

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: P1049977

Luminaire Tested: **GALN-SA4A-935-U-LBC**

Issue Date: 07/10/2025

Test Information

Test Method: LM-79-08
Report Number: P1049977
Test Lab: INNOVATION CENTER(G3)
Issue Date: 07/10/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-935-U-LBC
Description: GALLEON II AREA AND ROADWAY LUMINAIRE 615mA 4xLight Square PACKAGE
90CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (56) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9721.5 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

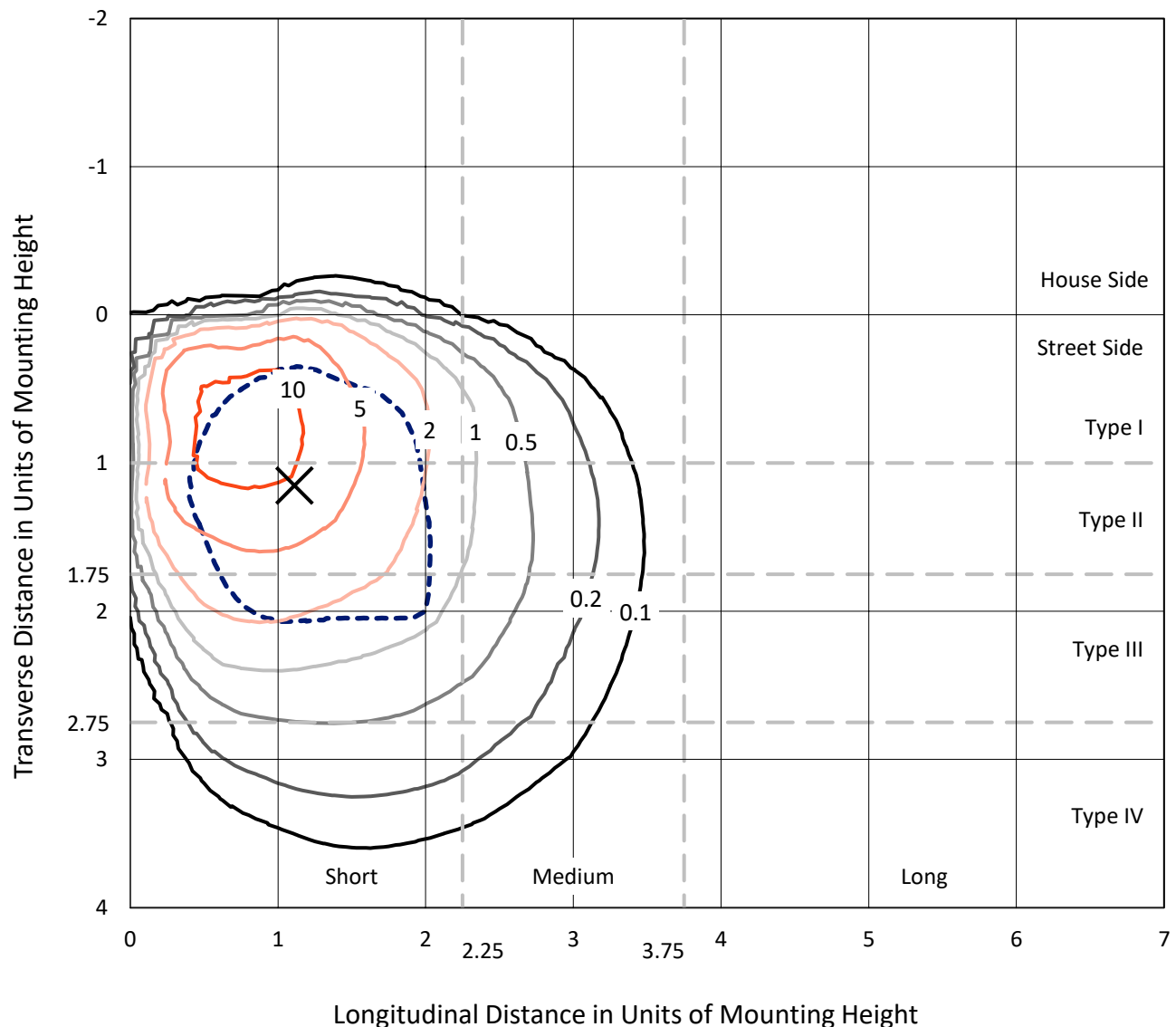
Input Watts (W): 107.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.97
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

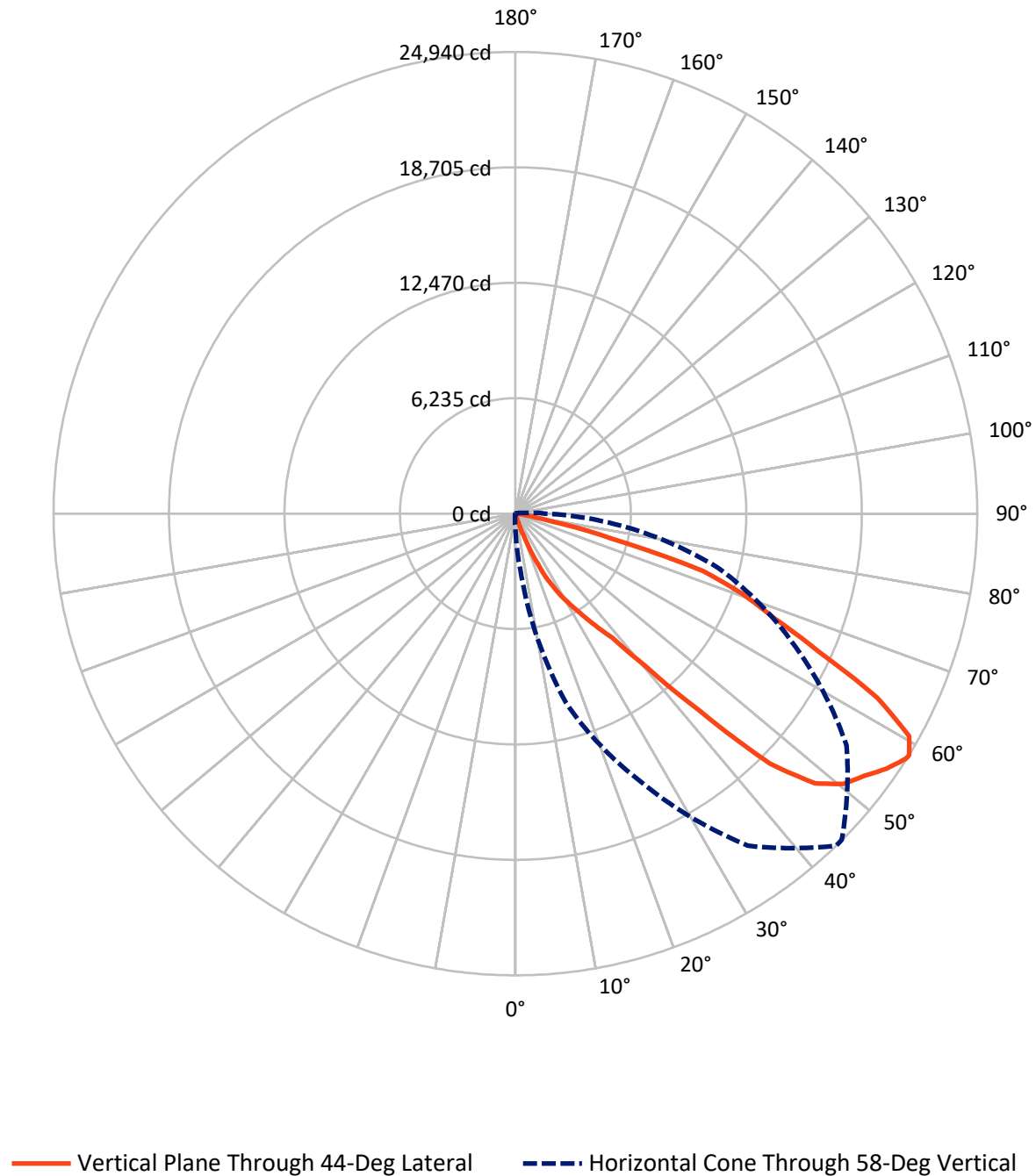
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 16.9 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	66.4	0.0	66.4
	% Fixture	0.7	0.0	0.7
Street Side	Lumens	9655.2	0.0	9655.2
	% Fixture	99.3	0.0	99.3
Total	Lumens	9721.5	0.0	9721.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.0
10°-20°	21.3	0.2
20°-30°	230.3	2.4
30°-40°	681.1	7.0
40°-50°	2030.0	20.9
50°-60°	3221.1	33.1
60°-70°	2686.8	27.6
70°-80°	828.7	8.5
80°-90°	18.4	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°	9721.5	100.0
0°-180°	9721.5	100.0

Coefficient of Utilization



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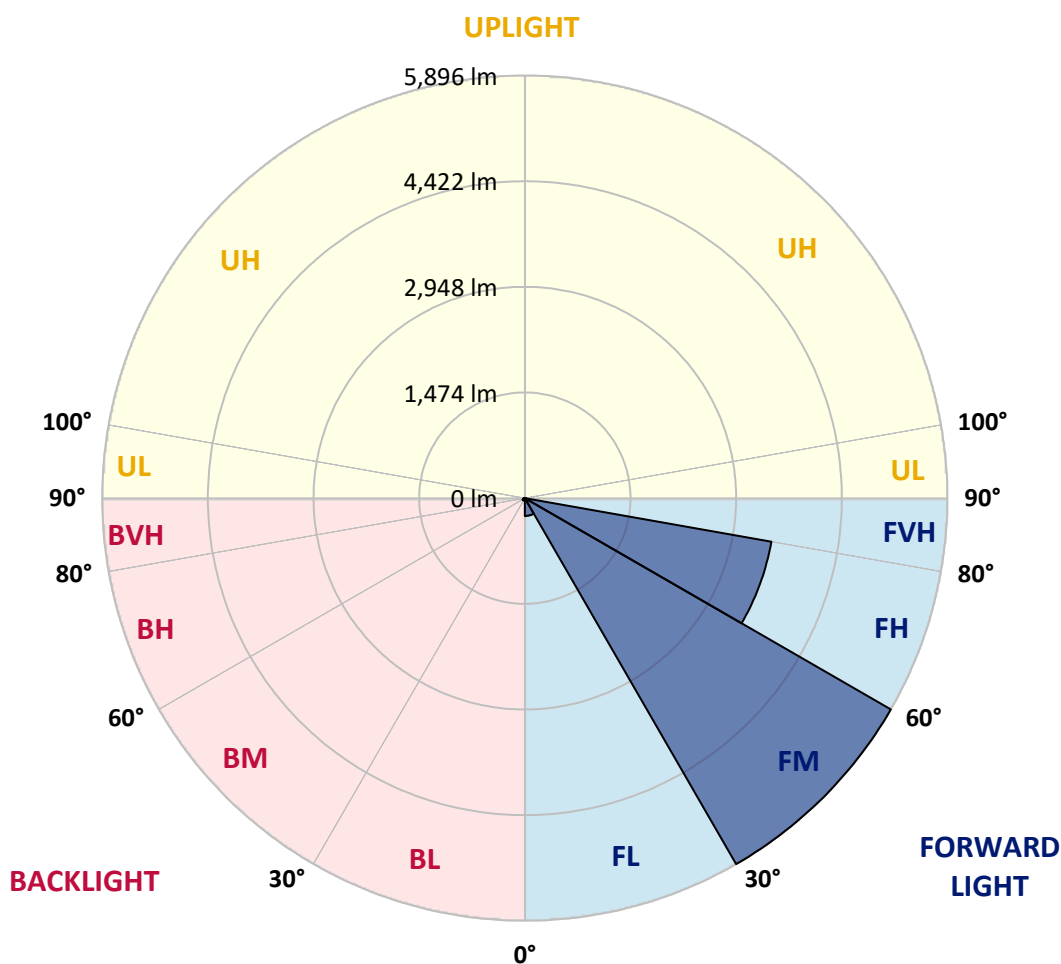
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	248.9	2.6			
FM	(30°-60°)	5895.9	60.6			
FH	(60°-80°)	3492.8	35.9			G2/5000
FVH	(80°-90°)	17.5	0.2			G1/100
BL	(0°-30°)	6.5	0.1	B0/110		
BM	(30°-60°)	36.3	0.4	B0/220		
BH	(60°-80°)	22.7	0.2	B0/110		G0/110
BVH	(80°-90°)	0.9	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°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
2.5°	55.1	55.1	52.9	49.9	47.0	44.1	43.3	41.9	41.1	40.4
5°	57.3	57.3	56.5	54.3	51.4	49.2	49.2	47.0	45.5	44.1
7.5°	58.8	59.5	61.0	60.2	58.8	56.5	56.5	55.1	52.9	49.2
10°	61.0	63.2	66.1	67.6	68.3	68.3	67.6	66.8	63.2	58.0
12.5°	63.2	67.6	74.9	82.3	86.7	92.5	91.8	90.3	80.8	69.8
15°	67.6	74.2	89.6	110.9	143.9	164.5	172.6	165.2	133.7	94.0
17.5°	72.7	83.7	130.0	232.1	380.4	450.9	493.5	459.0	304.0	178.5
20°	77.8	102.1	241.6	601.5	987.0	1217.6	1281.5	1181.6	758.6	340.0
22.5°	86.7	143.2	489.8	1243.3	2126.8	2472.7	2538.0	2218.6	1432.8	671.2
25°	105.0	207.8	844.5	2026.2	3174.0	3757.8	3730.7	3312.1	2324.3	1072.2
27.5°	131.5	302.6	1277.1	2878.8	4177.2	4692.0	4753.6	4235.9	3098.3	1576.7
30°	169.6	419.3	1741.2	3561.7	4981.3	5538.0	5548.2	5012.9	3790.9	2019.5
32.5°	206.4	529.5	2147.3	4222.0	5773.7	6384.0	6429.5	5770.8	4307.9	2480.7
35°	234.3	601.5	2558.6	4802.1	6572.7	7413.6	7410.6	6628.5	4920.3	2892.7
37.5°	236.5	673.4	2930.9	5395.5	7584.7	8526.2	8619.4	7757.3	5660.6	3402.4
40°	231.3	754.2	3402.4	6320.8	9408.1	10852.7	10934.9	9848.0	7145.5	4274.8
42.5°	237.2	894.5	4167.6	8029.7	12436.0	14510.6	14669.2	13526.5	9875.2	6055.0
45°	268.0	1158.1	5770.8	10888.7	16751.9	19281.1	19228.3	17582.5	13051.4	8764.8
47.5°	370.1	1803.6	8147.2	13671.2	19510.3	21762.6	21808.1	19796.7	14905.0	10848.3
50°	569.1	2759.8	10144.0	15142.2	20696.3	22956.0	22913.4	20589.1	15609.2	11874.2
52.5°	740.3	3451.6	11145.7	15658.5	20848.3	23545.7	23542.8	20797.6	15718.7	11962.3
55°	782.8	3503.7	11153.8	15686.4	21189.1	24317.5	24414.5	21311.0	15860.4	11577.5
57.5°	766.0	3102.0	10688.2	15847.9	21795.7	24914.6	24919.7	21808.1	16220.3	11341.8
58°	751.3	3038.9	10594.2	15939.7	21899.9	24939.5	24927.1	21830.9	16513.3	11333.0
60°	669.0	2638.6	10227.7	16174.0	21745.0	24426.9	24310.2	21333.7	16469.9	11242.6
62.5°	525.8	2058.5	9867.1	15903.0	20083.8	21945.5	21993.9	18887.5	15014.4	10716.1
65°	418.6	1534.1	9115.1	13949.5	16538.2	18021.7	18202.3	15358.8	12532.2	9074.0
67.5°	333.4	1108.9	7646.4	11106.0	13086.7	15040.8	15172.3	12895.0	9709.2	6952.4
70°	271.0	749.8	5278.0	8122.2	10793.9	12991.2	12999.3	10712.4	7246.9	4555.4
72.5°	240.1	519.2	3063.8	5923.5	8752.3	10586.1	10372.4	8692.9	5569.5	2698.1
75°	207.8	344.4	1502.5	3621.2	5306.6	5342.6	5424.1	4032.5	2784.0	1283.0
77.5°	171.1	244.5	591.9	989.2	1591.4	2037.2	2112.8	1600.9	926.1	315.8
80°	117.5	116.0	159.4	303.3	455.3	570.6	532.4	412.0	242.3	121.2
82.5°	50.7	55.1	72.0	86.7	70.5	68.3	65.4	41.9	32.3	25.0
85°	16.2	14.7	15.4	15.4	12.5	9.5	9.5	4.4	0.0	0.0
87.5°	8.1	6.6	6.6	5.9	3.7	1.5	0.7	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°
42.6	0°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
39.7	2.5°	38.9	38.9	37.5	36.0	35.3	33.8	33.0	32.3	31.6	30.8
42.6	5°	41.1	40.4	38.2	36.0	33.8	31.6	30.1	28.6	27.2	26.4
47.0	7.5°	44.8	43.3	38.9	35.3	32.3	29.4	27.9	25.7	24.2	22.0
52.1	10°	49.2	46.3	40.4	36.0	31.6	27.9	25.7	23.5	21.3	18.4
59.5	12.5°	55.1	49.9	42.6	35.3	30.1	25.7	23.5	20.6	18.4	16.2
69.0	15°	60.2	53.6	43.3	35.3	28.6	23.5	20.6	17.6	15.4	12.5
86.7	17.5°	67.6	56.5	42.6	33.0	26.4	20.6	17.6	15.4	11.8	7.3
128.5	20°	80.0	58.8	41.1	30.8	22.8	16.9	13.2	10.3	5.1	1.5
193.1	22.5°	99.9	64.6	39.7	27.9	19.8	13.2	8.8	3.7	0.0	0.0
293.8	25°	138.1	74.9	39.7	26.4	17.6	9.5	2.9	0.0	0.0	0.0
417.1	27.5°	183.6	88.9	39.7	22.8	14.0	5.1	0.0	0.0	0.0	0.0
568.4	30°	229.9	104.3	39.7	19.8	11.0	0.7	0.0	0.0	0.0	0.0
699.9	32.5°	273.9	117.5	40.4	16.9	7.3	0.0	0.0	0.0	0.0	0.0
882.0	35°	318.7	119.7	39.7	14.7	4.4	0.0	0.0	0.0	0.0	0.0
1105.2	37.5°	376.0	115.3	37.5	13.2	2.2	0.0	0.0	0.0	0.0	0.0
1454.1	40°	462.7	117.5	35.3	12.5	0.7	0.0	0.0	0.0	0.0	0.0
2076.1	42.5°	622.8	127.0	32.3	12.5	0.0	0.0	0.0	0.0	0.0	0.0
3306.9	45°	1076.6	170.4	29.4	13.2	0.0	0.0	0.0	0.0	0.0	0.0
4964.4	47.5°	1780.9	306.2	28.6	13.2	0.0	0.0	0.0	0.0	0.0	0.0
5980.1	50°	2272.9	385.5	30.1	14.0	0.0	0.0	0.0	0.0	0.0	0.0
6107.1	52.5°	2269.2	429.6	31.6	14.7	2.9	0.0	0.0	0.0	0.0	0.0
5629.0	55°	2017.3	437.7	33.8	16.2	9.5	0.0	0.0	0.0	0.0	0.0
4837.4	57.5°	1686.1	399.5	38.9	19.8	17.6	0.0	0.0	0.0	0.0	0.0
4713.3	58°	1627.4	381.9	40.4	20.6	19.1	0.0	0.0	0.0	0.0	0.0
4088.3	60°	1333.6	311.4	51.4	25.7	25.7	0.0	0.0	0.0	0.0	0.0
3351.7	62.5°	920.9	271.7	58.8	33.0	26.4	0.0	0.0	0.0	0.0	0.0
2471.2	65°	651.4	245.3	63.9	35.3	21.3	0.0	0.0	0.0	0.0	0.0
1755.9	67.5°	486.9	226.2	70.5	36.0	11.0	0.0	0.0	0.0	0.0	0.0
1101.6	70°	373.1	212.2	86.7	38.2	2.9	0.0	0.0	0.0	0.0	0.0
656.5	72.5°	304.0	196.1	105.0	39.7	0.0	0.0	0.0	0.0	0.0	0.0
393.6	75°	251.9	177.0	101.3	43.3	0.0	0.0	0.0	0.0	0.0	0.0
210.0	77.5°	167.4	137.3	92.5	43.3	0.0	0.0	0.0	0.0	0.0	0.0
74.9	80°	58.8	54.3	72.0	38.2	0.0	0.0	0.0	0.0	0.0	0.0
15.4	82.5°	8.8	7.3	10.3	13.2	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°
42.6	0°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
30.1	2.5°	30.1	30.1	29.4	30.1	30.1	31.6	35.3	40.4	46.3	48.5
25.7	5°	25.0	24.2	23.5	23.5	23.5	25.7	28.6	34.5	41.1	44.1
21.3	7.5°	20.6	19.8	19.1	18.4	18.4	19.8	23.5	30.1	36.7	39.7
17.6	10°	16.9	15.4	14.7	14.0	14.0	15.4	19.1	25.7	33.0	36.0
14.7	12.5°	14.0	11.8	10.3	9.5	8.8	11.0	14.7	20.6	28.6	32.3
11.0	15°	9.5	7.3	5.1	4.4	3.7	5.9	9.5	16.2	24.2	28.6
5.9	17.5°	5.1	2.2	0.7	0.0	0.0	1.5	4.4	11.8	19.8	23.5
0.0	20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	14.7	18.4
0.0	22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.8	12.5
0.0	25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	6.6
0.0	27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
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	2.2
0.0	87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.9
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°
42.6	0°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
50.7	2.5°	52.1	51.4	49.9	48.5	48.5	48.5	50.7	52.9	55.1	55.1
45.5	5°	48.5	48.5	47.7	46.3	46.3	47.0	49.9	53.6	56.5	57.3
41.9	7.5°	44.8	46.3	44.8	44.1	44.8	45.5	48.5	52.9	57.3	58.8
38.9	10°	42.6	43.3	43.3	42.6	42.6	44.1	47.0	52.9	58.8	61.0
35.3	12.5°	39.7	41.1	40.4	40.4	40.4	41.9	45.5	52.1	60.2	63.2
31.6	15°	36.7	38.9	38.9	38.2	38.2	38.9	44.1	51.4	62.4	67.6
27.2	17.5°	33.8	36.0	36.7	35.3	35.3	36.7	41.9	51.4	63.9	72.7
22.0	20°	27.9	31.6	33.8	31.6	31.6	33.0	38.2	48.5	64.6	77.8
16.2	22.5°	22.0	25.7	28.6	27.9	27.9	28.6	35.3	46.3	65.4	86.7
9.5	25°	16.2	19.8	22.0	23.5	23.5	25.7	32.3	44.8	68.3	105.0
4.4	27.5°	9.5	14.0	16.9	18.4	19.1	22.0	30.1	43.3	73.4	131.5
0.0	30°	4.4	8.1	11.8	14.7	14.7	19.8	27.9	41.9	80.0	169.6
0.0	32.5°	0.0	3.7	5.9	10.3	11.0	16.2	25.7	40.4	89.6	206.4
0.0	35°	0.0	0.0	2.9	8.1	8.1	13.2	23.5	38.9	104.3	234.3
0.0	37.5°	0.0	0.0	0.0	5.9	6.6	11.8	22.8	38.2	107.2	236.5
0.0	40°	0.0	0.0	0.0	4.4	5.1	11.0	22.8	38.9	96.9	231.3
0.0	42.5°	0.0	0.0	0.0	2.9	3.7	11.0	22.8	40.4	87.4	237.2
0.0	45°	0.0	0.0	0.0	2.2	2.9	11.8	22.0	39.7	82.3	268.0
0.0	47.5°	0.0	0.0	0.0	2.9	4.4	11.8	21.3	38.9	83.0	370.1
0.0	50°	0.0	0.0	0.0	3.7	5.1	11.8	22.0	37.5	91.1	569.1
0.0	52.5°	0.0	0.0	0.0	2.9	4.4	13.2	24.2	36.7	99.1	740.3
0.0	55°	0.0	0.0	0.0	0.7	2.2	16.9	26.4	36.7	111.6	782.8
0.0	57.5°	0.0	0.0	0.0	0.0	0.0	19.1	30.1	38.9	132.2	766.0
0.0	58°	0.0	0.0	0.0	0.0	0.0	19.1	30.8	38.9	133.7	751.3
0.0	60°	0.0	0.0	0.0	0.0	0.0	19.1	33.8	43.3	143.9	669.0
0.0	62.5°	0.0	0.0	0.0	0.0	0.0	16.2	40.4	54.3	149.8	525.8
0.0	65°	0.0	0.0	0.0	0.0	0.0	13.2	47.7	59.5	154.2	418.6
0.0	67.5°	0.0	0.0	0.0	0.0	0.0	12.5	49.2	60.2	156.4	333.4
0.0	70°	0.0	0.0	0.0	0.0	0.0	13.2	48.5	64.6	163.8	271.0
0.0	72.5°	0.0	0.0	0.0	0.0	0.0	14.7	44.1	71.2	163.8	240.1
0.0	75°	0.0	0.0	0.0	0.0	0.0	15.4	41.1	80.0	149.1	207.8
0.0	77.5°	0.0	0.0	0.0	0.0	0.0	14.7	40.4	93.3	132.9	171.1
0.0	80°	1.5	2.2	2.2	1.5	1.5	12.5	39.7	94.7	113.1	117.5
0.7	82.5°	4.4	5.9	5.1	3.7	3.7	11.0	35.3	79.3	58.8	50.7
4.4	85°	8.1	9.5	9.5	8.1	8.1	10.3	22.0	28.6	19.8	16.2
8.1	87.5°	11.0	12.5	12.5	11.0	11.0	10.3	9.5	8.8	8.1	8.1
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: SP1-2407-184-15

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-935-U-5WQ

Data in this report applies to families of products including GSS-SB1A-935-U-5WQ

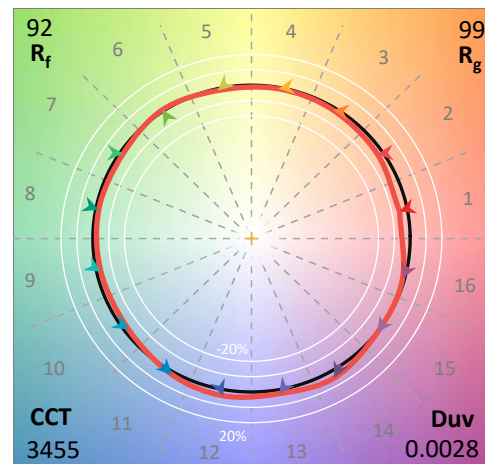
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-15
 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-935-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI
 3500K CCT 26 LEDS

Spectral Parameters

CCT (K): 3455
 CIE u' : 0.2356
 CIE v' : 0.5159
 Duv: 0.0028
 CIE x: 0.4109
 CIE y: 0.3999
 CIE z: 0.1892
 Peak Wavelength (nm): 616
 Dominant Wavelength (nm): 579
 Purity: 43.35383
 R_f: 92.3
 R_g: 98.5

CRI (Ra): 92.2
 R1: 92.0
 R2: 94.4
 R3: 95.6
 R4: 93.2
 R5: 91.4
 R6: 92.5
 R7: 94.5
 R8: 84.2
 R9: 59.8
 R10: 85.8
 R11: 93.2
 R12: 78.0
 R13: 92.5
 R14: 97.0
 R15: 88.4



Test Conditions

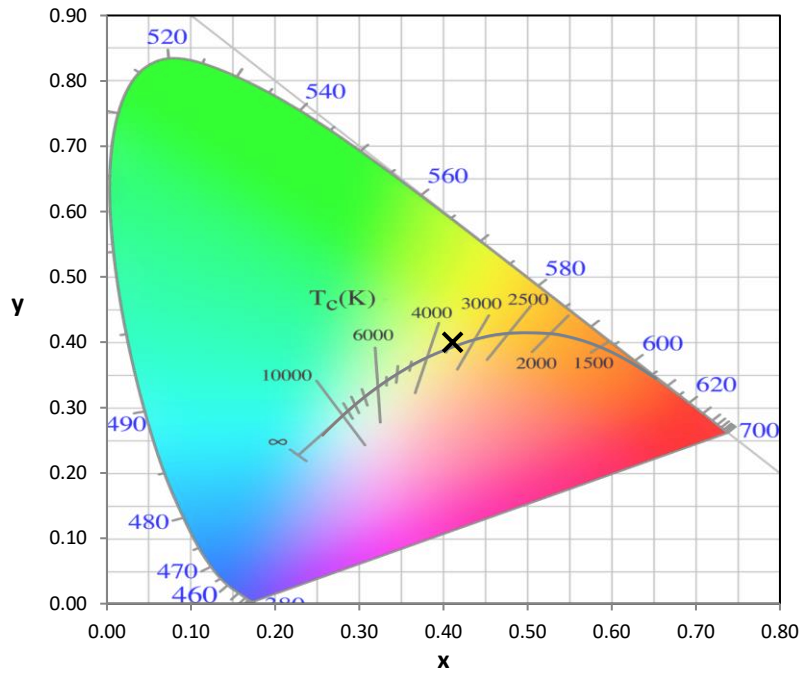
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-15

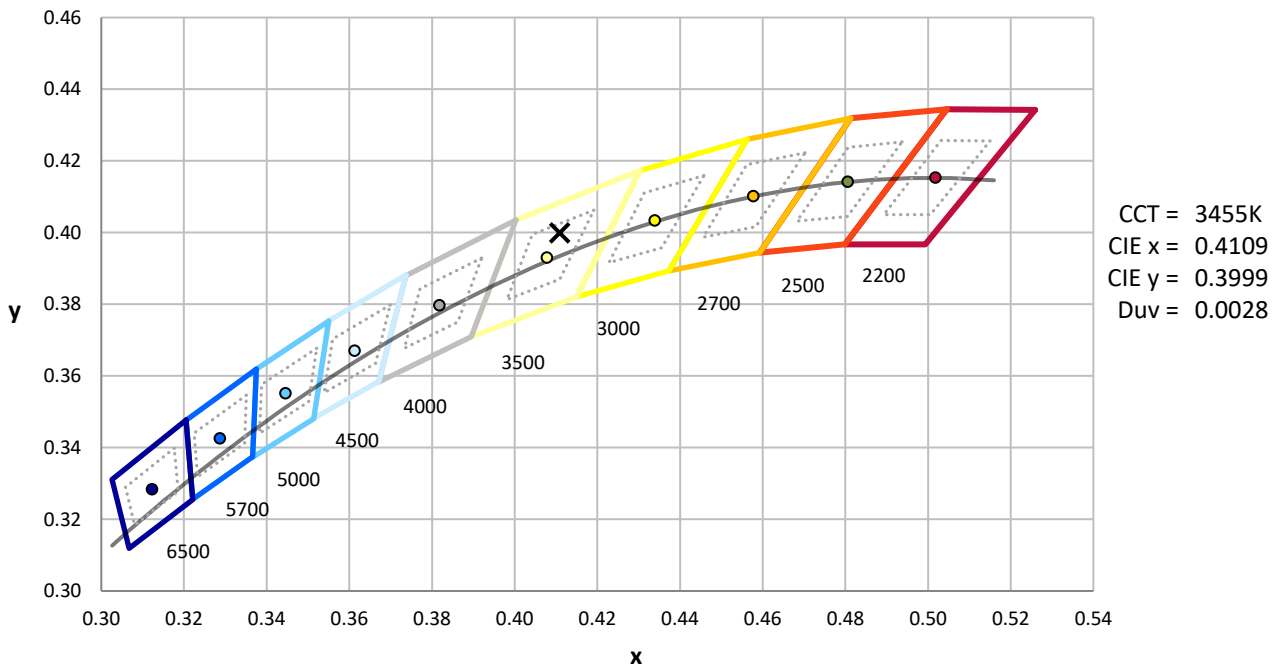
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-15

CIE 1931 Chromaticity Diagram



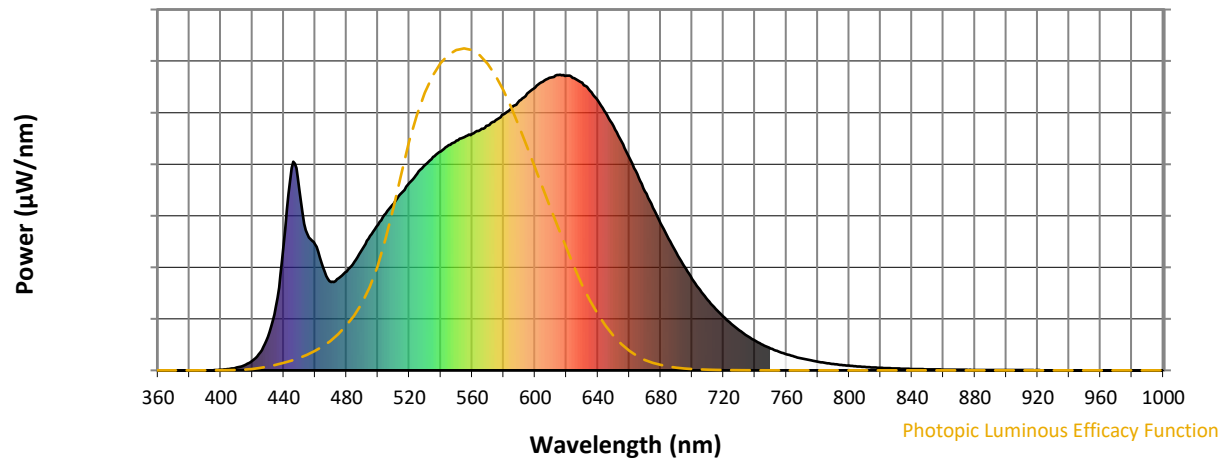
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-15

Photopic Flux vs. Wavelength

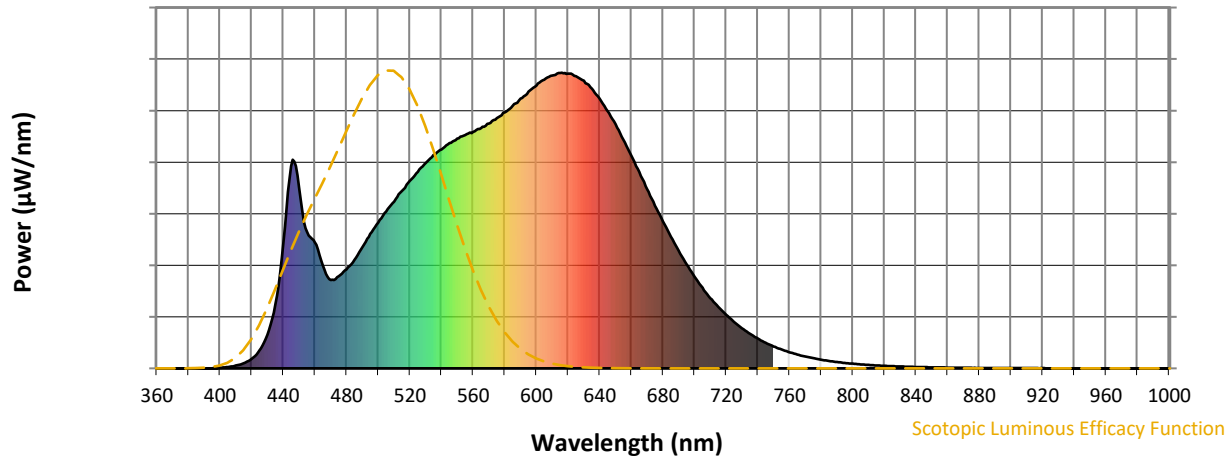


Photopic Lumens: NR

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	410	NR	620	997	NR	750	74	NR	880	1	NR
365	0	NR	495	454	NR	625	988	NR	755	64	NR	885	1	NR
370	0	NR	500	493	NR	630	973	NR	760	54	NR	890	1	NR
375	0	NR	505	530	NR	635	946	NR	765	47	NR	895	1	NR
380	0	NR	510	564	NR	640	913	NR	770	40	NR	900	1	NR
385	0	NR	515	599	NR	645	870	NR	775	34	NR	905	1	NR
390	0	NR	520	634	NR	650	826	NR	780	29	NR	910	1	NR
395	0	NR	525	664	NR	655	774	NR	785	25	NR	915	1	NR
400	2	NR	530	695	NR	660	720	NR	790	21	NR	920	1	NR
405	4	NR	535	722	NR	665	664	NR	795	18	NR	925	1	NR
410	9	NR	540	741	NR	670	605	NR	800	16	NR	930	0	NR
415	17	NR	545	762	NR	675	550	NR	805	13	NR	935	0	NR
420	32	NR	550	777	NR	680	497	NR	810	12	NR	940	0	NR
425	61	NR	555	789	NR	685	445	NR	815	10	NR	945	0	NR
430	114	NR	560	800	NR	690	398	NR	820	9	NR	950	0	NR
435	218	NR	565	813	NR	695	352	NR	825	7	NR	955	0	NR
440	427	NR	570	828	NR	700	309	NR	830	6	NR	960	0	NR
445	684	NR	575	846	NR	705	273	NR	835	5	NR	965	0	NR
450	611	NR	580	866	NR	710	237	NR	840	5	NR	970	0	NR
455	461	NR	585	888	NR	715	208	NR	845	4	NR	975	0	NR
460	427	NR	590	913	NR	720	181	NR	850	4	NR	980	0	NR
465	349	NR	595	936	NR	725	157	NR	855	3	NR	985	0	NR
470	298	NR	600	957	NR	730	136	NR	860	3	NR	990	1	NR
475	312	NR	605	976	NR	735	117	NR	865	2	NR	995	0	NR
480	335	NR	610	990	NR	740	100	NR	870	2	NR	1000	0	NR
485	367	NR	615	999	NR	745	86	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-15

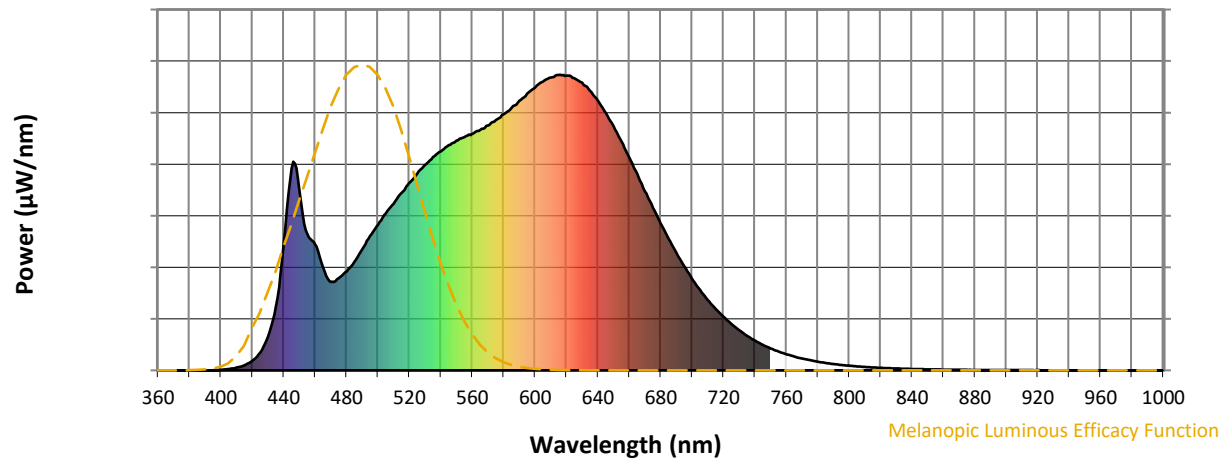
Scotopic Flux vs. Wavelength


Scotopic Lumens: NR
S/P: 1.58

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	410	NR	620	997	NR	750	74	NR	880	1	NR
365	0	NR	495	454	NR	625	988	NR	755	64	NR	885	1	NR
370	0	NR	500	493	NR	630	973	NR	760	54	NR	890	1	NR
375	0	NR	505	530	NR	635	946	NR	765	47	NR	895	1	NR
380	0	NR	510	564	NR	640	913	NR	770	40	NR	900	1	NR
385	0	NR	515	599	NR	645	870	NR	775	34	NR	905	1	NR
390	0	NR	520	634	NR	650	826	NR	780	29	NR	910	1	NR
395	0	NR	525	664	NR	655	774	NR	785	25	NR	915	1	NR
400	2	NR	530	695	NR	660	720	NR	790	21	NR	920	1	NR
405	4	NR	535	722	NR	665	664	NR	795	18	NR	925	1	NR
410	9	NR	540	741	NR	670	605	NR	800	16	NR	930	0	NR
415	17	NR	545	762	NR	675	550	NR	805	13	NR	935	0	NR
420	32	NR	550	777	NR	680	497	NR	810	12	NR	940	0	NR
425	61	NR	555	789	NR	685	445	NR	815	10	NR	945	0	NR
430	114	NR	560	800	NR	690	398	NR	820	9	NR	950	0	NR
435	218	NR	565	813	NR	695	352	NR	825	7	NR	955	0	NR
440	427	NR	570	828	NR	700	309	NR	830	6	NR	960	0	NR
445	684	NR	575	846	NR	705	273	NR	835	5	NR	965	0	NR
450	611	NR	580	866	NR	710	237	NR	840	5	NR	970	0	NR
455	461	NR	585	888	NR	715	208	NR	845	4	NR	975	0	NR
460	427	NR	590	913	NR	720	181	NR	850	4	NR	980	0	NR
465	349	NR	595	936	NR	725	157	NR	855	3	NR	985	0	NR
470	298	NR	600	957	NR	730	136	NR	860	3	NR	990	1	NR
475	312	NR	605	976	NR	735	117	NR	865	2	NR	995	0	NR
480	335	NR	610	990	NR	740	100	NR	870	2	NR	1000	0	NR
485	367	NR	615	999	NR	745	86	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-15

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.14

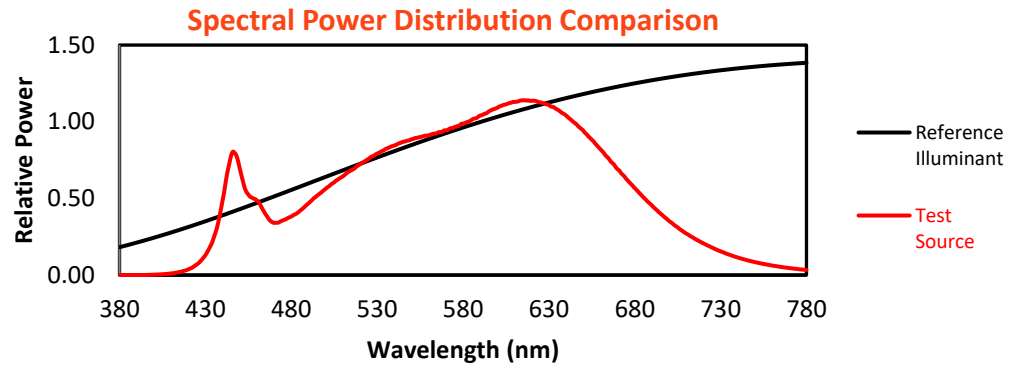
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	410	NR	620	997	NR	750	74	NR	880	1	NR
365	0	NR	495	454	NR	625	988	NR	755	64	NR	885	1	NR
370	0	NR	500	493	NR	630	973	NR	760	54	NR	890	1	NR
375	0	NR	505	530	NR	635	946	NR	765	47	NR	895	1	NR
380	0	NR	510	564	NR	640	913	NR	770	40	NR	900	1	NR
385	0	NR	515	599	NR	645	870	NR	775	34	NR	905	1	NR
390	0	NR	520	634	NR	650	826	NR	780	29	NR	910	1	NR
395	0	NR	525	664	NR	655	774	NR	785	25	NR	915	1	NR
400	2	NR	530	695	NR	660	720	NR	790	21	NR	920	1	NR
405	4	NR	535	722	NR	665	664	NR	795	18	NR	925	1	NR
410	9	NR	540	741	NR	670	605	NR	800	16	NR	930	0	NR
415	17	NR	545	762	NR	675	550	NR	805	13	NR	935	0	NR
420	32	NR	550	777	NR	680	497	NR	810	12	NR	940	0	NR
425	61	NR	555	789	NR	685	445	NR	815	10	NR	945	0	NR
430	114	NR	560	800	NR	690	398	NR	820	9	NR	950	0	NR
435	218	NR	565	813	NR	695	352	NR	825	7	NR	955	0	NR
440	427	NR	570	828	NR	700	309	NR	830	6	NR	960	0	NR
445	684	NR	575	846	NR	705	273	NR	835	5	NR	965	0	NR
450	611	NR	580	866	NR	710	237	NR	840	5	NR	970	0	NR
455	461	NR	585	888	NR	715	208	NR	845	4	NR	975	0	NR
460	427	NR	590	913	NR	720	181	NR	850	4	NR	980	0	NR
465	349	NR	595	936	NR	725	157	NR	855	3	NR	985	0	NR
470	298	NR	600	957	NR	730	136	NR	860	3	NR	990	1	NR
475	312	NR	605	976	NR	735	117	NR	865	2	NR	995	0	NR
480	335	NR	610	990	NR	740	100	NR	870	2	NR	1000	0	NR
485	367	NR	615	999	NR	745	86	NR	875	2	NR			

REPORT NUMBER: SP1-2407-184-15

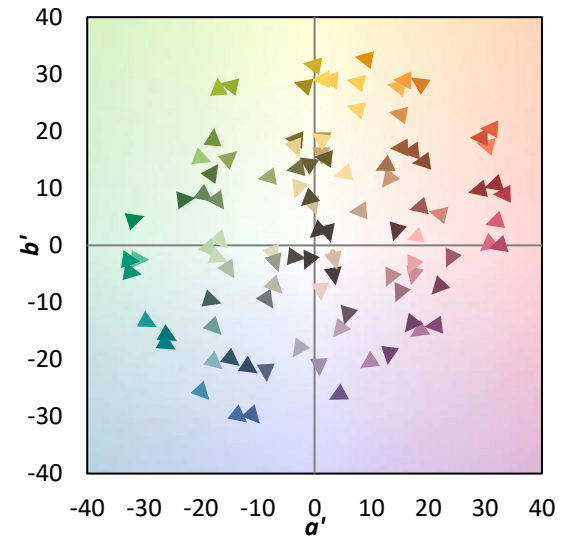
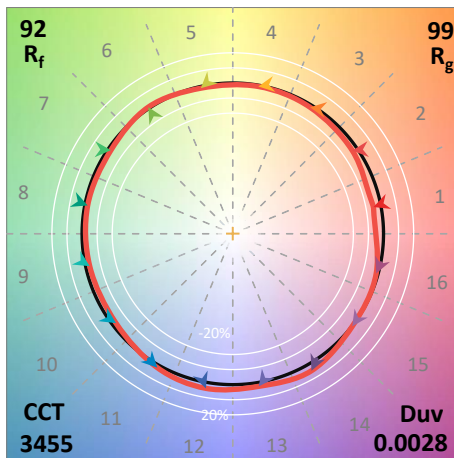
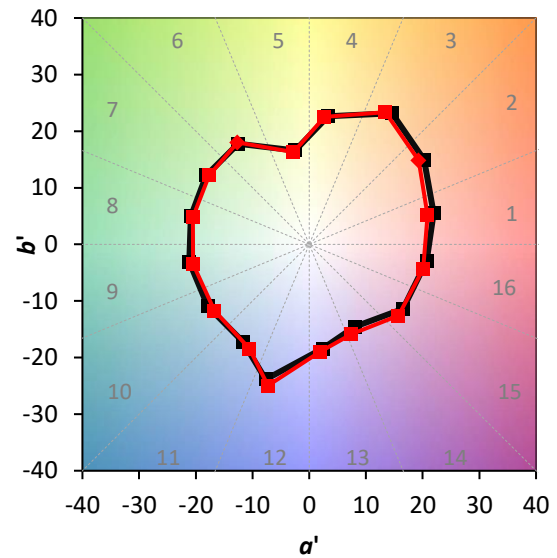
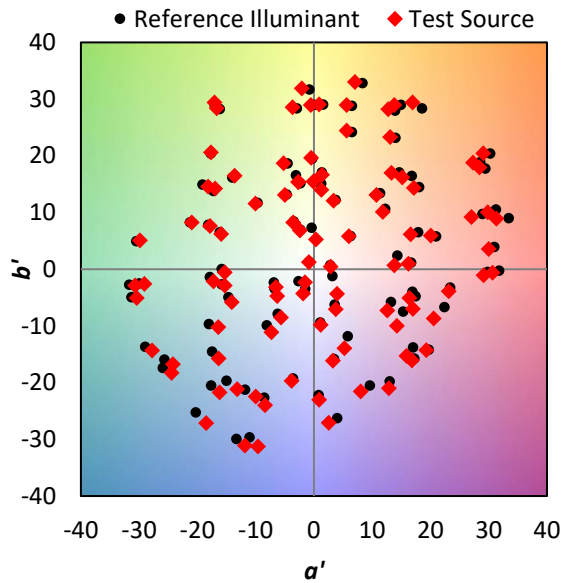
TM-30-18

Summary

$R_f = 92.3$
 $R_g = 98.5$
 $CIE\ R_a = 92.2$
 $R_9 = 59.8$

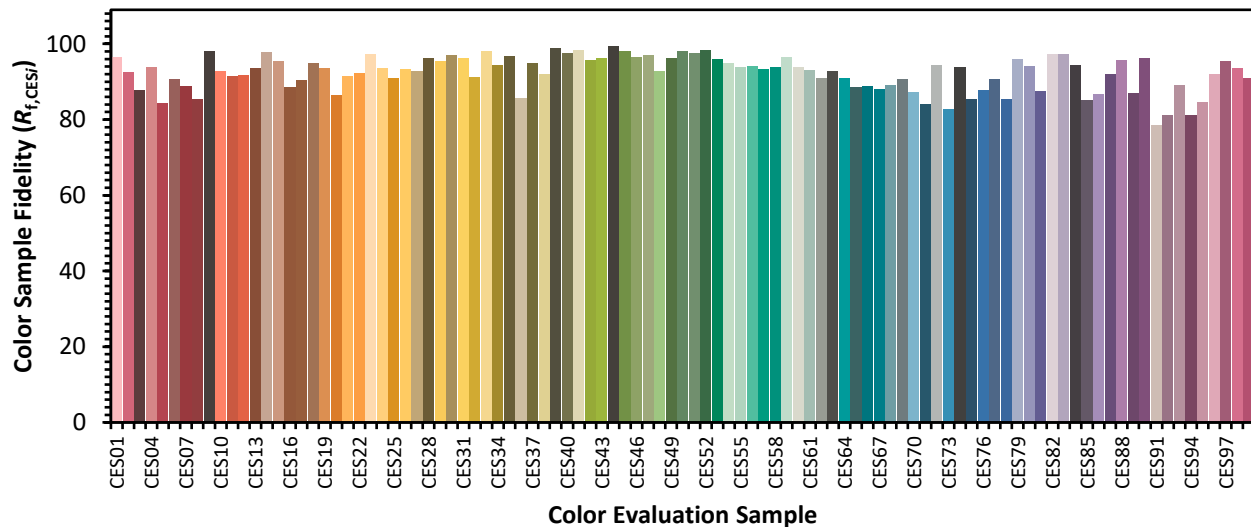


Color Vector Graphics

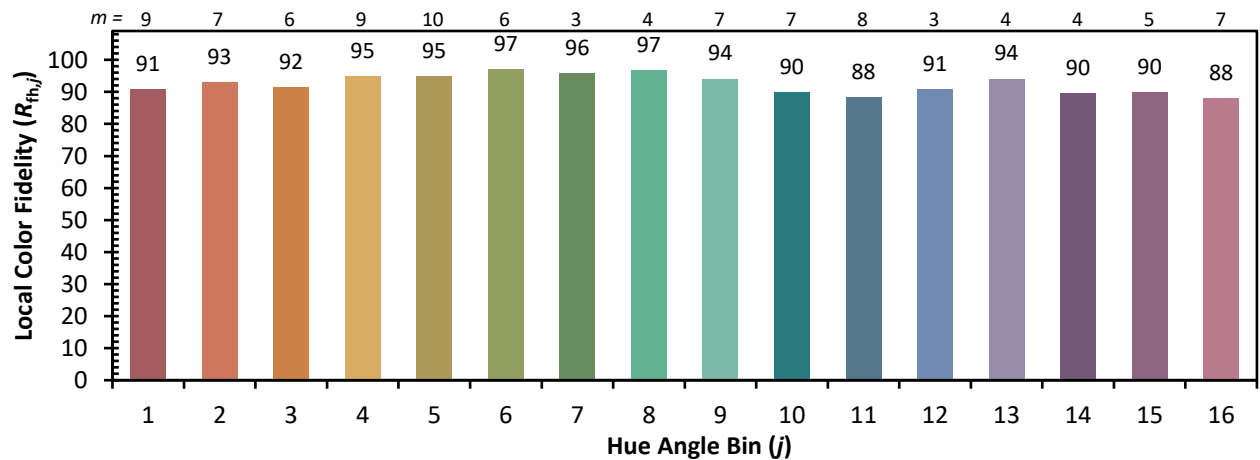
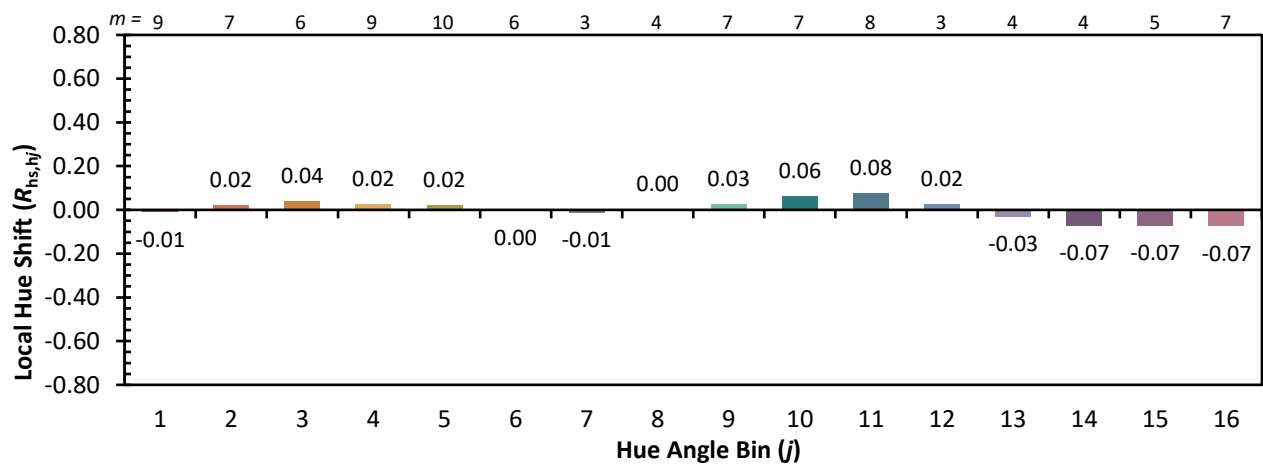
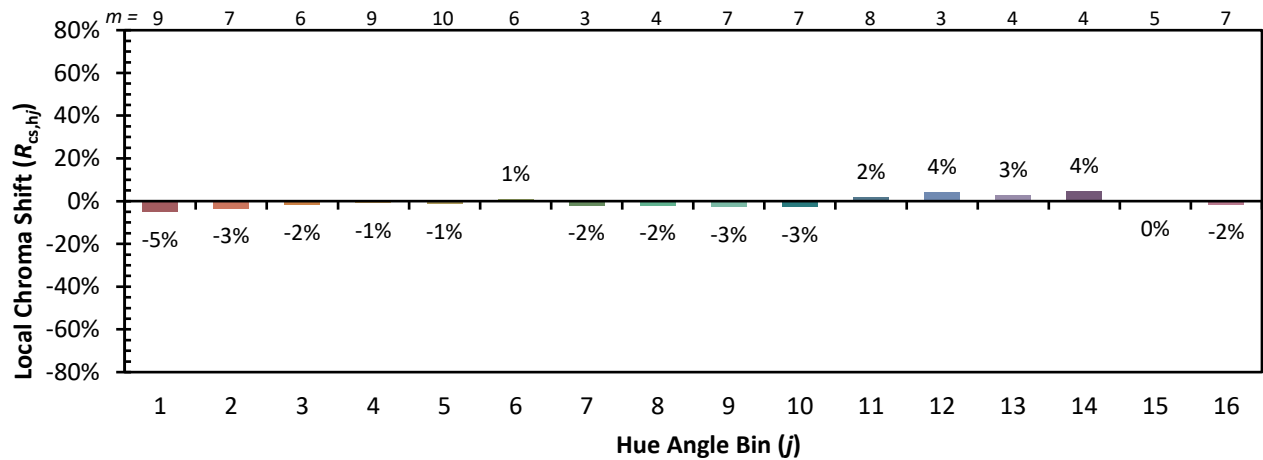


Individual Sample Fidelity Index ($R_{f,i}$)

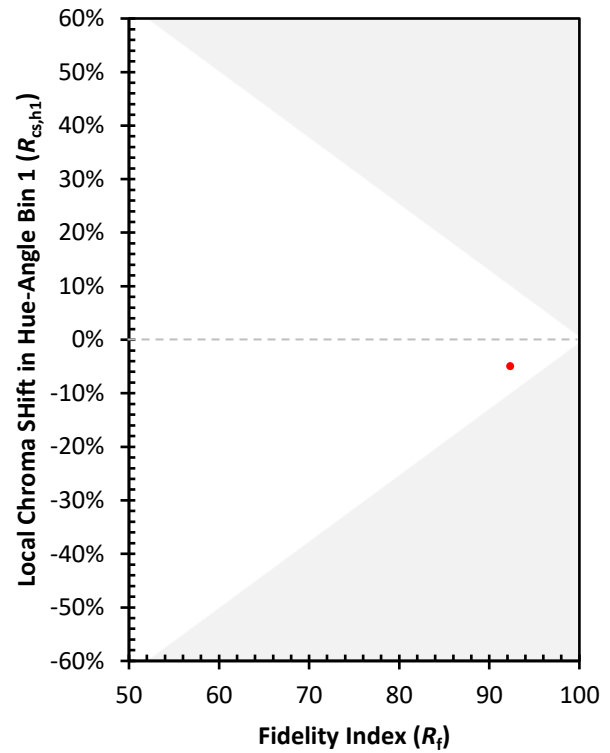
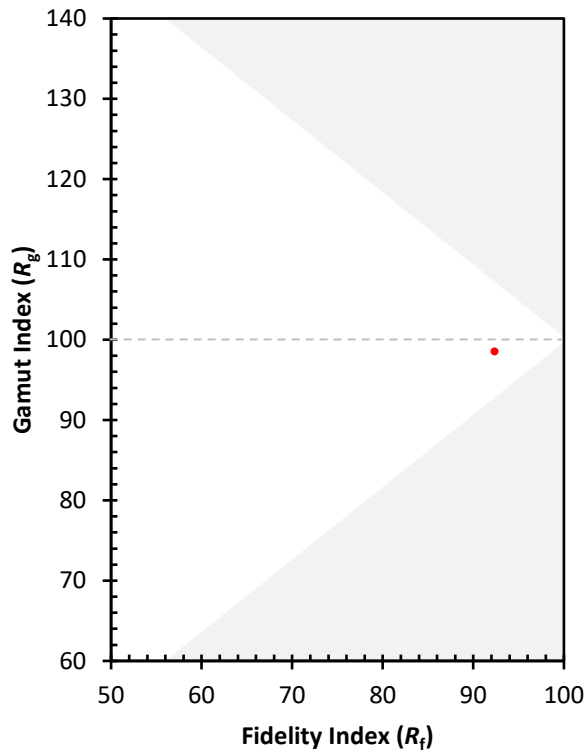
CES01 = 86	CES26 = 93	CES51 = 97	CES76 = 88
CES02 = 62	CES27 = 93	CES52 = 98	CES77 = 91
CES03 = 31	CES28 = 96	CES53 = 96	CES78 = 85
CES04 = 70	CES29 = 95	CES54 = 95	CES79 = 96
CES05 = 50	CES30 = 97	CES55 = 94	CES80 = 94
CES06 = 51	CES31 = 96	CES56 = 94	CES81 = 87
CES07 = 42	CES32 = 91	CES57 = 93	CES82 = 97
CES08 = 41	CES33 = 98	CES58 = 94	CES83 = 97
CES09 = 29	CES34 = 94	CES59 = 96	CES84 = 94
CES10 = 75	CES35 = 97	CES60 = 94	CES85 = 85
CES11 = 58	CES36 = 86	CES61 = 93	CES86 = 87
CES12 = 64	CES37 = 95	CES62 = 91	CES87 = 92
CES13 = 43	CES38 = 92	CES63 = 93	CES88 = 96
CES14 = 74	CES39 = 99	CES64 = 91	CES89 = 87
CES15 = 71	CES40 = 98	CES65 = 89	CES90 = 96
CES16 = 47	CES41 = 98	CES66 = 89	CES91 = 78
CES17 = 49	CES42 = 96	CES67 = 88	CES92 = 81
CES18 = 56	CES43 = 96	CES68 = 89	CES93 = 89
CES19 = 71	CES44 = 99	CES69 = 91	CES94 = 81
CES20 = 66	CES45 = 98	CES70 = 87	CES95 = 85
CES21 = 86	CES46 = 97	CES71 = 84	CES96 = 92
CES22 = 78	CES47 = 97	CES72 = 95	CES97 = 95
CES23 = 91	CES48 = 93	CES73 = 83	CES98 = 94
CES24 = 90	CES49 = 96	CES74 = 94	CES99 = 91
CES25 = 71	CES50 = 98	CES75 = 85	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)