

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: P643434

Luminaire Tested: GWS-SA6E-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P643434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-43)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SAGE-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (6) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT 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: 27822.2 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G3

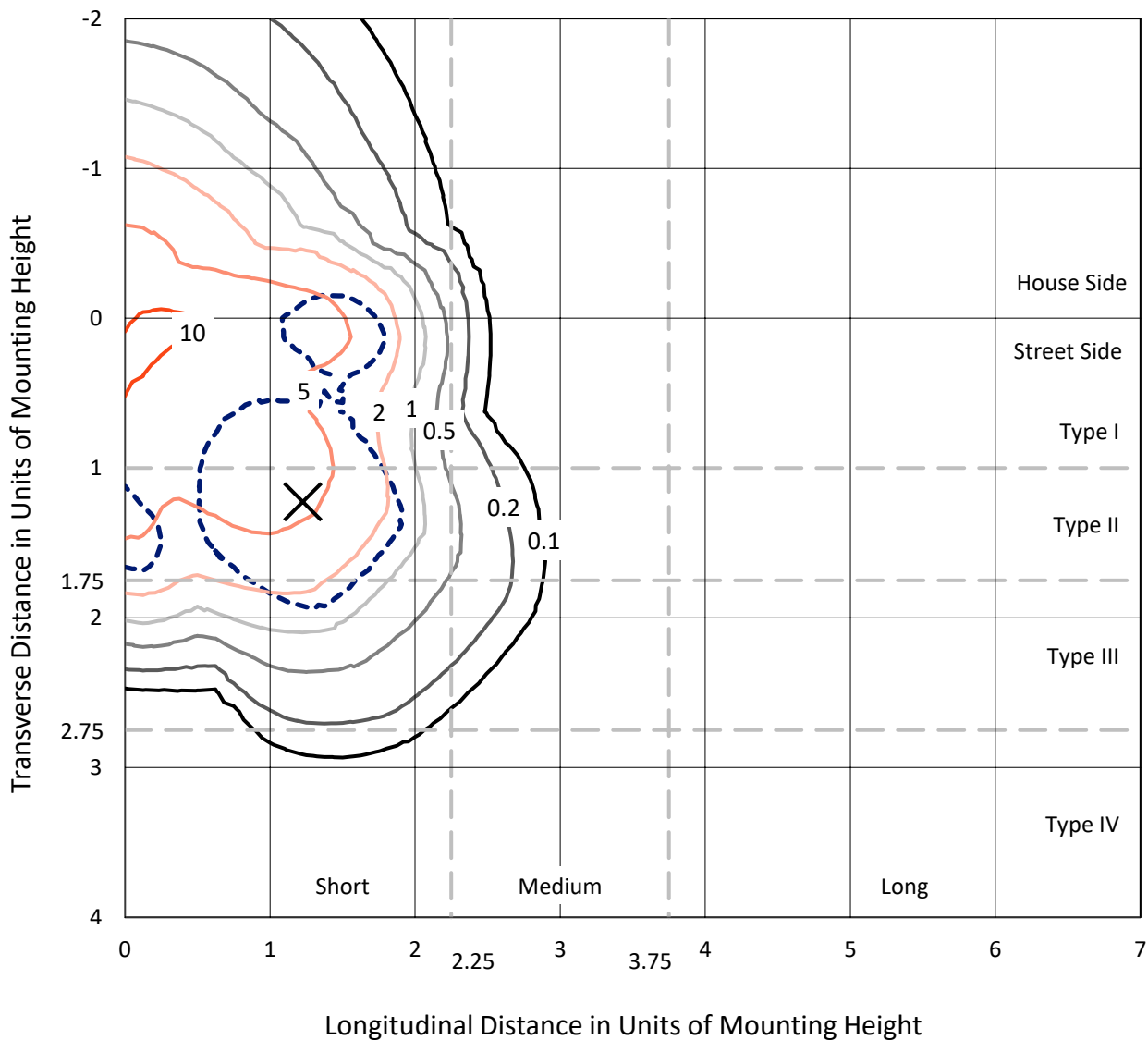
Input Watts (W): 323.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

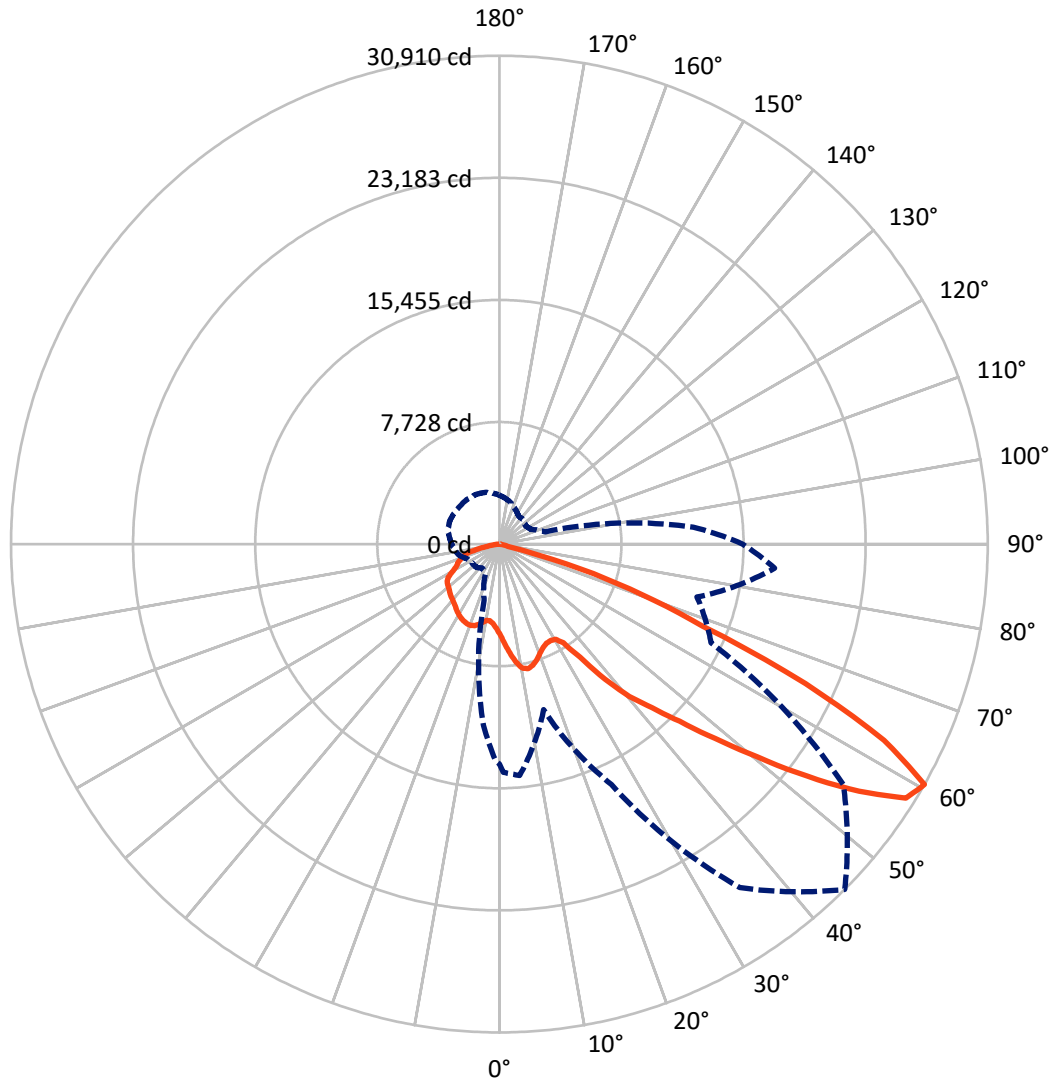
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9752.7	0.0	9752.7
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	18069.5	0.0	18069.5
	% Fixture	64.9	0.0	64.9
Total	Lumens	27822.2	0.0	27822.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	557.6	2.0
10°-20°	1762.1	6.3
20°-30°	2862.4	10.3
30°-40°	4036.8	14.5
40°-50°	5578.8	20.1
50°-60°	7181.6	25.8
60°-70°	4550.3	16.4
70°-80°	1167.6	4.2
80°-90°	124.9	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°	27822.2	100.0
0°-180°	27822.2	100.0

Coefficient of Utilization



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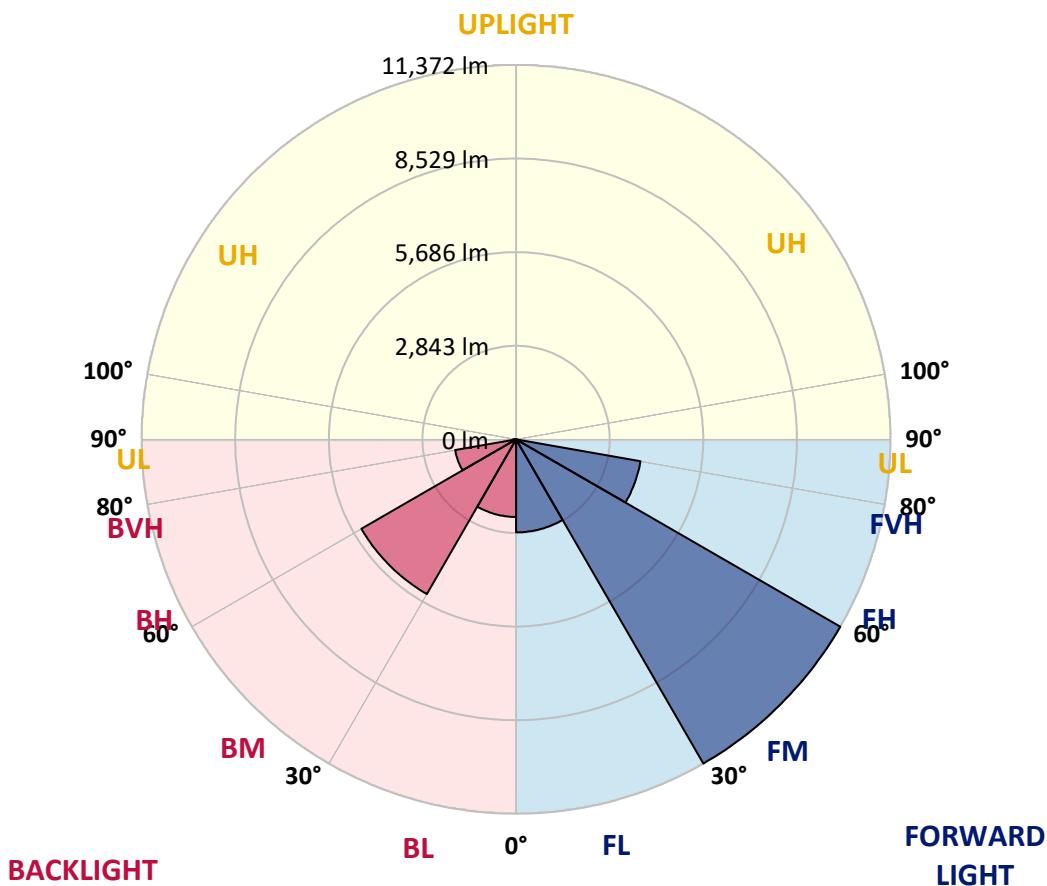
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2825.0	10.2			
FM (30°-60°)	11372.1	40.9			
FH (60°-80°)	3838.5	13.8			G2/5000
FVH (80°-90°)	33.9	0.1			G1/100
BL (0°-30°)	2357.2	8.5	B3/2500		
BM (30°-60°)	5425.1	19.5	B4/8500		
BH (60°-80°)	1879.4	6.8	B3/2500		G3/2500
BVH (80°-90°)	90.9	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°	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5
2.5°	5978.1	6018.9	6044.4	6092.8	6179.5	6227.9	6281.4	6222.8	6238.1	6230.5	6136.1
5°	6332.4	6380.9	6447.1	6589.9	6750.5	6839.7	6923.9	6911.1	6832.1	6699.5	6605.2
7.5°	6663.8	6719.9	6834.6	7066.6	7303.7	7441.4	7543.3	7477.1	7410.8	7201.7	6964.6
10°	6923.9	6957.0	7112.5	7423.5	7698.8	7854.3	7979.3	7964.0	7872.2	7637.7	7319.0
12.5°	7168.6	7191.5	7359.8	7670.8	7918.1	7986.9	8088.9	8122.0	8091.4	7915.5	7602.0
15°	7431.2	7474.5	7630.0	7867.1	7979.3	7907.9	7943.6	8035.3	8122.0	8122.0	7834.0
17.5°	7675.9	7714.1	7872.2	7974.2	7867.1	7678.4	7688.6	7805.9	8012.4	8229.1	8045.5
20°	7892.6	7928.3	8083.8	7986.9	7647.9	7372.5	7364.9	7507.6	7841.6	8297.9	8272.4
22.5°	8129.7	8180.7	8310.7	7997.1	7443.9	7094.7	7092.1	7240.0	7691.2	8366.8	8532.5
25°	8466.2	8545.2	8611.5	8086.3	7334.3	6913.7	6946.8	7087.0	7642.8	8478.9	8917.4
27.5°	8965.8	9029.6	9024.5	8272.4	7329.2	6839.7	6908.6	7071.7	7729.4	8677.8	9322.7
30°	9506.3	9539.4	9485.9	8532.5	7446.5	6885.6	6987.6	7181.3	7948.7	9006.6	9919.3
32.5°	10105.4	10146.2	10044.2	8922.5	7719.2	7224.7	7449.0	7543.3	8257.1	9480.8	10551.5
35°	10793.7	10872.7	10661.1	9437.5	8522.3	8461.1	8787.4	8665.0	8912.3	10041.6	11227.0
37.5°	11517.7	11520.2	11216.9	10199.7	10097.7	10202.2	10854.9	10472.5	10301.7	10666.2	11915.4
40°	12132.0	12116.7	11650.2	11227.0	11469.2	11884.8	12672.5	12086.2	11637.5	11504.9	12486.4
42.5°	12746.4	12690.3	12218.7	11879.7	12415.0	13269.0	14158.7	13439.8	12494.0	12267.2	13049.8
45°	13531.6	13513.8	12945.3	12139.7	13269.0	14819.0	15999.3	14834.3	13001.3	12710.7	13987.9
47.5°	14798.6	14711.9	13654.0	12119.3	14069.5	16883.9	18375.2	16590.7	13355.7	12720.9	15502.2
50°	16037.5	15930.5	14500.3	12116.7	14895.5	19025.3	21179.5	18724.5	13717.7	12782.1	17042.0
52.5°	17289.2	17289.2	15889.7	12404.8	15762.2	21416.5	24419.6	21383.4	14334.6	13582.6	18936.1
55°	18033.6	18232.5	17452.4	12891.7	16776.8	24230.9	27624.0	24253.9	15288.1	15028.0	20684.9
57.5°	17087.9	17460.0	17347.9	12552.7	17375.9	26298.4	30341.6	26431.0	15759.7	15198.8	20422.3
60°	13924.2	14441.7	14699.2	10839.6	16784.5	26538.0	30910.1	26573.7	14785.8	12942.7	17493.2
62.5°	9256.5	9682.2	10074.8	7744.7	14530.9	23874.0	27338.5	23881.7	12348.7	9659.2	12119.3
65°	4540.3	4856.4	5279.6	4578.5	11352.0	19948.1	21314.6	19298.1	8932.7	5407.0	6182.0
67.5°	1188.0	1277.2	1335.8	1776.9	8132.2	14332.1	13901.2	14115.4	5738.4	1766.7	1616.2
70°	616.9	622.0	619.5	734.2	5496.3	9108.6	9580.2	8863.9	4004.9	739.3	637.3
72.5°	441.0	443.6	435.9	494.6	2653.8	5218.4	5407.0	5348.4	2098.1	438.5	435.9
75°	288.1	290.6	285.5	290.6	400.2	594.0	548.1	576.1	349.3	277.9	277.9
77.5°	170.8	173.4	170.8	175.9	170.8	170.8	158.1	158.1	150.4	150.4	153.0
80°	114.7	114.7	112.2	117.3	107.1	107.1	102.0	99.4	91.8	89.2	89.2
82.5°	68.8	71.4	68.8	68.8	63.7	63.7	58.6	56.1	48.4	48.4	45.9
85°	35.7	35.7	33.1	33.1	28.0	25.5	20.4	20.4	15.3	12.7	12.7
87.5°	5.1	5.1	2.5	2.5	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°	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5
2.5°	6110.6	6059.6	5983.2	5909.2	5840.4	5769.0	5687.5	5603.3	5531.9	5458.0	5419.8
5°	6480.3	6375.8	6176.9	6001.0	5843.0	5712.9	5572.7	5452.9	5340.8	5249.0	5203.1
7.5°	6814.2	6651.1	6350.3	6072.4	5858.3	5679.8	5486.1	5307.6	5157.2	5045.0	5001.7
10°	7122.7	6929.0	6533.8	6182.0	5932.2	5733.3	5496.3	5254.1	5055.2	4907.4	4871.7
12.5°	7372.5	7150.7	6679.1	6271.2	5975.5	5761.4	5552.3	5343.3	5147.0	4955.8	4925.2
15°	7594.3	7331.7	6788.7	6327.3	5960.2	5687.5	5511.6	5486.1	5486.1	5269.4	5208.2
17.5°	7785.5	7497.4	6878.0	6352.8	5863.4	5468.2	5361.1	5582.9	5832.8	5677.3	5539.6
20°	8004.8	7655.5	6951.9	6352.8	5684.9	5190.3	5180.1	5557.4	5927.1	5929.6	5784.3
22.5°	8226.5	7839.0	7038.6	6329.9	5440.2	4869.1	5057.8	5455.5	5784.3	5924.5	5825.1
25°	8586.0	8094.0	7176.2	6312.0	5154.7	4649.9	4948.2	5320.4	5598.2	5746.1	5682.4
27.5°	9042.3	8430.5	7385.3	6340.1	4871.7	4519.9	4830.9	5144.5	5396.8	5526.8	5481.0
30°	9552.2	8818.0	7609.6	6388.5	4667.7	4453.6	4690.7	4943.1	5167.4	5297.4	5277.0
32.5°	10202.2	9238.6	7803.4	6322.2	4553.0	4420.5	4542.8	4723.8	4940.5	5022.1	5039.9
35°	10979.8	9702.6	7951.2	6062.2	4448.5	4384.8	4382.2	4494.4	4647.3	4777.4	4790.1
37.5°	11696.1	10245.6	8114.4	5616.1	4259.9	4295.5	4193.6	4259.9	4410.3	4540.3	4591.3
40°	12404.8	10796.2	8341.3	5047.6	4012.6	4096.7	3976.9	4022.8	4142.6	4313.4	4395.0
42.5°	13093.1	11293.3	8580.9	4466.3	3765.3	3818.8	3729.6	3775.5	3900.4	4114.5	4206.3
45°	13842.6	11966.3	8767.0	3918.2	3551.2	3528.2	3456.8	3523.1	3711.8	3946.3	4055.9
47.5°	15260.0	13026.8	8889.4	3553.7	3436.4	3270.7	3189.2	3331.9	3546.1	3783.1	3915.7
50°	16991.0	14561.5	8853.7	3321.7	3337.0	3005.6	2977.6	3166.2	3395.6	3642.9	3788.2
52.5°	18362.5	16068.1	8448.3	3099.9	3143.3	2837.4	2755.8	3031.1	3250.3	3502.7	3653.1
55°	19410.3	16575.4	7204.3	2837.4	2827.2	2715.0	2544.2	2890.9	3105.0	3339.6	3502.7
57.5°	18556.2	15446.1	5340.8	2475.4	2414.2	2472.8	2307.1	2653.8	2926.6	3158.6	3303.9
60°	15400.2	12315.6	2975.0	2192.4	2019.0	2161.8	2136.3	2404.0	2732.8	2977.6	3102.5
62.5°	10454.6	8201.0	1764.1	1733.5	1636.6	1840.6	1975.7	2151.6	2475.4	2674.2	2791.5
65°	5210.7	3984.5	1172.7	1297.6	1310.3	1514.3	1769.2	1962.9	2233.2	2437.1	2554.4
67.5°	1511.7	1239.0	892.2	991.7	1129.3	1292.5	1496.4	1725.9	1988.4	2230.6	2368.3
70°	652.6	660.3	708.7	826.0	961.1	1129.3	1333.3	1557.6	1779.4	1965.5	2070.0
72.5°	461.4	479.3	532.8	652.6	780.1	940.7	1144.6	1361.3	1521.9	1710.6	1820.2
75°	295.7	308.5	351.8	443.6	537.9	693.4	887.2	1086.0	1251.7	1386.8	1491.3
77.5°	163.2	165.7	201.4	254.9	318.7	418.1	560.8	716.3	838.7	915.2	1009.5
80°	94.3	94.3	112.2	145.3	183.5	244.7	323.8	400.2	474.2	522.6	568.5
82.5°	51.0	51.0	58.6	79.0	99.4	135.1	181.0	219.2	265.1	290.6	321.2
85°	15.3	15.3	20.4	28.0	35.7	51.0	71.4	91.8	112.2	130.0	147.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5
2.5°	5412.1	5376.4	5356.0	5330.6	5338.2	5315.3	5302.5	5310.2	5264.3	5310.2	5356.0
5°	5185.2	5134.3	5093.5	5060.3	5045.0	5014.4	4996.6	4996.6	4968.6	5014.4	5070.5
7.5°	4986.4	4945.6	4925.2	4904.8	4881.9	4853.8	4823.2	4813.0	4795.2	4843.6	4892.1
10°	4853.8	4858.9	4871.7	4899.7	4894.6	4876.8	4830.9	4805.4	4805.4	4861.5	4935.4
12.5°	4915.0	4968.6	4999.1	5050.1	5060.3	5045.0	4999.1	4978.8	5029.7	5113.9	5236.2
15°	5152.1	5187.8	5213.3	5254.1	5251.5	5238.8	5203.1	5218.4	5386.6	5549.8	5659.4
17.5°	5409.6	5368.8	5363.7	5389.2	5396.8	5381.5	5361.1	5430.0	5707.8	5860.8	5916.9
20°	5595.7	5455.5	5424.9	5435.1	5455.5	5447.8	5447.8	5560.0	5848.1	5919.4	5848.1
22.5°	5651.8	5452.9	5407.0	5409.6	5437.6	5440.2	5452.9	5570.2	5738.4	5741.0	5631.4
25°	5562.5	5371.3	5338.2	5343.3	5376.4	5373.9	5379.0	5445.3	5519.2	5488.6	5407.0
27.5°	5394.3	5228.6	5218.4	5246.4	5289.8	5266.8	5251.5	5269.4	5305.1	5266.8	5195.4
30°	5203.1	5062.9	5068.0	5121.5	5167.4	5129.2	5090.9	5101.1	5103.7	5062.9	4981.3
32.5°	5001.7	4897.2	4915.0	4971.1	5024.6	4983.9	4943.1	4938.0	4889.5	4841.1	4762.1
35°	4800.3	4759.5	4782.5	4828.3	4874.2	4841.1	4815.6	4800.3	4695.8	4624.4	4558.1
37.5°	4616.8	4647.3	4688.1	4716.2	4731.5	4728.9	4713.6	4677.9	4540.3	4456.1	4369.5
40°	4453.6	4547.9	4591.3	4604.0	4627.0	4621.9	4619.3	4568.3	4387.3	4298.1	4198.7
42.5°	4305.7	4438.3	4512.2	4525.0	4537.7	4540.3	4532.6	4458.7	4252.2	4147.7	4053.4
45°	4163.0	4336.3	4430.7	4417.9	4435.8	4435.8	4443.4	4346.5	4119.6	4012.6	3913.2
47.5°	4038.1	4242.0	4328.7	4313.4	4323.6	4331.2	4338.9	4226.7	3974.3	3872.4	3770.4
50°	3923.3	4140.0	4214.0	4219.1	4219.1	4236.9	4234.4	4124.7	3852.0	3742.3	3640.4
52.5°	3801.0	4035.5	4114.5	4147.7	4157.9	4165.5	4129.8	4002.4	3727.1	3594.5	3500.2
55°	3658.2	3928.4	3999.8	4043.2	4063.6	4058.5	4010.0	3880.0	3599.6	3467.0	3360.0
57.5°	3441.5	3699.0	3801.0	3821.4	3854.5	3834.1	3778.0	3668.4	3395.6	3263.1	3153.5
60°	3204.5	3390.5	3472.1	3490.0	3464.5	3472.1	3464.5	3360.0	3122.9	3018.4	2906.2
62.5°	2893.4	3059.1	3145.8	3168.8	3125.4	3153.5	3143.3	3013.3	2776.2	2666.6	2567.1
65°	2658.9	2839.9	2941.9	2954.6	2941.9	2954.6	2918.9	2760.9	2536.5	2424.4	2322.4
67.5°	2475.4	2661.5	2768.5	2804.2	2791.5	2788.9	2732.8	2549.3	2317.3	2194.9	2064.9
70°	2159.2	2322.4	2460.1	2546.7	2546.7	2498.3	2391.2	2220.4	2034.3	1929.8	1827.8
72.5°	1912.0	2118.5	2253.6	2342.8	2360.6	2332.6	2182.2	2001.2	1787.0	1682.5	1575.5
75°	1575.5	1776.9	1922.2	2039.4	2062.4	2031.8	1858.4	1680.0	1481.1	1379.2	1272.1
77.5°	1052.9	1172.7	1289.9	1397.0	1374.1	1394.5	1277.2	1142.1	1019.7	943.2	894.8
80°	594.0	673.0	708.7	767.3	767.3	767.3	690.9	627.1	558.3	515.0	466.5
82.5°	336.5	387.5	402.8	451.2	464.0	466.5	415.5	374.7	331.4	308.5	275.3
85°	155.5	183.5	186.1	214.1	224.3	244.7	221.8	193.7	168.3	158.1	137.7
87.5°	5.1	15.3	20.4	38.2	51.0	58.6	63.7	63.7	53.5	48.4	40.8
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: P643434

CATALOG NUMBER: GWS-SA6E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5	5715.5
2.5°	5412.1	5473.3	5544.7	5595.7	5687.5	5763.9	5843.0	5929.6	5993.4	5978.1
5°	5139.4	5241.3	5371.3	5491.2	5662.0	5835.3	6026.5	6222.8	6337.5	6332.4
7.5°	4986.4	5131.7	5289.8	5450.4	5651.8	5901.6	6194.8	6500.7	6656.2	6663.8
10°	5068.0	5223.5	5330.6	5465.7	5677.3	5990.8	6342.6	6709.7	6888.2	6923.9
12.5°	5325.5	5312.7	5305.1	5401.9	5656.9	6054.6	6485.4	6923.9	7125.2	7168.6
15°	5570.2	5307.6	5149.6	5215.8	5565.1	6095.3	6625.6	7158.4	7385.3	7431.2
17.5°	5616.1	5218.4	4925.2	4971.1	5419.8	6108.1	6760.7	7387.8	7632.6	7675.9
20°	5488.6	5103.7	4762.1	4698.3	5236.2	6074.9	6844.8	7579.0	7846.7	7892.6
22.5°	5328.0	5001.7	4639.7	4474.0	5011.9	6041.8	6939.2	7780.4	8088.9	8129.7
25°	5159.8	4871.7	4525.0	4272.6	4757.0	6021.4	7097.2	8045.5	8417.7	8466.2
27.5°	4981.3	4713.6	4425.6	4175.7	4522.4	6046.9	7321.5	8473.8	8897.0	8965.8
30°	4790.1	4555.6	4361.8	4142.6	4361.8	6069.8	7568.8	8912.3	9409.4	9506.3
32.5°	4591.3	4410.3	4295.5	4157.9	4262.4	6016.3	7785.5	9404.3	10021.2	10105.4
35°	4392.4	4262.4	4211.4	4185.9	4129.8	5820.0	7961.4	9901.4	10719.7	10793.7
37.5°	4206.3	4109.4	4094.2	4122.2	3925.9	5498.8	8165.4	10533.6	11405.5	11517.7
40°	4033.0	3943.7	3941.2	3936.1	3701.6	5060.3	8440.7	11176.1	12081.1	12132.0
42.5°	3872.4	3760.2	3780.6	3719.4	3518.0	4586.2	8700.7	11724.2	12710.7	12746.4
45°	3729.6	3581.7	3604.7	3528.2	3431.3	4089.1	8930.1	12371.7	13508.7	13531.6
47.5°	3591.9	3433.9	3370.2	3365.1	3416.0	3630.2	9154.5	13618.3	14757.8	14798.6
50°	3464.5	3293.7	3112.7	3224.8	3321.7	3286.0	9434.9	14954.1	16047.7	16037.5
52.5°	3342.1	3117.8	2860.3	3077.0	3077.0	3031.1	9355.9	15764.8	17113.3	17289.2
55°	3201.9	2834.8	2597.7	2829.7	2717.5	2801.7	7956.3	16029.9	17783.8	18033.6
57.5°	2924.0	2485.6	2279.1	2404.0	2235.7	2597.7	5715.5	14714.5	16644.3	17087.9
60°	2656.4	2228.1	2093.0	2070.0	1850.8	2118.5	3704.1	11520.2	13699.9	13924.2
62.5°	2342.8	2006.3	1891.6	1715.7	1488.8	1542.3	2243.4	7581.6	9205.5	9256.5
65°	2105.7	1817.6	1598.4	1389.4	1218.6	1119.1	1325.6	3655.7	4601.5	4540.3
67.5°	1807.4	1557.6	1348.6	1198.2	1058.0	933.0	882.1	1086.0	1228.8	1188.0
70°	1608.6	1369.0	1167.6	1024.8	894.8	769.9	680.7	639.9	627.1	616.9
72.5°	1386.8	1177.8	968.7	831.1	708.7	594.0	512.4	464.0	451.2	441.0
75°	1106.4	910.1	718.9	588.9	481.8	400.2	346.7	305.9	298.3	288.1
77.5°	731.6	583.8	428.3	349.3	285.5	242.2	206.5	181.0	175.9	170.8
80°	402.8	336.5	262.6	211.6	170.8	147.9	135.1	119.8	117.3	114.7
82.5°	239.6	201.4	150.4	119.8	99.4	89.2	81.6	73.9	71.4	68.8
85°	119.8	94.3	66.3	56.1	51.0	45.9	45.9	38.2	35.7	35.7
87.5°	30.6	25.5	15.3	12.7	12.7	12.7	10.2	7.6	7.6	5.1
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

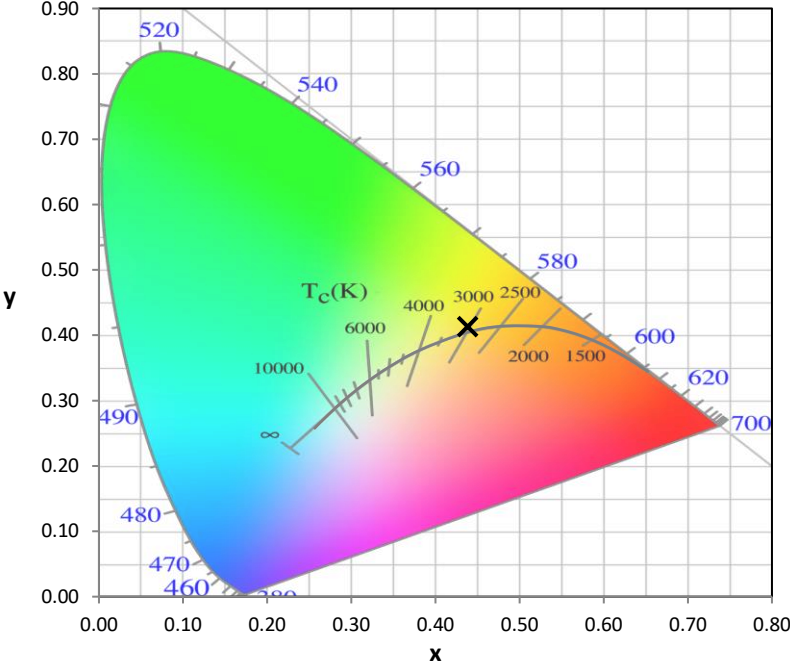
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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

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

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



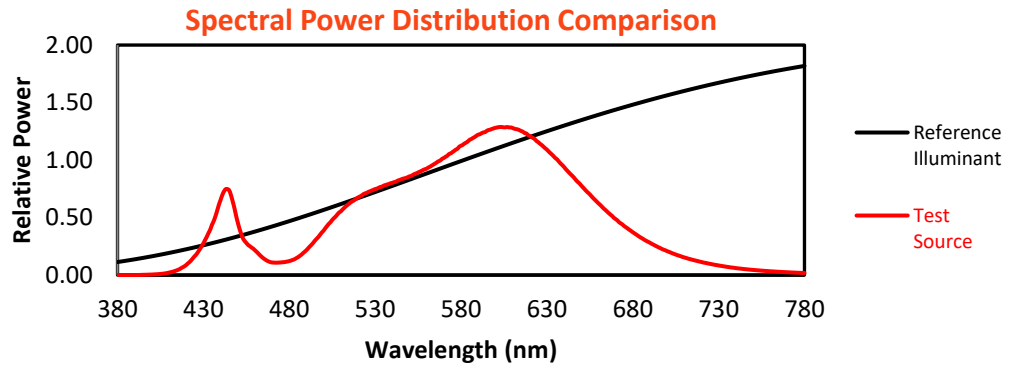
Melanopic Lumens: NR

M/P: 2.32

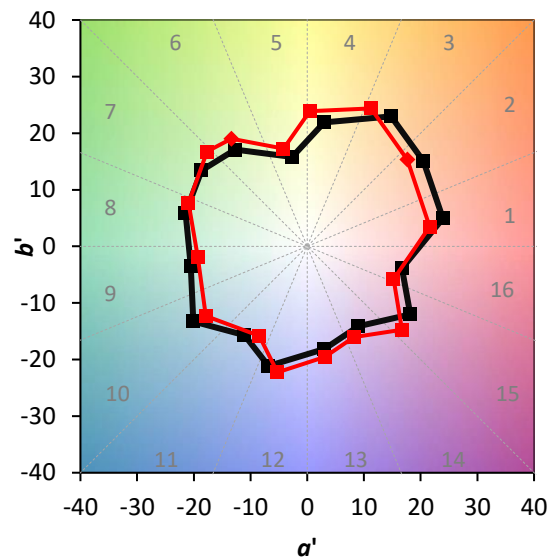
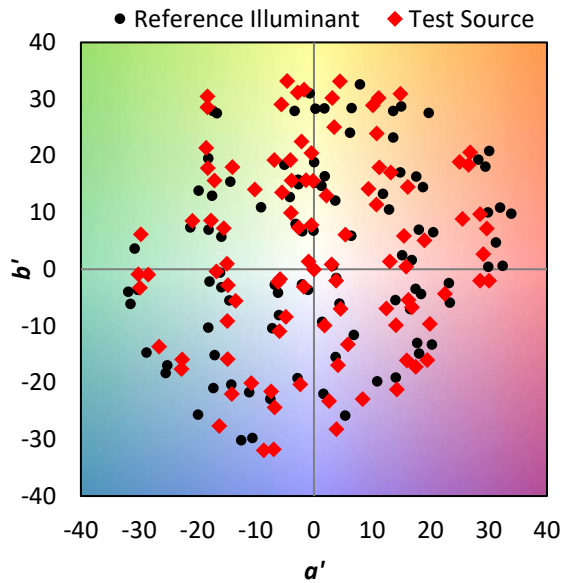
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

Summary

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

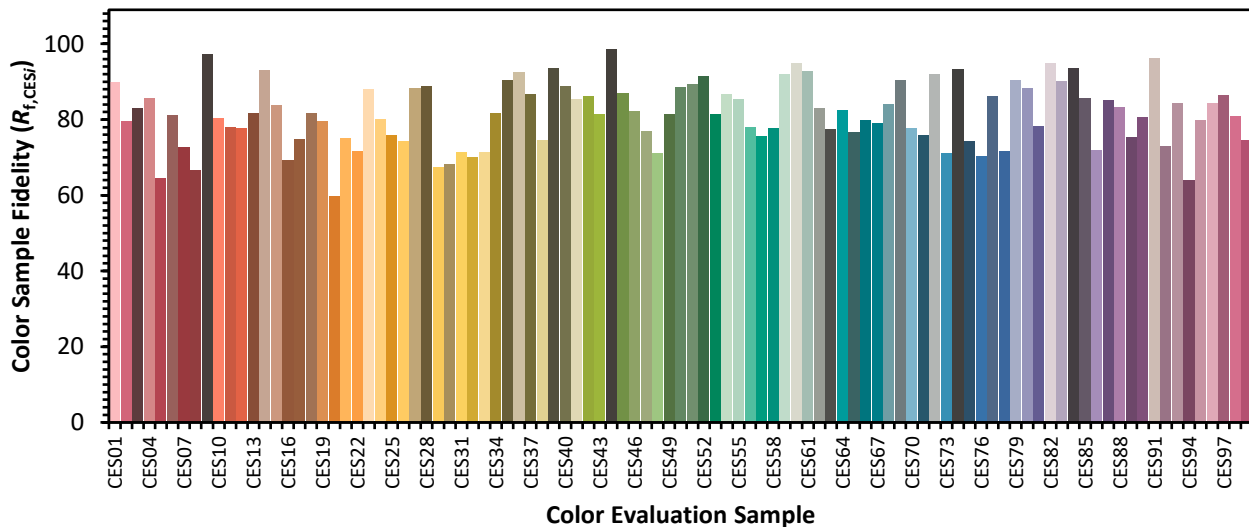


Color Vector Graphics



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)