

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P1049761

Luminaire Tested: **GALN-SA4A-830-U-LBC**

Issue Date: 07/10/2025

Test Information

Test Method: LM-79-08
Report Number: P1049761
Test Lab: INNOVATION CENTER(G3)
Issue Date: 07/10/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-830-U-LBC
Description: GALLEON II AREA AND ROADWAY LUMINAIRE 615mA 4xLight Square PACKAGE
80CRI 3000K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (56) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11944.9 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 107.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

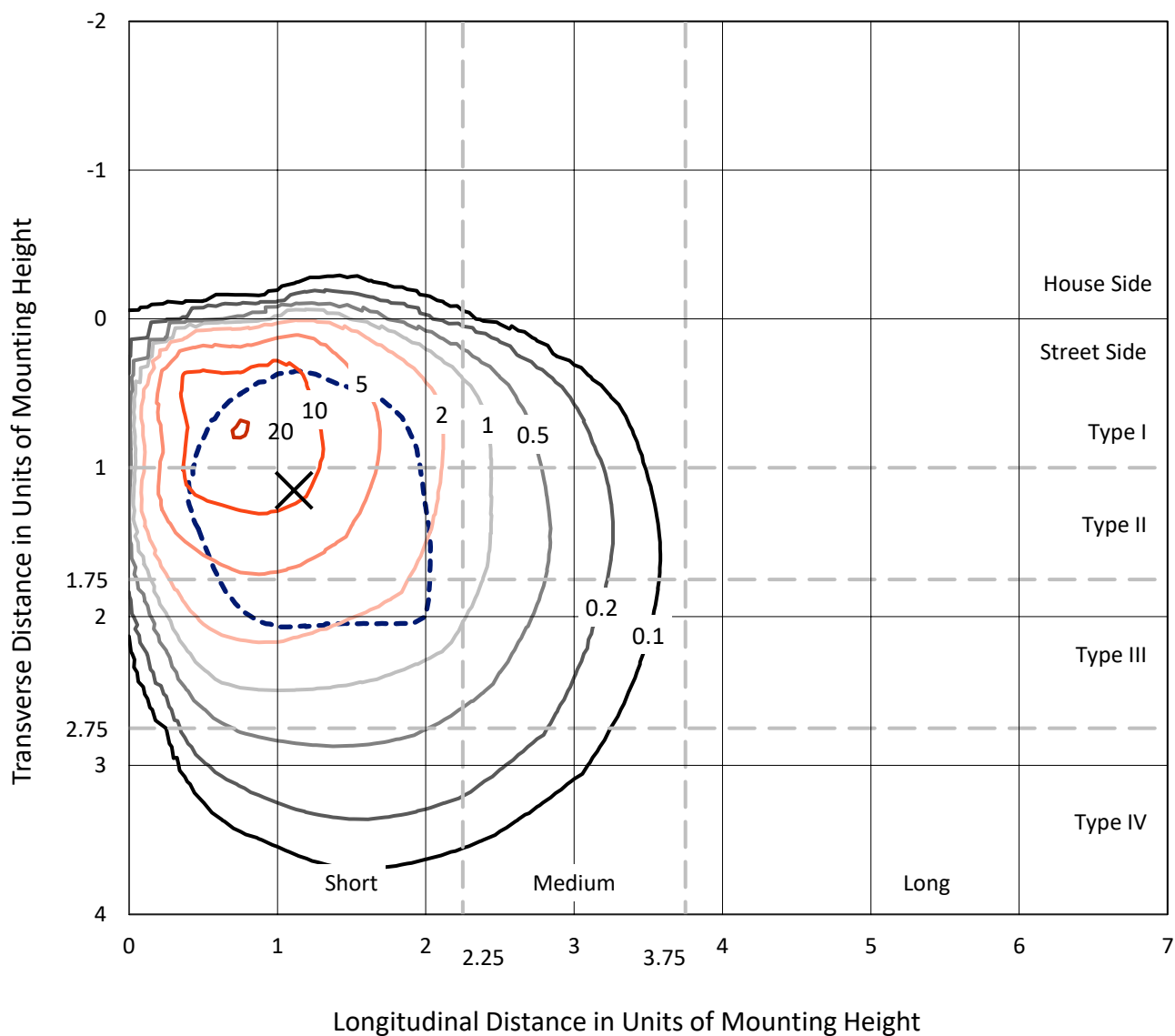
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

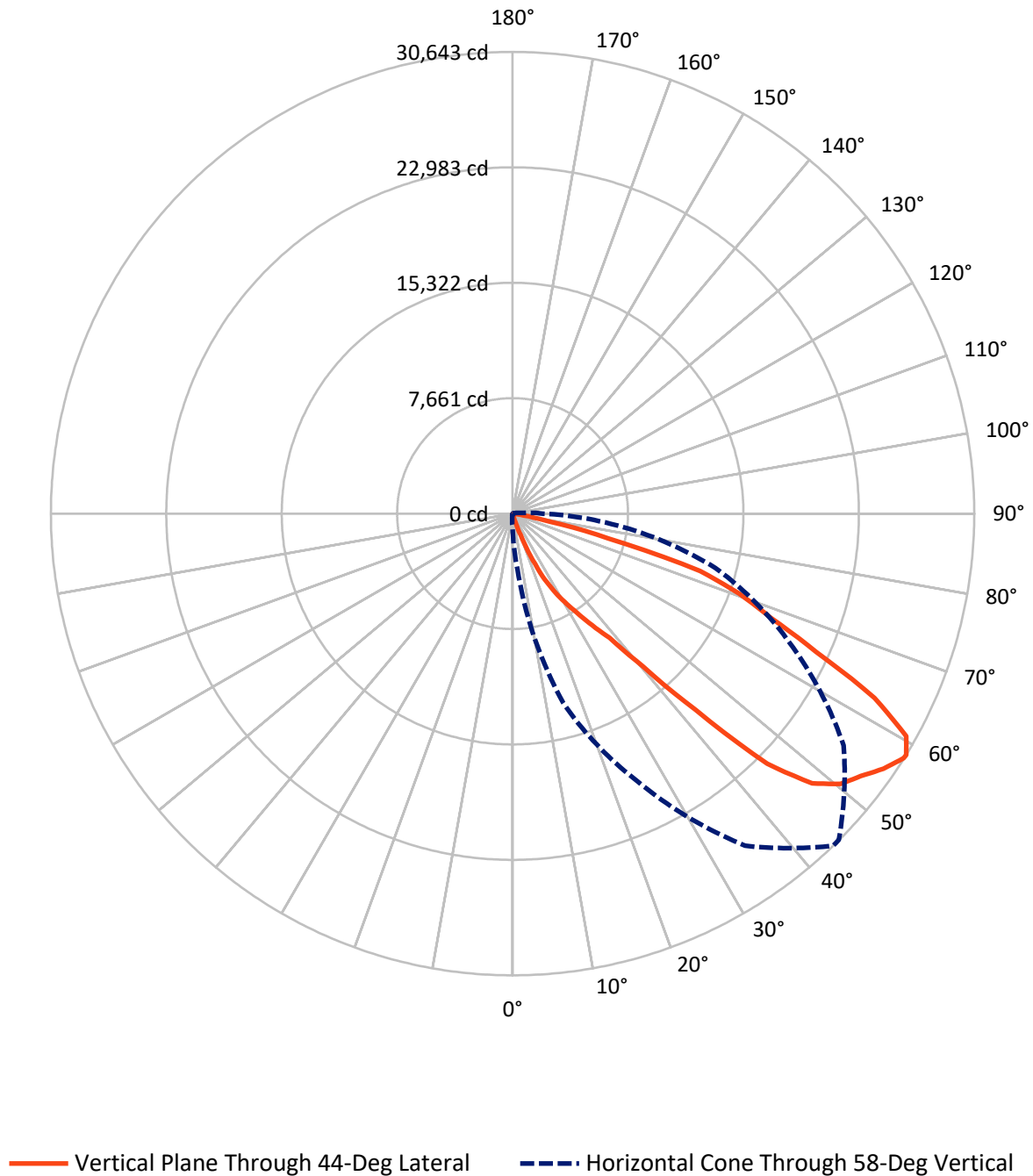


Based on 20 foot mounting height. Maximum calculated value = 20.8 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	81.6	0.0	81.6
	% Fixture	0.7	0.0	0.7
Street Side	Lumens	11863.4	0.0	11863.4
	% Fixture	99.3	0.0	99.3
Total	Lumens	11944.9	0.0	11944.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.0
10°-20°	26.2	0.2
20°-30°	283.0	2.4
30°-40°	836.9	7.0
40°-50°	2494.3	20.9
50°-60°	3957.8	33.1
60°-70°	3301.3	27.6
70°-80°	1018.2	8.5
80°-90°	22.6	0.2
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°	11944.9	100.0
0°-180°	11944.9	100.0



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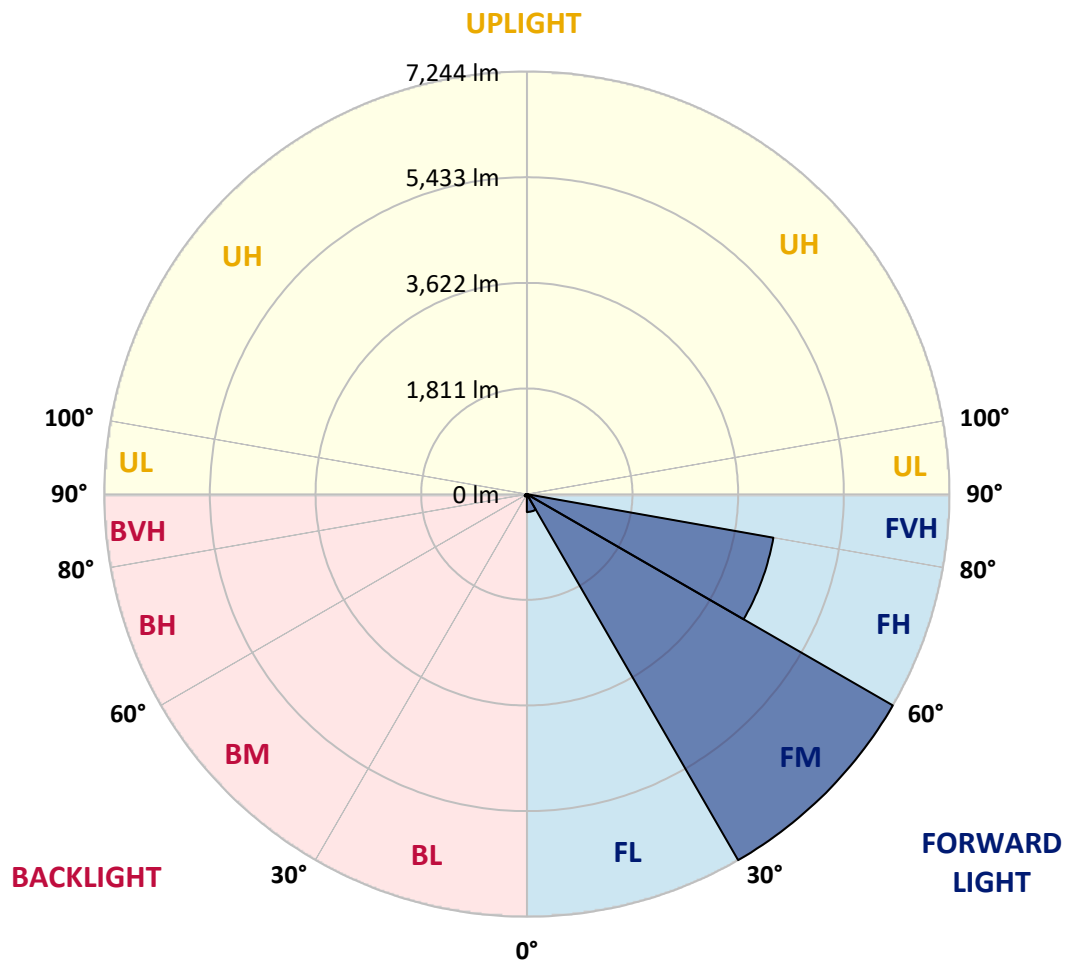
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	305.9	2.6			
FM	(30°-60°)	7244.4	60.6			
FH	(60°-80°)	4291.6	35.9			G2/5000
FVH	(80°-90°)	21.5	0.2			G1/100
BL	(0°-30°)	8.0	0.1	B0/110		
BM	(30°-60°)	44.6	0.4	B0/220		
BH	(60°-80°)	27.8	0.2	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°
0°	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
2.5°	67.7	67.7	65.0	61.4	57.7	54.1	53.2	51.4	50.5	49.6
5°	70.4	70.4	69.5	66.8	63.2	60.5	60.5	57.7	55.9	54.1
7.5°	72.2	73.1	74.9	74.0	72.2	69.5	69.5	67.7	65.0	60.5
10°	74.9	77.6	81.2	83.0	83.9	83.9	83.0	82.1	77.6	71.3
12.5°	77.6	83.0	92.0	101.1	106.5	113.7	112.8	111.0	99.3	85.7
15°	83.0	91.1	110.1	136.3	176.9	202.1	212.0	203.0	164.2	115.5
17.5°	89.3	102.9	159.7	285.1	467.4	554.0	606.4	564.0	373.6	219.3
20°	95.6	125.4	296.9	739.0	1212.7	1496.1	1574.6	1451.9	932.1	417.8
22.5°	106.5	176.0	601.9	1527.7	2613.2	3038.2	3118.5	2726.0	1760.5	824.7
25°	129.0	255.4	1037.7	2489.6	3899.9	4617.3	4583.9	4069.5	2855.9	1317.4
27.5°	161.5	371.8	1569.2	3537.2	5132.5	5765.0	5840.8	5204.7	3807.0	1937.3
30°	208.4	515.2	2139.4	4376.3	6120.6	6804.5	6817.2	6159.4	4657.9	2481.4
32.5°	253.6	650.6	2638.4	5187.5	7094.2	7844.0	7900.0	7090.6	5293.1	3048.1
35°	287.8	739.0	3143.7	5900.4	8075.9	9109.1	9105.5	8144.5	6045.7	3554.3
37.5°	290.6	827.4	3601.2	6629.5	9319.4	10476.2	10590.7	9531.4	6955.2	4180.5
40°	284.2	926.7	4180.5	7766.4	11559.9	13334.8	13435.8	12100.4	8779.8	5252.5
42.5°	291.5	1099.0	5120.8	9866.2	15280.2	17829.3	18024.2	16620.2	12133.7	7439.8
45°	329.4	1423.0	7090.6	13379.0	20583.2	23690.9	23625.9	21603.8	16036.4	10769.4
47.5°	454.8	2216.1	10010.5	16797.9	23972.4	26739.9	26795.9	24324.3	18313.9	13329.3
50°	699.3	3391.0	12464.0	18605.3	25429.7	28206.2	28153.9	25298.0	19179.2	14589.9
52.5°	909.6	4241.0	13694.8	19239.7	25616.5	28930.8	28927.2	25554.2	19313.7	14698.2
55°	961.9	4305.1	13704.7	19274.0	26035.2	29879.1	29998.3	26185.0	19487.8	14225.4
57.5°	941.1	3811.5	13132.6	19472.5	26780.5	30612.7	30619.1	26795.9	19930.0	13935.7
58°	923.1	3733.9	13017.1	19585.3	26908.6	30643.4	30628.1	26823.8	20290.0	13924.9
60°	822.0	3242.1	12566.9	19873.1	26718.2	30013.6	29870.1	26212.9	20236.8	13813.9
62.5°	646.1	2529.3	12123.8	19540.1	24677.2	26964.6	27024.1	23207.2	18448.3	13166.9
65°	514.3	1885.0	11199.8	17139.9	20320.7	22143.4	22365.4	18871.5	15398.4	11149.3
67.5°	409.7	1362.5	9395.2	13646.1	16079.7	18480.8	18642.3	15844.2	11929.8	8542.4
70°	333.0	921.3	6485.1	9979.9	13262.6	15962.4	15972.3	13162.4	8904.3	5597.2
72.5°	295.1	638.0	3764.6	7278.3	10754.1	13007.2	12744.6	10681.0	6843.3	3315.2
75°	255.4	423.2	1846.2	4449.4	6520.3	6564.5	6664.7	4954.7	3420.8	1576.4
77.5°	210.2	300.5	727.3	1215.5	1955.4	2503.1	2596.0	1967.1	1137.8	388.0
80°	144.4	142.6	195.8	372.7	559.5	701.1	654.2	506.2	297.8	148.9
82.5°	62.3	67.7	88.4	106.5	86.6	83.9	80.3	51.4	39.7	30.7
85°	19.9	18.0	18.9	18.9	15.3	11.7	11.7	5.4	0.0	0.0
87.5°	9.9	8.1	8.1	7.2	4.5	1.8	0.9	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

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CANDELA DISTRIBUTION (continued):

85°		90°	95°	105°	115°	125°	135°	145°	155°	165°	175°
52.3	0°	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
48.7	2.5°	47.8	47.8	46.0	44.2	43.3	41.5	40.6	39.7	38.8	37.9
52.3	5°	50.5	49.6	46.9	44.2	41.5	38.8	37.0	35.2	33.4	32.5
57.7	7.5°	55.0	53.2	47.8	43.3	39.7	36.1	34.3	31.6	29.8	27.1
64.1	10°	60.5	56.8	49.6	44.2	38.8	34.3	31.6	28.9	26.2	22.6
73.1	12.5°	67.7	61.4	52.3	43.3	37.0	31.6	28.9	25.3	22.6	19.9
84.8	15°	74.0	65.9	53.2	43.3	35.2	28.9	25.3	21.7	18.9	15.3
106.5	17.5°	83.0	69.5	52.3	40.6	32.5	25.3	21.7	18.9	14.4	9.0
157.9	20°	98.4	72.2	50.5	37.9	28.0	20.8	16.2	12.6	6.3	1.8
237.3	22.5°	122.7	79.4	48.7	34.3	24.4	16.2	10.8	4.5	0.0	0.0
360.9	25°	169.6	92.0	48.7	32.5	21.7	11.7	3.6	0.0	0.0	0.0
512.5	27.5°	225.6	109.2	48.7	28.0	17.1	6.3	0.0	0.0	0.0	0.0
698.4	30°	282.4	128.1	48.7	24.4	13.5	0.9	0.0	0.0	0.0	0.0
859.9	32.5°	336.6	144.4	49.6	20.8	9.0	0.0	0.0	0.0	0.0	0.0
1083.7	35°	391.6	147.1	48.7	18.0	5.4	0.0	0.0	0.0	0.0	0.0
1358.0	37.5°	462.0	141.7	46.0	16.2	2.7	0.0	0.0	0.0	0.0	0.0
1786.6	40°	568.5	144.4	43.3	15.3	0.9	0.0	0.0	0.0	0.0	0.0
2550.9	42.5°	765.2	156.1	39.7	15.3	0.0	0.0	0.0	0.0	0.0	0.0
4063.2	45°	1322.8	209.3	36.1	16.2	0.0	0.0	0.0	0.0	0.0	0.0
6099.8	47.5°	2188.2	376.3	35.2	16.2	0.0	0.0	0.0	0.0	0.0	0.0
7347.7	50°	2792.7	473.7	37.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
7503.8	52.5°	2788.2	527.9	38.8	18.0	3.6	0.0	0.0	0.0	0.0	0.0
6916.4	55°	2478.7	537.8	41.5	19.9	11.7	0.0	0.0	0.0	0.0	0.0
5943.7	57.5°	2071.8	490.9	47.8	24.4	21.7	0.0	0.0	0.0	0.0	0.0
5791.2	58°	1999.6	469.2	49.6	25.3	23.5	0.0	0.0	0.0	0.0	0.0
5023.3	60°	1638.6	382.6	63.2	31.6	31.6	0.0	0.0	0.0	0.0	0.0
4118.3	62.5°	1131.5	333.9	72.2	40.6	32.5	0.0	0.0	0.0	0.0	0.0
3036.4	65°	800.4	301.4	78.5	43.3	26.2	0.0	0.0	0.0	0.0	0.0
2157.5	67.5°	598.3	277.9	86.6	44.2	13.5	0.0	0.0	0.0	0.0	0.0
1353.5	70°	458.4	260.8	106.5	46.9	3.6	0.0	0.0	0.0	0.0	0.0
806.7	72.5°	373.6	240.9	129.0	48.7	0.0	0.0	0.0	0.0	0.0	0.0
483.7	75°	309.5	217.5	124.5	53.2	0.0	0.0	0.0	0.0	0.0	0.0
258.1	77.5°	205.7	168.7	113.7	53.2	0.0	0.0	0.0	0.0	0.0	0.0
92.0	80°	72.2	66.8	88.4	46.9	0.0	0.0	0.0	0.0	0.0	0.0
18.9	82.5°	10.8	9.0	12.6	16.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	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

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CANDELA DISTRIBUTION (continued):

180°		185°	195°	205°	215°	225°	235°	245°	255°	265°	270°
52.3	0°	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
37.0	2.5°	37.0	37.0	36.1	37.0	37.0	38.8	43.3	49.6	56.8	59.6
31.6	5°	30.7	29.8	28.9	28.9	28.9	31.6	35.2	42.4	50.5	54.1
26.2	7.5°	25.3	24.4	23.5	22.6	22.6	24.4	28.9	37.0	45.1	48.7
21.7	10°	20.8	18.9	18.0	17.1	17.1	18.9	23.5	31.6	40.6	44.2
18.0	12.5°	17.1	14.4	12.6	11.7	10.8	13.5	18.0	25.3	35.2	39.7
13.5	15°	11.7	9.0	6.3	5.4	4.5	7.2	11.7	19.9	29.8	35.2
7.2	17.5°	6.3	2.7	0.9	0.0	0.0	1.8	5.4	14.4	24.4	28.9
0.0	20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	18.0	22.6
0.0	22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	10.8	15.3
0.0	25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	8.1
0.0	27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
0.0	30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
0.0	87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.2
0.0	90°	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):

275°		285°	295°	305°	315°	316°	325°	335°	345°	355°	360°
52.3	0°	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
62.3	2.5°	64.1	63.2	61.4	59.6	59.6	59.6	62.3	65.0	67.7	67.7
55.9	5°	59.6	59.6	58.7	56.8	56.8	57.7	61.4	65.9	69.5	70.4
51.4	7.5°	55.0	56.8	55.0	54.1	55.0	55.9	59.6	65.0	70.4	72.2
47.8	10°	52.3	53.2	53.2	52.3	52.3	54.1	57.7	65.0	72.2	74.9
43.3	12.5°	48.7	50.5	49.6	49.6	49.6	51.4	55.9	64.1	74.0	77.6
38.8	15°	45.1	47.8	47.8	46.9	46.9	47.8	54.1	63.2	76.7	83.0
33.4	17.5°	41.5	44.2	45.1	43.3	43.3	45.1	51.4	63.2	78.5	89.3
27.1	20°	34.3	38.8	41.5	38.8	38.8	40.6	46.9	59.6	79.4	95.6
19.9	22.5°	27.1	31.6	35.2	34.3	34.3	35.2	43.3	56.8	80.3	106.5
11.7	25°	19.9	24.4	27.1	28.9	28.9	31.6	39.7	55.0	83.9	129.0
5.4	27.5°	11.7	17.1	20.8	22.6	23.5	27.1	37.0	53.2	90.2	161.5
0.0	30°	5.4	9.9	14.4	18.0	18.0	24.4	34.3	51.4	98.4	208.4
0.0	32.5°	0.0	4.5	7.2	12.6	13.5	19.9	31.6	49.6	110.1	253.6
0.0	35°	0.0	0.0	3.6	9.9	9.9	16.2	28.9	47.8	128.1	287.8
0.0	37.5°	0.0	0.0	0.0	7.2	8.1	14.4	28.0	46.9	131.7	290.6
0.0	40°	0.0	0.0	0.0	5.4	6.3	13.5	28.0	47.8	119.1	284.2
0.0	42.5°	0.0	0.0	0.0	3.6	4.5	13.5	28.0	49.6	107.4	291.5
0.0	45°	0.0	0.0	0.0	2.7	3.6	14.4	27.1	48.7	101.1	329.4
0.0	47.5°	0.0	0.0	0.0	3.6	5.4	14.4	26.2	47.8	102.0	454.8
0.0	50°	0.0	0.0	0.0	4.5	6.3	14.4	27.1	46.0	111.9	699.3
0.0	52.5°	0.0	0.0	0.0	3.6	5.4	16.2	29.8	45.1	121.8	909.6
0.0	55°	0.0	0.0	0.0	0.9	2.7	20.8	32.5	45.1	137.2	961.9
0.0	57.5°	0.0	0.0	0.0	0.0	0.0	23.5	37.0	47.8	162.4	941.1
0.0	58°	0.0	0.0	0.0	0.0	0.0	23.5	37.9	47.8	164.2	923.1
0.0	60°	0.0	0.0	0.0	0.0	0.0	23.5	41.5	53.2	176.9	822.0
0.0	62.5°	0.0	0.0	0.0	0.0	0.0	19.9	49.6	66.8	184.1	646.1
0.0	65°	0.0	0.0	0.0	0.0	0.0	16.2	58.7	73.1	189.5	514.3
0.0	67.5°	0.0	0.0	0.0	0.0	0.0	15.3	60.5	74.0	192.2	409.7
0.0	70°	0.0	0.0	0.0	0.0	0.0	16.2	59.6	79.4	201.2	333.0
0.0	72.5°	0.0	0.0	0.0	0.0	0.0	18.0	54.1	87.5	201.2	295.1
0.0	75°	0.0	0.0	0.0	0.0	0.0	18.9	50.5	98.4	183.2	255.4
0.0	77.5°	0.0	0.0	0.0	0.0	0.0	18.0	49.6	114.6	163.3	210.2
0.0	80°	1.8	2.7	2.7	1.8	1.8	15.3	48.7	116.4	139.0	144.4
0.9	82.5°	5.4	7.2	6.3	4.5	4.5	13.5	43.3	97.5	72.2	62.3
5.4	85°	9.9	11.7	11.7	9.9	9.9	12.6	27.1	35.2	24.4	19.9
9.9	87.5°	13.5	15.3	15.3	13.5	13.5	12.6	11.7	10.8	9.9	9.9
0.0	90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF RI



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

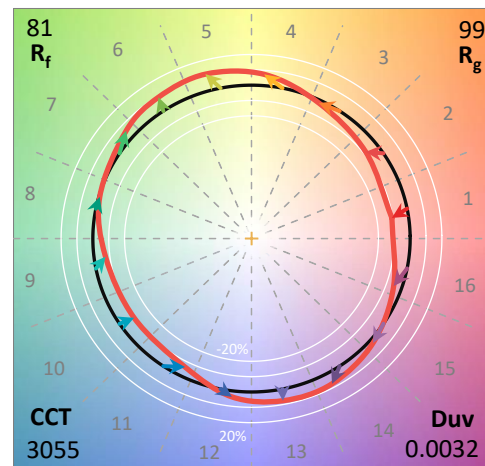
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGraw-Edison
 Catalog Number: **GSS-SB1A-830-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI
 3000K CCT 26 LEDS

Spectral Parameters

CCT (K): 3055
 CIE u' : 0.2475
 CIE v' : 0.5247
 Duv: 0.0032
 CIE x: 0.4377
 CIE y: 0.4124
 CIE z: 0.1499
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 581
 Purity: 55.16339
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 80.9
 R1: 79.5
 R2: 85.6
 R3: 92.1
 R4: 82.4
 R5: 78.9
 R6: 81.7
 R7: 85.1
 R8: 61.9
 R9: 6.8
 R10: 67.1
 R11: 82.5
 R12: 63.4
 R13: 80.2
 R14: 95.1
 R15: 71.7



Test Conditions

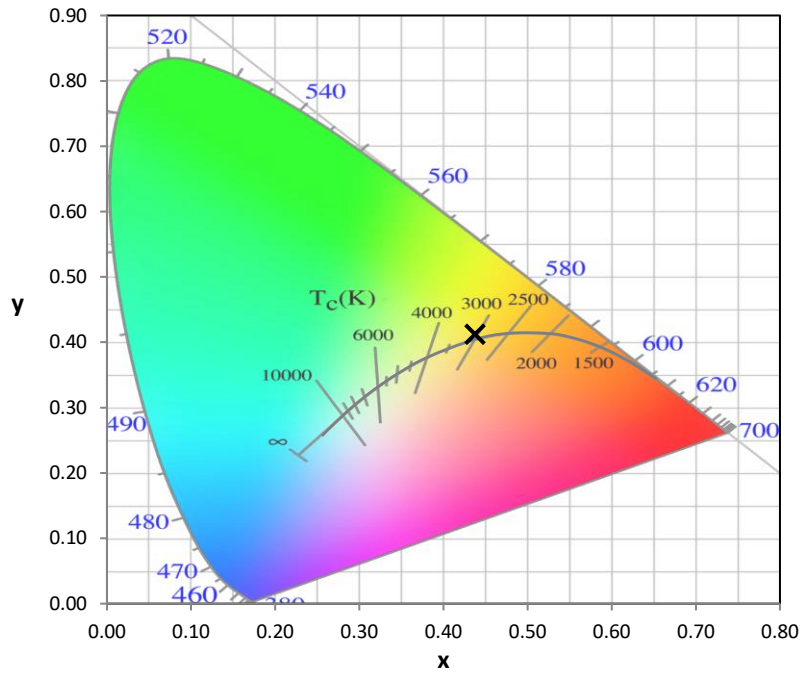
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-9

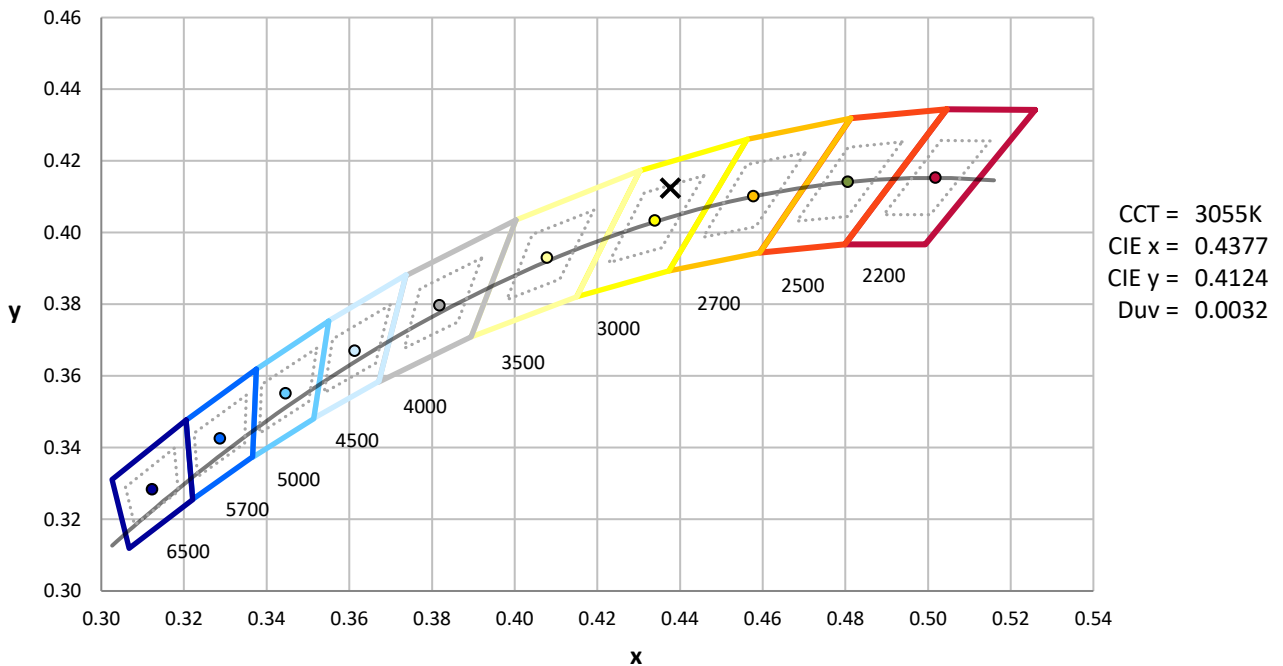
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-9

CIE 1931 Chromaticity Diagram



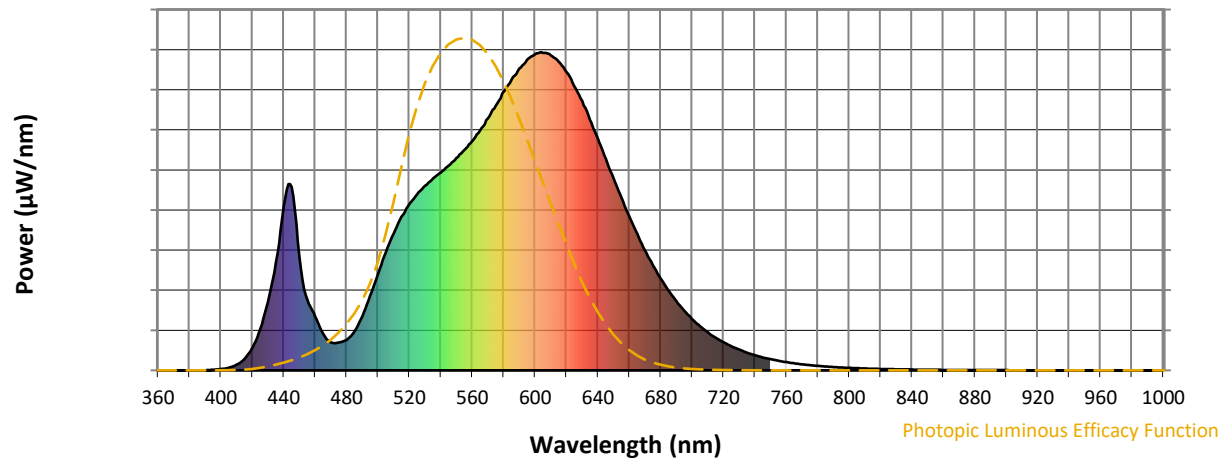
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-9

Photopic Flux vs. Wavelength

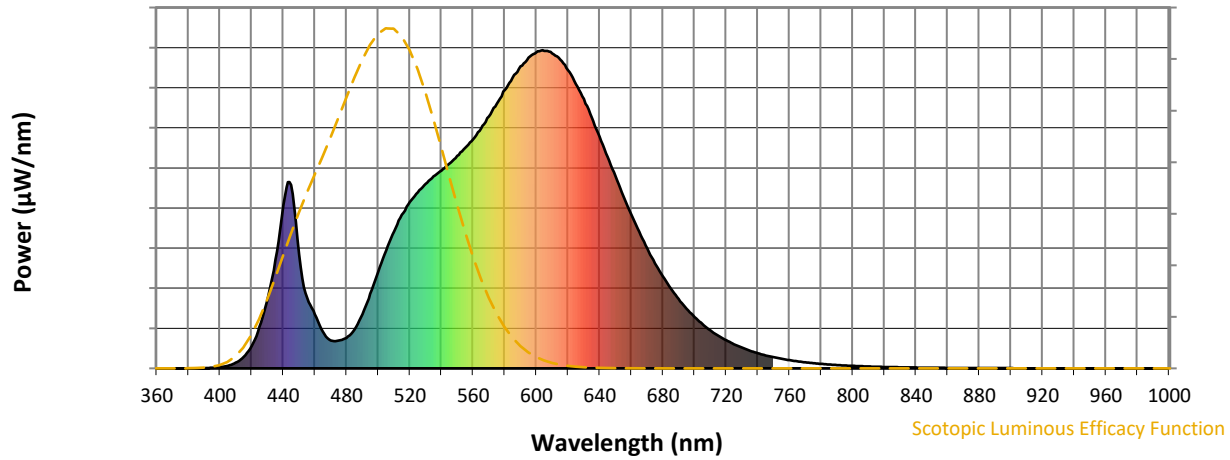


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

Scotopic Flux vs. Wavelength



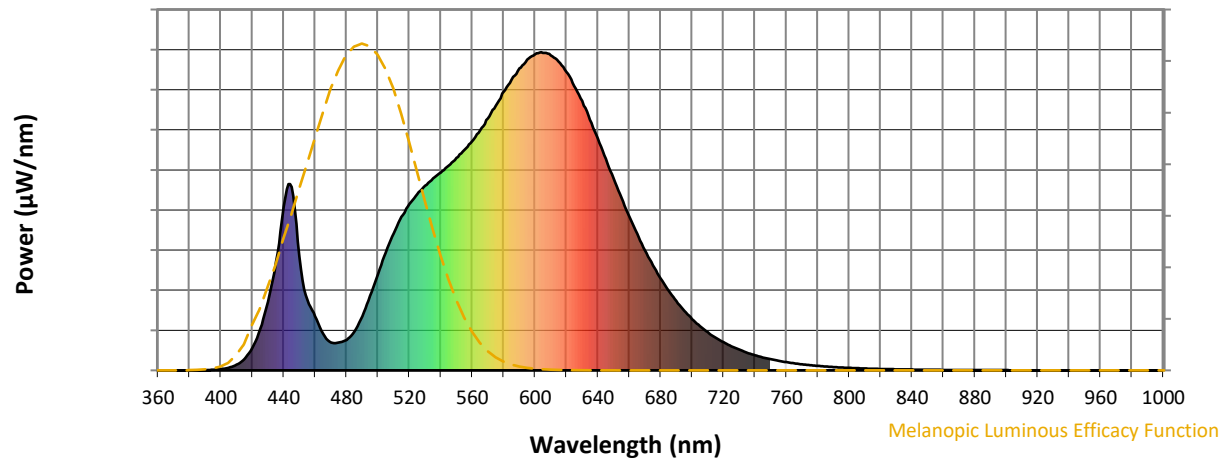
Scotopic Lumens: NR

S/P: 1.28

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.33

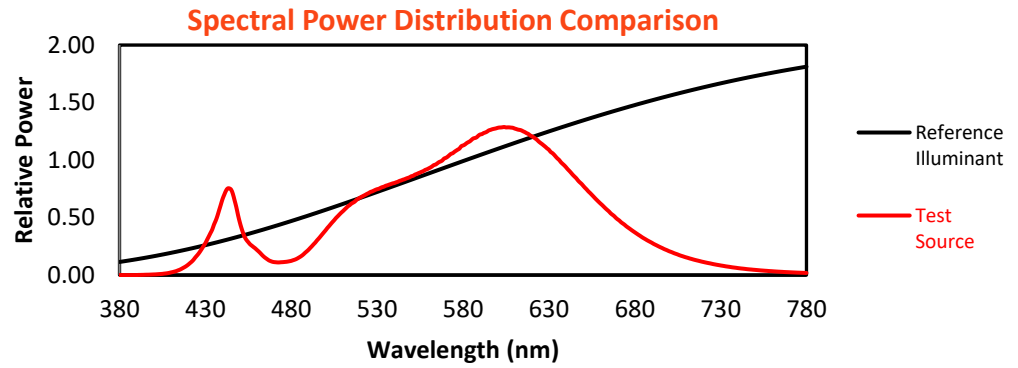
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	170	NR	620	938	NR	750	35	NR	880	1	NR
365	0	NR	495	234	NR	625	894	NR	755	30	NR	885	1	NR
370	0	NR	500	302	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	371	NR	635	788	NR	765	22	NR	895	1	NR
380	0	NR	510	431	NR	640	728	NR	770	19	NR	900	1	NR
385	0	NR	515	482	NR	645	665	NR	775	16	NR	905	1	NR
390	0	NR	520	523	NR	650	603	NR	780	14	NR	910	0	NR
395	2	NR	525	553	NR	655	542	NR	785	12	NR	915	0	NR
400	4	NR	530	580	NR	660	484	NR	790	11	NR	920	0	NR
405	8	NR	535	603	NR	665	430	NR	795	9	NR	925	0	NR
410	18	NR	540	622	NR	670	377	NR	800	8	NR	930	0	NR
415	36	NR	545	644	NR	675	330	NR	805	7	NR	935	0	NR
420	71	NR	550	668	NR	680	289	NR	810	6	NR	940	0	NR
425	131	NR	555	693	NR	685	250	NR	815	5	NR	945	0	NR
430	215	NR	560	720	NR	690	218	NR	820	4	NR	950	0	NR
435	341	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	514	NR	570	792	NR	700	161	NR	830	3	NR	960	0	NR
445	576	NR	575	832	NR	705	139	NR	835	3	NR	965	0	NR
450	358	NR	580	875	NR	710	119	NR	840	3	NR	970	0	NR
455	222	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	170	NR	590	950	NR	720	88	NR	850	2	NR	980	0	NR
465	115	NR	595	977	NR	725	76	NR	855	2	NR	985	0	NR
470	88	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	87	NR	605	997	NR	735	56	NR	865	1	NR	995	0	NR
480	96	NR	610	990	NR	740	47	NR	870	1	NR	1000	0	NR
485	122	NR	615	971	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-9

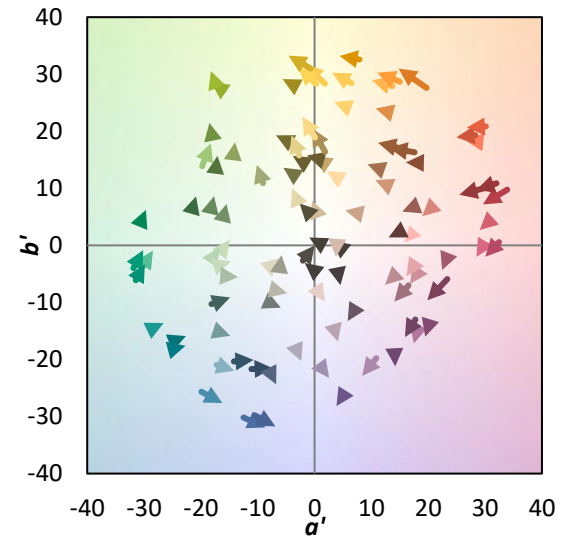
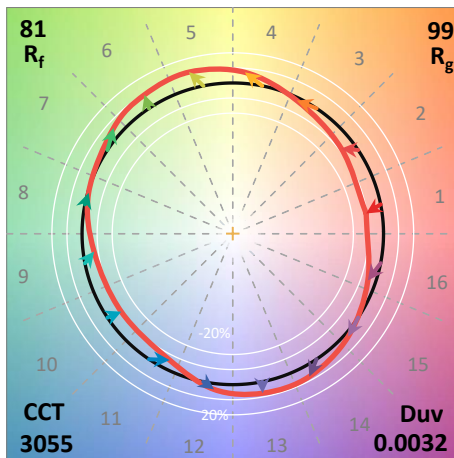
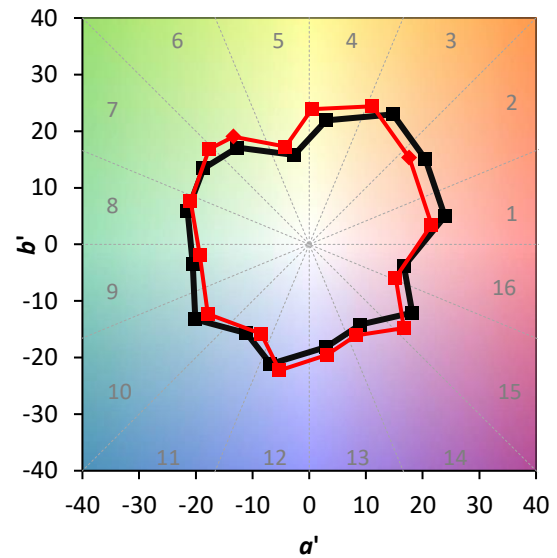
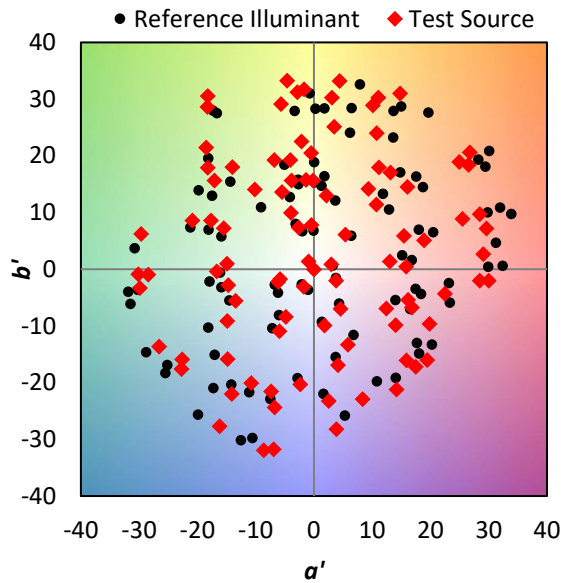
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 80.9$
 $R_g = 6.8$

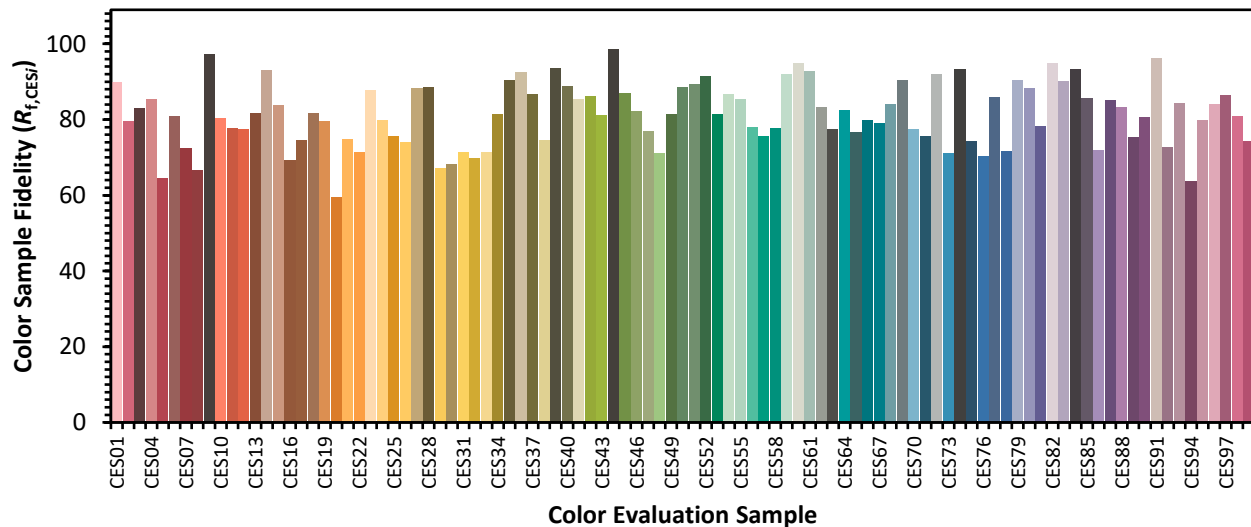


Color Vector Graphics

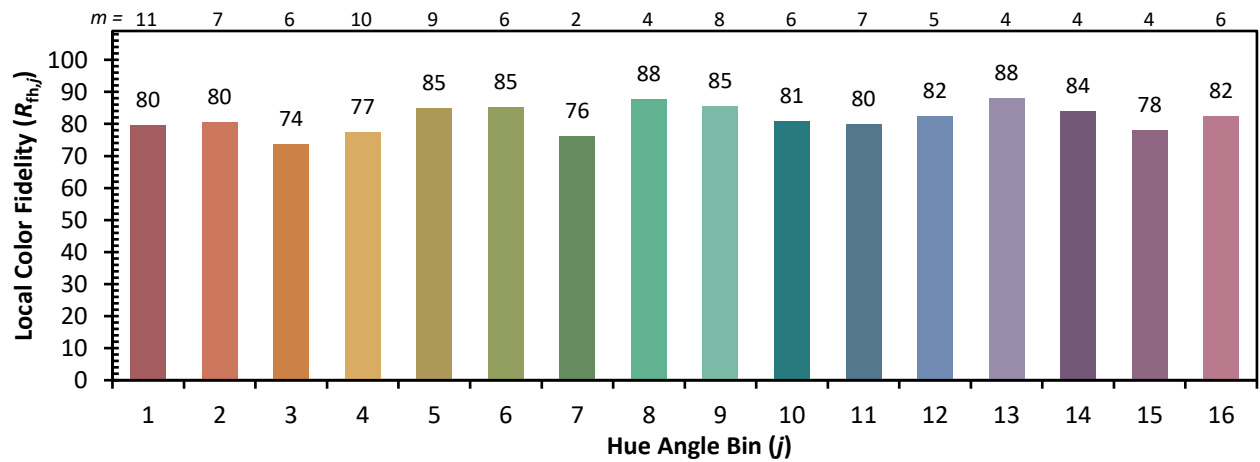
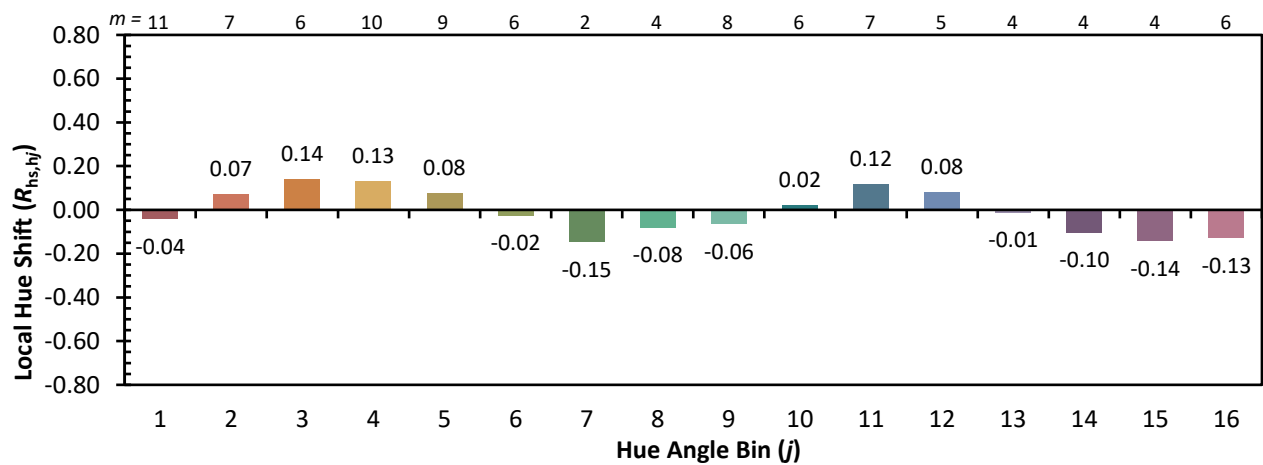
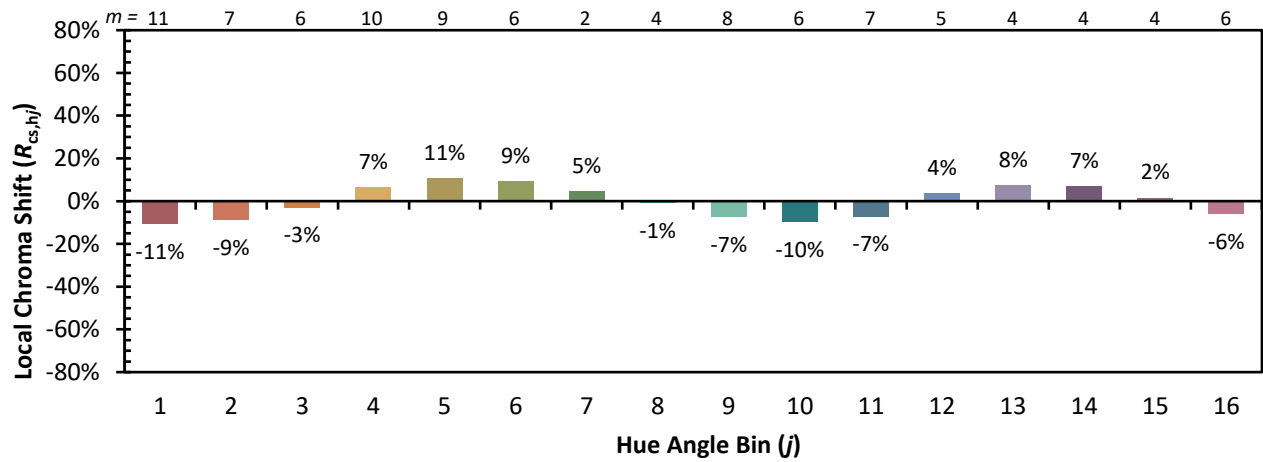


Individual Sample Fidelity Index ($R_{f,i}$)

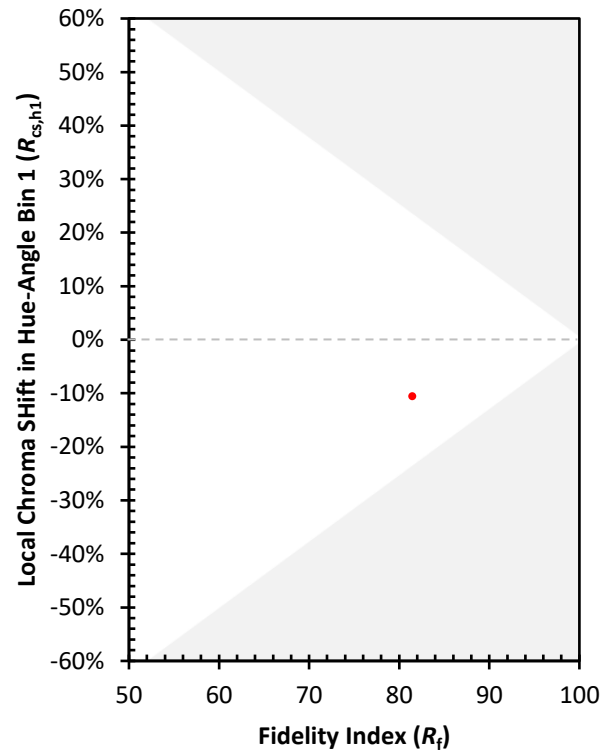
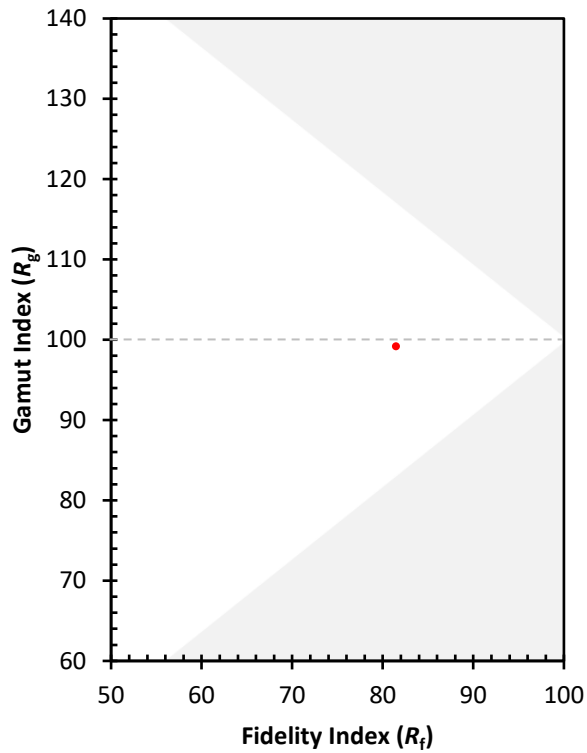
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 91	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 93
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 = 90	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 77	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)