

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: STREETWORKS

Report Number: P856198

Luminaire Tested: **FFX-CLB-30-722-U-FR-T3-UPLR**

Issue Date: 07/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856198  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: FFX-CLB-30-722-U-FR-T3-UPLR  
Description: FAIRFAX POST TOP FIXTURE w/ FAIRFAX REFRACTOR T3 DISTRIBUTION LENS AND UPLIGHT REFLECTOR  
Light Source: (4) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

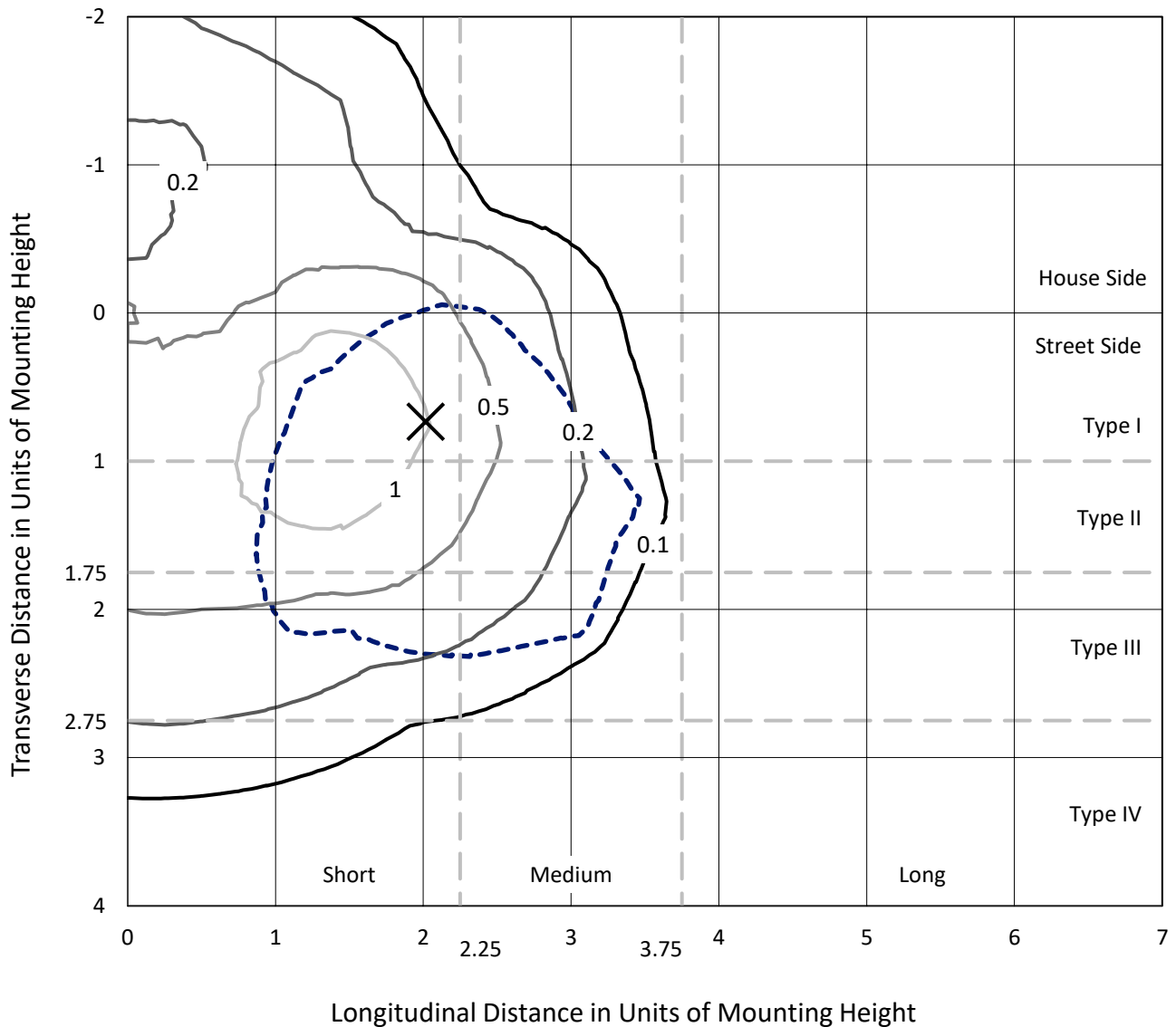
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4101.5 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 1.67')  
IES Classification: Type III - Short  
BUG Rating: B1 - U3 - G2  
  
Input Watts (W): 30.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 10.6%%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P856198  
 CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

### Iso-Footcandle Lines of Horizontal Illumination

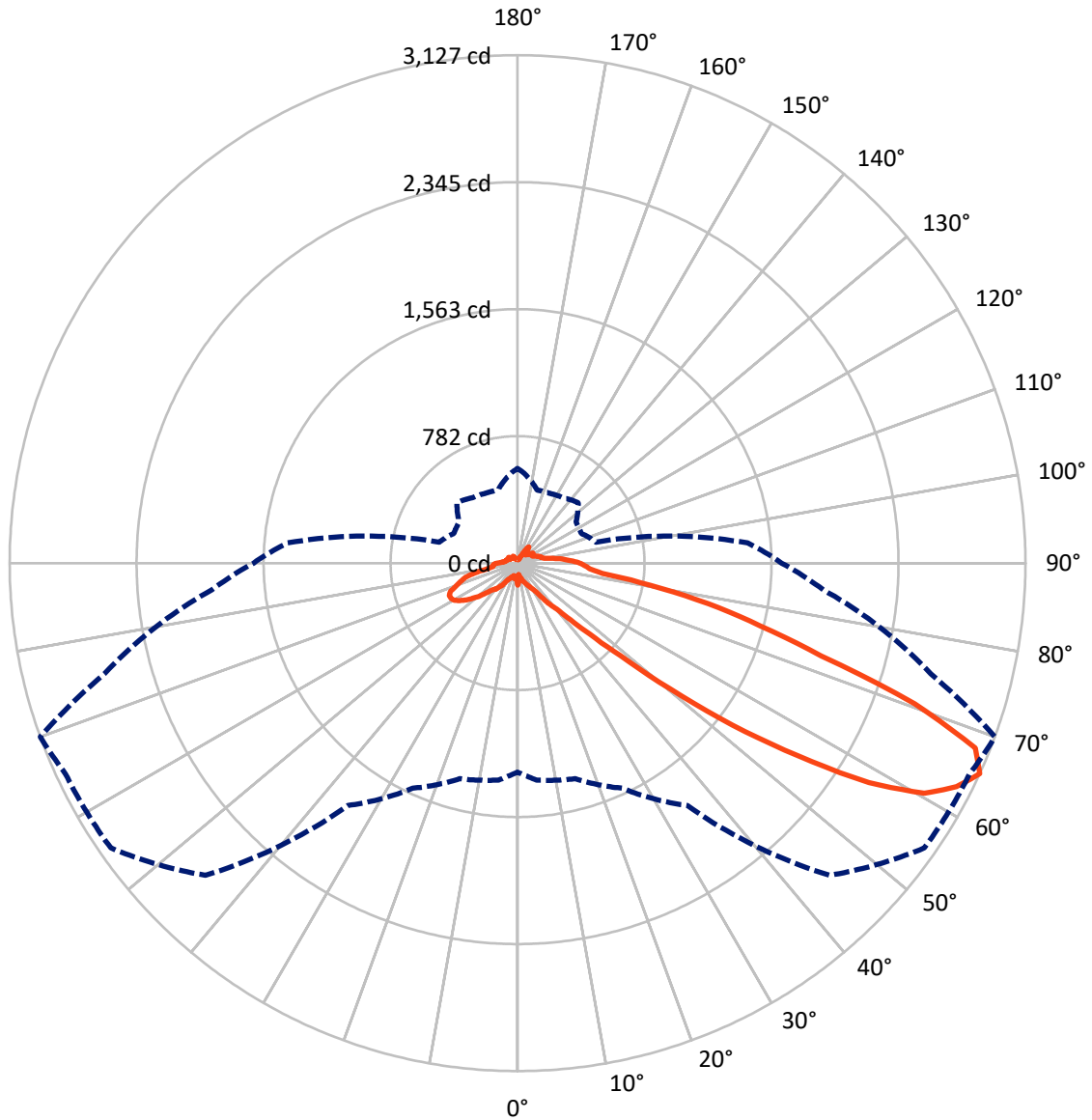
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.8 fc  
 Type III - Short - N/A

REPORT NUMBER: P856198  
CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P856198

CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

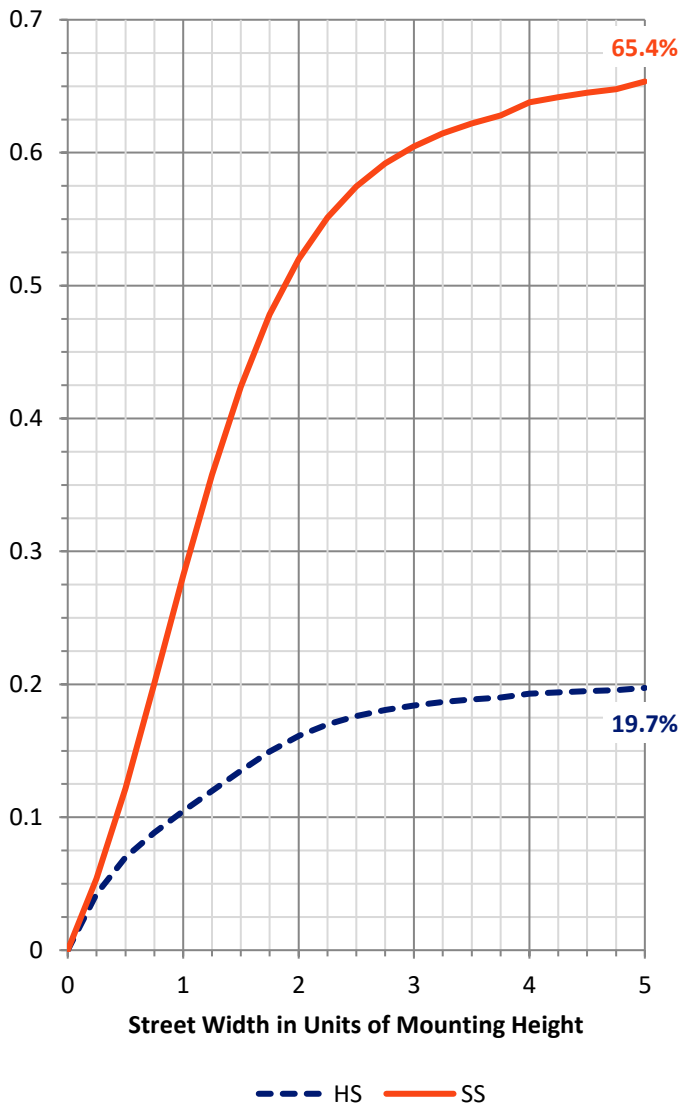
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	841.2	157.6	998.8
	% Fixture	20.5	3.8	24.4
<b>Street Side</b>	Lumens	2773.9	328.8	3102.7
	% Fixture	67.6	8.0	75.6
<b>Total</b>	Lumens	3615.1	486.4	4101.5
	% Fixture	88.1	11.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.8	0.2
10°-20°	27.4	0.7
20°-30°	55.4	1.3
30°-40°	117.1	2.9
40°-50°	273.1	6.7
50°-60°	814.0	19.8
60°-70°	1304.3	31.8
70°-80°	749.3	18.3
80°-90°	265.7	6.5
90°-100°	156.7	3.8
100°-110°	94.7	2.3
110°-120°	71.2	1.7
120°-130°	60.3	1.5
130°-140°	40.0	1.0
140°-150°	37.6	0.9
150°-160°	16.7	0.4
160°-170°	6.9	0.2
170°-180°	2.3	0.1
0°-90°	3615.1	88.1
0°-180°	4101.5	100.0



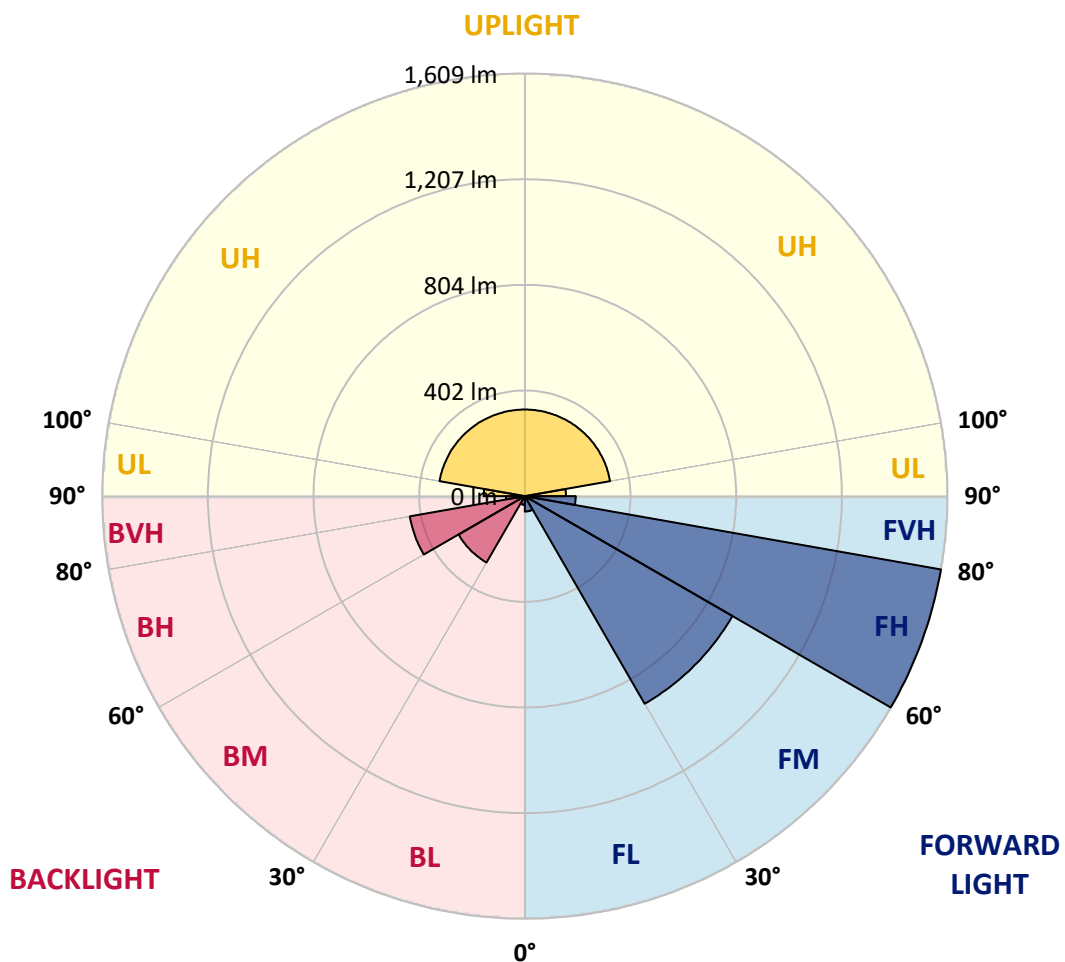
REPORT NUMBER: P856198  
 CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	58.8	1.4			
FM (30°-60°)	912.6	22.3			
FH (60°-80°)	1609.0	39.2			G1/1800
FVH (80°-90°)	193.6	4.7			G2/225
BL (0°-30°)	32.8	0.8	B0/110		
BM (30°-60°)	291.6	7.1	B1/1000		
BH (60°-80°)	444.6	10.8	B1/500		G1/500
BVH (80°-90°)	72.2	1.8			G1/100
UL (90°-100°)	156.7	3.8		U3/500	
UH (100°-180°)	329.6	8.0		U3/500	

**BUG Rating: B1-U3-G2**

Type III Short





REPORT NUMBER: P856198

CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1
2.5°	113.4	112.6	114.8	116.5	118.7	115.6	110.4	115.6	117.4	122.6	126.5
5°	96.5	96.9	99.1	103.9	108.2	107.4	93.9	76.5	71.3	69.1	69.5
7.5°	95.6	95.2	93.9	93.5	96.1	105.6	104.3	91.7	82.2	73.9	65.6
10°	100.8	102.1	103.5	103.5	101.7	95.6	95.2	94.3	90.8	86.9	81.7
12.5°	124.7	126.5	127.8	123.4	117.8	111.7	106.9	99.1	95.6	93.5	89.5
15°	150.8	152.6	150.4	142.1	132.1	120.8	116.5	116.9	112.1	106.5	98.2
17.5°	164.7	163.9	154.7	145.2	137.4	128.7	122.6	118.7	116.9	114.8	106.5
20°	156.0	153.9	148.2	144.3	143.4	138.7	134.7	131.3	129.1	124.3	114.3
22.5°	149.5	149.5	148.7	147.8	153.0	150.8	149.1	144.3	141.3	135.2	120.4
25°	157.8	157.8	158.2	156.9	163.9	163.9	163.9	158.7	154.7	146.0	128.2
27.5°	169.5	169.1	170.4	169.5	175.6	176.9	179.5	175.6	170.0	159.5	136.9
30°	182.1	182.1	183.4	184.3	190.4	193.4	196.5	194.7	187.8	175.2	151.7
32.5°	195.6	195.2	199.1	203.4	206.9	212.6	213.9	218.2	211.2	196.5	173.4
35°	215.2	216.5	226.9	236.0	246.0	249.5	255.6	272.5	265.6	245.6	219.1
37.5°	311.2	304.7	302.1	291.7	290.4	310.8	318.2	334.3	320.4	293.4	253.0
40°	329.9	322.1	318.6	308.6	312.1	354.3	346.9	404.7	370.8	327.7	301.7
42.5°	310.8	309.5	350.3	358.2	353.8	420.8	406.4	513.3	477.3	377.3	348.2
45°	375.1	371.6	389.0	402.9	413.8	534.2	525.5	638.1	622.4	459.4	430.8
47.5°	423.4	419.9	439.9	486.4	549.9	680.3	731.1	901.1	848.0	632.0	566.8
50°	567.7	565.5	619.4	669.4	774.1	966.7	1106.2	1289.7	1211.9	882.8	762.8
52.5°	704.2	711.1	774.1	870.2	981.0	1328.8	1527.9	1656.5	1655.7	1149.7	979.3
55°	802.0	825.4	899.8	1073.2	1227.1	1650.0	1918.6	2013.8	2093.8	1533.9	1192.7
57.5°	991.9	1032.8	1104.1	1275.8	1474.4	2038.6	2422.0	2406.3	2550.2	1932.5	1424.8
60°	1187.1	1234.9	1258.8	1416.6	1677.4	2412.8	2768.0	2731.5	2876.2	2279.4	1669.1
62.5°	1247.9	1294.9	1318.4	1490.0	1823.9	2625.0	2927.5	2941.8	3031.8	2526.7	1813.9
65°	1286.2	1340.1	1374.0	1528.7	1820.8	2717.5	3056.6	3070.1	3126.6	2633.2	1888.6
67.5°	1279.2	1339.6	1383.1	1521.8	1720.0	2640.6	3024.4	2963.6	3039.2	2557.2	1810.0
70°	1141.0	1193.6	1237.1	1344.0	1435.7	2224.6	2616.7	2516.3	2594.5	2136.4	1494.4
72.5°	932.4	954.1	991.9	1042.3	1088.0	1650.4	1996.0	1909.9	1955.1	1602.6	1119.7
75°	765.9	761.5	795.4	832.0	817.6	1205.8	1579.2	1500.5	1542.6	1217.1	893.2
77.5°	567.7	565.5	614.6	611.6	589.8	835.0	1251.8	1194.9	1200.6	898.9	669.0
80°	341.2	347.7	395.5	405.1	379.5	523.8	893.7	866.7	826.3	614.2	469.0
82.5°	239.5	249.5	274.7	285.1	272.5	382.5	592.0	573.3	525.5	445.5	330.3
85°	244.3	246.0	249.1	249.9	244.3	343.4	459.4	449.0	446.0	373.4	272.5
87.5°	244.3	248.2	250.8	250.4	240.4	321.7	423.8	407.3	411.2	349.0	263.4
90°	219.1	226.0	225.6	226.9	218.6	290.8	384.2	370.8	376.0	314.7	239.5
92.5°	179.1	183.9	188.6	197.8	185.6	247.3	324.7	312.1	318.6	267.8	203.9
95°	166.5	170.8	173.9	178.6	166.5	219.9	287.3	272.1	274.7	227.3	172.6
97.5°	134.7	137.4	140.8	141.7	133.0	169.1	218.6	205.6	207.3	176.5	135.6
100°	113.0	115.2	118.2	118.2	112.6	140.0	173.0	166.0	165.2	144.3	114.8
102.5°	106.9	107.8	112.6	111.7	106.1	129.1	156.5	152.1	152.6	133.9	107.8
105°	105.2	105.2	110.0	107.8	103.0	123.0	146.5	145.2	144.7	127.4	103.5
107.5°	103.5	103.5	108.2	106.1	102.1	116.1	137.8	133.4	133.0	121.3	97.8
110°	96.5	97.8	103.0	100.4	97.4	109.5	126.5	123.4	123.4	114.3	93.5



REPORT NUMBER: P856198  
 CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
112.5°	85.6	86.5	91.3	89.1	86.9	97.4	112.1	108.2	108.7	102.6	87.4
115°	80.0	81.3	86.1	83.0	81.3	90.8	103.9	101.3	102.1	96.5	82.6
117.5°	80.4	80.8	84.3	84.8	81.3	89.1	96.1	96.9	98.2	94.8	83.9
120°	97.8	95.6	97.4	95.2	93.5	102.6	110.8	111.7	111.3	104.8	83.5
122.5°	98.7	94.3	99.1	96.1	94.3	104.3	113.4	115.6	113.4	107.8	85.2
125°	78.7	80.0	80.4	81.3	83.0	93.9	98.7	99.1	99.5	97.8	82.6
127.5°	69.1	68.7	66.5	66.9	70.9	80.4	83.9	86.5	84.8	83.9	74.3
130°	66.1	66.9	66.5	66.5	68.7	76.1	78.7	82.6	81.3	79.5	67.8
132.5°	60.9	61.7	65.6	70.4	69.5	72.2	73.0	76.9	77.4	77.4	68.2
135°	57.8	58.7	61.7	67.8	66.1	67.4	66.9	70.4	70.9	71.3	64.3
137.5°	59.1	59.5	57.8	58.7	60.0	65.6	67.4	70.9	70.9	69.1	60.0
140°	62.2	62.2	58.2	56.9	59.5	68.2	71.7	77.4	76.5	73.5	62.2
142.5°	57.4	58.2	60.4	63.0	68.7	92.6	92.6	103.5	106.9	107.8	75.2
145°	74.8	75.2	76.1	77.4	88.2	121.3	110.4	118.2	121.3	124.3	90.4
147.5°	86.1	86.9	86.1	82.6	92.6	103.9	98.7	102.1	105.6	106.5	90.8
150°	67.4	66.5	66.1	65.6	76.5	80.0	75.6	75.2	77.8	80.0	70.4
152.5°	49.1	48.7	48.2	47.8	57.4	55.2	52.2	52.2	53.0	53.5	49.6
155°	43.5	43.0	42.2	42.6	48.7	46.5	43.9	43.0	43.9	43.5	41.3
157.5°	35.6	34.8	34.8	36.5	39.6	36.9	35.2	33.9	34.3	33.9	34.3
160°	29.6	29.1	29.6	31.7	33.5	31.3	29.6	28.7	28.7	29.6	31.3
162.5°	26.5	26.1	26.5	27.4	28.3	26.1	24.8	24.8	25.2	26.9	30.4
165°	23.0	23.0	23.5	23.9	24.3	23.0	22.6	22.6	23.5	26.1	30.0
167.5°	22.2	22.2	22.2	22.2	22.2	21.7	21.3	22.6	23.5	24.8	27.4
170°	21.7	21.3	21.7	21.7	21.7	21.7	21.7	23.0	23.0	23.5	24.8
172.5°	22.2	22.2	22.2	22.6	23.5	23.9	23.5	24.3	23.9	23.9	23.9
175°	22.6	22.6	23.0	23.5	23.9	24.3	24.8	24.8	24.8	25.2	25.2
177.5°	22.6	22.6	23.0	23.5	23.9	23.0	22.2	21.7	21.3	21.3	21.3
180°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0





REPORT NUMBER: P856198

CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1	136.1
2.5°	123.0	112.1	96.9	103.5	123.4	119.5	99.5	87.4	88.2	96.9	97.8
5°	71.7	73.9	83.9	104.8	108.7	90.0	72.6	70.0	84.3	104.3	108.2
7.5°	64.8	64.8	73.0	101.7	114.3	93.9	70.9	63.9	74.8	91.3	93.9
10°	78.2	75.6	76.5	86.9	91.7	75.2	63.5	60.4	66.5	68.7	67.8
12.5°	88.2	90.0	98.2	96.1	75.2	61.3	57.4	56.9	60.4	62.6	62.2
15°	94.8	91.7	85.6	78.7	71.7	63.9	58.2	54.8	50.9	49.1	49.1
17.5°	100.8	94.8	83.9	77.4	70.4	64.8	59.5	54.3	52.6	53.0	53.0
20°	108.2	100.8	90.8	83.5	75.2	67.4	60.9	55.2	53.9	54.3	53.9
22.5°	113.9	107.4	96.9	87.4	78.7	70.0	63.5	57.8	56.1	55.6	55.6
25°	120.8	115.2	104.3	92.6	82.2	73.9	68.2	61.7	58.7	57.8	57.8
27.5°	130.0	125.2	113.0	100.4	88.2	78.7	72.6	65.6	61.3	59.5	59.1
30°	143.9	137.4	123.9	108.2	95.6	85.6	78.2	69.5	64.3	61.3	60.9
32.5°	164.7	156.5	138.7	119.1	103.9	93.5	84.3	73.5	66.9	63.5	63.0
35°	209.1	199.9	177.3	150.0	127.8	106.5	92.1	77.8	69.5	65.2	64.8
37.5°	236.9	220.4	193.0	168.2	141.3	128.7	110.4	91.3	73.0	67.4	66.5
40°	277.3	256.0	221.7	188.2	140.8	140.4	128.2	111.3	86.1	71.3	70.0
42.5°	307.3	279.9	236.9	199.5	142.1	146.0	135.6	120.8	102.1	83.0	80.8
45°	368.6	333.8	265.6	209.5	143.9	152.6	142.1	126.5	110.0	96.5	95.2
47.5°	483.4	435.1	321.2	228.6	163.4	174.3	155.6	137.4	121.3	107.8	104.8
50°	643.7	585.9	388.6	245.6	196.9	221.7	191.3	163.4	144.3	133.9	130.8
52.5°	832.0	767.2	430.8	272.1	237.3	279.9	246.5	213.9	188.6	190.4	188.6
55°	1041.9	965.4	467.7	312.1	289.1	344.7	308.2	279.9	266.5	304.3	306.4
57.5°	1244.5	1162.7	490.7	354.3	346.9	419.5	376.9	356.9	362.1	472.9	499.0
60°	1437.9	1308.8	508.6	393.8	395.5	478.1	445.5	441.6	457.7	599.8	639.4
62.5°	1549.6	1383.6	507.7	419.5	426.0	514.2	485.5	487.7	499.9	620.7	653.7
65°	1625.7	1421.4	499.0	432.5	439.0	527.3	490.3	473.4	465.5	548.1	583.3
67.5°	1580.0	1348.3	478.1	421.2	429.9	506.4	460.3	417.7	404.2	449.0	469.9
70°	1335.7	1126.7	426.0	382.9	388.6	427.3	388.2	341.6	328.2	351.6	361.2
72.5°	1009.3	865.0	382.1	353.8	340.3	353.4	315.1	266.5	263.4	276.0	277.8
75°	806.3	679.0	348.2	319.0	283.0	296.4	250.4	198.2	194.3	195.2	190.8
77.5°	607.7	505.1	293.0	251.2	214.3	236.5	186.0	136.9	130.4	127.8	123.0
80°	416.0	350.8	199.1	168.2	152.1	173.4	132.6	100.4	100.0	99.1	93.9
82.5°	295.1	270.8	162.6	143.0	129.1	136.5	115.2	93.9	91.7	92.1	86.5
85°	258.2	245.2	156.9	144.7	131.3	130.8	110.0	87.8	86.9	87.4	82.2
87.5°	246.9	232.5	153.4	138.2	125.2	118.7	96.9	77.4	79.5	80.8	76.1
90°	221.2	206.5	139.1	123.4	110.8	99.5	82.2	70.0	73.5	74.3	70.0
92.5°	186.5	171.3	108.2	99.1	93.0	91.3	76.9	66.5	69.1	69.5	66.1
95°	157.8	143.9	94.3	87.4	83.0	82.6	69.5	60.4	61.7	61.3	58.2
97.5°	126.9	116.9	82.6	76.1	71.3	68.7	59.5	52.6	54.3	55.2	53.0
100°	108.2	102.6	76.9	71.3	65.6	62.2	54.3	48.7	50.4	52.2	50.4
102.5°	101.7	97.4	75.6	69.5	63.5	59.1	51.7	45.6	46.5	48.7	47.4
105°	96.5	92.6	73.5	66.9	61.3	56.5	50.4	43.0	42.6	44.8	44.3
107.5°	90.8	87.4	72.2	64.3	58.2	53.9	48.2	41.3	39.6	40.9	40.4
110°	87.8	84.3	69.5	61.3	54.8	50.9	45.6	40.0	37.8	38.3	38.3



REPORT NUMBER: P856198  
 CATALOG NUMBER: FFX-CLB-30-722-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	81.7	77.8	63.9	56.1	50.9	47.4	42.2	38.3	35.6	36.5	36.9
115°	77.8	72.6	58.7	53.0	47.4	44.3	41.3	37.8	34.8	34.8	35.2
117.5°	80.4	70.4	54.8	50.4	47.4	46.5	45.6	40.4	34.3	33.9	33.9
120°	76.9	70.9	59.5	58.2	55.2	52.6	46.9	40.0	33.5	32.6	32.6
122.5°	75.2	73.9	67.4	63.0	57.4	52.2	43.9	36.5	32.2	31.3	31.3
125°	74.3	73.0	65.2	56.9	49.6	44.3	39.1	34.3	31.7	30.4	30.4
127.5°	68.2	62.2	52.6	47.8	43.0	40.9	36.5	33.5	30.4	28.7	28.7
130°	63.0	57.4	49.1	43.9	40.0	38.3	35.2	32.2	29.1	27.4	26.9
132.5°	62.2	56.5	47.8	41.3	37.8	36.1	34.3	30.9	27.4	25.6	25.2
135°	57.8	51.3	42.6	39.1	36.9	35.6	34.3	30.0	26.5	24.8	24.8
137.5°	53.5	46.9	40.4	38.7	36.9	35.6	31.7	27.4	24.8	23.5	23.5
140°	53.9	46.5	41.3	40.0	37.4	33.5	30.0	26.9	24.8	23.0	22.6
142.5°	57.4	48.2	41.7	37.8	36.1	33.9	32.6	29.1	24.8	21.7	20.9
145°	63.0	52.2	46.9	45.2	42.2	38.3	33.5	26.9	22.6	20.0	19.6
147.5°	69.5	58.7	52.6	47.8	41.7	35.2	28.7	23.5	20.0	19.1	18.7
150°	60.4	50.0	45.2	38.7	33.5	28.3	23.5	20.9	19.1	18.7	18.7
152.5°	45.6	37.4	33.5	30.4	27.4	24.8	22.2	20.4	19.1	18.3	18.3
155°	39.6	35.2	31.3	28.3	25.2	22.6	20.4	19.6	18.3	18.3	17.8
157.5°	34.8	32.6	27.4	24.8	22.6	21.3	20.4	19.1	18.7	18.3	18.3
160°	31.7	30.4	25.2	23.0	21.7	20.9	20.9	20.0	18.7	18.3	18.3
162.5°	30.9	29.6	24.3	22.2	20.9	21.3	22.2	21.7	20.0	19.1	19.1
165°	30.4	29.6	24.8	21.7	20.9	21.3	23.5	23.9	21.7	20.4	20.0
167.5°	27.8	27.4	26.1	23.9	22.6	22.6	23.9	24.3	23.5	23.5	23.0
170°	25.2	25.2	25.6	26.1	25.2	23.9	23.0	23.0	24.3	25.6	26.1
172.5°	24.3	24.8	25.6	26.9	26.9	25.2	23.9	23.5	24.8	26.5	26.9
175°	25.6	26.1	26.5	26.5	25.6	25.2	24.8	24.3	25.2	26.9	27.4
177.5°	21.3	21.3	21.7	21.7	21.3	21.7	21.3	20.4	20.4	20.4	20.4
180°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

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

Streetworks

Report Number: SP1-2406-133-2

Test Date: 07/11/2024

Luminaire Tested: FFX-CLB-100-722-U-FR-T5

Data in this report applies to families of products including FFX-CLB-100-722-U-FR-T5.

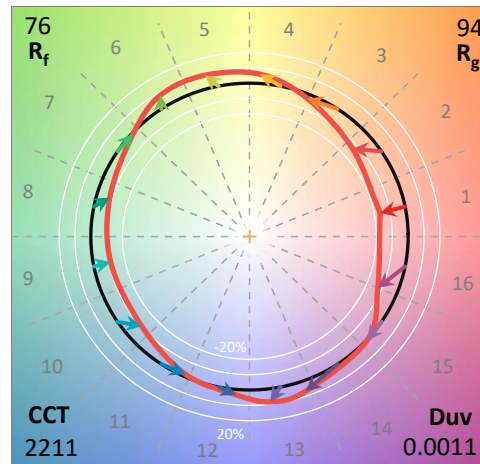
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2406-133-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 07/12/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **FFX-CLB-100-722-U-FR-T5**  
 Description: FAIRFAX ACORN W/ FAIRFAX REFRACTOR 100W T5

**Spectral Parameters**

CCT (K): 2211  
 CIE u': 0.2892  
 CIE v': 0.5376  
 Duv: 0.0011  
 CIE x: 0.5069  
 CIE y: 0.4188  
 CIE z: 0.0743  
 Peak Wavelength (nm): 606  
 Dominant Wavelength (nm): 586  
 Purity: 77.8805  
 Rf: 76.1  
 Rg: 94.3

CRI (Ra):	71.4		
R1:	68.2	R9:	-29.2
R2:	85.0	R10:	67.8
R3:	94.0	R11:	60.7
R4:	65.1	R12:	59.0
R5:	66.6	R13:	71.3
R6:	81.8	R14:	97.6
R7:	73.4	R15:	58.9
R8:	37.3		



**Test Conditions**

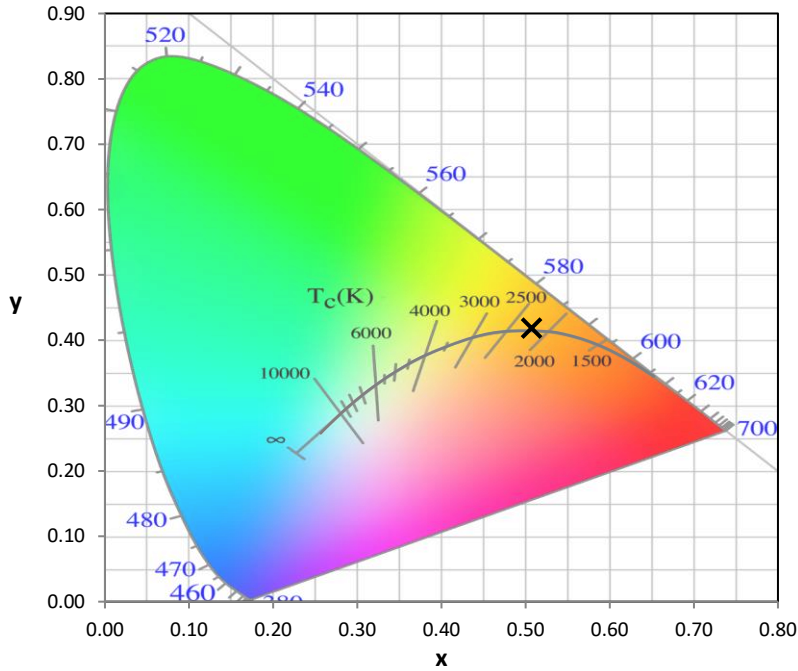
Stabilization Time: 0.813563M  
 Operation Time: 1H  
 Sphere Temperature (°C): 24.7

REPORT NUMBER: SP1-2406-133-2

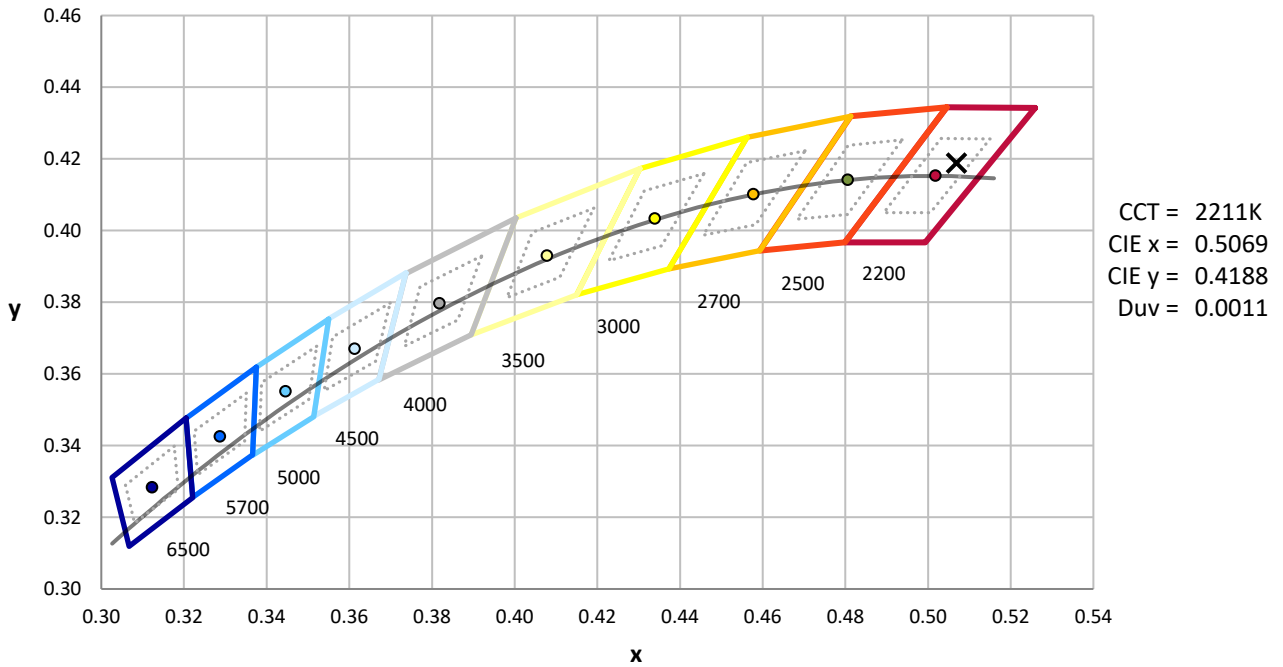
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2406-133-2

CIE 1931 Chromaticity Diagram



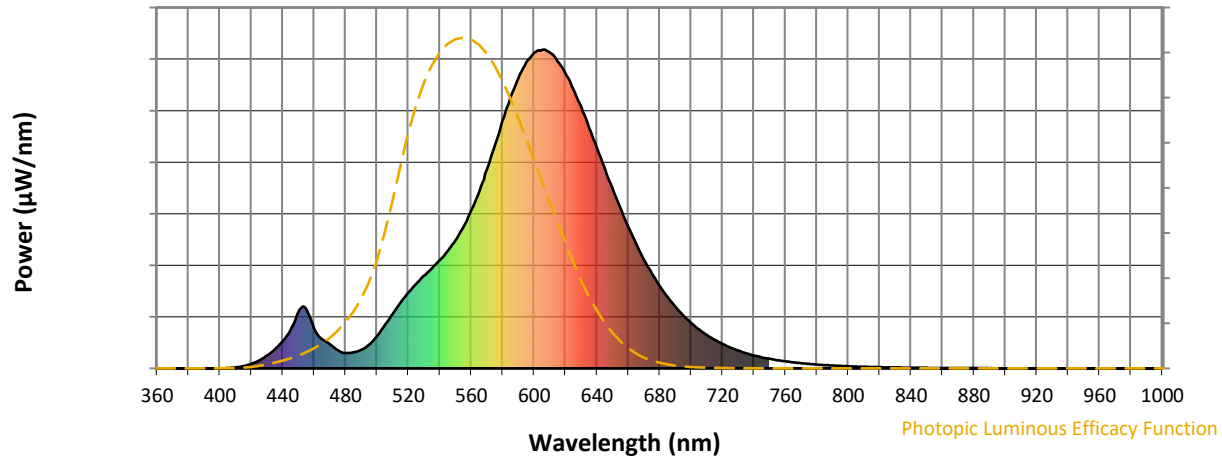
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2200K 4-step quadrangle

REPORT NUMBER: SP1-2406-133-2

**Photopic Flux vs. Wavelength**

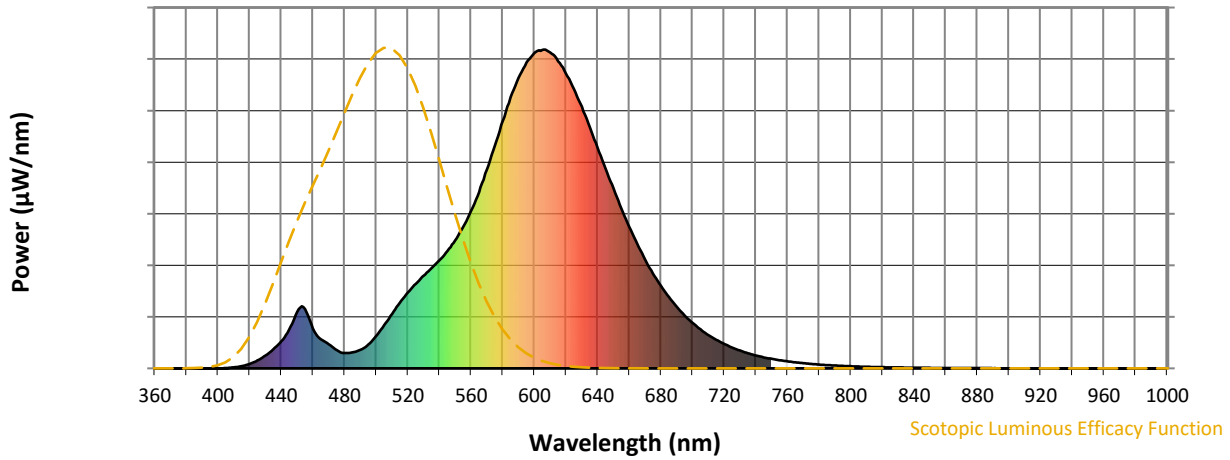


**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	58	NR	620	925	NR	750	30	NR	880	1	NR
365	0	NR	495	75	NR	625	877	NR	755	26	NR	885	1	NR
370	0	NR	500	101	NR	630	821	NR	760	22	NR	890	1	NR
375	0	NR	505	135	NR	635	756	NR	765	19	NR	895	0	NR
380	0	NR	510	171	NR	640	692	NR	770	16	NR	900	0	NR
385	0	NR	515	206	NR	645	626	NR	775	14	NR	905	0	NR
390	0	NR	520	238	NR	650	564	NR	780	12	NR	910	0	NR
395	0	NR	525	265	NR	655	502	NR	785	10	NR	915	0	NR
400	0	NR	530	291	NR	660	444	NR	790	9	NR	920	0	NR
405	1	NR	535	314	NR	665	390	NR	795	8	NR	925	0	NR
410	3	NR	540	339	NR	670	341	NR	800	7	NR	930	0	NR
415	7	NR	545	368	NR	675	298	NR	805	6	NR	935	0	NR
420	14	NR	550	401	NR	680	259	NR	810	5	NR	940	0	NR
425	25	NR	555	444	NR	685	224	NR	815	4	NR	945	0	NR
430	40	NR	560	495	NR	690	194	NR	820	4	NR	950	0	NR
435	60	NR	565	553	NR	695	166	NR	825	3	NR	955	0	NR
440	85	NR	570	623	NR	700	142	NR	830	3	NR	960	0	NR
445	121	NR	575	699	NR	705	122	NR	835	2	NR	965	0	NR
450	177	NR	580	777	NR	710	105	NR	840	2	NR	970	0	NR
455	186	NR	585	850	NR	715	90	NR	845	2	NR	975	0	NR
460	126	NR	590	912	NR	720	77	NR	850	2	NR	980	0	NR
465	92	NR	595	960	NR	725	65	NR	855	1	NR	985	0	NR
470	76	NR	600	990	NR	730	56	NR	860	1	NR	990	0	NR
475	57	NR	605	998	NR	735	48	NR	865	1	NR	995	0	NR
480	48	NR	610	991	NR	740	40	NR	870	1	NR	1000	0	NR
485	50	NR	615	963	NR	745	35	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-2

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

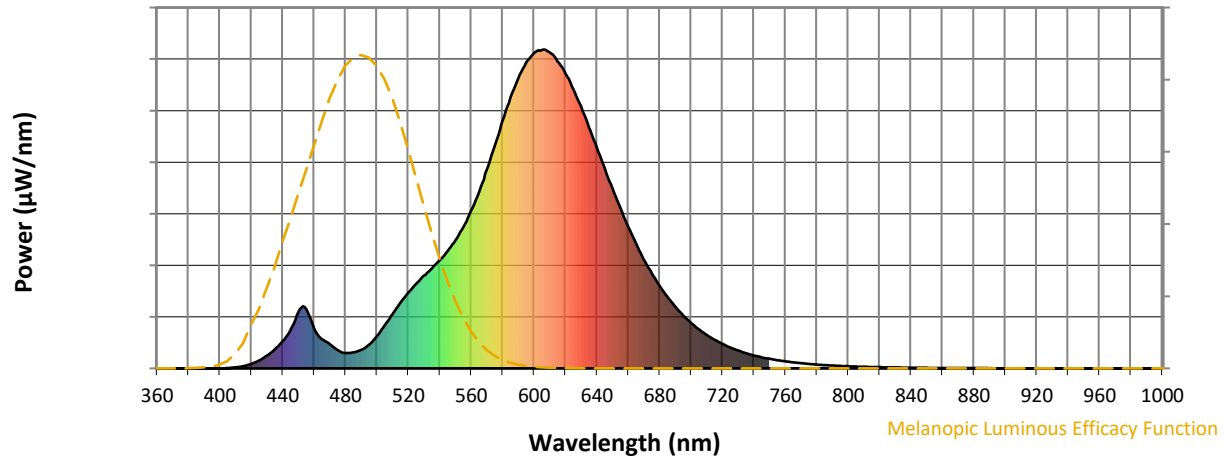
**S/P: 0.87**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	58	NR	620	925	NR	750	30	NR	880	1	NR
365	0	NR	495	75	NR	625	877	NR	755	26	NR	885	1	NR
370	0	NR	500	101	NR	630	821	NR	760	22	NR	890	1	NR
375	0	NR	505	135	NR	635	756	NR	765	19	NR	895	0	NR
380	0	NR	510	171	NR	640	692	NR	770	16	NR	900	0	NR
385	0	NR	515	206	NR	645	626	NR	775	14	NR	905	0	NR
390	0	NR	520	238	NR	650	564	NR	780	12	NR	910	0	NR
395	0	NR	525	265	NR	655	502	NR	785	10	NR	915	0	NR
400	0	NR	530	291	NR	660	444	NR	790	9	NR	920	0	NR
405	1	NR	535	314	NR	665	390	NR	795	8	NR	925	0	NR
410	3	NR	540	339	NR	670	341	NR	800	7	NR	930	0	NR
415	7	NR	545	368	NR	675	298	NR	805	6	NR	935	0	NR
420	14	NR	550	401	NR	680	259	NR	810	5	NR	940	0	NR
425	25	NR	555	444	NR	685	224	NR	815	4	NR	945	0	NR
430	40	NR	560	495	NR	690	194	NR	820	4	NR	950	0	NR
435	60	NR	565	553	NR	695	166	NR	825	3	NR	955	0	NR
440	85	NR	570	623	NR	700	142	NR	830	3	NR	960	0	NR
445	121	NR	575	699	NR	705	122	NR	835	2	NR	965	0	NR
450	177	NR	580	777	NR	710	105	NR	840	2	NR	970	0	NR
455	186	NR	585	850	NR	715	90	NR	845	2	NR	975	0	NR
460	126	NR	590	912	NR	720	77	NR	850	2	NR	980	0	NR
465	92	NR	595	960	NR	725	65	NR	855	1	NR	985	0	NR
470	76	NR	600	990	NR	730	56	NR	860	1	NR	990	0	NR
475	57	NR	605	998	NR	735	48	NR	865	1	NR	995	0	NR
480	48	NR	610	991	NR	740	40	NR	870	1	NR	1000	0	NR
485	50	NR	615	963	NR	745	35	NR	875	1	NR			



REPORT NUMBER: SP1-2406-133-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 1.42

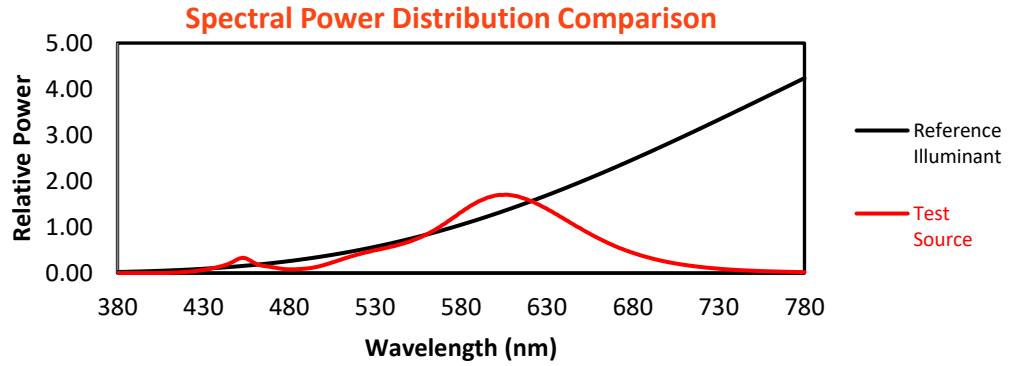
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	58	NR	620	925	NR	750	30	NR	880	1	NR
365	0	NR	495	75	NR	625	877	NR	755	26	NR	885	1	NR
370	0	NR	500	101	NR	630	821	NR	760	22	NR	890	1	NR
375	0	NR	505	135	NR	635	756	NR	765	19	NR	895	0	NR
380	0	NR	510	171	NR	640	692	NR	770	16	NR	900	0	NR
385	0	NR	515	206	NR	645	626	NR	775	14	NR	905	0	NR
390	0	NR	520	238	NR	650	564	NR	780	12	NR	910	0	NR
395	0	NR	525	265	NR	655	502	NR	785	10	NR	915	0	NR
400	0	NR	530	291	NR	660	444	NR	790	9	NR	920	0	NR
405	1	NR	535	314	NR	665	390	NR	795	8	NR	925	0	NR
410	3	NR	540	339	NR	670	341	NR	800	7	NR	930	0	NR
415	7	NR	545	368	NR	675	298	NR	805	6	NR	935	0	NR
420	14	NR	550	401	NR	680	259	NR	810	5	NR	940	0	NR
425	25	NR	555	444	NR	685	224	NR	815	4	NR	945	0	NR
430	40	NR	560	495	NR	690	194	NR	820	4	NR	950	0	NR
435	60	NR	565	553	NR	695	166	NR	825	3	NR	955	0	NR
440	85	NR	570	623	NR	700	142	NR	830	3	NR	960	0	NR
445	121	NR	575	699	NR	705	122	NR	835	2	NR	965	0	NR
450	177	NR	580	777	NR	710	105	NR	840	2	NR	970	0	NR
455	186	NR	585	850	NR	715	90	NR	845	2	NR	975	0	NR
460	126	NR	590	912	NR	720	77	NR	850	2	NR	980	0	NR
465	92	NR	595	960	NR	725	65	NR	855	1	NR	985	0	NR
470	76	NR	600	990	NR	730	56	NR	860	1	NR	990	0	NR
475	57	NR	605	998	NR	735	48	NR	865	1	NR	995	0	NR
480	48	NR	610	991	NR	740	40	NR	870	1	NR	1000	0	NR
485	50	NR	615	963	NR	745	35	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-2

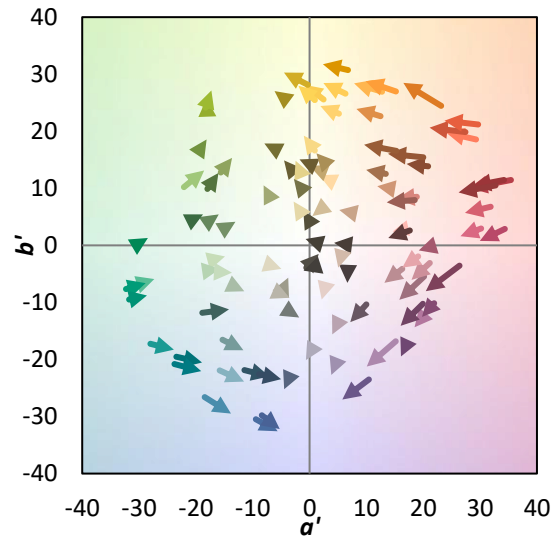
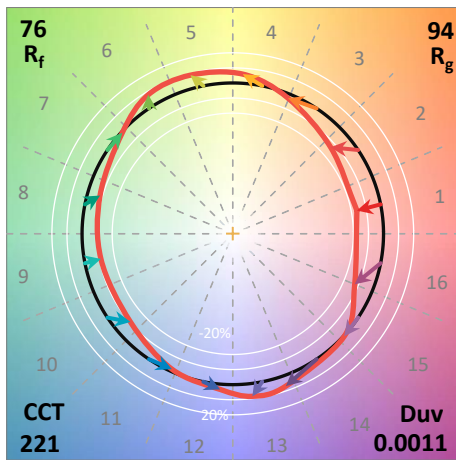
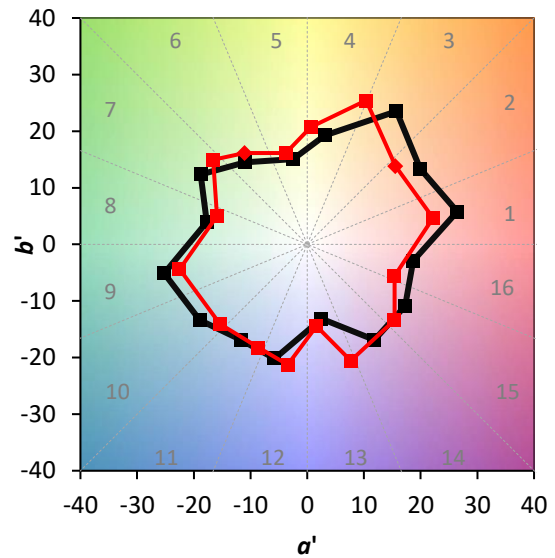
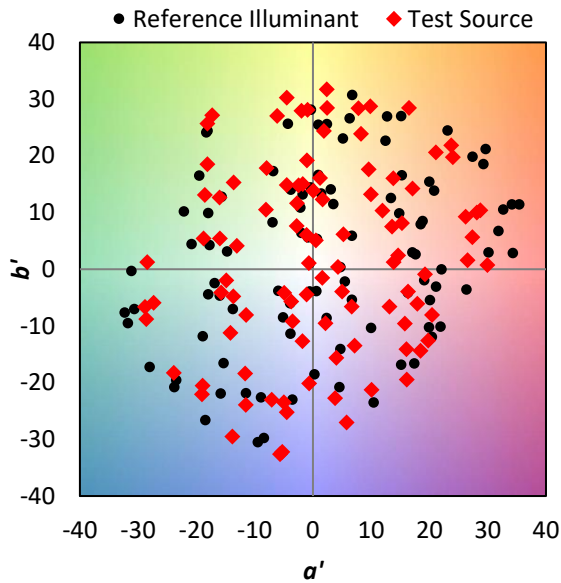
TM-30-18

**Summary**

$R_f = 76.1$   
 $R_g = 94.3$   
 CIE  $R_a = 71.4$   
 $R_9 = -29.2$



**Color Vector Graphics**

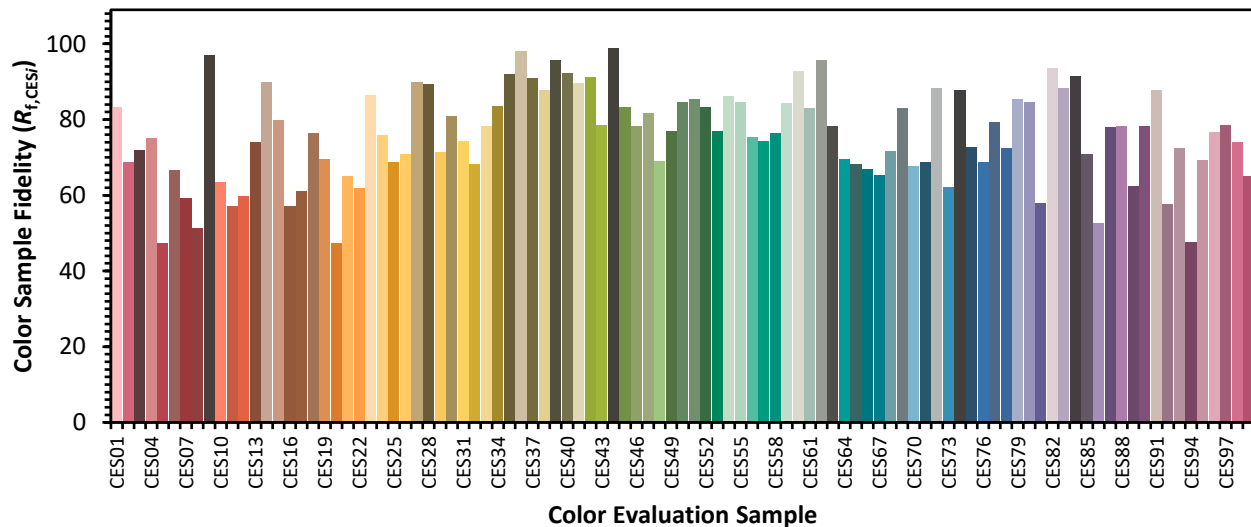


REPORT NUMBER: SP1-2406-133-2

TM-30-18

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

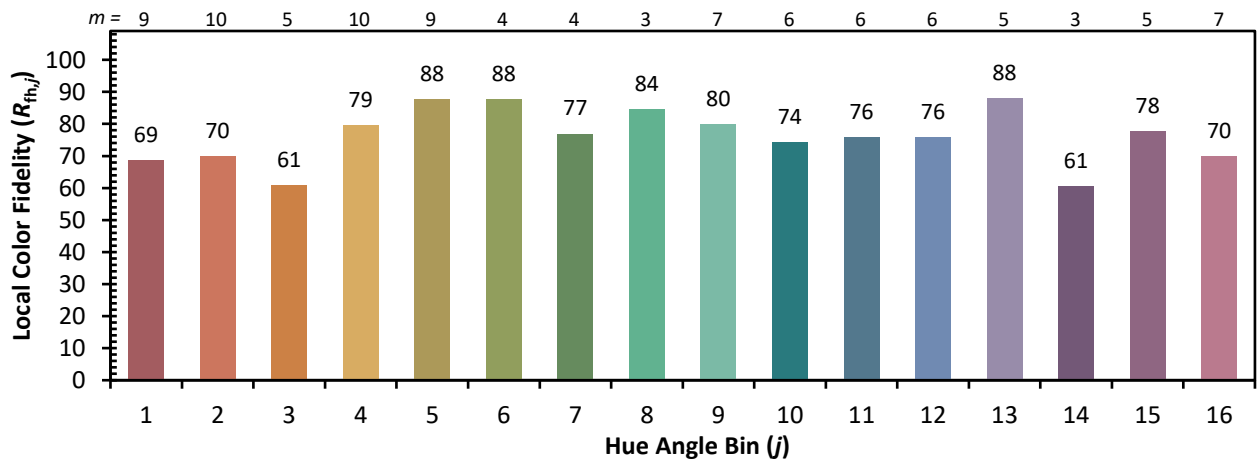
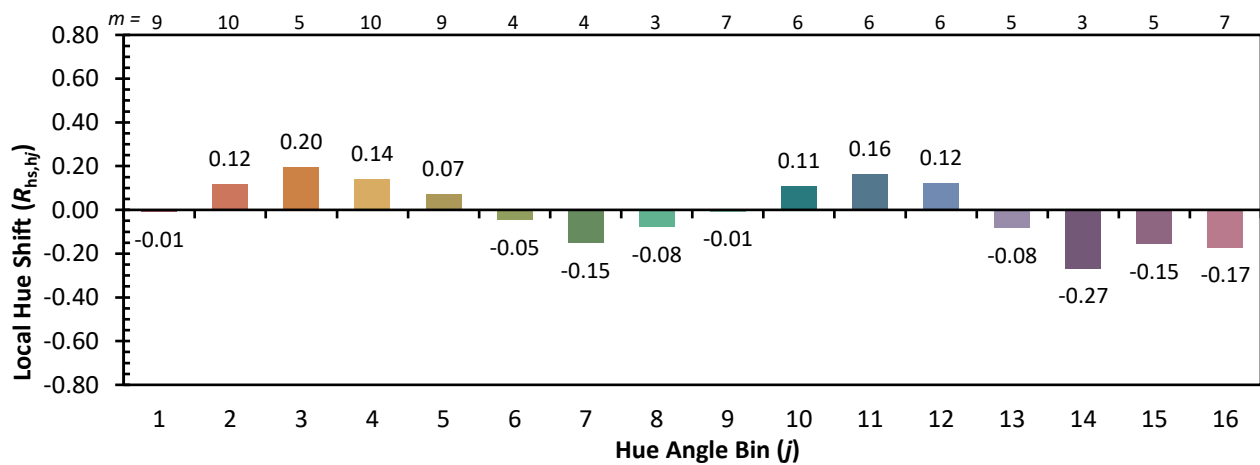
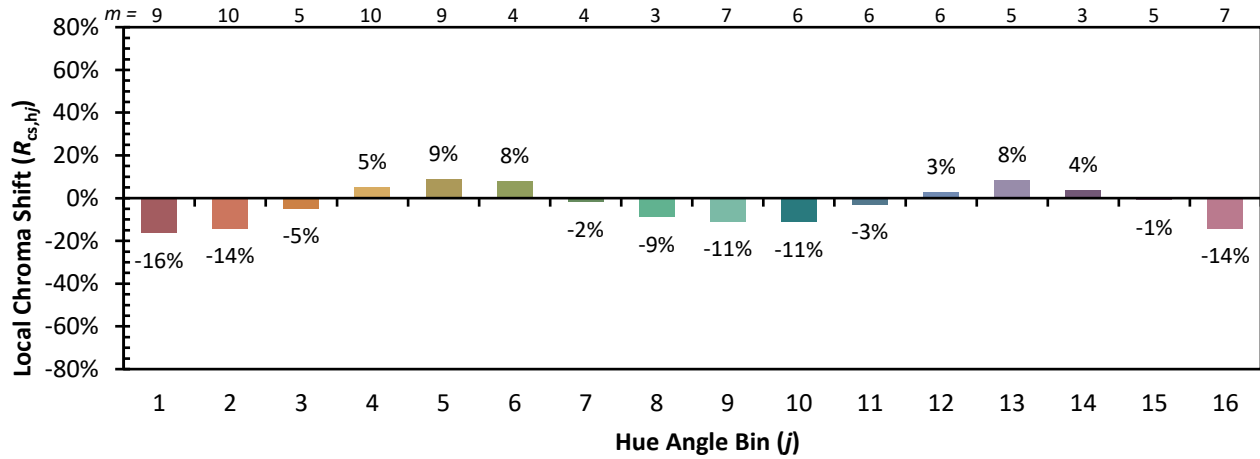
CES01 = 87	CES26 = 71	CES51 = 85	CES76 = 69
CES02 = 65	CES27 = 90	CES52 = 83	CES77 = 79
CES03 = 32	CES28 = 89	CES53 = 77	CES78 = 72
CES04 = 72	CES29 = 71	CES54 = 86	CES79 = 86
CES05 = 52	CES30 = 81	CES55 = 85	CES80 = 85
CES06 = 52	CES31 = 74	CES56 = 75	CES81 = 58
CES07 = 44	CES32 = 68	CES57 = 74	CES82 = 93
CES08 = 42	CES33 = 78	CES58 = 76	CES83 = 88
CES09 = 29	CES34 = 84	CES59 = 84	CES84 = 92
CES10 = 79	CES35 = 92	CES60 = 93	CES85 = 71
CES11 = 62	CES36 = 98	CES61 = 83	CES86 = 53
CES12 = 68	CES37 = 91	CES62 = 96	CES87 = 78
CES13 = 45	CES38 = 88	CES63 = 78	CES88 = 78
CES14 = 75	CES39 = 96	CES64 = 69	CES89 = 63
CES15 = 72	CES40 = 92	CES65 = 68	CES90 = 78
CES16 = 49	CES41 = 90	CES66 = 67	CES91 = 88
CES17 = 51	CES42 = 91	CES67 = 65	CES92 = 58
CES18 = 57	CES43 = 79	CES68 = 72	CES93 = 72
CES19 = 74	CES44 = 99	CES69 = 83	CES94 = 48
CES20 = 68	CES45 = 83	CES70 = 68	CES95 = 69
CES21 = 88	CES46 = 78	CES71 = 69	CES96 = 77
CES22 = 81	CES47 = 82	CES72 = 88	CES97 = 79
CES23 = 92	CES48 = 69	CES73 = 62	CES98 = 74
CES24 = 92	CES49 = 77	CES74 = 88	CES99 = 65
CES25 = 74	CES50 = 85	CES75 = 73	



REPORT NUMBER: SP1-2406-133-2

TM-30-18

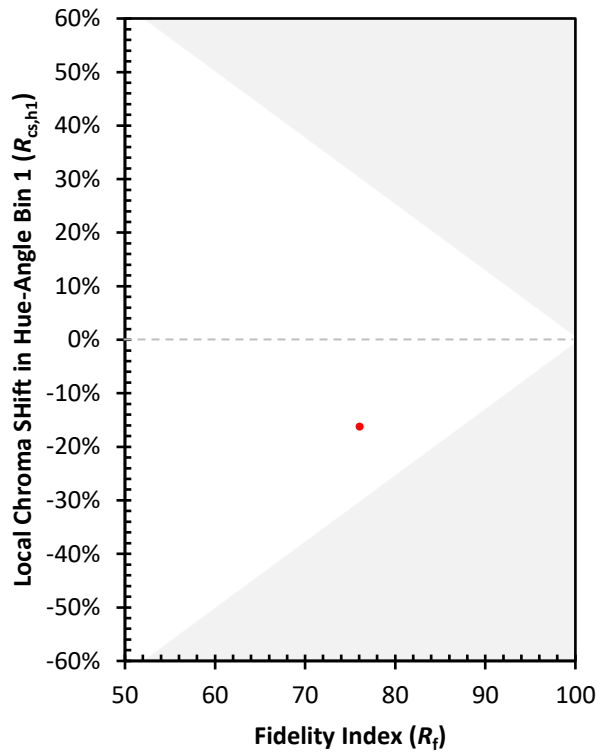
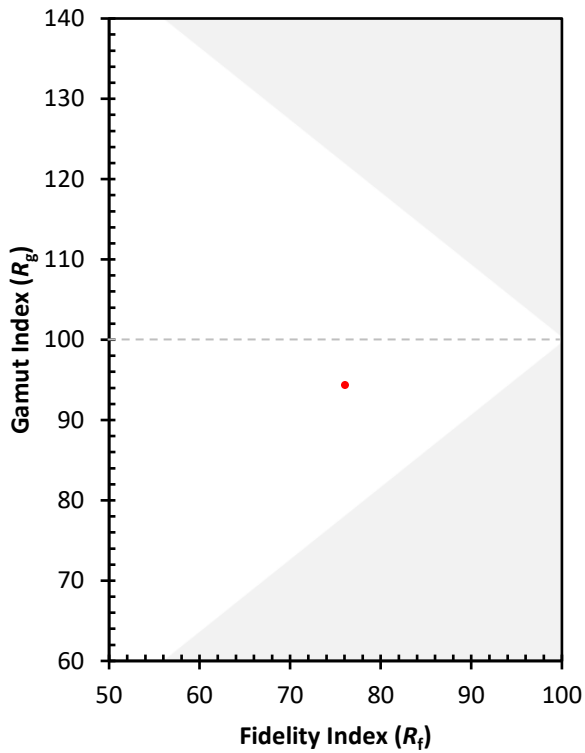
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2406-133-2

TM-30-18

Measure Comparisons



(END OF REPORT)