	1952.8	2108.6	2188.0	2185.2	2077.5	1873.4	1675.0	1541.8
77.5°	1023.1	1105.3	1218.7	1334.9	1357.6	1419.9	1451.1	1315.1	1201.7	1094.0	975.0
80°	595.2	646.2	708.6	773.7	787.9	807.7	756.7	705.7	646.2	575.3	521.5
82.5°	348.6	382.6	413.8	464.8	473.3	479.0	433.6	411.0	362.8	320.3	286.3
85°	170.1	181.4	209.7	235.2	223.9	218.2	198.4	175.7	155.9	138.9	121.9
87.5°	34.0	34.0	51.0	48.2	39.7	34.0	19.8	25.5	5.7	5.7	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°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	5821.5	5869.6	5929.2	6008.5	6099.2	6195.6	6289.1	6360.0	6430.8	6535.7	6518.7
5°	5523.9	5606.1	5699.6	5821.5	5968.8	6136.1	6323.1	6510.2	6711.4	6881.5	6955.1
7.5°	5351.0	5441.7	5552.2	5710.9	5900.8	6104.9	6368.5	6671.7	6997.7	7221.6	7360.4
10°	5351.0	5467.2	5611.7	5764.8	5932.0	6141.7	6467.7	6847.4	7266.9	7561.7	7723.2
12.5°	5659.9	5776.1	5807.3	5801.6	5895.1	6127.6	6547.0	7031.7	7533.3	7845.1	8043.5
15°	6141.7	6181.4	5946.2	5730.8	5744.9	6025.5	6583.9	7179.0	7762.9	8137.0	8352.4
17.5°	6464.8	6360.0	5940.5	5563.5	5484.2	5852.6	6583.9	7320.8	8006.6	8428.9	8630.2
20°	6490.3	6229.6	5795.9	5402.0	5197.9	5623.1	6538.5	7428.5	8241.9	8709.5	8924.9
22.5°	6266.4	6008.5	5642.9	5263.1	4962.7	5345.3	6464.8	7510.6	8443.1	8973.1	9239.5
25°	6011.3	5795.9	5487.0	5121.4	4801.1	5064.7	6396.8	7649.5	8723.7	9330.2	9599.5
27.5°	5761.9	5580.6	5300.0	5002.4	4710.4	4821.0	6354.3	7853.6	9058.1	9837.5	10069.9
30°	5518.2	5353.8	5098.7	4889.0	4662.3	4662.3	6317.4	8088.8	9500.3	10407.2	10639.6
32.5°	5271.6	5115.7	4908.8	4778.5	4633.9	4599.9	6215.4	8309.9	9956.6	11030.7	11268.8
35°	5042.1	4886.2	4727.5	4673.6	4619.8	4551.7	5963.2	8482.8	10401.5	11759.1	11963.2
37.5°	4826.7	4676.4	4557.4	4543.2	4548.9	4421.4	5566.4	8627.3	10957.0	12504.5	12612.2
40°	4639.6	4472.4	4378.8	4376.0	4404.4	4211.6	5064.7	8834.2	11591.9	13136.5	13091.2
42.5°	4472.4	4296.7	4183.3	4208.8	4191.8	4001.9	4574.4	9024.1	12144.6	13728.9	13638.2
45°	4308.0	4137.9	3979.2	4016.1	3996.2	3871.5	4157.8	9163.0	12756.8	14440.3	14451.6
47.5°	4149.3	3982.1	3823.3	3778.0	3775.2	3831.8	3837.5	9208.3	13754.4	15585.3	15327.4
50°	4001.9	3834.7	3670.3	3517.2	3576.8	3752.5	3599.4	9174.3	15248.0	16849.4	16129.5
52.5°	3848.9	3690.1	3508.7	3233.8	3389.7	3562.6	3386.9	9052.5	16160.6	17966.0	17535.2
55°	3673.1	3522.9	3276.3	2941.9	3131.8	3168.6	3168.6	7873.4	16548.9	19071.4	19337.8
57.5°	3437.9	3239.5	2848.4	2579.1	2749.2	2607.5	2936.2	5509.7	15908.4	18722.8	19757.2
60°	3171.5	2958.9	2545.1	2352.4	2403.4	2154.0	2502.6	3454.9	13184.7	15931.1	17722.3
62.5°	2820.0	2624.5	2281.5	2131.3	2026.5	1757.2	2015.1	2185.2	9038.3	11830.0	13051.5
65°	2584.8	2369.4	2063.3	1864.9	1649.5	1414.3	1337.7	1434.1	4860.7	6620.7	7445.5
67.5°	2307.0	2094.5	1805.4	1556.0	1383.1	1213.0	1079.8	1045.8	1666.5	2205.0	2386.4
70°	2043.5	1839.4	1598.5	1366.1	1193.2	1026.0	895.6	802.1	770.9	765.2	753.9
72.5°	1774.2	1584.3	1383.1	1167.7	977.8	824.8	708.6	600.9	555.5	541.3	527.2
75°	1453.9	1303.7	1102.5	870.1	717.1	575.3	484.6	413.8	374.1	359.9	342.9
77.5°	935.3	867.3	691.5	561.2	433.6	342.9	294.8	249.4	223.9	218.2	204.1
80°	498.8	464.8	382.6	323.1	257.9	209.7	184.2	158.7	144.5	138.9	133.2
82.5°	277.8	252.2	212.6	187.1	150.2	127.5	113.4	102.0	93.5	90.7	87.9
85°	124.7	107.7	85.0	79.4	70.9	65.2	62.4	56.7	53.8	51.0	48.2
87.5°	5.7	11.3	14.2	11.3	11.3	17.0	19.8	19.8	17.0	17.0	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



REPORT NUMBER: P643925

CATALOG NUMBER: GWS-SA6F-830-U-SLL-W-GRSWH

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9	6206.9
2.5°	6623.5	6708.6	6717.1	6745.4	6708.6	6700.1	6640.5	6606.5	6575.4	6566.9
5°	7139.4	7309.4	7377.4	7425.6	7380.3	7357.6	7227.2	7091.2	7014.7	6977.8
7.5°	7669.4	7924.4	8057.6	8117.2	8122.8	8020.8	7796.9	7541.8	7414.3	7366.1
10°	8142.7	8457.3	8633.0	8746.4	8706.7	8582.0	8275.9	7930.1	7768.6	7726.0
12.5°	8494.1	8794.5	8930.6	9004.3	9001.4	8933.4	8644.3	8270.2	8086.0	8043.5
15°	8720.8	8899.4	8907.9	8924.9	8973.1	9063.8	8913.6	8567.8	8363.7	8304.2
17.5°	8899.4	8828.5	8695.3	8650.0	8757.7	9009.9	9100.6	8820.0	8599.0	8548.0
20°	9012.8	8655.7	8420.4	8332.6	8457.3	8868.2	9214.0	9046.8	8817.2	8752.0
22.5°	9100.6	8494.1	8114.3	8054.8	8185.2	8715.2	9330.2	9316.0	9063.8	8973.1
25°	9239.5	8386.4	7898.9	7856.4	7978.3	8641.5	9486.1	9681.6	9457.7	9327.4
27.5°	9457.7	8375.1	7788.4	7774.2	7941.4	8706.7	9710.0	10217.3	9936.7	9840.4
30°	9761.0	8482.8	7813.9	7842.2	8046.3	8941.9	10058.6	10829.5	10548.9	10398.7
32.5°	10197.5	8771.9	8202.2	8324.1	8474.3	9318.9	10568.8	11492.7	11280.1	11059.1
35°	10772.8	9565.4	9350.0	9868.7	9727.0	10143.6	11183.8	12297.6	12039.7	11847.0
37.5°	11540.9	11192.3	11390.7	12104.9	11762.0	11702.4	11934.8	13028.8	12887.1	12694.4
40°	12617.9	12688.7	13054.3	13992.5	13496.5	13113.9	12856.0	13578.7	13626.9	13388.8
42.5°	13332.1	13658.0	14539.5	15605.1	14922.1	14006.6	13626.9	14281.6	14284.4	14069.0
45°	13598.5	14451.6	16293.8	17521.1	16378.9	14516.8	14052.0	15236.7	15208.3	14961.8
47.5°	13502.2	15120.5	18116.2	19992.5	18249.4	14879.6	13992.5	16597.1	16826.7	16452.6
50°	13300.9	15792.2	20244.7	23019.4	20545.2	15265.0	13901.8	18104.9	18484.7	18195.6
52.5°	13505.0	16540.4	22761.5	26148.4	23424.7	15880.1	14514.0	20040.7	19972.6	19624.0
55°	14151.2	17424.7	25819.6	30079.4	26587.7	16920.2	16086.9	21885.7	21194.2	20777.6
57.5°	14120.0	18056.7	28500.8	33188.5	29339.7	17773.3	16634.0	22081.3	20684.0	20156.9
60°	12816.3	17767.6	29521.1	35155.5	30170.1	17302.8	14834.2	19723.2	17453.0	16900.4
62.5°	9565.4	15766.7	27542.8	32692.6	27820.6	14944.8	11155.4	14156.9	12541.4	11608.9
65°	6119.0	12334.5	23155.5	26485.6	22931.6	11430.4	6643.4	7590.0	5946.2	5679.7
67.5°	2604.6	8706.7	18000.0	17702.4	17155.4	7405.8	2565.0	2137.0	1592.8	1564.5
70°	861.6	5923.5	11095.9	11807.3	10245.7	5101.6	847.4	717.1	714.2	688.7
72.5°	564.0	3180.0	6246.6	6955.1	6592.4	2936.2	513.0	479.0	490.3	479.0
75°	337.3	691.5	1051.5	1366.1	1051.5	493.2	308.9	303.3	308.9	294.8
77.5°	198.4	192.7	187.1	187.1	184.2	170.1	155.9	150.2	153.0	155.9
80°	127.5	121.9	116.2	113.4	99.2	93.5	87.9	82.2	82.2	85.0
82.5°	82.2	76.5	70.9	62.4	51.0	42.5	39.7	34.0	34.0	36.8
85°	42.5	34.0	25.5	19.8	11.3	5.7	0.0	0.0	0.0	0.0
87.5°	8.5	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

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**



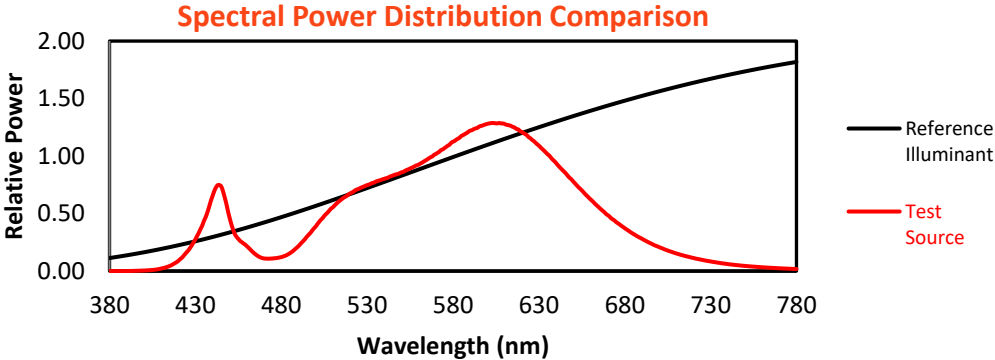
**Melanopic Lumens: NR**

**M/P: 2.32**

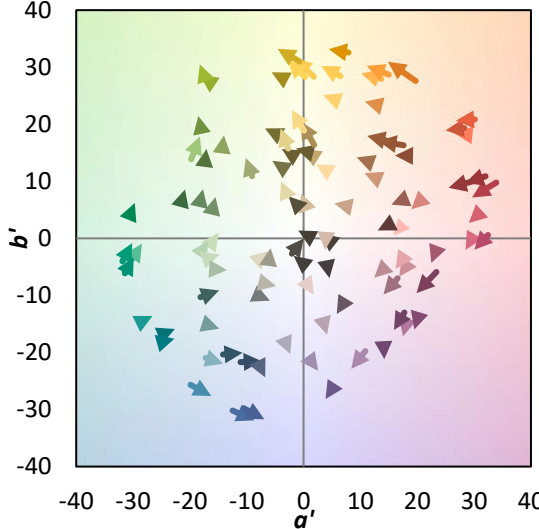
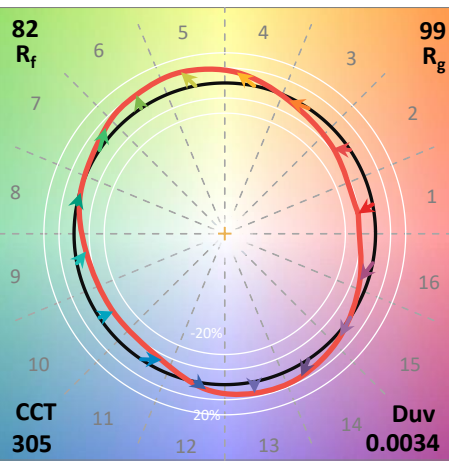
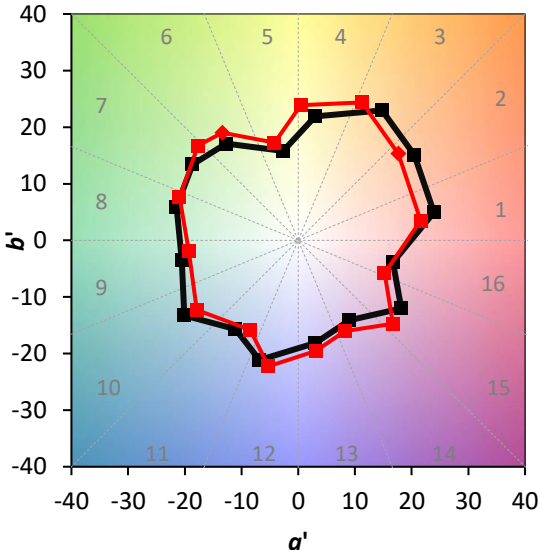
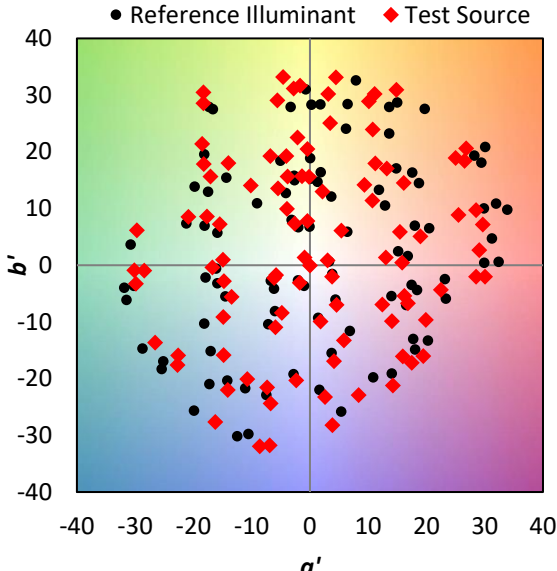
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625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