

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: LUMARK

Report Number: P1067968

Luminaire Tested: **NAV-SA1D-735-U-LBC**

Issue Date: 08/07/2025

Test Information

Test Method: LM-79-08
Report Number: P1067968
Test Lab: INNOVATION CENTER(G3)
Issue Date: 08/07/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1D-735-U-LBC
Description: Navion AREA AND ROADWAY LUMINAIRE 1200mA 1xLight Square PACKAGE
70CRI 3500K FIXTURE w/ LEFT CORNER BACKLIGHT CONTROL
Light Source: (14) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5108.4 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G2

Input Watts (W): 56.5
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



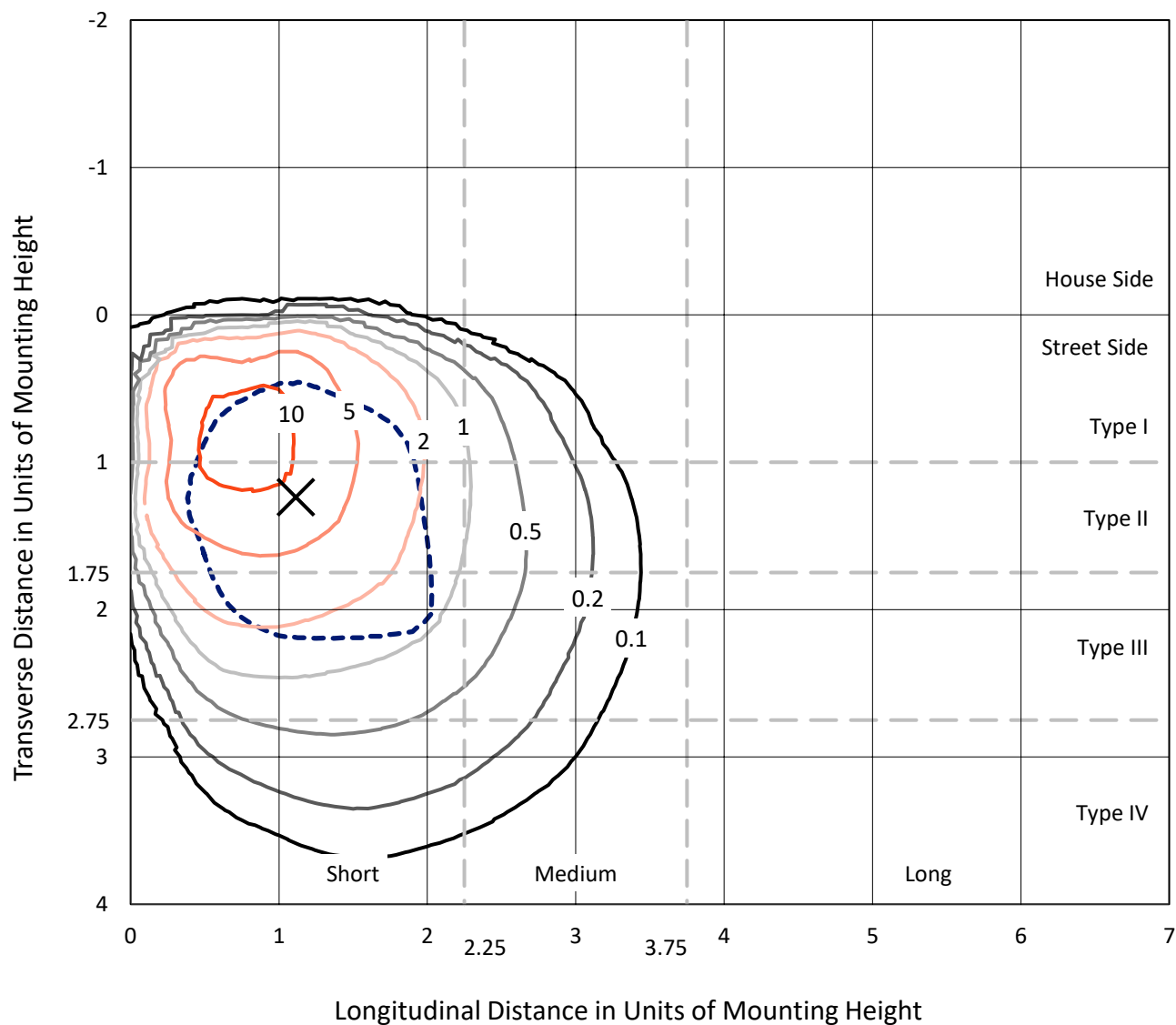
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

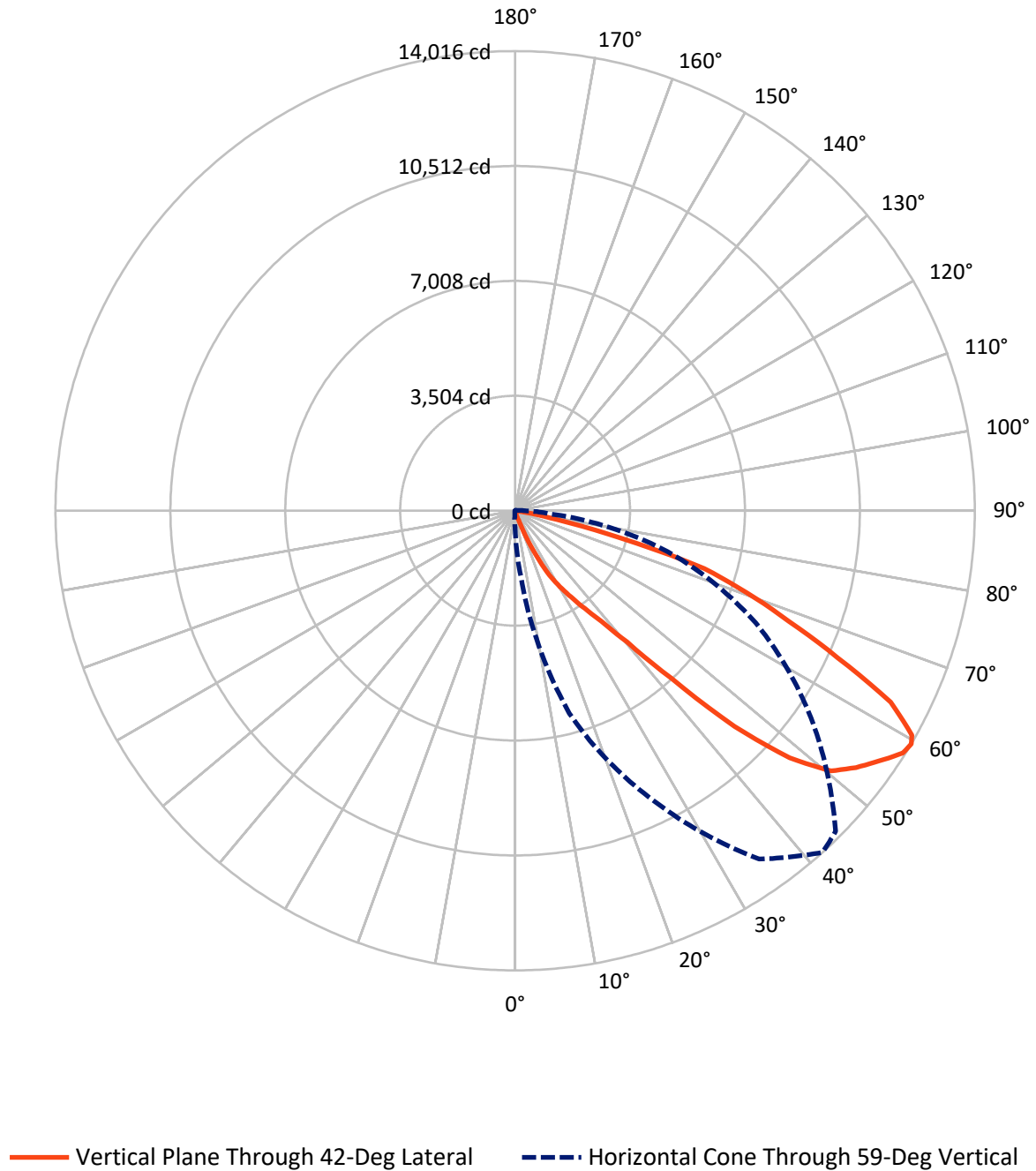


Based on 15 foot mounting height. Maximum calculated value = 15.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	24.6	0.0	24.6
	% Fixture	0.5	0.0	0.5
Street Side	Lumens	5083.8	0.0	5083.8
	% Fixture	99.5	0.0	99.5
Total	Lumens	5108.4	0.0	5108.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.0
10°-20°	7.4	0.1
20°-30°	95.3	1.9
30°-40°	321.2	6.3
40°-50°	970.3	19.0
50°-60°	1712.8	33.5
60°-70°	1508.2	29.5
70°-80°	480.1	9.4
80°-90°	11.5	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°	5108.4	100.0
0°-180°	5108.4	100.0



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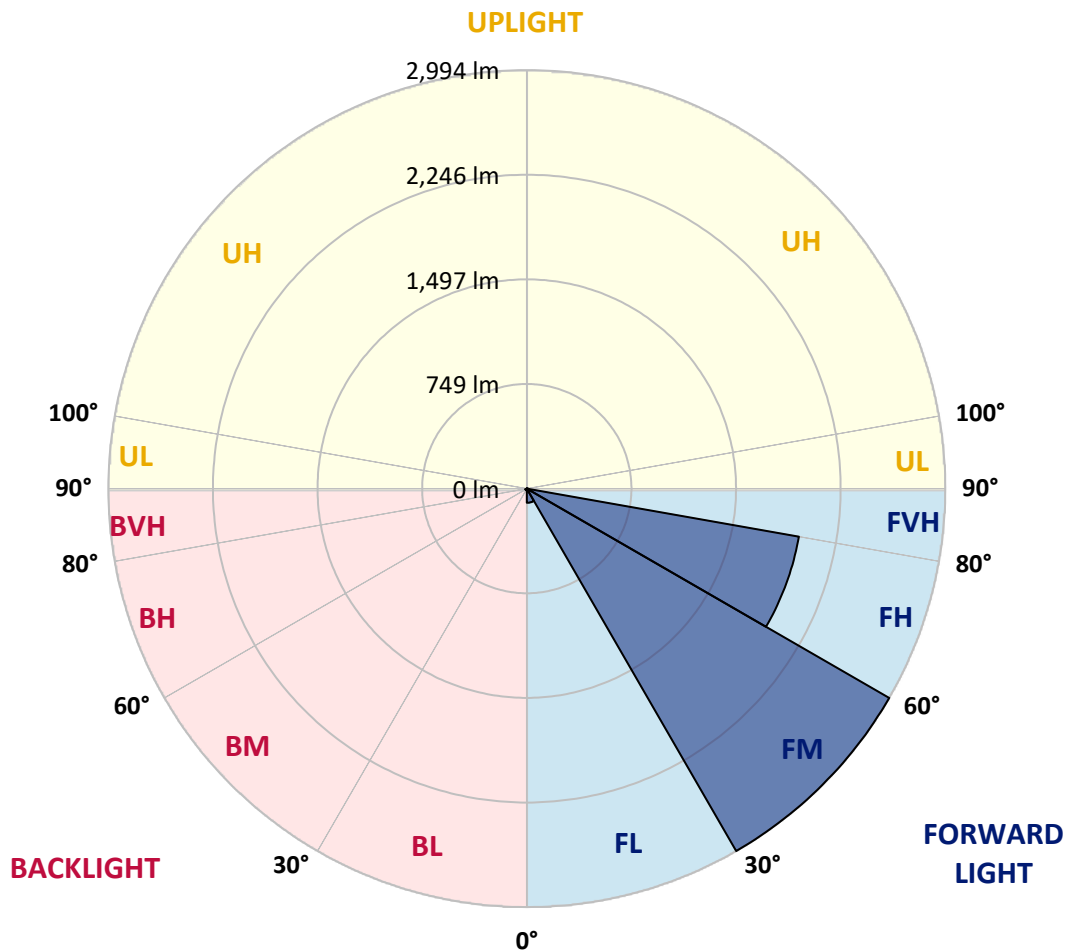
CATALOG NUMBER: NAV-SA1D-735-U-LBC

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	101.5	2.0			
FM	(30°-60°)	2994.4	58.6			
FH	(60°-80°)	1977.0	38.7			G2/5000
FVH	(80°-90°)	10.9	0.2			G1/100
BL	(0°-30°)	2.7	0.1	B0/110		
BM	(30°-60°)	10.1	0.2	B0/220		
BH	(60°-80°)	11.3	0.2	B0/110		G0/110
BVH	(80°-90°)	0.6	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°	42°	45°	55°	65°	75°	85°
0°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.5°	22.4	22.4	20.8	19.2	17.6	16.0	16.0	16.0	14.4	14.4	12.8
5°	25.6	25.6	24.0	22.4	22.4	20.8	20.8	19.2	17.6	17.6	16.0
7.5°	27.2	27.2	27.2	27.2	25.6	25.6	25.6	24.0	22.4	20.8	19.2
10°	28.8	30.4	32.0	32.0	32.0	32.0	32.0	30.4	27.2	25.6	22.4
12.5°	32.0	33.6	36.8	40.0	40.0	41.6	40.0	38.4	35.2	30.4	25.6
15°	35.2	38.4	43.2	49.7	56.1	57.7	57.7	52.9	46.4	36.8	30.4
17.5°	40.0	44.8	57.7	78.5	100.9	118.5	118.5	105.7	73.7	48.0	35.2
20°	43.2	52.9	92.9	189.0	288.3	362.0	347.6	307.5	165.0	75.3	38.4
22.5°	48.0	67.3	197.0	496.5	768.8	903.3	871.3	661.5	370.0	134.5	46.4
25°	54.5	97.7	390.8	930.6	1428.7	1574.4	1553.6	1234.9	674.3	225.8	59.3
27.5°	67.3	144.1	626.2	1411.1	2107.8	2232.7	2224.7	1808.3	1077.9	363.6	76.9
30°	84.9	209.8	929.0	1917.2	2557.8	2684.4	2644.3	2227.9	1454.3	555.8	99.3
32.5°	105.7	293.1	1202.8	2290.4	2972.7	3139.2	3091.2	2593.1	1757.0	719.1	147.4
35°	137.7	374.8	1473.5	2620.3	3451.6	3663.0	3582.9	2969.5	2018.1	903.3	177.8
37.5°	153.8	422.8	1721.8	2979.1	3989.7	4278.0	4217.1	3445.1	2284.0	1138.8	217.8
40°	155.4	480.5	1979.6	3446.7	4750.5	5264.6	5155.7	4262.0	2778.9	1441.5	280.3
42.5°	160.2	567.0	2314.4	4244.4	6244.8	6983.2	6859.9	5764.3	3901.6	2048.5	397.2
45°	182.6	730.4	2996.7	5735.5	8296.5	9379.3	9236.7	7857.7	5469.6	3190.5	677.5
47.5°	261.1	1098.7	4193.1	7345.2	10394.7	11258.0	11222.8	9507.4	6890.3	4361.3	1148.4
50°	419.6	1686.5	5554.5	8698.6	11730.5	12472.0	12384.0	10196.1	7700.7	5160.5	1471.9
52.5°	560.6	2248.7	6409.8	9196.7	12129.3	13013.4	12906.1	10447.6	7913.7	5396.0	1561.6
55°	595.8	2452.1	6664.5	9350.4	12393.6	13471.5	13316.1	10615.7	7941.0	5227.8	1412.7
57.5°	578.2	2259.9	6499.5	9501.0	12761.9	13942.4	13735.7	10944.1	8032.3	4942.7	1175.6
59°	547.8	2022.9	6397.0	9621.1	12965.4	14016.0	13822.2	11016.1	8093.1	4813.0	1031.5
60°	512.5	1862.7	6316.9	9699.6	12952.5	13900.7	13700.5	10982.5	8117.2	4700.8	962.6
62.5°	395.6	1486.3	6201.6	9643.5	12143.7	12848.4	12734.7	10159.3	7764.8	4342.1	759.2
65°	307.5	1137.2	5778.8	8600.9	10333.8	10807.9	10772.7	8602.5	6534.7	3743.1	547.8
67.5°	243.5	829.7	4886.6	6965.6	8314.2	8988.5	8962.8	6983.2	4960.3	2860.5	394.0
70°	198.6	591.0	3350.7	5251.8	6650.0	7498.9	7462.1	5620.2	3675.8	1814.7	286.7
72.5°	168.2	378.0	2032.5	3959.3	5549.7	6035.0	5927.7	4534.3	2673.2	988.2	227.4
75°	142.5	232.2	1007.4	2468.1	3305.8	3302.6	3195.3	2400.9	1435.1	483.7	181.0
77.5°	115.3	163.4	395.6	677.5	1042.7	1290.9	1270.1	850.5	429.2	140.9	112.1
80°	75.3	76.9	105.7	185.8	286.7	317.1	360.4	259.5	124.9	67.3	46.4
82.5°	33.6	36.8	48.0	60.9	60.9	56.1	49.7	36.8	27.2	22.4	11.2
85°	8.0	11.2	8.0	9.6	8.0	6.4	6.4	3.2	0.0	0.0	0.0
87.5°	1.6	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.5°	12.8	12.8	12.8	11.2	11.2	11.2	9.6	9.6	9.6	8.0	8.0
5°	16.0	14.4	12.8	12.8	11.2	11.2	9.6	8.0	8.0	8.0	6.4
7.5°	17.6	16.0	14.4	12.8	11.2	9.6	9.6	8.0	6.4	6.4	6.4
10°	20.8	19.2	16.0	12.8	11.2	9.6	8.0	8.0	6.4	4.8	4.8
12.5°	24.0	20.8	17.6	14.4	11.2	9.6	8.0	8.0	6.4	4.8	3.2
15°	27.2	24.0	19.2	14.4	11.2	9.6	8.0	8.0	4.8	3.2	1.6
17.5°	30.4	25.6	19.2	16.0	11.2	9.6	8.0	6.4	3.2	1.6	0.0
20°	32.0	27.2	20.8	16.0	11.2	9.6	8.0	4.8	1.6	0.0	0.0
22.5°	35.2	30.4	22.4	16.0	11.2	8.0	4.8	1.6	0.0	0.0	0.0
25°	41.6	32.0	22.4	16.0	11.2	8.0	3.2	0.0	0.0	0.0	0.0
27.5°	46.4	35.2	22.4	16.0	11.2	6.4	1.6	0.0	0.0	0.0	0.0
30°	54.5	38.4	24.0	16.0	11.2	4.8	1.6	0.0	0.0	0.0	0.0
32.5°	67.3	41.6	24.0	16.0	9.6	4.8	0.0	0.0	0.0	0.0	0.0
35°	81.7	48.0	24.0	16.0	9.6	4.8	0.0	0.0	0.0	0.0	0.0
37.5°	83.3	51.3	24.0	16.0	9.6	3.2	0.0	0.0	0.0	0.0	0.0
40°	86.5	48.0	25.6	16.0	9.6	3.2	0.0	0.0	0.0	0.0	0.0
42.5°	99.3	44.8	27.2	16.0	9.6	3.2	0.0	0.0	0.0	0.0	0.0
45°	147.4	46.4	27.2	17.6	9.6	4.8	0.0	0.0	0.0	0.0	0.0
47.5°	256.3	48.0	25.6	17.6	9.6	4.8	0.0	0.0	0.0	0.0	0.0
50°	328.3	56.1	25.6	19.2	11.2	3.2	0.0	0.0	0.0	0.0	0.0
52.5°	349.2	65.7	25.6	20.8	14.4	1.6	0.0	0.0	0.0	0.0	0.0
55°	339.5	76.9	27.2	22.4	17.6	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	313.9	83.3	28.8	24.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0
59°	286.7	88.1	33.6	25.6	19.2	0.0	0.0	0.0	0.0	0.0	0.0
60°	264.3	92.9	35.2	27.2	19.2	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	213.0	99.3	38.4	32.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	185.8	104.1	40.0	35.2	14.4	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	169.8	107.3	43.2	36.8	12.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	157.0	105.7	46.4	35.2	11.2	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	142.5	100.9	56.1	32.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	128.1	91.3	60.9	28.8	6.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	92.9	76.9	56.1	25.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	40.0	41.6	40.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.0	9.6	8.0	4.8	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	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.5°	8.0	8.0	8.0	8.0	9.6	9.6	12.8	16.0	19.2	20.8	20.8
5°	6.4	6.4	6.4	6.4	6.4	8.0	9.6	12.8	17.6	19.2	19.2
7.5°	4.8	4.8	4.8	4.8	4.8	4.8	8.0	11.2	16.0	17.6	19.2
10°	4.8	3.2	3.2	1.6	1.6	3.2	4.8	9.6	14.4	16.0	17.6
12.5°	3.2	1.6	1.6	0.0	0.0	1.6	3.2	8.0	12.8	14.4	16.0
15°	1.6	0.0	0.0	0.0	0.0	0.0	1.6	6.4	11.2	12.8	16.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.6	12.8	14.4
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	8.0	11.2	12.8
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	6.4	9.6	11.2
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	6.4	8.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	4.8	6.4
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	4.8	6.4
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2	4.8
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2	4.8
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2	3.2
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
59°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
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):

	285°	295°	305°	315°	318°	325°	335°	345°	355°	360°
0°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
2.5°	22.4	22.4	20.8	19.2	19.2	19.2	20.8	22.4	22.4	22.4
5°	20.8	20.8	19.2	19.2	19.2	19.2	20.8	24.0	25.6	25.6
7.5°	20.8	20.8	19.2	19.2	19.2	19.2	20.8	24.0	25.6	27.2
10°	19.2	19.2	19.2	19.2	17.6	19.2	20.8	24.0	28.8	28.8
12.5°	19.2	19.2	19.2	19.2	17.6	19.2	22.4	25.6	30.4	32.0
15°	19.2	19.2	19.2	17.6	17.6	19.2	22.4	27.2	32.0	35.2
17.5°	17.6	19.2	19.2	17.6	17.6	19.2	22.4	27.2	35.2	40.0
20°	16.0	17.6	19.2	17.6	17.6	17.6	22.4	27.2	36.8	43.2
22.5°	14.4	16.0	17.6	17.6	16.0	17.6	22.4	28.8	40.0	48.0
25°	12.8	14.4	14.4	16.0	16.0	17.6	22.4	28.8	41.6	54.5
27.5°	9.6	11.2	12.8	14.4	14.4	17.6	22.4	30.4	44.8	67.3
30°	8.0	9.6	11.2	12.8	14.4	17.6	22.4	30.4	48.0	84.9
32.5°	8.0	9.6	11.2	12.8	14.4	16.0	22.4	32.0	52.9	105.7
35°	6.4	8.0	9.6	12.8	12.8	16.0	22.4	32.0	57.7	137.7
37.5°	6.4	8.0	9.6	12.8	12.8	16.0	22.4	32.0	70.5	153.8
40°	4.8	6.4	8.0	12.8	12.8	16.0	24.0	33.6	72.1	155.4
42.5°	4.8	6.4	8.0	11.2	12.8	16.0	24.0	33.6	67.3	160.2
45°	4.8	6.4	8.0	12.8	14.4	17.6	24.0	35.2	65.7	182.6
47.5°	4.8	6.4	8.0	12.8	16.0	17.6	24.0	35.2	67.3	261.1
50°	4.8	6.4	8.0	12.8	17.6	17.6	24.0	35.2	73.7	419.6
52.5°	3.2	4.8	6.4	11.2	14.4	19.2	25.6	33.6	78.5	560.6
55°	3.2	3.2	4.8	9.6	12.8	20.8	27.2	33.6	91.3	595.8
57.5°	3.2	3.2	4.8	8.0	11.2	22.4	28.8	33.6	105.7	578.2
59°	3.2	3.2	3.2	8.0	9.6	22.4	28.8	35.2	107.3	547.8
60°	3.2	3.2	3.2	6.4	9.6	22.4	30.4	36.8	108.9	512.5
62.5°	1.6	1.6	1.6	6.4	8.0	22.4	33.6	44.8	112.1	395.6
65°	3.2	3.2	1.6	4.8	8.0	19.2	38.4	48.0	113.7	307.5
67.5°	3.2	3.2	3.2	6.4	8.0	19.2	40.0	49.7	113.7	243.5
70°	3.2	3.2	3.2	6.4	9.6	19.2	40.0	51.3	112.1	198.6
72.5°	3.2	3.2	3.2	6.4	9.6	17.6	36.8	52.9	107.3	168.2
75°	3.2	3.2	3.2	4.8	8.0	16.0	35.2	57.7	97.7	142.5
77.5°	3.2	3.2	3.2	3.2	6.4	12.8	32.0	64.1	86.5	115.3
80°	4.8	3.2	3.2	3.2	4.8	11.2	30.4	62.5	72.1	75.3
82.5°	4.8	3.2	3.2	1.6	3.2	8.0	24.0	48.0	36.8	33.6
85°	3.2	3.2	3.2	1.6	1.6	4.8	11.2	14.4	11.2	8.0
87.5°	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: SP1-2407-184-5

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-735-U-5WQ

Data in this report applies to families of products including GSS-SB1A-735-U-5WQ

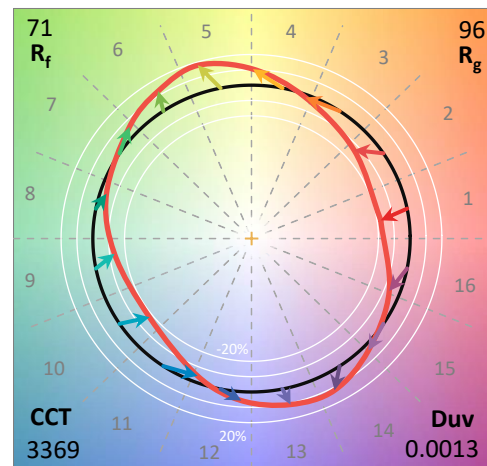
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-184-5
 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-735-U-5WQ**
 Description: GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3500K CCT 26 LEDS

Spectral Parameters

CCT (K): 3369
 CIE u' : 0.2386
 CIE v' : 0.5156
 Duv: 0.0013
 CIE x: 0.4143
 CIE y: 0.3980
 CIE z: 0.1877
 Peak Wavelength (nm): 590
 Dominant Wavelength (nm): 580
 Purity: 43.80166
 R_f: 71.4
 R_g: 96

CRI (Ra): 70.1
 R1: 66.6
 R2: 77.6
 R3: 88.5
 R4: 69.5
 R5: 66.4
 R6: 69.6
 R7: 77.5
 R8: 44.9
 R9: -40.2
 R10: 49.1
 R11: 66.3
 R12: 45.7
 R13: 68.0
 R14: 93.4
 R15: 57.6



Test Conditions

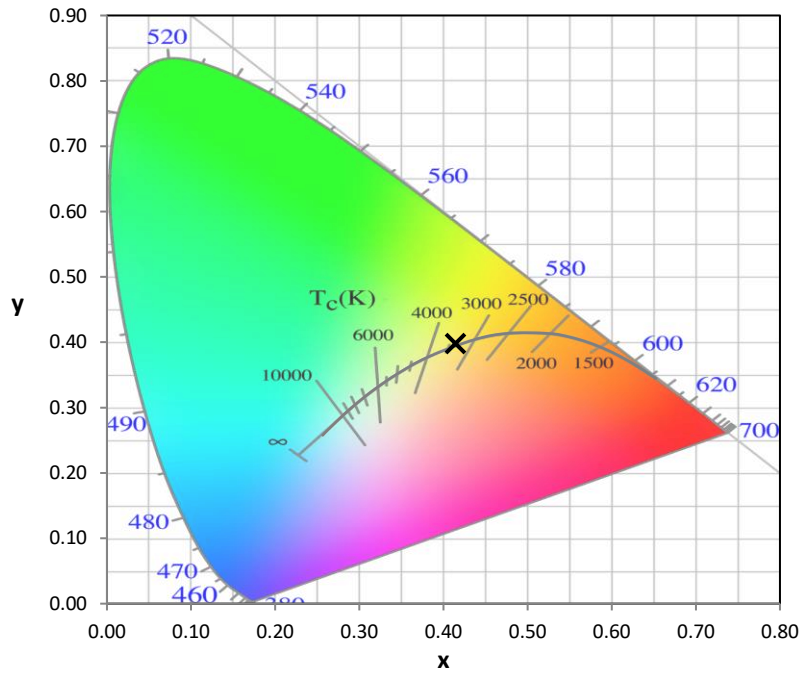
Stabilization Time: 21M
 Operation Time: 1H 21M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-184-5

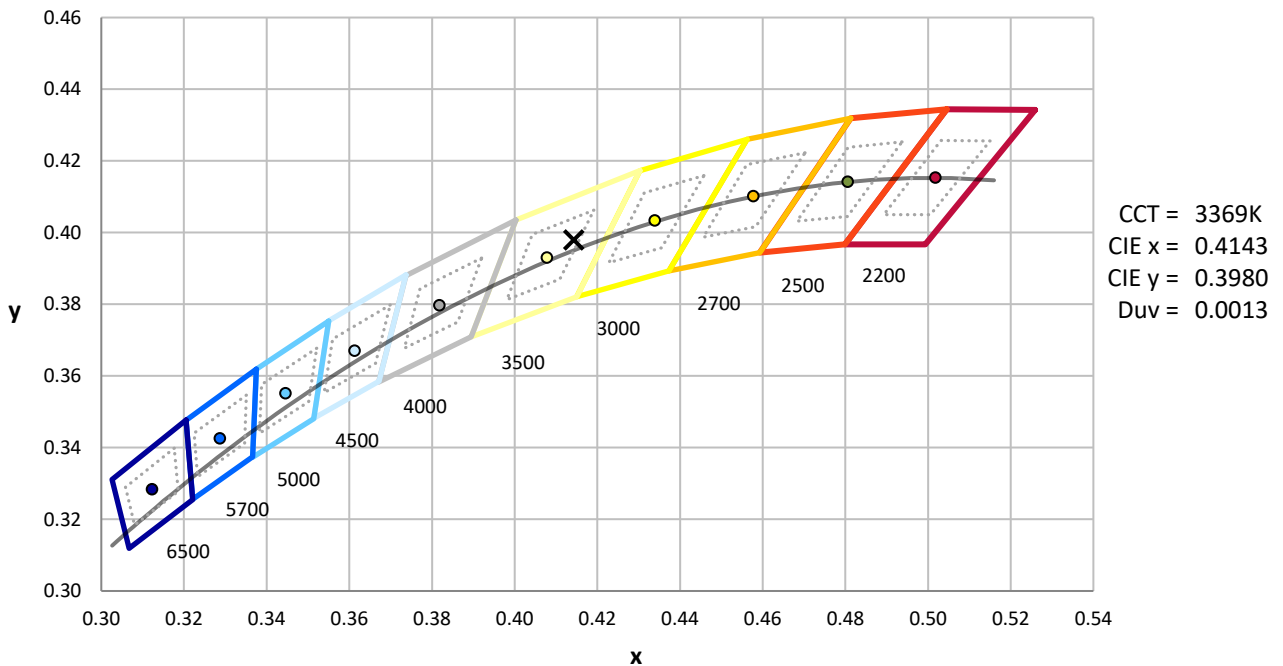
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-184-5

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: SP1-2407-184-5

Photopic Flux vs. Wavelength

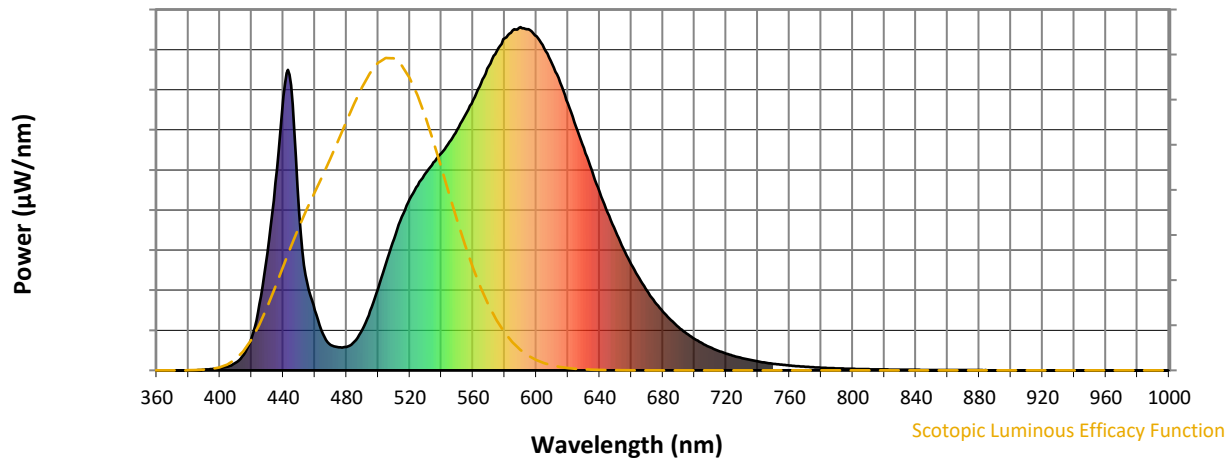


Photopic Lumens: NR

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	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-5

Scotopic Flux vs. Wavelength



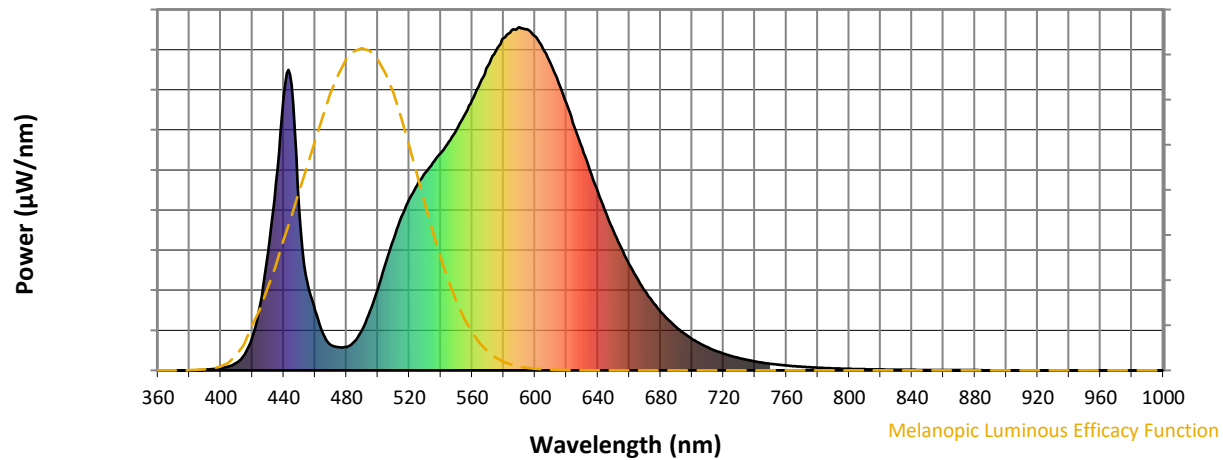
Scotopic Lumens: NR

S/P: 1.29

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	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.36

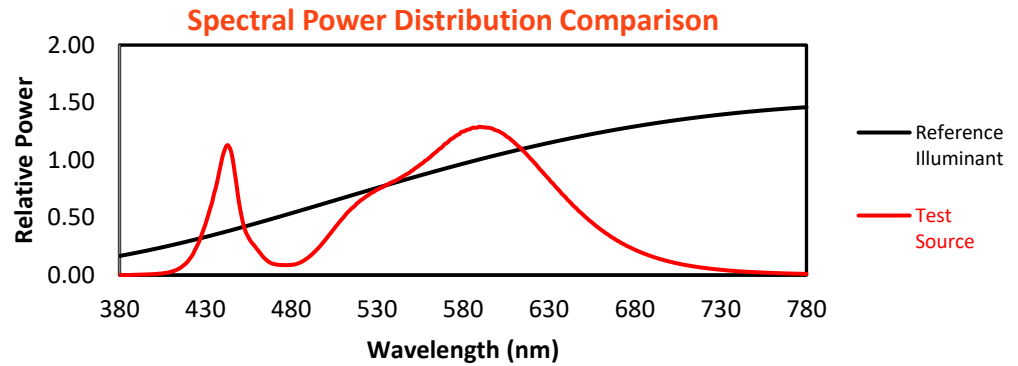
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	119	NR	620	778	NR	750	19	NR	880	1	NR
365	0	NR	495	173	NR	625	711	NR	755	16	NR	885	0	NR
370	0	NR	500	239	NR	630	648	NR	760	14	NR	890	0	NR
375	0	NR	505	313	NR	635	582	NR	765	12	NR	895	0	NR
380	0	NR	510	383	NR	640	520	NR	770	11	NR	900	0	NR
385	0	NR	515	448	NR	645	460	NR	775	9	NR	905	0	NR
390	2	NR	520	500	NR	650	406	NR	780	8	NR	910	0	NR
395	4	NR	525	539	NR	655	355	NR	785	7	NR	915	0	NR
400	6	NR	530	575	NR	660	309	NR	790	6	NR	920	0	NR
405	11	NR	535	606	NR	665	269	NR	795	5	NR	925	0	NR
410	22	NR	540	633	NR	670	231	NR	800	4	NR	930	0	NR
415	45	NR	545	666	NR	675	199	NR	805	4	NR	935	0	NR
420	96	NR	550	701	NR	680	171	NR	810	3	NR	940	0	NR
425	193	NR	555	743	NR	685	147	NR	815	3	NR	945	0	NR
430	341	NR	560	788	NR	690	126	NR	820	3	NR	950	0	NR
435	547	NR	565	837	NR	695	107	NR	825	2	NR	955	0	NR
440	799	NR	570	887	NR	700	92	NR	830	2	NR	960	0	NR
445	831	NR	575	931	NR	705	78	NR	835	2	NR	965	0	NR
450	461	NR	580	967	NR	710	67	NR	840	2	NR	970	0	NR
455	256	NR	585	990	NR	715	57	NR	845	1	NR	975	0	NR
460	176	NR	590	1000	NR	720	49	NR	850	1	NR	980	0	NR
465	107	NR	595	994	NR	725	42	NR	855	1	NR	985	0	NR
470	74	NR	600	973	NR	730	36	NR	860	1	NR	990	0	NR
475	67	NR	605	938	NR	735	31	NR	865	1	NR	995	0	NR
480	68	NR	610	892	NR	740	26	NR	870	1	NR	1000	0	NR
485	84	NR	615	838	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2407-184-5

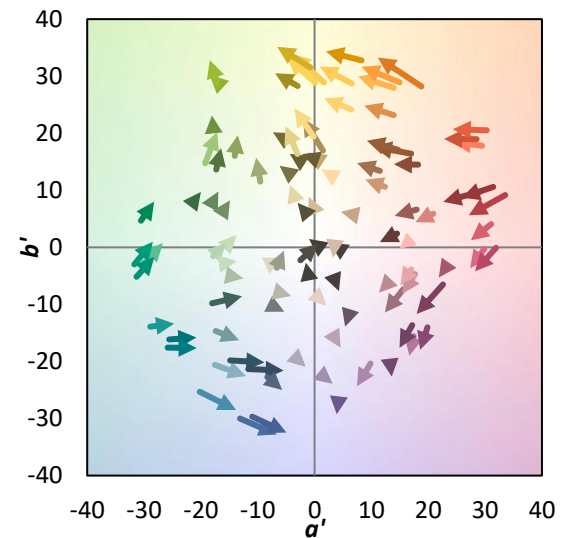
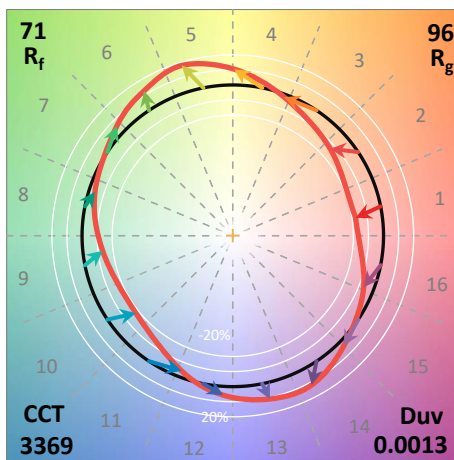
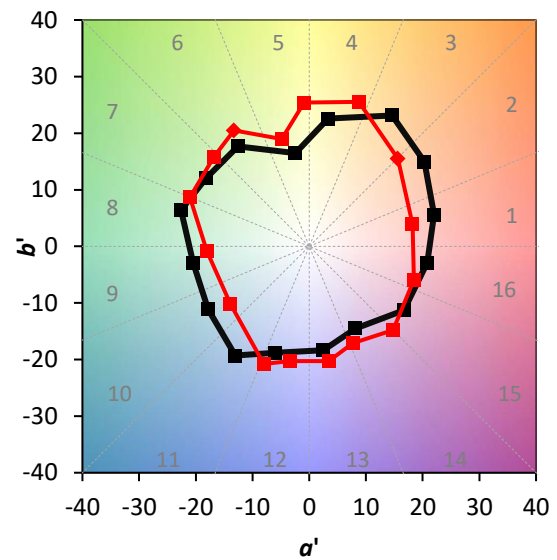
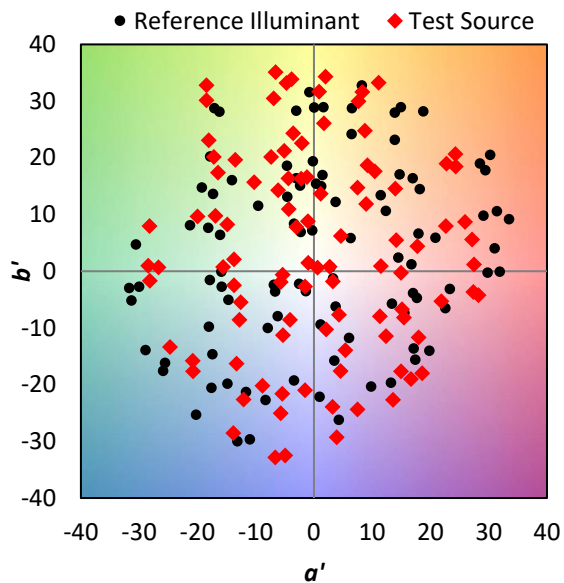
TM-30-18

Summary

$R_f = 71.4$
 $R_g = 96$
 $\text{CIE } R_a = 70.1$
 $R_g = -40.2$

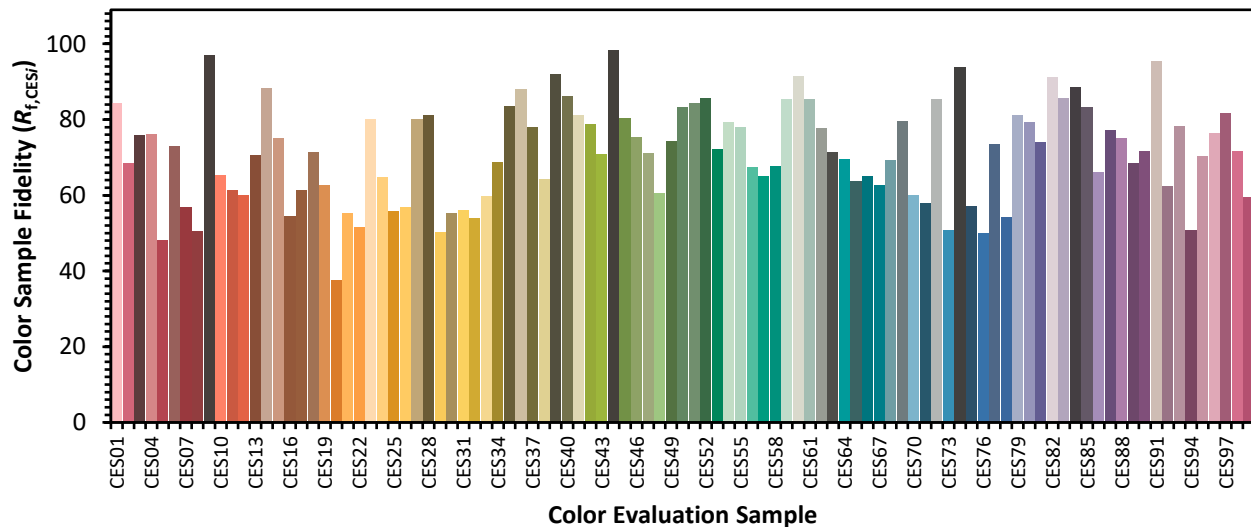


Color Vector Graphics

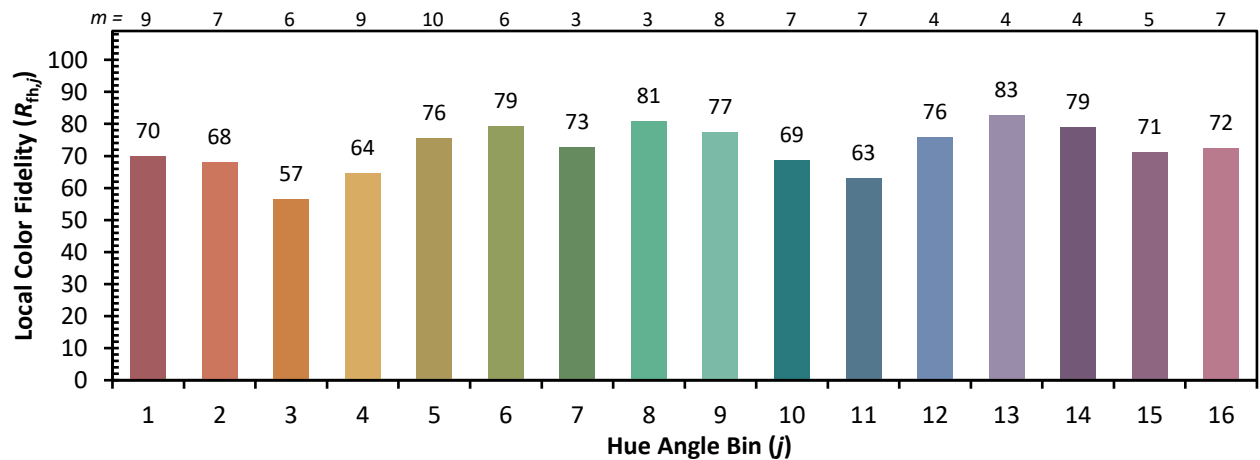
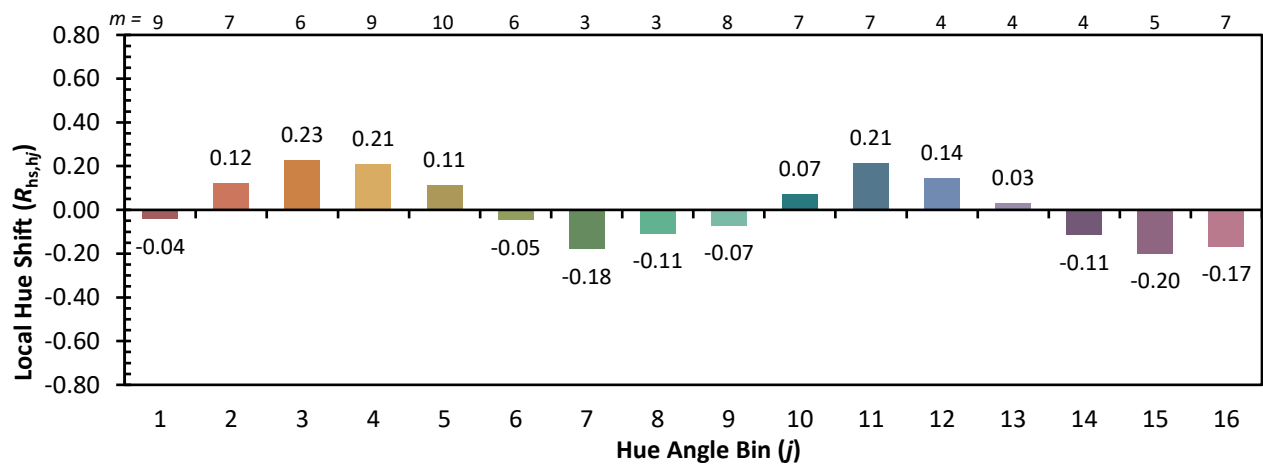
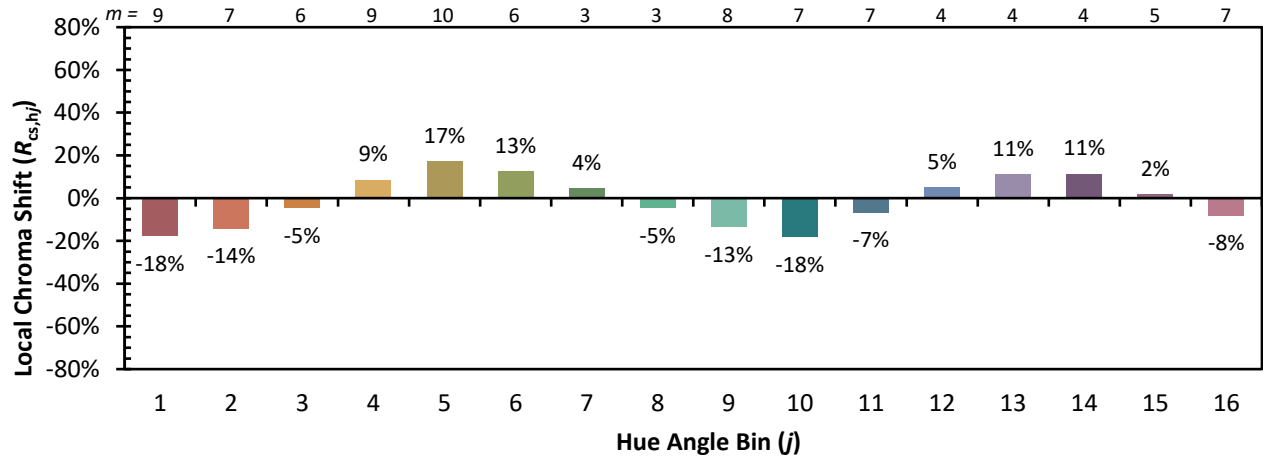


Individual Sample Fidelity Index ($R_{f,i}$)

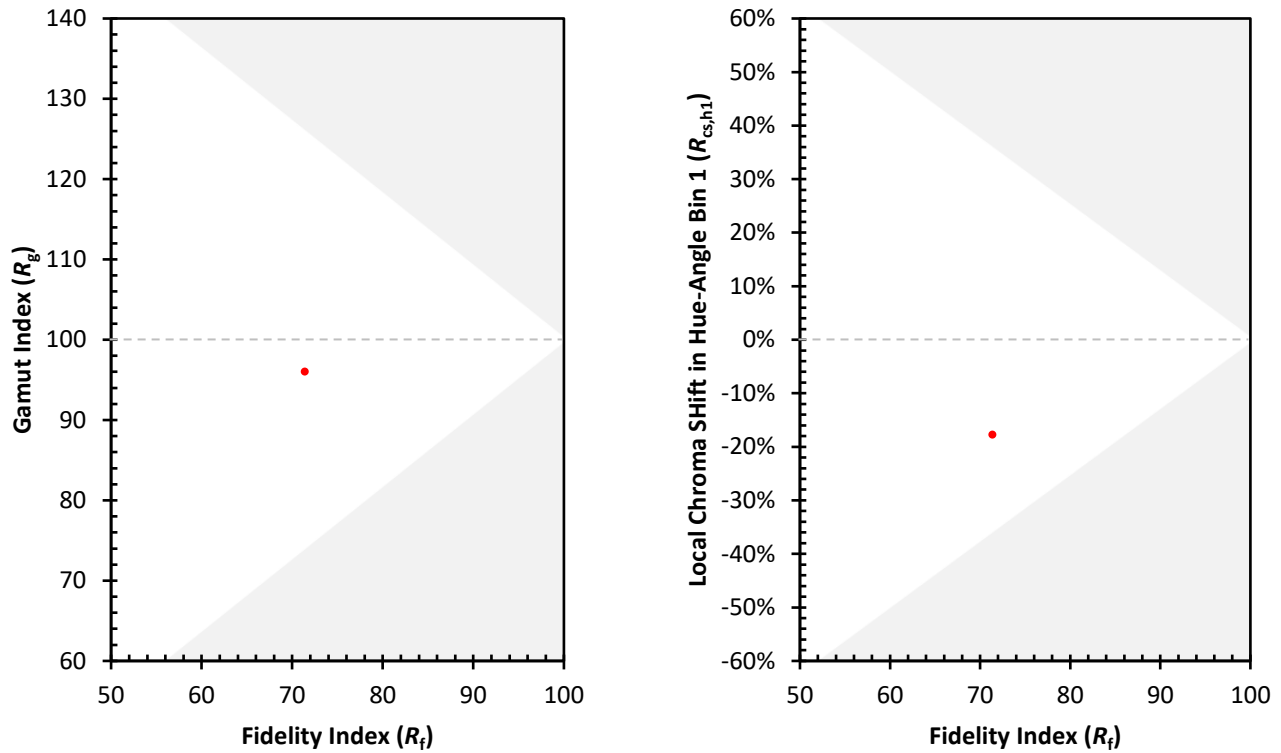
CES01 = 86	CES26 = 57	CES51 = 84	CES76 = 50
CES02 = 62	CES27 = 80	CES52 = 86	CES77 = 74
CES03 = 31	CES28 = 81	CES53 = 72	CES78 = 54
CES04 = 70	CES29 = 50	CES54 = 79	CES79 = 81
CES05 = 48	CES30 = 55	CES55 = 78	CES80 = 79
CES06 = 51	CES31 = 56	CES56 = 67	CES81 = 74
CES07 = 40	CES32 = 54	CES57 = 65	CES82 = 91
CES08 = 39	CES33 = 60	CES58 = 68	CES83 = 86
CES09 = 29	CES34 = 69	CES59 = 85	CES84 = 89
CES10 = 75	CES35 = 83	CES60 = 91	CES85 = 83
CES11 = 58	CES36 = 88	CES61 = 85	CES86 = 66
CES12 = 64	CES37 = 78	CES62 = 78	CES87 = 77
CES13 = 43	CES38 = 64	CES63 = 71	CES88 = 75
CES14 = 74	CES39 = 92	CES64 = 70	CES89 = 68
CES15 = 71	CES40 = 86	CES65 = 64	CES90 = 72
CES16 = 47	CES41 = 81	CES66 = 65	CES91 = 95
CES17 = 50	CES42 = 79	CES67 = 63	CES92 = 62
CES18 = 56	CES43 = 71	CES68 = 69	CES93 = 78
CES19 = 72	CES44 = 98	CES69 = 80	CES94 = 51
CES20 = 65	CES45 = 80	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 75	CES71 = 58	CES96 = 76
CES22 = 79	CES47 = 71	CES72 = 85	CES97 = 82
CES23 = 92	CES48 = 61	CES73 = 51	CES98 = 72
CES24 = 91	CES49 = 74	CES74 = 94	CES99 = 60
CES25 = 72	CES50 = 83	CES75 = 57	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)