

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: P632046

Luminaire Tested: GWS-SA2B-830-U-SLL-W-HSS

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P632046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2B-830-U-SLL-W-HSS
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3319.3 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

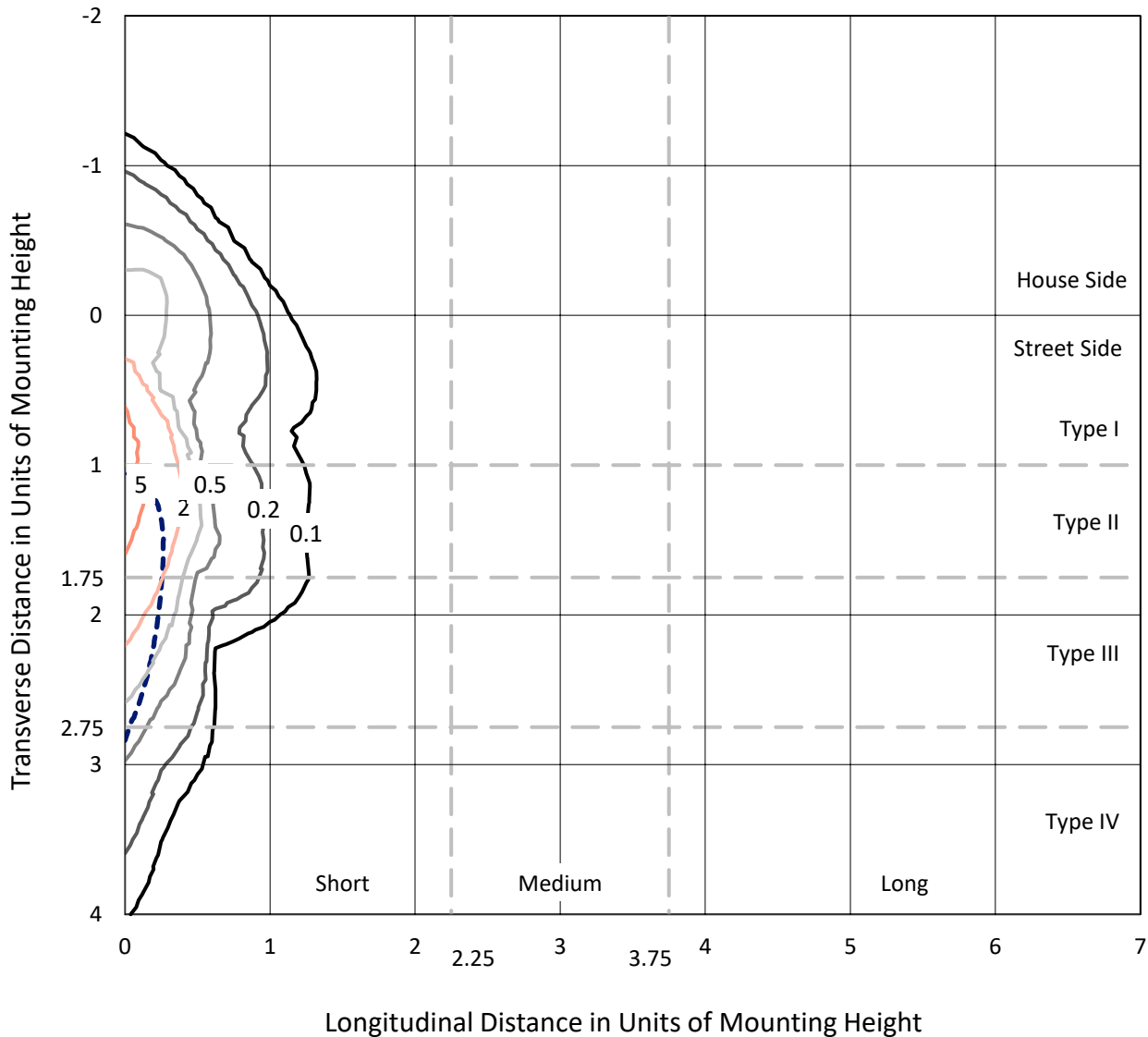
Input Watts (W): 46.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P632046
 CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

Iso-Footcandle Lines of Horizontal Illumination

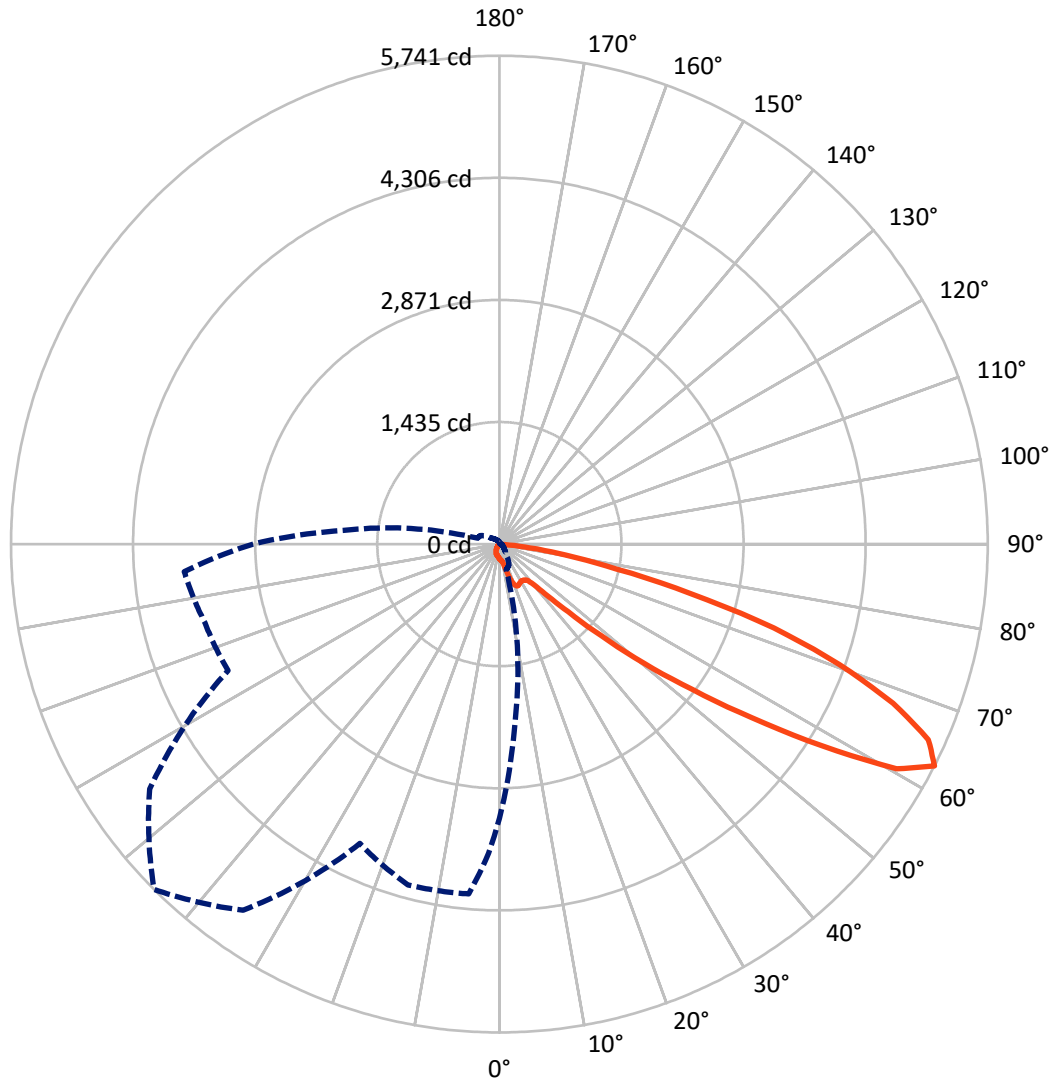
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - N/A

REPORT NUMBER: P632046
CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P632046

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

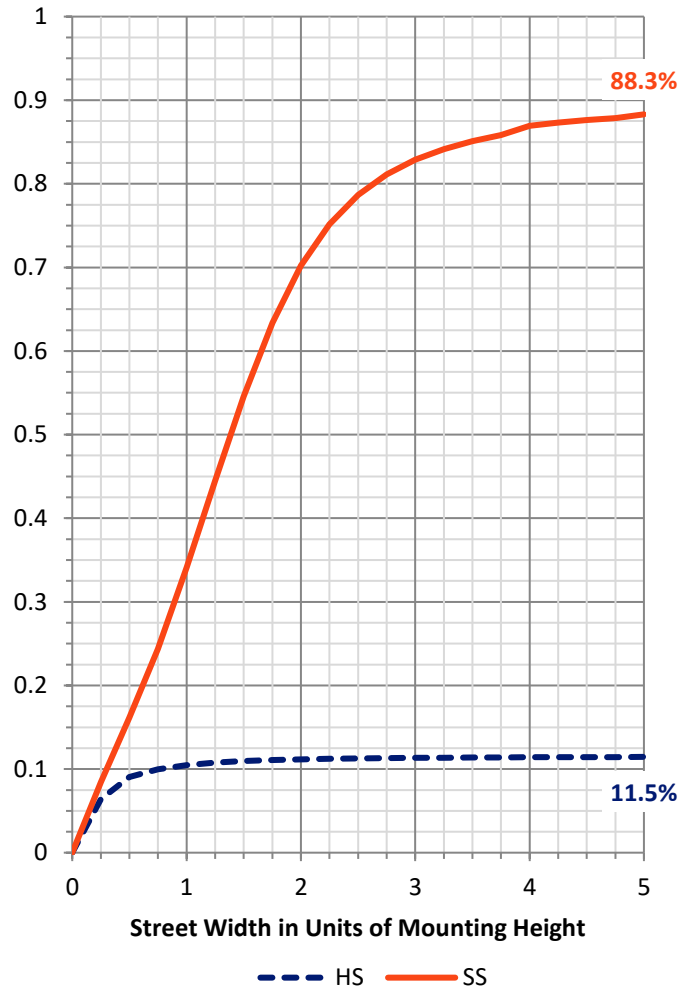
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	385.7	0.0	385.7
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	2933.6	0.0	2933.6
	% Fixture	88.4	0.0	88.4
Total	Lumens	3319.3	0.0	3319.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.9	0.4
10°-20°	51.0	1.5
20°-30°	115.1	3.5
30°-40°	198.3	6.0
40°-50°	374.1	11.3
50°-60°	835.2	25.2
60°-70°	1117.0	33.7
70°-80°	560.2	16.9
80°-90°	53.7	1.6
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°	3319.3	100.0
0°-180°	3319.3	100.0

Coefficient of Utilization



REPORT NUMBER: P632046

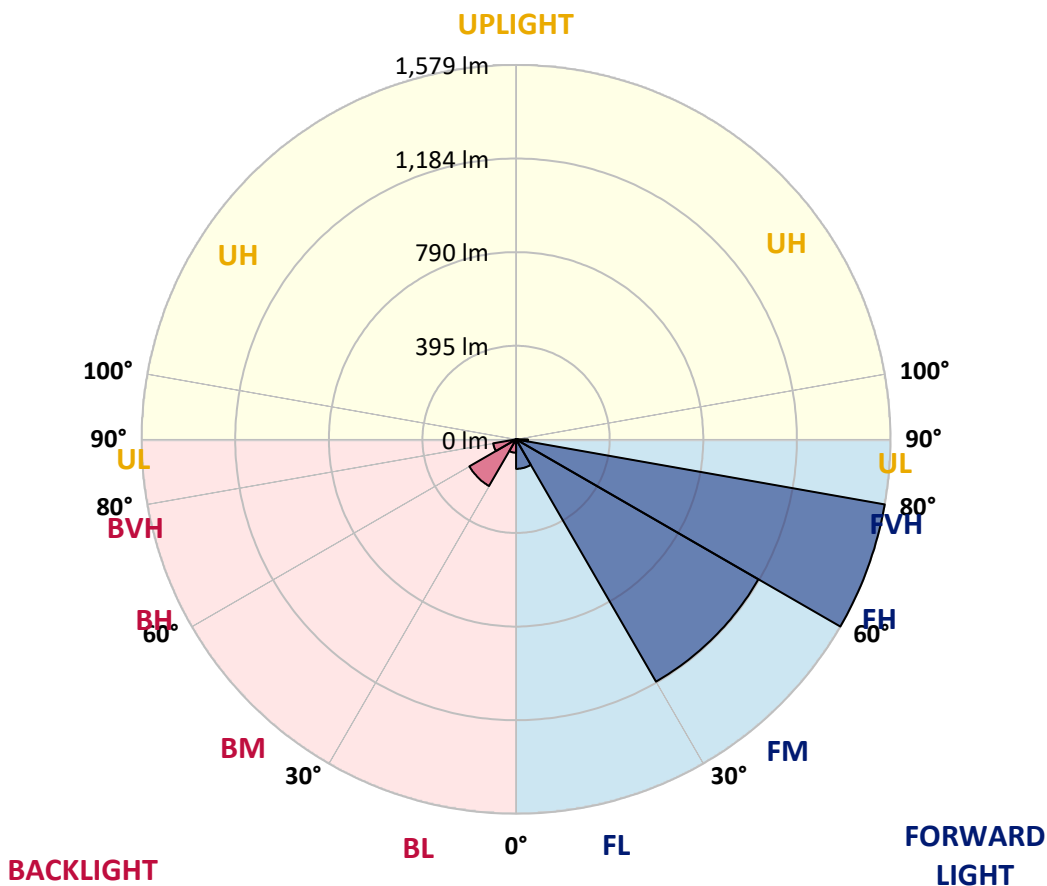
CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	124.3	3.7			
FM (30°-60°)	1180.1	35.6			
FH (60°-80°)	1579.1	47.6			G1/1800
FVH (80°-90°)	50.1	1.5			G1/100
BL (0°-30°)	56.6	1.7	B0/110		
BM (30°-60°)	227.4	6.9	B1/1000		
BH (60°-80°)	98.1	3.0	B0/110		G0/110
BVH (80°-90°)	3.6	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





REPORT NUMBER: P632046

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1
2.5°	170.2	169.8	169.0	166.6	164.7	163.5	161.1	161.1	160.7	160.0	158.4
5°	164.7	163.1	161.5	157.2	152.5	149.7	146.6	146.2	146.2	145.4	145.0
7.5°	156.0	154.5	152.5	145.4	141.1	138.3	135.6	135.2	134.0	134.0	134.0
10°	151.3	149.0	145.8	138.0	133.6	131.3	129.3	128.1	127.3	126.2	125.8
12.5°	161.5	157.2	150.5	136.4	130.5	127.3	125.0	124.2	121.8	120.3	119.1
15°	193.4	182.8	169.4	139.9	129.3	124.6	121.4	119.9	117.9	115.2	113.2
17.5°	245.6	230.3	207.9	151.3	128.1	122.2	118.3	115.5	112.8	109.7	107.3
20°	318.0	295.2	268.4	172.1	128.1	119.5	114.8	111.2	107.3	103.8	101.0
22.5°	409.9	387.1	341.5	207.5	129.7	115.9	110.4	105.7	101.0	97.9	94.7
25°	512.9	480.7	438.2	250.4	134.0	111.2	105.3	100.6	96.3	92.4	88.8
27.5°	627.7	592.7	536.1	311.3	143.5	106.5	99.8	95.5	91.6	87.6	82.9
30°	733.4	712.5	654.8	384.4	158.8	103.4	95.5	91.6	87.6	82.5	78.2
32.5°	860.3	823.4	775.8	467.7	179.2	100.2	92.0	86.5	83.3	78.6	73.9
35°	988.1	956.6	894.1	570.3	202.0	97.1	87.6	82.5	79.8	74.3	69.2
37.5°	1119.7	1112.6	1050.9	683.9	224.4	93.5	82.5	79.4	76.6	70.4	64.5
40°	1249.4	1236.4	1179.5	813.6	238.2	89.6	78.2	76.2	73.1	66.0	59.3
42.5°	1373.6	1363.8	1308.4	937.8	236.2	86.1	73.9	71.5	69.2	62.1	53.8
45°	1526.1	1510.0	1440.0	1029.7	216.2	90.0	69.6	65.6	65.2	58.6	48.3
47.5°	1811.4	1758.4	1639.7	1100.5	196.1	100.2	64.8	60.1	62.9	55.0	42.8
50°	2211.1	2148.7	1976.9	1155.5	195.7	113.6	64.1	55.0	60.9	52.3	38.1
52.5°	2612.8	2502.8	2294.1	1185.0	210.3	123.4	71.1	49.9	58.6	49.5	34.6
55°	2997.6	2769.2	2426.9	1087.5	221.7	134.0	84.1	47.2	54.2	46.4	32.6
57.5°	3364.3	2983.4	2484.7	860.3	259.8	138.3	92.0	48.3	47.9	42.4	31.0
60°	3414.6	2973.2	2368.0	500.3	286.5	130.9	88.8	53.8	42.1	37.7	28.3
62.5°	3224.4	2775.5	2101.9	312.1	266.1	128.1	79.0	61.3	38.1	33.4	24.8
65°	2935.5	2465.4	1752.5	201.2	201.6	142.3	69.2	60.1	35.8	29.5	21.2
67.5°	2483.9	2063.4	1380.7	134.8	114.0	121.4	60.5	41.3	35.0	25.2	16.5
70°	1813.0	1468.7	898.8	90.0	68.0	97.1	50.7	29.5	33.0	20.8	11.8
72.5°	1325.3	986.9	501.9	59.0	38.5	56.6	37.3	21.2	25.5	15.3	8.3
75°	953.9	679.1	286.5	37.7	25.5	31.0	24.4	14.5	16.5	12.2	7.5
77.5°	459.0	330.9	130.1	20.8	17.3	15.7	13.0	9.0	10.2	11.0	6.7
80°	17.3	13.0	9.8	10.2	11.0	7.1	5.9	4.7	5.9	7.5	3.5
82.5°	0.0	0.0	0.0	1.2	1.6	2.0	2.4	2.0	2.4	2.8	0.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	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	0.0



REPORT NUMBER: P632046

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1
2.5°	159.6	158.8	159.6	160.4	161.1	161.9	160.7	161.5	162.3	160.4	161.1
5°	147.0	146.6	149.0	150.1	151.7	152.5	151.7	151.7	151.3	149.0	149.0
7.5°	136.0	136.4	138.3	141.1	143.1	144.2	143.5	143.1	141.9	138.3	138.3
10°	127.7	127.7	130.9	133.2	136.0	137.2	136.4	135.2	134.0	130.5	130.1
12.5°	121.1	121.1	123.4	127.3	130.5	132.1	131.7	130.1	128.1	124.6	124.2
15°	114.8	114.4	117.9	121.4	125.8	127.7	126.9	125.8	122.2	119.1	118.3
17.5°	108.5	108.1	111.2	115.9	120.7	123.4	123.0	120.3	117.1	113.2	112.4
20°	102.2	101.4	105.3	110.0	114.8	117.5	116.7	114.4	110.4	106.5	105.7
22.5°	95.9	95.5	98.3	102.2	106.5	108.9	108.5	106.5	102.6	99.0	99.0
25°	88.8	88.8	90.8	93.5	96.7	97.9	98.3	97.5	95.1	93.1	93.1
27.5°	82.9	81.7	82.5	83.3	84.9	86.9	86.9	87.6	88.0	87.3	87.6
30°	78.2	76.2	75.1	73.5	72.7	73.5	74.3	77.0	79.8	81.4	82.1
32.5°	72.7	70.4	67.2	62.9	60.1	59.3	61.7	66.8	71.9	75.5	77.4
35°	67.2	64.1	58.2	51.9	48.3	47.2	49.9	55.8	63.3	69.6	72.3
37.5°	61.7	57.4	49.1	41.7	37.7	36.9	39.7	46.0	54.6	63.3	66.8
40°	55.4	50.3	40.5	32.6	29.5	28.7	31.0	37.3	46.4	56.2	61.7
42.5°	49.1	42.8	32.6	25.9	22.8	22.8	25.9	30.7	38.9	49.5	56.2
45°	42.8	36.2	26.7	20.8	18.9	19.3	21.2	25.9	32.6	43.6	49.9
47.5°	36.9	31.0	22.0	17.3	15.7	16.1	18.5	22.4	27.9	37.7	44.4
50°	31.8	26.3	19.3	14.5	13.4	14.1	16.5	20.0	24.8	33.4	38.9
52.5°	28.7	23.6	17.7	12.6	11.8	12.6	14.9	18.1	22.4	29.5	35.0
55°	27.1	23.2	17.7	11.4	10.2	11.0	13.4	16.5	20.0	26.7	31.4
57.5°	26.7	24.0	18.9	10.2	8.6	9.4	11.8	14.9	18.5	24.4	28.3
60°	25.2	22.8	18.5	8.3	6.7	7.9	9.8	13.0	16.9	22.8	26.3
62.5°	22.0	20.0	16.1	6.7	5.1	5.9	8.3	11.4	15.3	20.8	24.8
65°	18.1	16.1	12.6	4.3	3.1	3.9	6.3	9.8	13.4	18.9	22.4
67.5°	13.4	11.4	8.6	2.8	1.6	2.8	5.1	8.3	12.2	16.9	20.4
70°	8.3	6.7	4.7	1.6	1.2	2.4	4.7	7.9	11.0	15.7	19.3
72.5°	4.7	3.1	2.0	0.8	1.2	2.4	4.7	7.9	10.6	14.9	18.1
75°	3.5	2.0	0.8	0.4	0.8	2.0	4.3	7.1	10.2	14.1	17.3
77.5°	2.4	1.2	0.4	0.0	0.4	1.6	3.9	6.7	9.4	13.4	16.5
80°	0.4	0.0	0.0	0.0	0.0	1.2	3.5	5.9	8.6	11.8	14.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.4	2.8	5.1	7.5	9.8	11.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.9	5.9	7.5	8.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.9	4.7	5.5
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: P632046

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1
2.5°	160.7	163.1	163.1	164.7	166.6	170.2	172.1	174.9	176.9	178.8	179.6
5°	148.6	149.0	149.3	150.1	152.5	156.4	160.0	164.3	169.4	173.3	175.7
7.5°	138.3	138.3	138.3	139.5	141.9	144.6	148.2	154.1	160.0	164.7	168.6
10°	129.7	130.9	131.3	133.2	136.0	139.5	143.5	148.6	155.2	161.5	168.6
12.5°	124.2	125.4	127.3	129.3	132.1	136.0	140.3	147.0	160.7	173.7	188.7
15°	119.1	120.7	123.0	125.8	128.9	133.2	138.0	151.7	183.9	208.3	231.9
17.5°	113.6	115.9	119.1	121.8	125.8	130.5	136.4	163.1	226.4	266.9	307.0
20°	106.5	109.7	113.2	117.5	122.2	127.7	136.4	186.7	287.7	345.9	398.9
22.5°	99.8	103.0	107.3	112.8	118.3	123.8	138.3	222.5	366.7	440.2	507.4
25°	94.3	98.3	102.6	107.3	113.6	119.9	143.1	272.8	461.8	556.5	604.1
27.5°	89.2	93.9	98.3	102.2	107.7	114.8	153.7	340.0	574.2	670.5	707.8
30°	84.1	89.6	93.9	97.9	103.4	110.8	169.8	425.6	699.2	792.7	796.7
32.5°	79.8	84.9	90.0	93.9	99.0	107.7	192.2	525.9	827.3	917.7	880.8
35°	75.1	81.0	85.7	90.0	95.5	104.9	218.1	633.9	956.6	1032.5	964.5
37.5°	70.4	77.0	82.9	86.1	91.6	102.2	237.0	746.7	1088.7	1144.5	1038.0
40°	66.0	73.5	80.2	83.3	86.1	98.6	239.7	862.3	1222.7	1254.9	1107.1
42.5°	61.3	69.6	75.5	79.8	82.1	96.3	223.2	959.8	1335.1	1365.0	1197.5
45°	56.2	66.0	70.7	73.9	78.6	97.9	202.0	1035.2	1463.6	1515.1	1346.5
47.5°	51.1	62.1	66.0	68.4	74.7	107.3	194.2	1085.5	1675.5	1782.4	1597.6
50°	46.4	58.6	62.9	62.5	73.9	119.5	202.8	1123.7	1993.8	2119.6	1941.9
52.5°	41.3	54.6	59.7	58.2	79.8	128.9	220.1	1153.9	2238.7	2514.9	2404.5
55°	36.9	50.3	55.0	54.6	90.8	136.0	233.5	994.3	2340.1	2882.4	2925.7
57.5°	33.8	45.6	49.5	56.2	97.9	136.0	270.0	705.9	2342.0	3152.8	3617.4
60°	31.0	41.3	44.0	61.7	95.1	128.9	267.3	432.3	2158.5	3134.4	3985.2
62.5°	28.7	37.3	40.9	63.3	84.1	127.7	241.3	268.0	1840.9	2895.8	3718.4
65°	26.7	34.2	39.3	58.2	76.2	136.8	162.7	192.6	1493.1	2623.8	3412.2
67.5°	24.8	31.4	41.7	47.6	69.2	122.2	117.5	136.8	1172.0	2325.5	3131.2
70°	23.2	29.9	44.0	38.9	60.5	95.5	83.3	103.8	897.3	1940.3	2735.4
72.5°	22.0	27.9	36.9	30.7	49.1	73.9	58.2	75.5	586.4	1514.7	2230.0
75°	20.8	25.5	27.1	24.8	36.6	48.3	44.0	50.7	349.4	1107.1	1692.0
77.5°	20.4	24.0	22.0	20.0	24.8	28.7	33.4	34.2	170.6	553.8	886.7
80°	18.1	21.6	18.9	16.5	16.9	18.9	24.8	22.8	38.9	140.7	236.6
82.5°	14.1	16.9	15.7	13.8	13.8	13.8	16.5	15.3	12.6	63.3	106.9
85°	9.8	11.8	11.8	11.0	10.6	10.6	10.2	9.8	3.5	3.9	5.9
87.5°	6.7	8.3	8.6	8.3	7.1	6.3	5.5	4.7	1.6	0.0	0.8
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: P632046

CATALOG NUMBER: GWS-SA2B-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1	172.1
2.5°	182.4	183.5	183.5	182.0	180.8	177.6	174.5	171.4	170.6	170.2
5°	182.4	187.1	189.4	189.0	186.3	181.2	174.5	167.4	165.5	164.7
7.5°	179.6	188.7	195.7	196.9	191.8	182.8	170.6	160.0	157.2	156.0
10°	185.9	203.6	217.7	219.7	213.8	196.1	176.5	158.4	154.1	151.3
12.5°	219.7	248.8	266.1	274.3	262.9	240.5	207.9	175.7	165.9	161.5
15°	288.1	329.4	362.4	362.4	351.8	312.1	270.8	218.5	205.2	193.4
17.5°	375.7	427.6	456.7	453.5	437.4	409.5	360.0	284.9	257.8	245.6
20°	475.6	506.6	513.3	511.3	504.2	488.1	453.9	373.4	336.8	318.0
22.5°	562.0	553.8	543.9	536.1	534.1	538.8	534.1	472.0	443.3	409.9
25°	620.6	573.8	544.3	530.2	536.9	564.0	593.5	570.3	547.5	512.9
27.5°	652.4	571.5	529.0	514.5	525.9	564.4	628.4	667.7	644.2	627.7
30°	669.7	569.5	519.2	505.0	522.3	570.7	652.8	758.9	759.7	733.4
32.5°	694.5	582.1	521.1	508.2	531.4	589.5	683.5	851.7	874.5	860.3
35°	722.4	601.3	530.2	518.4	547.1	614.7	717.7	945.2	992.8	988.1
37.5°	748.7	622.9	551.4	540.0	571.1	636.3	750.7	1037.2	1103.2	1119.7
40°	776.2	653.2	616.7	627.7	644.9	670.5	780.1	1117.0	1224.7	1249.4
42.5°	841.1	758.1	813.9	834.8	837.1	784.5	844.6	1219.2	1344.1	1373.6
45°	985.7	944.8	1104.8	1134.3	1118.9	959.4	999.8	1366.5	1511.2	1526.1
47.5°	1168.5	1187.3	1502.9	1604.7	1512.7	1165.7	1188.1	1676.6	1816.9	1811.4
50°	1381.5	1470.7	1954.9	2195.0	1974.9	1433.7	1405.1	2057.9	2228.0	2211.1
52.5°	1633.4	1800.0	2498.0	2839.2	2630.9	1735.2	1723.4	2562.9	2666.7	2612.8
55°	1950.6	2118.0	3123.0	3599.7	3303.4	2103.1	2143.5	3148.5	3168.5	2997.6
57.5°	2423.8	2532.6	3859.5	4471.8	4005.3	2603.0	2896.6	3927.9	3688.1	3364.3
60°	3282.9	3066.0	4571.2	5364.0	4752.0	3306.1	3889.7	4389.7	3861.0	3414.6
62.5°	3582.0	3518.7	5016.9	5741.3	5254.3	3883.5	4148.0	4127.9	3637.0	3224.4
65°	3128.8	3405.9	4937.1	5542.0	5189.9	3788.3	3722.3	3839.0	3384.7	2935.5
67.5°	2890.3	3141.0	4634.9	4992.2	4832.6	3465.7	3317.9	3286.1	2841.5	2483.9
70°	2649.8	2898.1	4196.7	4241.1	4166.8	2939.8	2745.7	2532.2	2123.9	1813.0
72.5°	2360.5	2497.3	3588.7	3378.0	3293.9	2309.0	2268.1	1906.9	1592.1	1325.3
75°	2058.6	2019.0	2797.9	2318.4	2381.3	1796.5	1915.6	1400.3	1166.5	953.9
77.5°	1497.4	1467.9	1873.9	1408.2	1559.5	1176.7	1057.2	558.9	532.2	459.0
80°	835.6	1007.3	1012.0	789.2	984.5	767.2	264.5	18.5	11.8	17.3
82.5°	388.3	433.1	548.7	365.9	561.6	380.1	54.6	0.0	0.0	0.0
85°	125.8	183.9	154.1	53.8	136.0	128.5	9.0	0.0	0.0	0.0
87.5°	7.5	15.3	3.9	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

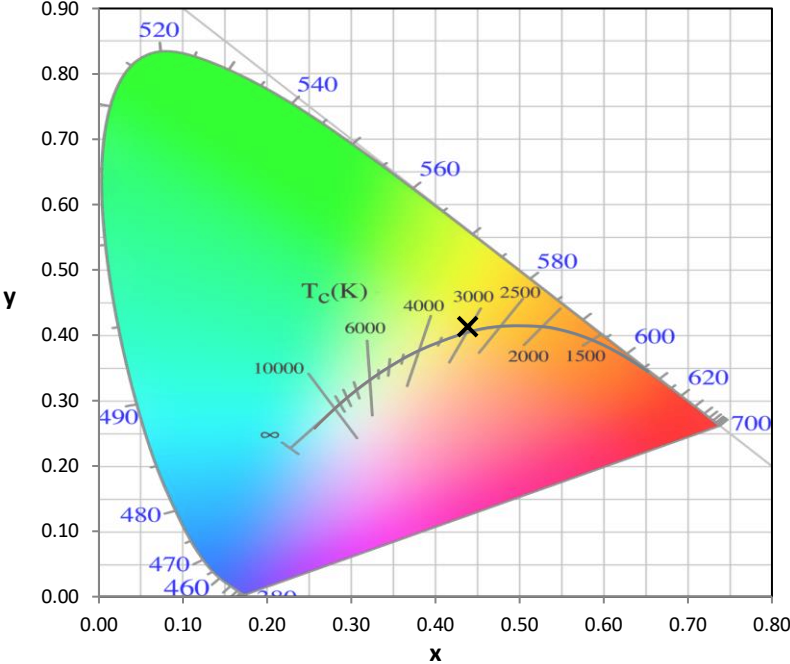
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

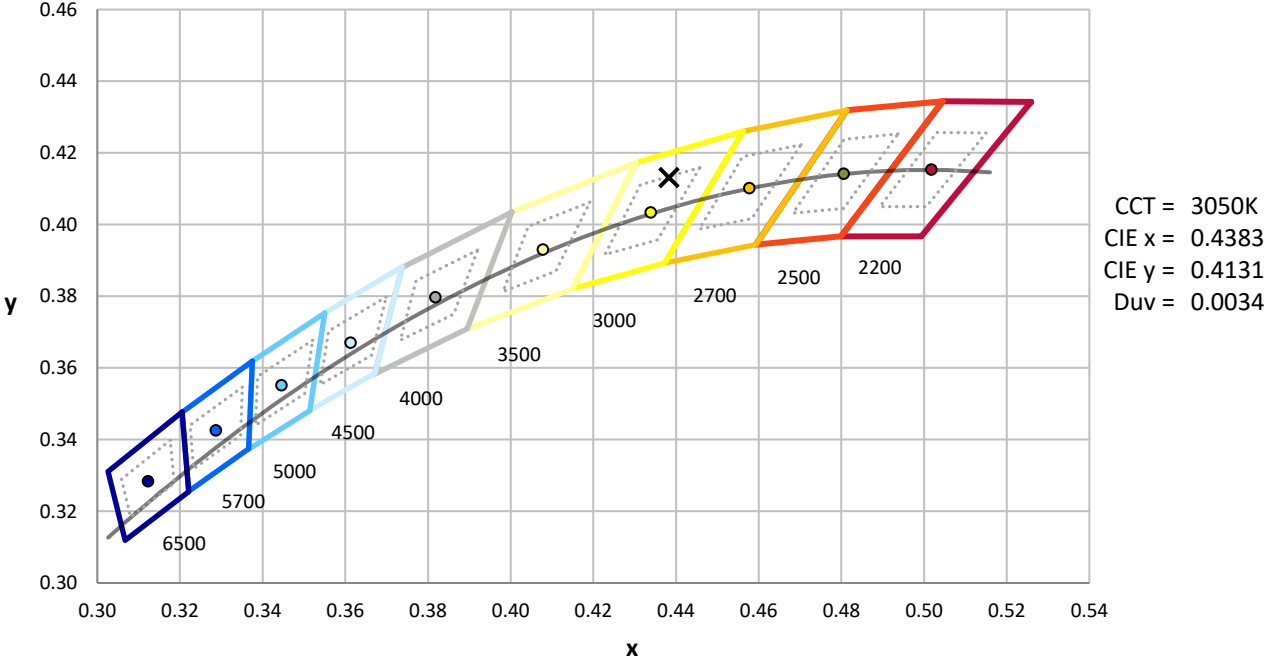
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2408-195-9

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

CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

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)