

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: P640959

Luminaire Tested: GWS-SA5E-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P640959
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-SA5E-830-U-SLR-W-GRSWH
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR RIGHT OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source: (80) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23332.4 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

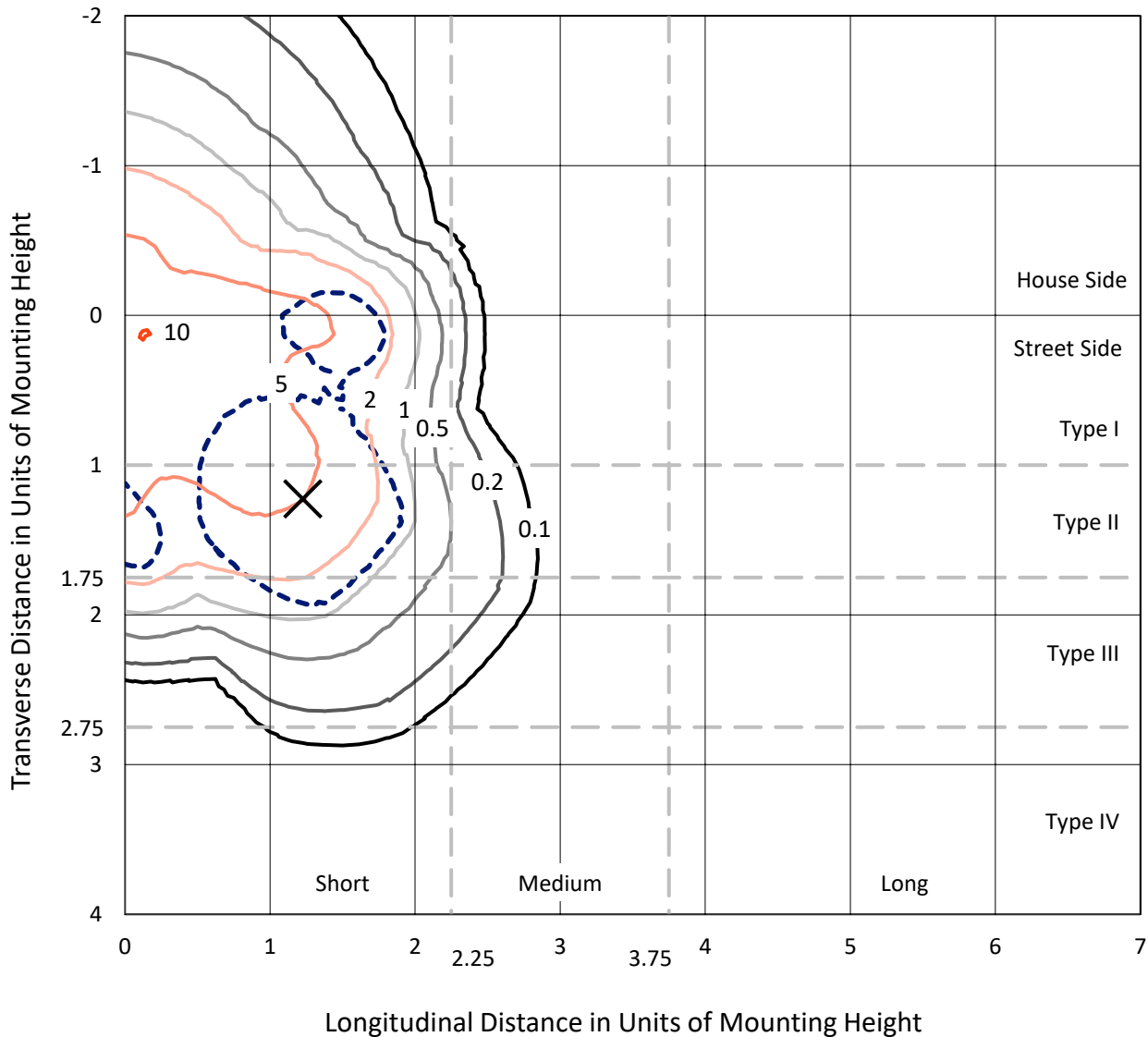
Input Watts (W): 269.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

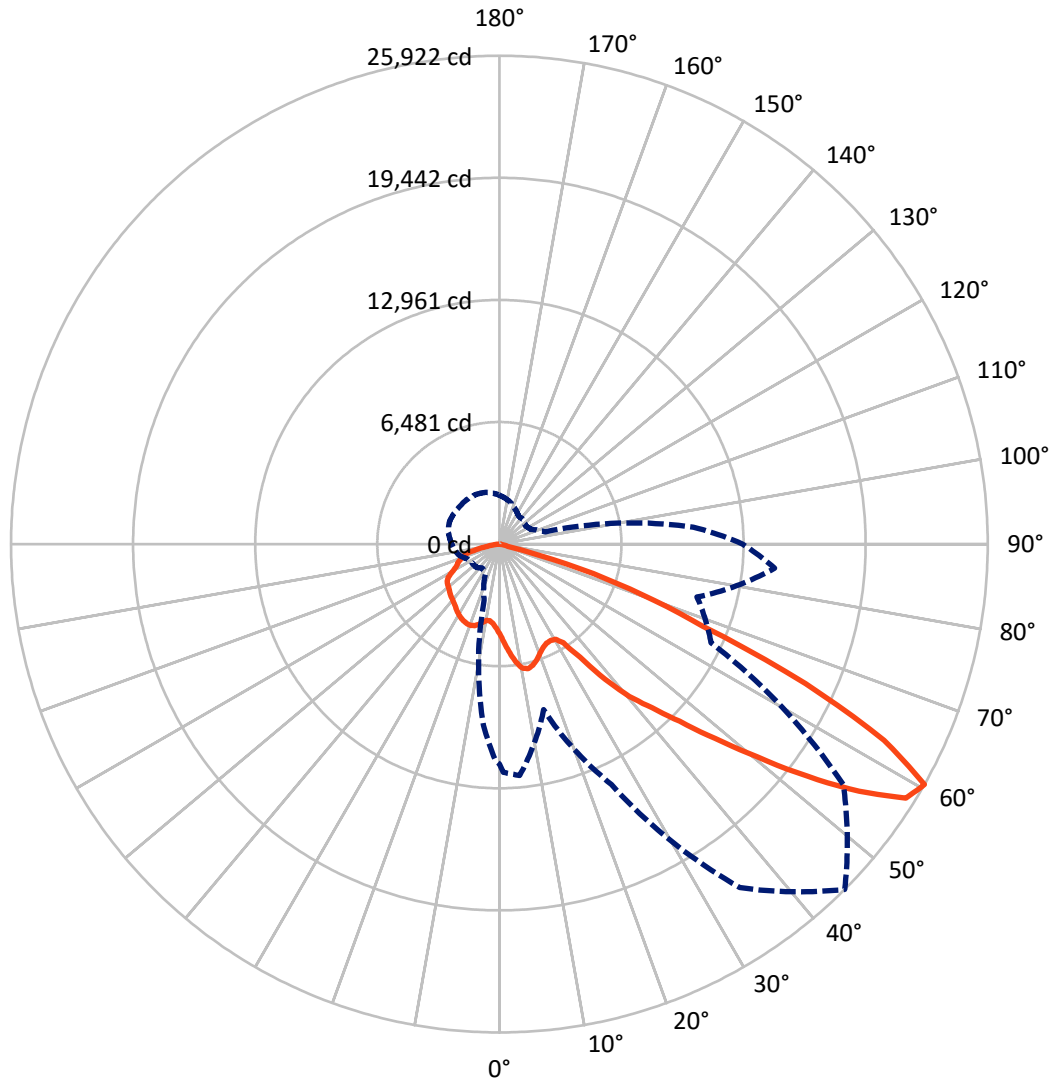
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 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	8178.8	0.0	8178.8
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	15153.5	0.0	15153.5
	% Fixture	64.9	0.0	64.9
Total	Lumens	23332.4	0.0	23332.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.6	2.0
10°-20°	1477.8	6.3
20°-30°	2400.5	10.3
30°-40°	3385.4	14.5
40°-50°	4678.5	20.1
50°-60°	6022.7	25.8
60°-70°	3816.0	16.4
70°-80°	979.2	4.2
80°-90°	104.7	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°	23332.4	100.0
0°-180°	23332.4	100.0

Coefficient of Utilization



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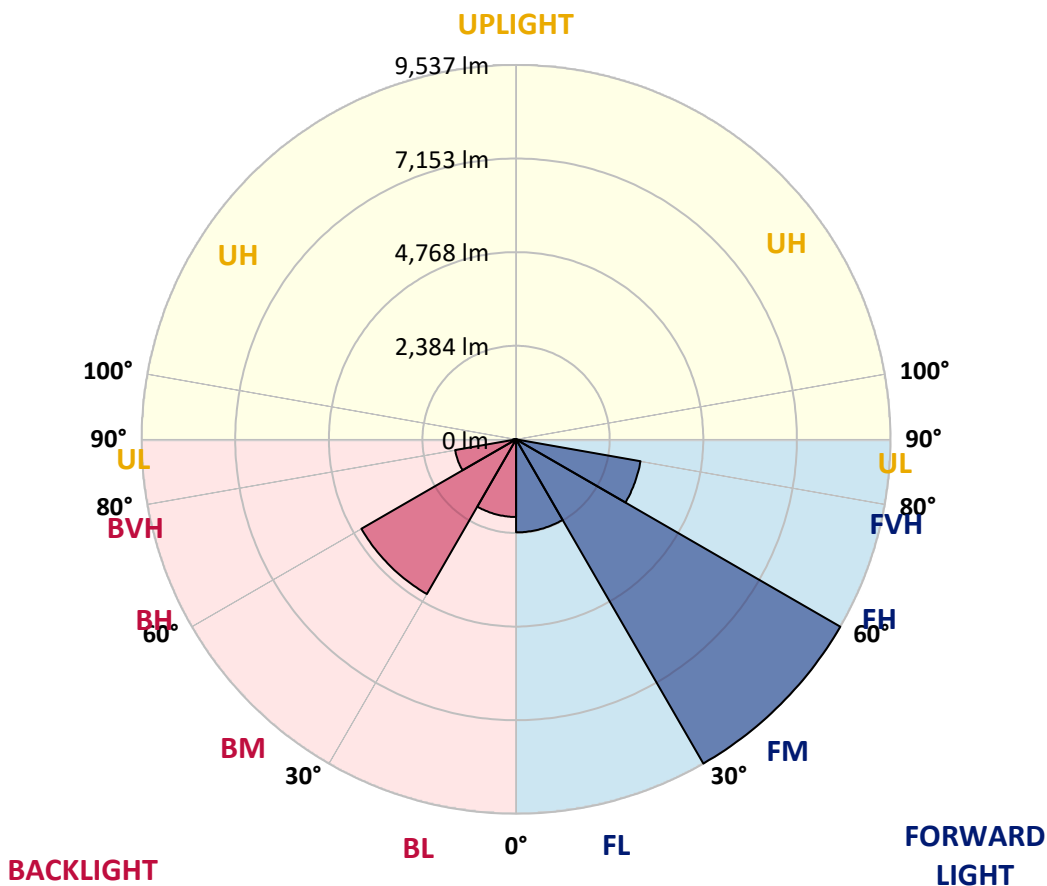
CATALOG NUMBER: GWS-SA5E-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2369.1	10.2			
FM (30°-60°)	9536.9	40.9			
FH (60°-80°)	3219.1	13.8			G2/5000
FVH (80°-90°)	28.4	0.1			G1/100
BL (0°-30°)	1976.8	8.5	B3/2500		
BM (30°-60°)	4549.6	19.5	B3/5000		
BH (60°-80°)	1576.1	6.8	B3/2500		G3/2500
BVH (80°-90°)	76.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2
2.5°	5013.4	5047.6	5068.9	5109.6	5182.3	5222.9	5267.8	5218.6	5231.4	5225.0	5145.9
5°	5310.5	5351.1	5406.7	5526.5	5661.1	5736.0	5806.5	5795.8	5729.6	5618.4	5539.3
7.5°	5588.5	5635.5	5731.7	5926.2	6125.1	6240.5	6326.0	6270.4	6214.9	6039.6	5840.7
10°	5806.5	5834.3	5964.7	6225.5	6456.4	6586.9	6691.6	6678.8	6601.8	6405.1	6137.9
12.5°	6011.8	6031.0	6172.1	6432.9	6640.3	6698.0	6783.5	6811.3	6785.7	6638.2	6375.2
15°	6232.0	6268.3	6398.7	6597.5	6691.6	6631.7	6661.7	6738.6	6811.3	6811.3	6569.7
17.5°	6437.2	6469.3	6601.8	6687.3	6597.5	6439.3	6447.9	6546.2	6719.4	6901.1	6747.2
20°	6618.9	6648.9	6779.3	6698.0	6413.7	6182.8	6176.4	6296.1	6576.2	6958.8	6937.5
22.5°	6817.7	6860.5	6969.5	6706.6	6242.7	5949.8	5947.6	6071.6	6450.0	7016.6	7155.5
25°	7099.9	7166.2	7221.8	6781.4	6150.7	5798.0	5825.8	5943.3	6409.4	7110.6	7478.4
27.5°	7519.0	7572.4	7568.1	6937.5	6146.4	5736.0	5793.7	5930.5	6482.1	7277.4	7818.3
30°	7972.2	8000.0	7955.1	7155.5	6244.8	5774.5	5860.0	6022.4	6666.0	7553.2	8318.5
32.5°	8474.6	8508.8	8423.3	7482.6	6473.5	6058.8	6246.9	6326.0	6924.6	7950.8	8848.7
35°	9051.8	9118.1	8940.7	7914.5	7147.0	7095.7	7369.3	7266.7	7474.1	8421.2	9415.3
37.5°	9659.0	9661.1	9406.7	8553.7	8468.2	8555.9	9103.2	8782.5	8639.2	8944.9	9992.5
40°	10174.2	10161.4	9770.2	9415.3	9618.4	9966.9	10627.5	10135.8	9759.5	9648.3	10471.4
42.5°	10689.5	10642.4	10246.9	9962.6	10411.5	11127.7	11873.9	11271.0	10477.8	10287.5	10943.9
45°	11347.9	11333.0	10856.2	10180.7	11127.7	12427.6	13417.4	12440.4	10903.3	10659.5	11730.6
47.5°	12410.5	12337.8	11450.6	10163.5	11799.0	14159.3	15409.9	13913.4	11200.4	10668.1	13000.5
50°	13449.5	13359.7	12160.3	10161.4	12491.7	15955.1	17761.6	15702.8	11504.0	10719.4	14291.8
52.5°	14499.2	14499.2	13325.5	10403.0	13218.6	17960.4	20478.9	17932.7	12021.4	11390.7	15880.3
55°	15123.5	15290.2	14636.0	10811.3	14069.5	20320.7	23166.2	20339.9	12821.0	12602.9	17346.9
57.5°	14330.3	14642.4	14548.4	10527.0	14571.9	22054.5	25445.2	22165.7	13216.5	12746.1	17126.7
60°	11677.2	12111.2	12327.1	9090.3	14075.9	22255.5	25922.0	22285.4	12399.8	10854.1	14670.2
62.5°	7762.7	8119.7	8449.0	6494.9	12186.0	20021.4	22926.8	20027.8	10356.0	8100.5	10163.5
65°	3807.6	4072.7	4427.6	3839.7	9520.0	16729.0	17874.9	16183.9	7491.2	4534.5	5184.4
67.5°	996.3	1071.1	1120.3	1490.1	6819.9	12019.2	11657.9	11837.5	4812.4	1481.6	1355.4
70°	517.4	521.6	519.5	615.7	4609.3	7638.7	8034.2	7433.5	3358.6	620.0	534.5
72.5°	369.9	372.0	365.6	414.8	2225.5	4376.3	4534.5	4485.3	1759.5	367.7	365.6
75°	241.6	243.7	239.4	243.7	335.6	498.1	459.6	483.2	292.9	233.0	233.0
77.5°	143.2	145.4	143.2	147.5	143.2	143.2	132.5	132.5	126.1	126.1	128.3
80°	96.2	96.2	94.1	98.3	89.8	89.8	85.5	83.4	77.0	74.8	74.8
82.5°	57.7	59.9	57.7	57.7	53.4	53.4	49.2	47.0	40.6	40.6	38.5
85°	29.9	29.9	27.8	27.8	23.5	21.4	17.1	17.1	12.8	10.7	10.7
87.5°	4.3	4.3	2.1	2.1	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°	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2
2.5°	5124.5	5081.8	5017.6	4955.6	4897.9	4838.1	4769.6	4699.1	4639.2	4577.2	4545.2
5°	5434.5	5346.9	5180.1	5032.6	4900.1	4791.0	4673.4	4573.0	4478.9	4401.9	4363.4
7.5°	5714.6	5577.8	5325.5	5092.5	4912.9	4763.2	4600.7	4451.1	4325.0	4230.9	4194.5
10°	5973.3	5810.8	5479.4	5184.4	4974.9	4808.1	4609.3	4406.2	4239.4	4115.4	4085.5
12.5°	6182.8	5996.8	5601.3	5259.2	5011.2	4831.6	4656.3	4481.0	4316.4	4156.1	4130.4
15°	6368.8	6148.6	5693.2	5306.3	4998.4	4769.6	4622.1	4600.7	4600.7	4419.0	4367.7
17.5°	6529.1	6287.5	5768.0	5327.6	4917.2	4585.8	4496.0	4682.0	4891.5	4761.1	4645.6
20°	6713.0	6420.1	5830.0	5327.6	4767.5	4352.8	4344.2	4660.6	4970.6	4972.7	4850.9
22.5°	6899.0	6574.0	5902.7	5308.4	4562.3	4083.4	4241.6	4575.1	4850.9	4968.5	4885.1
25°	7200.4	6787.8	6018.2	5293.4	4322.8	3899.5	4149.7	4461.8	4694.8	4818.8	4765.4
27.5°	7583.1	7070.0	6193.5	5316.9	4085.5	3790.5	4051.3	4314.3	4525.9	4635.0	4596.5
30°	8010.7	7395.0	6381.6	5357.6	3914.5	3734.9	3933.7	4145.4	4333.5	4442.5	4425.4
32.5°	8555.9	7747.7	6544.1	5302.0	3818.3	3707.1	3809.7	3961.5	4143.2	4211.7	4226.6
35°	9207.9	8136.8	6668.1	5083.9	3730.6	3677.2	3675.0	3769.1	3897.4	4006.4	4017.1
37.5°	9808.7	8592.2	6804.9	4709.8	3572.4	3602.4	3516.8	3572.4	3698.6	3807.6	3850.3
40°	10403.0	9054.0	6995.2	4233.0	3365.0	3435.6	3335.1	3373.6	3474.1	3617.3	3685.7
42.5°	10980.2	9470.9	7196.2	3745.6	3157.7	3202.6	3127.7	3166.2	3271.0	3450.6	3527.5
45°	11608.8	10035.3	7352.2	3285.9	2978.1	2958.8	2899.0	2954.6	3112.8	3309.5	3401.4
47.5°	12797.4	10924.6	7454.8	2980.2	2881.9	2742.9	2674.5	2794.2	2973.8	3172.6	3283.8
50°	14249.1	12211.7	7424.9	2785.7	2798.5	2520.6	2497.1	2655.3	2847.7	3055.1	3176.9
52.5°	15399.3	13475.1	7085.0	2599.7	2636.0	2379.5	2311.1	2542.0	2725.8	2937.5	3063.6
55°	16277.9	13900.6	6041.7	2379.5	2370.9	2276.9	2133.6	2424.4	2604.0	2800.6	2937.5
57.5°	15561.7	12953.5	4478.9	2075.9	2024.6	2073.8	1934.8	2225.5	2454.3	2648.9	2770.7
60°	12915.0	10328.2	2494.9	1838.6	1693.2	1812.9	1791.6	2016.0	2291.8	2497.1	2601.8
62.5°	8767.5	6877.6	1479.4	1453.8	1372.5	1543.6	1656.9	1804.4	2075.9	2242.7	2341.0
65°	4369.9	3341.5	983.4	1088.2	1098.9	1269.9	1483.7	1646.2	1872.8	2043.8	2142.2
67.5°	1267.8	1039.0	748.3	831.6	947.1	1083.9	1254.9	1447.4	1667.6	1870.7	1986.1
70°	547.3	553.7	594.3	692.7	806.0	947.1	1118.1	1306.3	1492.3	1648.3	1736.0
72.5°	387.0	401.9	446.8	547.3	654.2	788.9	959.9	1141.6	1276.3	1434.5	1526.5
75°	248.0	258.7	295.0	372.0	451.1	581.5	744.0	910.7	1049.7	1163.0	1250.7
77.5°	136.8	139.0	168.9	213.8	267.2	350.6	470.3	600.7	703.4	767.5	846.6
80°	79.1	79.1	94.1	121.9	153.9	205.2	271.5	335.6	397.6	438.3	476.8
82.5°	42.8	42.8	49.2	66.3	83.4	113.3	151.8	183.9	222.3	243.7	269.4
85°	12.8	12.8	17.1	23.5	29.9	42.8	59.9	77.0	94.1	109.0	124.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
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°	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2
2.5°	4538.7	4508.8	4491.7	4470.3	4476.8	4457.5	4446.8	4453.2	4414.8	4453.2	4491.7
5°	4348.5	4305.7	4271.5	4243.7	4230.9	4205.2	4190.3	4190.3	4166.8	4205.2	4252.3
7.5°	4181.7	4147.5	4130.4	4113.3	4094.1	4070.6	4044.9	4036.3	4021.4	4062.0	4102.6
10°	4070.6	4074.8	4085.5	4109.0	4104.8	4089.8	4051.3	4029.9	4029.9	4077.0	4139.0
12.5°	4121.9	4166.8	4192.4	4235.2	4243.7	4230.9	4192.4	4175.3	4218.1	4288.6	4391.2
15°	4320.7	4350.6	4372.0	4406.2	4404.1	4393.4	4363.4	4376.3	4517.4	4654.2	4746.1
17.5°	4536.6	4502.4	4498.1	4519.5	4525.9	4513.1	4496.0	4553.7	4786.7	4915.0	4962.1
20°	4692.7	4575.1	4549.4	4558.0	4575.1	4568.7	4568.7	4662.7	4904.3	4964.2	4904.3
22.5°	4739.7	4573.0	4534.5	4536.6	4560.1	4562.3	4573.0	4671.3	4812.4	4814.5	4722.6
25°	4664.9	4504.5	4476.8	4481.0	4508.8	4506.7	4511.0	4566.5	4628.5	4602.9	4534.5
27.5°	4523.8	4384.8	4376.3	4399.8	4436.1	4416.9	4404.1	4419.0	4449.0	4416.9	4357.0
30°	4363.4	4245.9	4250.1	4295.0	4333.5	4301.4	4269.4	4277.9	4280.1	4245.9	4177.4
32.5°	4194.5	4106.9	4121.9	4168.9	4213.8	4179.6	4145.4	4141.1	4100.5	4059.9	3993.6
35°	4025.7	3991.4	4010.7	4049.2	4087.7	4059.9	4038.5	4025.7	3938.0	3878.1	3822.6
37.5°	3871.7	3897.4	3931.6	3955.1	3967.9	3965.8	3953.0	3923.0	3807.6	3737.0	3664.4
40°	3734.9	3814.0	3850.3	3861.0	3880.3	3876.0	3873.9	3831.1	3679.3	3604.5	3521.1
42.5°	3610.9	3722.1	3784.1	3794.8	3805.5	3807.6	3801.2	3739.2	3566.0	3478.4	3399.3
45°	3491.2	3636.6	3715.7	3705.0	3719.9	3719.9	3726.3	3645.1	3454.8	3365.0	3281.7
47.5°	3386.4	3557.5	3630.1	3617.3	3625.9	3632.3	3638.7	3544.6	3333.0	3247.5	3161.9
50°	3290.2	3471.9	3533.9	3538.2	3538.2	3553.2	3551.0	3459.1	3230.4	3138.4	3052.9
52.5°	3187.6	3384.3	3450.6	3478.4	3486.9	3493.3	3463.4	3356.5	3125.6	3014.4	2935.3
55°	3067.9	3294.5	3354.4	3390.7	3407.8	3403.5	3362.9	3253.9	3018.7	2907.5	2817.7
57.5°	2886.2	3102.1	3187.6	3204.7	3232.5	3215.4	3168.4	3076.4	2847.7	2736.5	2644.6
60°	2687.3	2843.4	2911.8	2926.8	2905.4	2911.8	2905.4	2817.7	2618.9	2531.3	2437.2
62.5°	2426.5	2565.5	2638.2	2657.4	2621.1	2644.6	2636.0	2527.0	2328.2	2236.2	2152.9
65°	2229.8	2381.6	2467.1	2477.8	2467.1	2477.8	2447.9	2315.3	2127.2	2033.1	1947.6
67.5°	2075.9	2232.0	2321.8	2351.7	2341.0	2338.9	2291.8	2137.9	1943.3	1840.7	1731.7
70°	1810.8	1947.6	2063.1	2135.8	2135.8	2095.1	2005.3	1862.1	1706.0	1618.4	1532.9
72.5°	1603.4	1776.6	1889.9	1964.7	1979.7	1956.2	1830.0	1678.2	1498.7	1411.0	1321.2
75°	1321.2	1490.1	1612.0	1710.3	1729.6	1703.9	1558.5	1408.9	1242.1	1156.6	1066.8
77.5°	883.0	983.4	1081.8	1171.6	1152.3	1169.4	1071.1	957.8	855.2	791.0	750.4
80°	498.1	564.4	594.3	643.5	643.5	643.5	579.4	525.9	468.2	431.9	391.2
82.5°	282.2	325.0	337.8	378.4	389.1	391.2	348.5	314.3	277.9	258.7	230.9
85°	130.4	153.9	156.1	179.6	188.1	205.2	186.0	162.5	141.1	132.5	115.4
87.5°	4.3	12.8	17.1	32.1	42.8	49.2	53.4	53.4	44.9	40.6	34.2
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: P640959

CATALOG NUMBER: GWS-SA5E-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2	4793.2
2.5°	4538.7	4590.1	4649.9	4692.7	4769.6	4833.8	4900.1	4972.7	5026.2	5013.4
5°	4310.0	4395.5	4504.5	4605.0	4748.3	4893.6	5054.0	5218.6	5314.8	5310.5
7.5°	4181.7	4303.6	4436.1	4570.8	4739.7	4949.2	5195.1	5451.6	5582.0	5588.5
10°	4250.1	4380.5	4470.3	4583.6	4761.1	5024.1	5319.1	5626.9	5776.6	5806.5
12.5°	4466.1	4455.4	4449.0	4530.2	4744.0	5077.5	5438.8	5806.5	5975.4	6011.8
15°	4671.3	4451.1	4318.5	4374.1	4667.0	5111.7	5556.4	6003.2	6193.5	6232.0
17.5°	4709.8	4376.3	4130.4	4168.9	4545.2	5122.4	5669.7	6195.6	6400.9	6437.2
20°	4602.9	4280.1	3993.6	3940.1	4391.2	5094.6	5740.2	6356.0	6580.4	6618.9
22.5°	4468.2	4194.5	3891.0	3752.0	4203.1	5066.8	5819.3	6524.9	6783.5	6817.7
25°	4327.1	4085.5	3794.8	3583.1	3989.3	5049.7	5951.9	6747.2	7059.3	7099.9
27.5°	4177.4	3953.0	3711.4	3501.9	3792.6	5071.1	6140.0	7106.4	7461.3	7519.0
30°	4017.1	3820.4	3657.9	3474.1	3657.9	5090.3	6347.4	7474.1	7891.0	7972.2
32.5°	3850.3	3698.6	3602.4	3486.9	3574.6	5045.4	6529.1	7886.7	8404.1	8474.6
35°	3683.6	3574.6	3531.8	3510.4	3463.4	4880.8	6676.6	8303.6	8989.8	9051.8
37.5°	3527.5	3446.3	3433.5	3457.0	3292.4	4611.4	6847.7	8833.8	9564.9	9659.0
40°	3382.1	3307.3	3305.2	3300.9	3104.2	4243.7	7078.6	9372.5	10131.5	10174.2
42.5°	3247.5	3153.4	3170.5	3119.2	2950.3	3846.1	7296.6	9832.2	10659.5	10689.5
45°	3127.7	3003.7	3023.0	2958.8	2877.6	3429.2	7489.0	10375.2	11328.7	11347.9
47.5°	3012.3	2879.7	2826.3	2822.0	2864.8	3044.4	7677.2	11420.6	12376.3	12410.5
50°	2905.4	2762.2	2610.4	2704.4	2785.7	2755.7	7912.3	12540.9	13458.0	13449.5
52.5°	2802.8	2614.6	2398.7	2580.4	2580.4	2542.0	7846.1	13220.7	14351.7	14499.2
55°	2685.2	2377.3	2178.5	2373.1	2279.0	2349.5	6672.4	13443.1	14914.0	15123.5
57.5°	2452.2	2084.4	1911.3	2016.0	1874.9	2178.5	4793.2	12339.9	13958.3	14330.3
60°	2227.7	1868.5	1755.2	1736.0	1552.1	1776.6	3106.4	9661.1	11489.0	11677.2
62.5°	1964.7	1682.5	1586.3	1438.8	1248.5	1293.4	1881.3	6358.1	7719.9	7762.7
65°	1765.9	1524.3	1340.5	1165.2	1021.9	938.5	1111.7	3065.7	3858.9	3807.6
67.5°	1515.8	1306.3	1130.9	1004.8	887.2	782.5	739.7	910.7	1030.5	996.3
70°	1349.0	1148.0	979.2	859.4	750.4	645.6	570.8	536.6	525.9	517.4
72.5°	1163.0	987.7	812.4	697.0	594.3	498.1	429.7	389.1	378.4	369.9
75°	927.8	763.2	602.9	493.9	404.1	335.6	290.8	256.5	250.1	241.6
77.5°	613.6	489.6	359.2	292.9	239.4	203.1	173.2	151.8	147.5	143.2
80°	337.8	282.2	220.2	177.4	143.2	124.0	113.3	100.5	98.3	96.2
82.5°	201.0	168.9	126.1	100.5	83.4	74.8	68.4	62.0	59.9	57.7
85°	100.5	79.1	55.6	47.0	42.8	38.5	38.5	32.1	29.9	29.9
87.5°	25.7	21.4	12.8	10.7	10.7	10.7	8.6	6.4	6.4	4.3
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

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

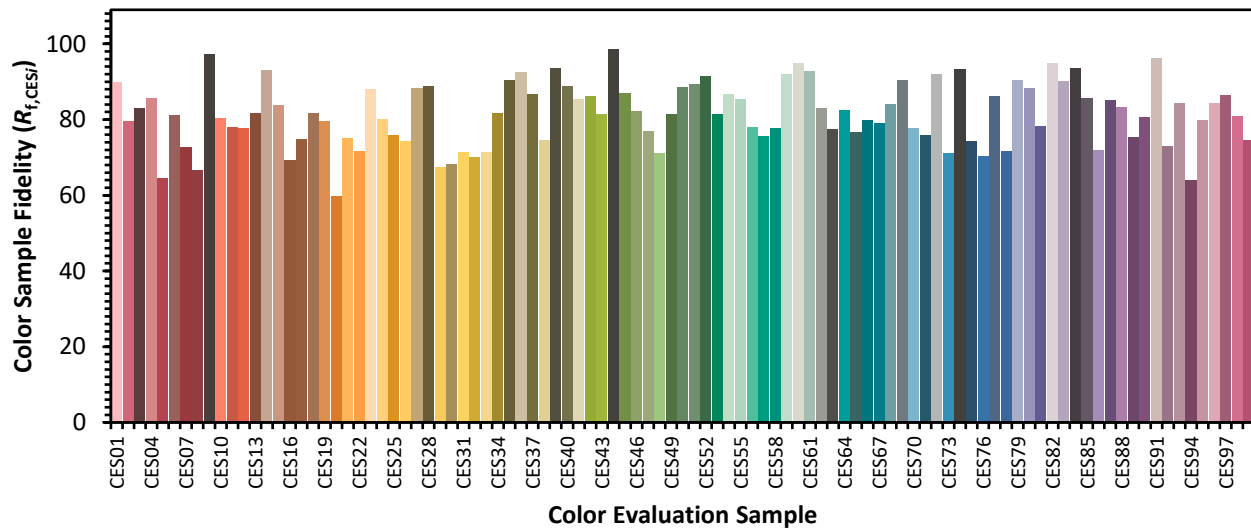


Color Vector Graphics



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)