

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: P641454

Luminaire Tested: GWS-SA5F-830-U-SLR-W-GRSWH

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P641454
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-SA5F-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: 25941.4 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G3

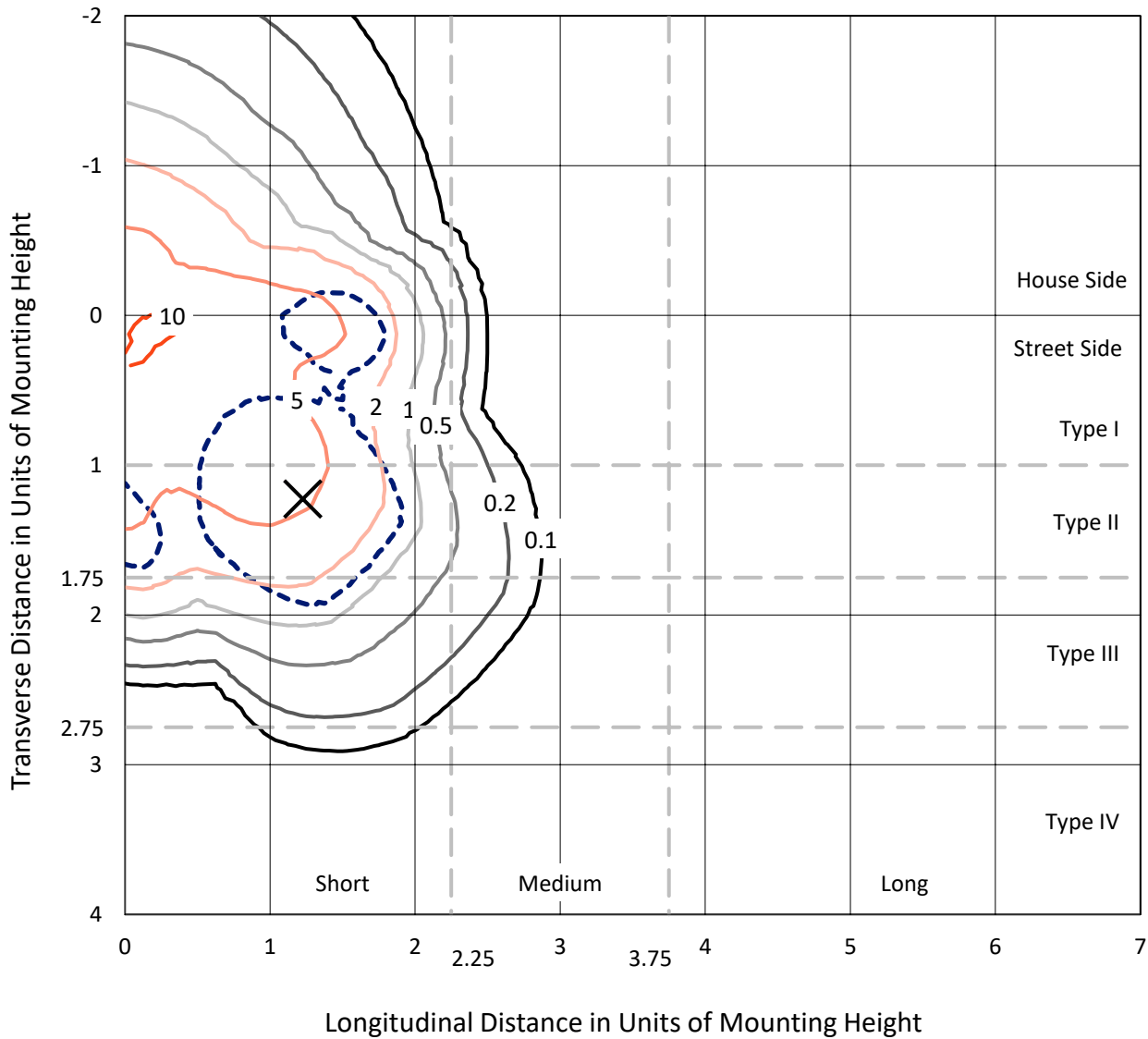
Input Watts (W): 310.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

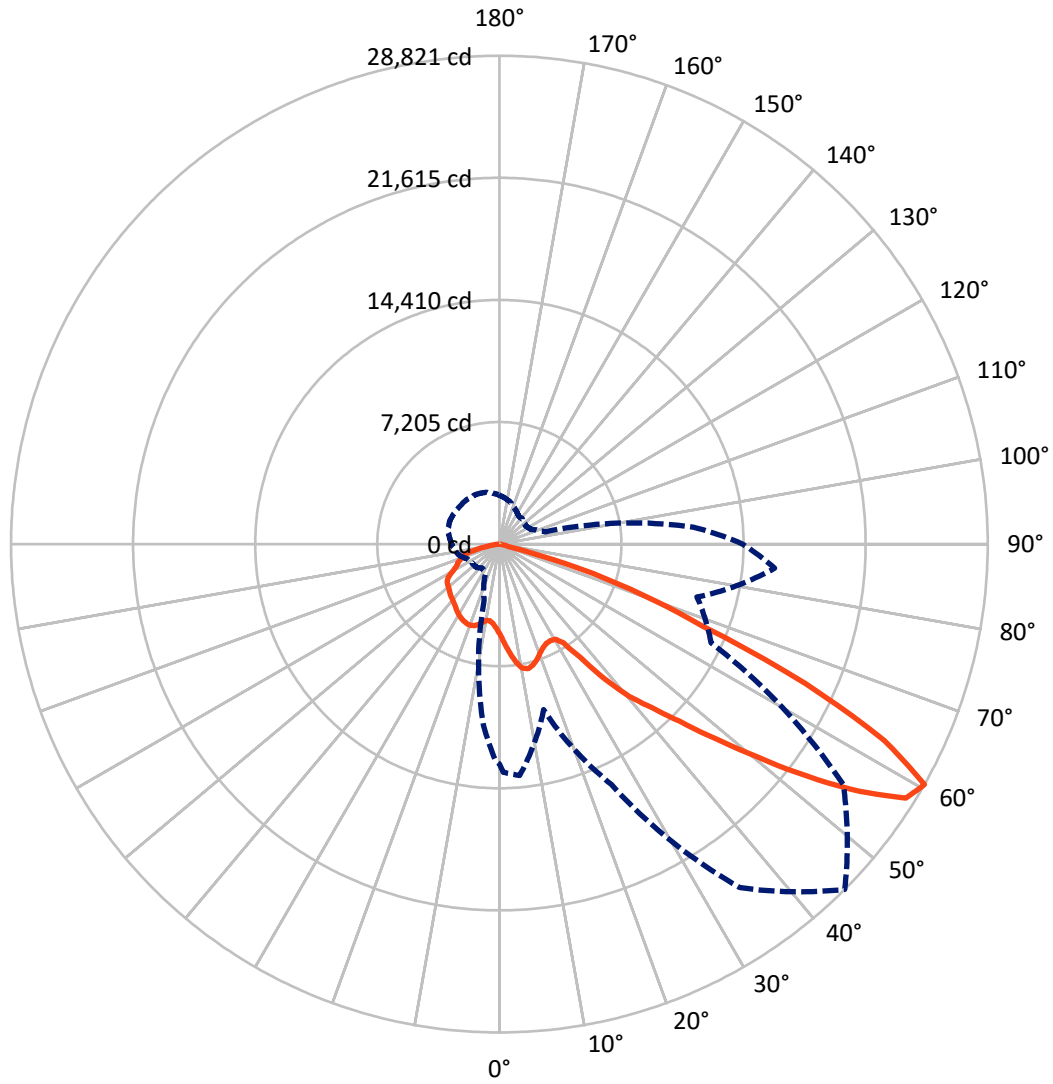
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 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	9093.4	0.0	9093.4
	% Fixture	35.1	0.0	35.1
Street Side	Lumens	16848.0	0.0	16848.0
	% Fixture	64.9	0.0	64.9
Total	Lumens	25941.4	0.0	25941.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	519.9	2.0
10°-20°	1643.0	6.3
20°-30°	2668.9	10.3
30°-40°	3763.9	14.5
40°-50°	5201.7	20.1
50°-60°	6696.1	25.8
60°-70°	4242.7	16.4
70°-80°	1088.7	4.2
80°-90°	116.4	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°	25941.4	100.0
0°-180°	25941.4	100.0

Coefficient of Utilization



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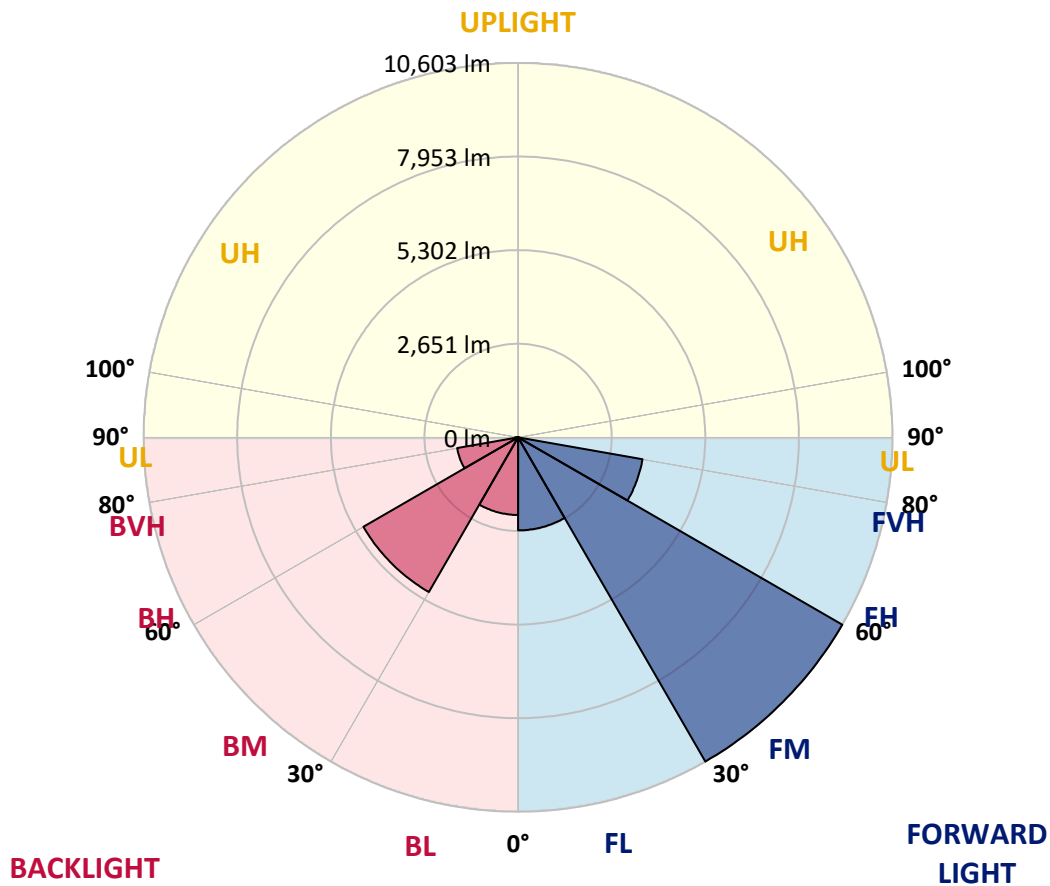
CATALOG NUMBER: GWS-SA5F-830-U-SLR-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2634.0	10.2			
FM (30°-60°)	10603.3	40.9			
FH (60°-80°)	3579.0	13.8			G2/5000
FVH (80°-90°)	31.6	0.1			G1/100
BL (0°-30°)	2197.8	8.5	B3/2500		
BM (30°-60°)	5058.4	19.5	B4/8500		
BH (60°-80°)	1752.4	6.8	B3/2500		G3/2500
BVH (80°-90°)	84.8	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°	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1
2.5°	5573.9	5612.0	5635.8	5680.9	5761.7	5806.9	5856.8	5802.1	5816.4	5809.3	5721.3
5°	5904.3	5949.5	6011.3	6144.4	6294.2	6377.4	6455.8	6443.9	6370.2	6246.6	6158.7
7.5°	6213.3	6265.6	6372.6	6588.9	6810.0	6938.3	7033.4	6971.6	6909.8	6714.9	6493.8
10°	6455.8	6486.7	6631.7	6921.7	7178.4	7323.4	7439.9	7425.6	7340.0	7121.3	6824.2
12.5°	6684.0	6705.4	6862.3	7152.2	7382.8	7447.0	7542.1	7573.0	7544.4	7380.4	7088.1
15°	6928.8	6969.2	7114.2	7335.3	7439.9	7373.3	7406.6	7492.1	7573.0	7573.0	7304.4
17.5°	7157.0	7192.7	7340.0	7435.1	7335.3	7159.4	7168.9	7278.2	7470.8	7672.8	7501.7
20°	7359.0	7392.3	7537.3	7447.0	7130.9	6874.1	6867.0	7000.1	7311.5	7737.0	7713.2
22.5°	7580.1	7627.6	7748.9	7456.5	6940.7	6615.1	6612.7	6750.5	7171.3	7801.2	7955.7
25°	7893.9	7967.5	8029.3	7539.7	6838.5	6446.3	6477.2	6607.9	7126.1	7905.7	8314.6
27.5°	8359.7	8419.2	8414.4	7713.2	6833.7	6377.4	6441.5	6593.7	7206.9	8091.1	8692.5
30°	8863.6	8894.6	8844.6	7955.7	6943.1	6420.1	6515.2	6695.9	7411.3	8397.8	9248.7
32.5°	9422.2	9460.3	9365.2	8319.3	7197.4	6736.3	6945.5	7033.4	7698.9	8839.9	9838.2
35°	10064.0	10137.7	9940.4	8799.5	7946.1	7889.1	8193.3	8079.3	8309.8	9362.8	10468.1
37.5°	10739.1	10741.4	10458.6	9510.2	9415.1	9512.6	10121.1	9764.5	9605.3	9945.2	11109.9
40°	11311.9	11297.6	10862.7	10468.1	10693.9	11081.3	11815.8	11269.1	10850.8	10727.2	11642.3
42.5°	11884.8	11832.5	11392.7	11076.6	11575.8	12372.0	13201.6	12531.3	11649.4	11437.9	12167.6
45°	12616.9	12600.2	12070.2	11319.0	12372.0	13817.2	14917.7	13831.5	12122.4	11851.5	13042.3
47.5°	13798.2	13717.4	12730.9	11300.0	13118.4	15742.5	17133.1	15469.2	12452.8	11861.0	14454.2
50°	14953.4	14853.6	13520.1	11297.6	13888.5	17739.2	19747.7	17458.7	12790.4	11918.0	15889.9
52.5°	16120.5	16120.5	14815.5	11566.2	14696.7	19968.8	22768.8	19937.9	13365.6	12664.4	17656.0
55°	16814.6	17000.0	16272.6	12020.2	15642.7	22592.9	25756.6	22614.3	14254.6	14012.1	19286.6
57.5°	15932.7	16279.7	16175.2	11704.1	16201.3	24520.6	28290.5	24644.2	14694.3	14171.4	19041.8
60°	12982.9	13465.4	13705.5	10106.8	15649.8	24744.1	28820.5	24777.3	13786.3	12067.8	16310.6
62.5°	8630.7	9027.7	9393.7	7221.2	13548.6	22260.1	25490.4	22267.3	11514.0	9006.3	11300.0
65°	4233.3	4528.1	4922.7	4269.0	10584.6	18599.6	19873.7	17993.5	8328.8	5041.5	5764.1
67.5°	1107.7	1190.9	1245.5	1656.7	7582.5	13363.2	12961.5	13161.2	5350.5	1647.2	1507.0
70°	575.2	580.0	577.6	684.6	5124.7	8492.8	8932.6	8264.7	3734.2	689.3	594.2
72.5°	411.2	413.6	406.5	461.1	2474.4	4865.6	5041.5	4986.8	1956.2	408.8	406.5
75°	268.6	271.0	266.2	271.0	373.2	553.8	511.0	537.2	325.6	259.1	259.1
77.5°	159.3	161.6	159.3	164.0	159.3	159.3	147.4	147.4	140.2	140.2	142.6
80°	107.0	107.0	104.6	109.3	99.8	99.8	95.1	92.7	85.6	83.2	83.2
82.5°	64.2	66.6	64.2	64.2	59.4	59.4	54.7	52.3	45.2	45.2	42.8
85°	33.3	33.3	30.9	30.9	26.1	23.8	19.0	19.0	14.3	11.9	11.9
87.5°	4.8	4.8	2.4	2.4	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°	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1
2.5°	5697.6	5650.0	5578.7	5509.8	5445.6	5379.0	5303.0	5224.5	5158.0	5089.1	5053.4
5°	6042.2	5944.8	5759.4	5595.3	5448.0	5326.7	5196.0	5084.3	4979.7	4894.1	4851.4
7.5°	6353.6	6201.5	5921.0	5661.9	5462.2	5295.8	5115.2	4948.8	4808.6	4704.0	4663.6
10°	6641.2	6460.6	6092.1	5764.1	5531.2	5345.8	5124.7	4898.9	4713.5	4575.6	4542.4
12.5°	6874.1	6667.3	6227.6	5847.3	5571.6	5371.9	5177.0	4982.1	4799.1	4620.8	4592.3
15°	7080.9	6836.1	6329.8	5899.6	5557.3	5303.0	5139.0	5115.2	5115.2	4913.2	4856.1
17.5°	7259.2	6990.6	6413.0	5923.4	5467.0	5098.6	4998.7	5205.5	5438.5	5293.5	5165.1
20°	7463.6	7138.0	6481.9	5923.4	5300.6	4839.5	4830.0	5181.8	5526.4	5528.8	5393.3
22.5°	7670.4	7309.1	6562.8	5902.0	5072.4	4540.0	4715.9	5086.7	5393.3	5524.0	5431.3
25°	8005.6	7546.8	6691.1	5885.3	4806.2	4335.6	4613.7	4960.7	5219.8	5357.6	5298.2
27.5°	8431.0	7860.6	6886.0	5911.5	4542.4	4214.3	4504.3	4796.7	5032.0	5153.2	5110.4
30°	8906.4	8221.9	7095.2	5956.6	4352.2	4152.5	4373.6	4608.9	4818.1	4939.3	4920.3
32.5°	9512.6	8614.1	7275.8	5894.8	4245.2	4121.6	4235.7	4404.5	4606.5	4682.6	4699.2
35°	10237.5	9046.7	7413.7	5652.4	4147.8	4088.4	4086.0	4190.6	4333.2	4454.4	4466.3
37.5°	10905.5	9553.0	7565.8	5236.4	3971.9	4005.2	3910.1	3971.9	4112.1	4233.3	4280.9
40°	11566.2	10066.4	7777.4	4706.4	3741.3	3819.8	3708.0	3750.8	3862.5	4021.8	4097.9
42.5°	12208.0	10529.9	8000.8	4164.4	3510.8	3560.7	3477.5	3520.3	3636.7	3836.4	3922.0
45°	12906.8	11157.4	8174.3	3653.4	3311.1	3289.7	3223.1	3284.9	3460.8	3679.5	3781.7
47.5°	14228.4	12146.2	8288.4	3313.5	3204.1	3049.6	2973.6	3106.7	3306.3	3527.4	3651.0
50°	15842.4	13577.1	8255.2	3097.2	3111.4	2802.4	2776.3	2952.2	3166.1	3396.7	3532.1
52.5°	17121.2	14981.9	7877.2	2890.4	2930.8	2645.5	2569.5	2826.2	3030.6	3265.9	3406.2
55°	18098.1	15454.9	6717.3	2645.5	2636.0	2531.5	2372.2	2695.5	2895.1	3113.8	3265.9
57.5°	17301.8	14401.9	4979.7	2308.0	2251.0	2305.6	2151.1	2474.4	2728.7	2945.0	3080.5
60°	14359.2	11483.0	2773.9	2044.2	1882.5	2015.7	1991.9	2241.5	2548.1	2776.3	2892.7
62.5°	9747.9	7646.7	1644.9	1616.3	1526.0	1716.2	1842.1	2006.1	2308.0	2493.4	2602.8
65°	4858.5	3715.2	1093.4	1209.9	1221.8	1411.9	1649.6	1830.3	2082.2	2272.4	2381.7
67.5°	1409.5	1155.2	831.9	924.6	1053.0	1205.1	1395.3	1609.2	1854.0	2079.8	2208.2
70°	608.5	615.6	660.8	770.1	896.1	1053.0	1243.1	1452.3	1659.1	1832.6	1930.1
72.5°	430.2	446.9	496.8	608.5	727.3	877.1	1067.3	1269.3	1419.0	1594.9	1697.1
75°	275.7	287.6	328.0	413.6	501.5	646.5	827.2	1012.6	1167.1	1293.1	1390.5
77.5°	152.1	154.5	187.8	237.7	297.1	389.8	522.9	667.9	782.0	853.3	941.3
80°	87.9	87.9	104.6	135.5	171.1	228.2	301.9	373.2	442.1	487.3	530.1
82.5°	47.5	47.5	54.7	73.7	92.7	126.0	168.8	204.4	247.2	271.0	299.5
85°	14.3	14.3	19.0	26.1	33.3	47.5	66.6	85.6	104.6	121.2	137.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
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°	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1
2.5°	5046.3	5013.0	4994.0	4970.2	4977.3	4955.9	4944.1	4951.2	4908.4	4951.2	4994.0
5°	4834.7	4787.2	4749.1	4718.2	4704.0	4675.5	4658.8	4658.8	4632.7	4675.5	4727.8
7.5°	4649.3	4611.3	4592.3	4573.3	4551.9	4525.7	4497.2	4487.7	4471.0	4516.2	4561.4
10°	4525.7	4530.5	4542.4	4568.5	4563.7	4547.1	4504.3	4480.6	4480.6	4532.8	4601.8
12.5°	4582.8	4632.7	4661.2	4708.7	4718.2	4704.0	4661.2	4642.2	4689.7	4768.2	4882.3
15°	4803.8	4837.1	4860.9	4898.9	4896.5	4884.6	4851.4	4865.6	5022.5	5174.6	5276.8
17.5°	5043.9	5005.9	5001.1	5024.9	5032.0	5017.7	4998.7	5062.9	5322.0	5464.6	5516.9
20°	5217.4	5086.7	5058.2	5067.7	5086.7	5079.5	5079.5	5184.1	5452.7	5519.3	5452.7
22.5°	5269.7	5084.3	5041.5	5043.9	5070.0	5072.4	5084.3	5193.6	5350.5	5352.9	5250.7
25°	5186.5	5008.2	4977.3	4982.1	5013.0	5010.6	5015.4	5077.2	5146.1	5117.6	5041.5
27.5°	5029.6	4875.1	4865.6	4891.8	4932.2	4910.8	4896.5	4913.2	4946.4	4910.8	4844.2
30°	4851.4	4720.6	4725.4	4775.3	4818.1	4782.4	4746.8	4756.3	4758.7	4720.6	4644.6
32.5°	4663.6	4566.1	4582.8	4635.1	4685.0	4646.9	4608.9	4604.2	4559.0	4513.8	4440.1
35°	4475.8	4437.8	4459.2	4501.9	4544.7	4513.8	4490.1	4475.8	4378.3	4311.8	4250.0
37.5°	4304.7	4333.2	4371.2	4397.4	4411.6	4409.2	4395.0	4361.7	4233.3	4154.9	4074.1
40°	4152.5	4240.5	4280.9	4292.8	4314.2	4309.4	4307.0	4259.5	4090.7	4007.5	3914.8
42.5°	4014.7	4138.3	4207.2	4219.1	4231.0	4233.3	4226.2	4157.3	3964.8	3867.3	3779.4
45°	3881.6	4043.2	4131.1	4119.3	4135.9	4135.9	4143.0	4052.7	3841.2	3741.3	3648.6
47.5°	3765.1	3955.2	4036.1	4021.8	4031.3	4038.4	4045.6	3941.0	3705.7	3610.6	3515.5
50°	3658.1	3860.2	3929.1	3933.9	3933.9	3950.5	3948.1	3845.9	3591.6	3489.4	3394.3
52.5°	3544.0	3762.7	3836.4	3867.3	3876.8	3883.9	3850.7	3731.8	3475.1	3351.5	3263.6
55°	3410.9	3662.9	3729.4	3769.8	3788.9	3784.1	3738.9	3617.7	3356.3	3232.7	3132.8
57.5°	3208.9	3449.0	3544.0	3563.0	3593.9	3574.9	3522.6	3420.4	3166.1	3042.5	2940.3
60°	2987.8	3161.3	3237.4	3254.0	3230.3	3237.4	3230.3	3132.8	2911.8	2814.3	2709.7
62.5°	2697.8	2852.3	2933.2	2954.5	2914.1	2940.3	2930.8	2809.6	2588.5	2486.3	2393.6
65°	2479.2	2647.9	2743.0	2754.9	2743.0	2754.9	2721.6	2574.2	2365.1	2260.5	2165.4
67.5°	2308.0	2481.5	2581.4	2614.6	2602.8	2600.4	2548.1	2377.0	2160.6	2046.6	1925.3
70°	2013.3	2165.4	2293.8	2374.6	2374.6	2329.4	2229.6	2070.3	1896.8	1799.4	1704.3
72.5°	1782.7	1975.2	2101.2	2184.4	2201.1	2174.9	2034.7	1865.9	1666.2	1568.8	1469.0
75°	1469.0	1656.7	1792.2	1901.6	1923.0	1894.4	1732.8	1566.4	1381.0	1285.9	1186.1
77.5°	981.7	1093.4	1202.7	1302.6	1281.2	1300.2	1190.9	1064.9	950.8	879.5	834.3
80°	553.8	627.5	660.8	715.5	715.5	715.5	644.2	584.7	520.6	480.1	435.0
82.5°	313.8	361.3	375.6	420.7	432.6	435.0	387.4	349.4	309.0	287.6	256.7
85°	145.0	171.1	173.5	199.7	209.2	228.2	206.8	180.6	156.9	147.4	128.4
87.5°	4.8	14.3	19.0	35.7	47.5	54.7	59.4	59.4	49.9	45.2	38.0
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: P641454

CATALOG NUMBER: GWS-SA5F-830-U-SLR-W-GRSWH

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1	5329.1
2.5°	5046.3	5103.3	5169.9	5217.4	5303.0	5374.3	5448.0	5528.8	5588.2	5573.9
5°	4791.9	4887.0	5008.2	5120.0	5279.2	5440.8	5619.1	5802.1	5909.1	5904.3
7.5°	4649.3	4784.8	4932.2	5081.9	5269.7	5502.6	5776.0	6061.2	6206.2	6213.3
10°	4725.4	4870.4	4970.2	5096.2	5293.5	5585.8	5913.9	6256.1	6422.5	6455.8
12.5°	4965.5	4953.6	4946.4	5036.8	5274.5	5645.3	6047.0	6455.8	6643.6	6684.0
15°	5193.6	4948.8	4801.4	4863.2	5188.9	5683.3	6177.7	6674.5	6886.0	6928.8
17.5°	5236.4	4865.6	4592.3	4635.1	5053.4	5695.2	6303.7	6888.4	7116.6	7157.0
20°	5117.6	4758.7	4440.1	4380.7	4882.3	5664.3	6382.1	7066.7	7316.3	7359.0
22.5°	4967.8	4663.6	4326.1	4171.5	4673.1	5633.4	6470.1	7254.5	7542.1	7580.1
25°	4810.9	4542.4	4219.1	3983.8	4435.4	5614.4	6617.4	7501.7	7848.7	7893.9
27.5°	4644.6	4395.0	4126.4	3893.4	4216.7	5638.1	6826.6	7901.0	8295.6	8359.7
30°	4466.3	4247.6	4067.0	3862.5	4067.0	5659.5	7057.2	8309.8	8773.3	8863.6
32.5°	4280.9	4112.1	4005.2	3876.8	3974.3	5609.6	7259.2	8768.6	9343.8	9422.2
35°	4095.5	3974.3	3926.7	3903.0	3850.7	5426.6	7423.2	9232.1	9995.1	10064.0
37.5°	3922.0	3831.6	3817.4	3843.5	3660.5	5127.1	7613.4	9821.6	10634.5	10739.1
40°	3760.3	3677.1	3674.8	3670.0	3451.3	4718.2	7870.1	10420.6	11264.4	11311.9
42.5°	3610.6	3506.0	3525.0	3468.0	3280.2	4276.1	8112.5	10931.6	11851.5	11884.8
45°	3477.5	3339.6	3361.0	3289.7	3199.4	3812.6	8326.5	11535.3	12595.5	12616.9
47.5°	3349.1	3201.8	3142.3	3137.6	3185.1	3384.8	8535.6	12697.7	13760.2	13798.2
50°	3230.3	3071.0	2902.3	3006.8	3097.2	3063.9	8797.1	13943.2	14962.9	14953.4
52.5°	3116.2	2907.0	2666.9	2869.0	2869.0	2826.2	8723.4	14699.1	15956.5	16120.5
55°	2985.5	2643.2	2422.1	2638.4	2533.8	2612.3	7418.5	14946.3	16581.6	16814.6
57.5°	2726.4	2317.5	2125.0	2241.5	2084.6	2422.1	5329.1	13719.8	15519.1	15932.7
60°	2476.8	2077.5	1951.5	1930.1	1725.7	1975.2	3453.7	10741.4	12773.7	12982.9
62.5°	2184.4	1870.7	1763.7	1599.7	1388.1	1438.1	2091.7	7069.1	8583.2	8630.7
65°	1963.4	1694.8	1490.3	1295.4	1136.2	1043.5	1236.0	3408.5	4290.4	4233.3
67.5°	1685.3	1452.3	1257.4	1117.2	986.4	870.0	822.4	1012.6	1145.7	1107.7
70°	1499.9	1276.4	1088.6	955.5	834.3	717.8	634.6	596.6	584.7	575.2
72.5°	1293.1	1098.2	903.2	774.9	660.8	553.8	477.8	432.6	420.7	411.2
75°	1031.6	848.6	670.3	549.1	449.2	373.2	323.3	285.2	278.1	268.6
77.5°	682.2	544.3	399.3	325.6	266.2	225.8	192.5	168.8	164.0	159.3
80°	375.6	313.8	244.8	197.3	159.3	137.9	126.0	111.7	109.3	107.0
82.5°	223.4	187.8	140.2	111.7	92.7	83.2	76.1	68.9	66.6	64.2
85°	111.7	87.9	61.8	52.3	47.5	42.8	42.8	35.7	33.3	33.3
87.5°	28.5	23.8	14.3	11.9	11.9	11.9	9.5	7.1	7.1	4.8
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



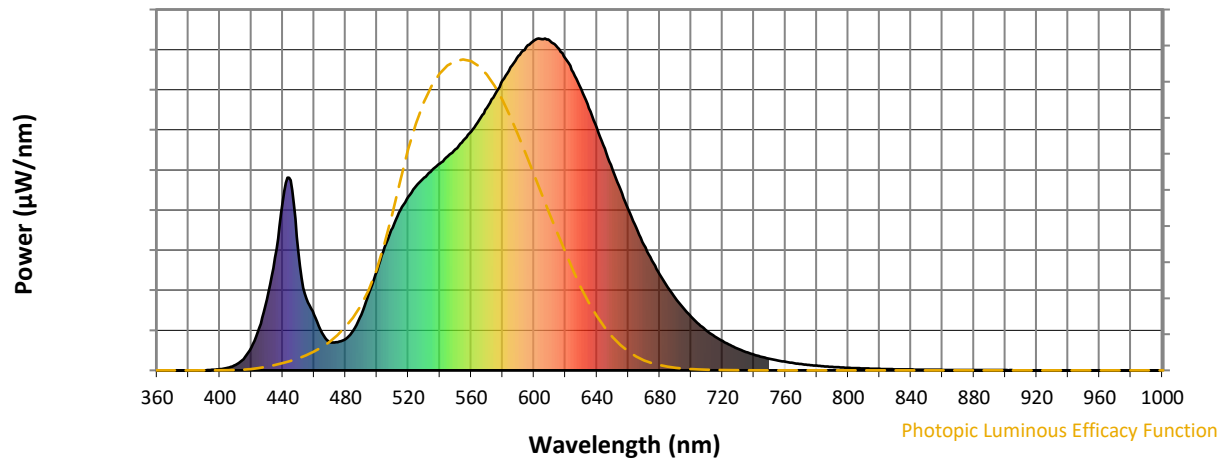
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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

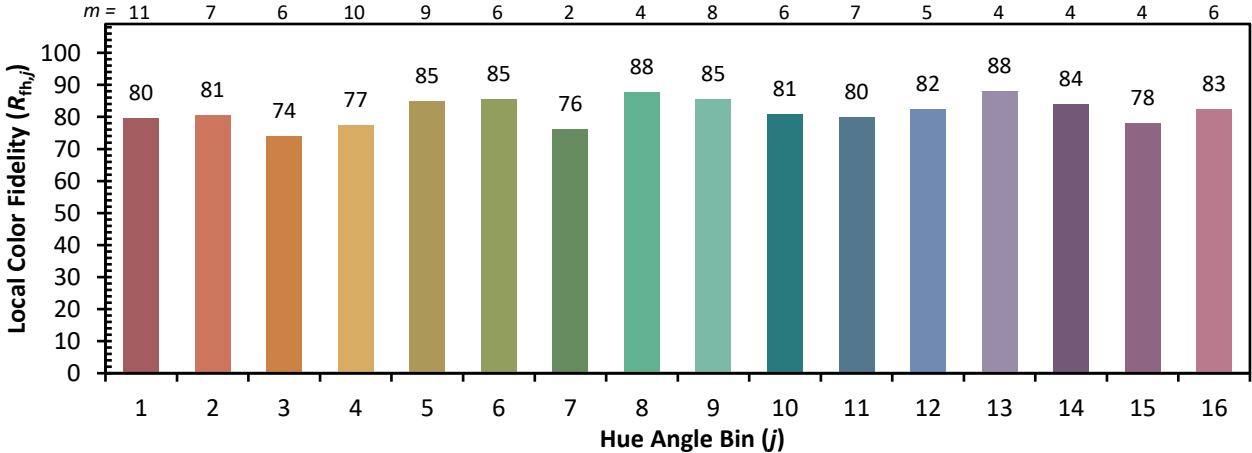


Individual Sample Fidelity Index ($R_{f,i}$)

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)