

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: P856136

Luminaire Tested: **FFX-CLB-20-740-U-FR-T3**

Issue Date: 07/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856136  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: FFX-CLB-20-740-U-FR-T3  
Description: FAIRFAX POST TOP FIXTURE w/ FAIRFAX REFRACTOR T3 DISTRIBUTION LENS  
Light Source: (4) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

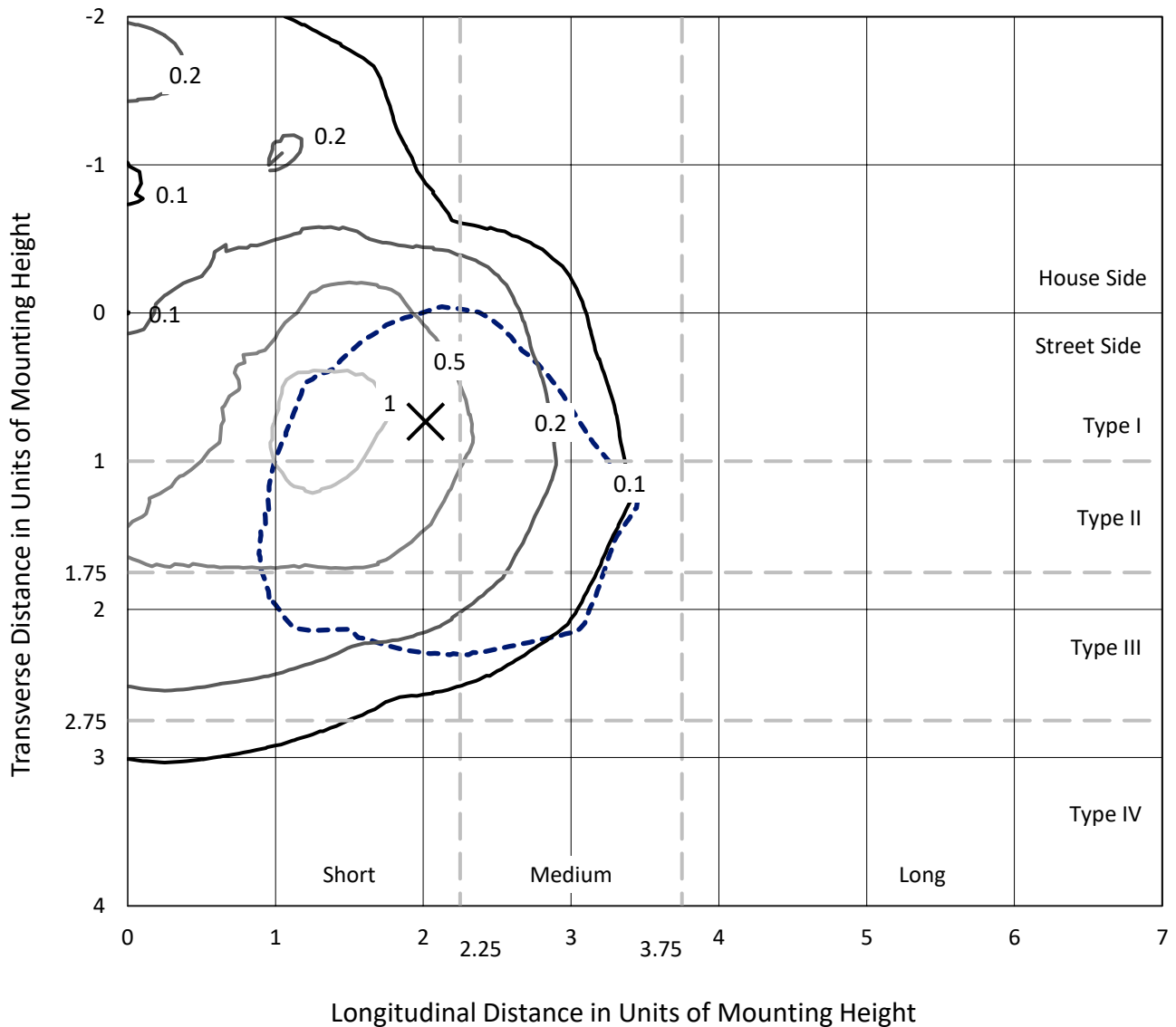
Lumens per Lamp: N/A  
Luminaire Lumens: 3210 lumens  
Efficiency: N/A  
Efficacy: 164.6 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 1.67')  
IES Classification: Type III - Short  
BUG Rating: B1 - U3 - G2

Input Watts (W): 19.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.8%%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

### Iso-Footcandle Lines of Horizontal Illumination

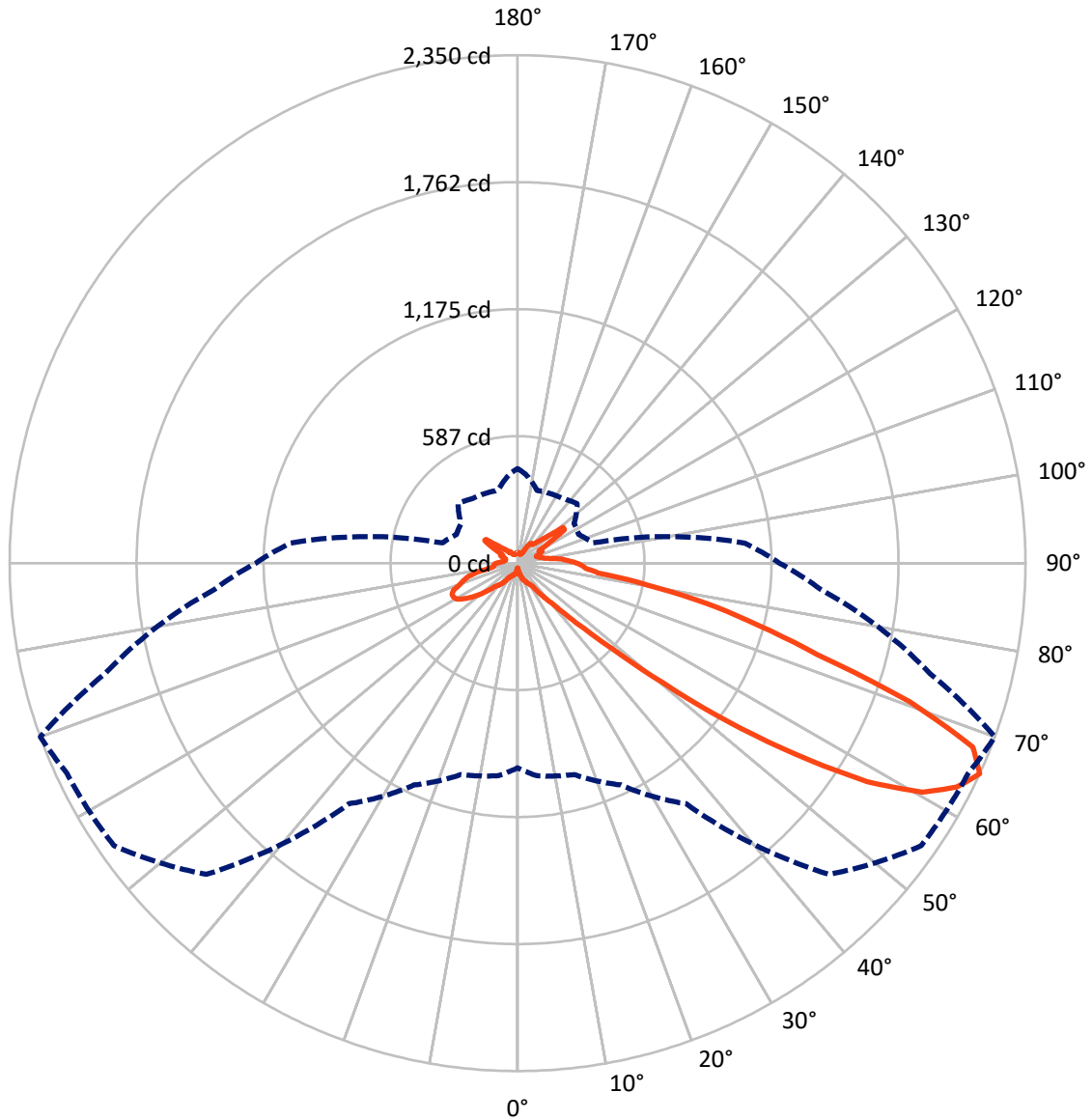
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.3 fc  
 Type III - Short - N/A

REPORT NUMBER: P856136  
CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

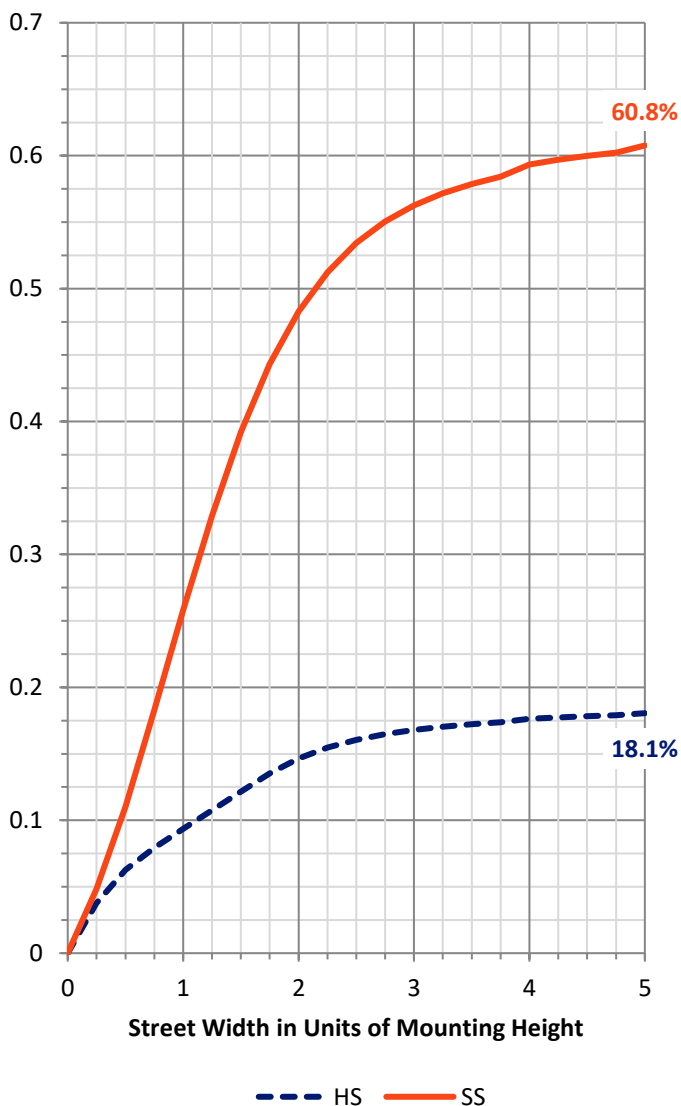
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	604.7	215.7	820.4
	% Fixture	18.8	6.7	25.6
<b>Street Side</b>	Lumens	2016.3	373.3	2389.6
	% Fixture	62.8	11.6	74.4
<b>Total</b>	Lumens	2621.0	589.0	3210.0
	% Fixture	81.7	18.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3.4	0.1
10°-20°	16.8	0.5
20°-30°	35.7	1.1
30°-40°	72.7	2.3
40°-50°	184.8	5.8
50°-60°	594.1	18.5
60°-70°	969.5	30.2
70°-80°	551.9	17.2
80°-90°	192.1	6.0
90°-100°	119.5	3.7
100°-110°	76.1	2.4
110°-120°	83.7	2.6
120°-130°	141.6	4.4
130°-140°	83.5	2.6
140°-150°	44.9	1.4
150°-160°	22.7	0.7
160°-170°	12.4	0.4
170°-180°	4.5	0.1
0°-90°	2621.0	81.7
0°-180°	3210.0	100.0

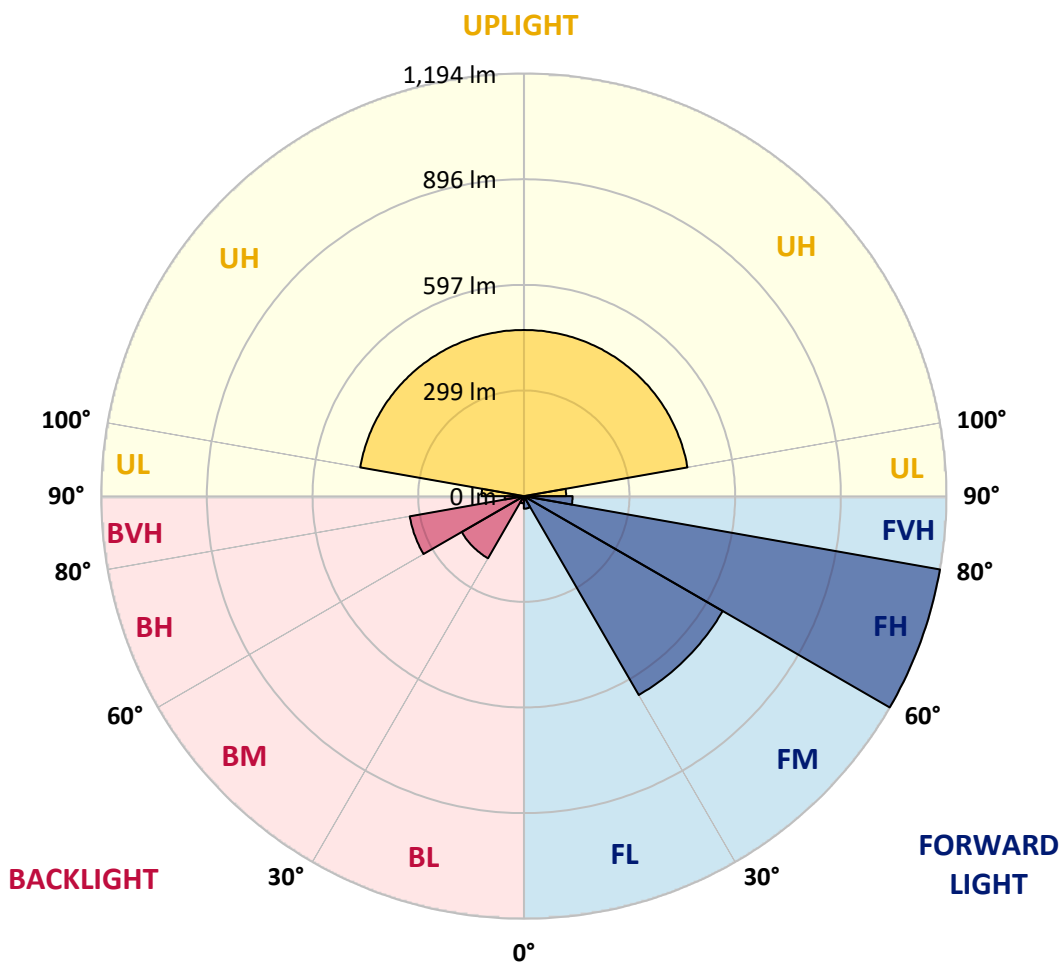


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 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	35.6	1.1			
FM (30°-60°)	648.9	20.2			
FH (60°-80°)	1194.1	37.2			G1/1800
FVH (80°-90°)	137.7	4.3			G2/225
BL (0°-30°)	20.3	0.6	B0/110		
BM (30°-60°)	202.7	6.3	B0/220		
BH (60°-80°)	327.4	10.2	B1/500		G1/500
BVH (80°-90°)	54.3	1.7			G1/100
UL (90°-100°)	119.5	3.7		U3/500	
UH (100°-180°)	469.5	14.6		U3/500	

**BUG Rating: B1-U3-G2**  
 Type III Short





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 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	25.5	25.5	26.1	26.1	26.1	25.5	25.1	24.5	24.5	24.5	24.1
5°	33.1	32.7	33.1	34.1	34.4	33.4	32.7	31.8	31.8	31.4	31.4
7.5°	44.7	44.3	43.7	42.7	43.0	44.0	45.3	42.7	42.0	40.4	39.7
10°	55.9	55.2	55.9	54.2	52.6	50.3	51.6	50.9	49.6	48.0	46.6
12.5°	68.1	68.5	69.8	68.5	65.8	62.2	61.5	59.9	58.5	58.2	56.2
15°	80.7	81.0	82.4	82.0	79.4	74.4	72.4	70.8	70.1	68.1	63.8
17.5°	87.3	87.7	88.0	88.3	86.7	82.7	79.7	76.7	75.8	75.1	69.8
20°	90.6	90.0	90.6	92.0	93.3	90.0	87.0	85.3	84.4	82.0	75.1
22.5°	95.9	95.3	94.9	95.9	99.9	97.6	94.6	93.0	92.0	89.0	78.4
25°	101.6	100.9	101.9	101.2	106.2	105.2	102.2	100.6	99.2	95.6	83.4
27.5°	107.8	107.2	108.2	107.5	111.5	112.1	110.2	108.8	106.8	101.6	87.0
30°	113.1	112.5	113.5	113.1	117.1	119.4	118.4	118.1	115.1	108.8	93.3
32.5°	117.4	117.1	119.4	120.4	121.4	126.7	126.0	129.0	125.7	118.1	102.5
35°	127.4	128.3	134.6	141.2	142.2	152.8	154.1	165.1	161.8	151.8	133.0
37.5°	196.8	193.2	186.9	180.6	178.3	198.8	201.8	212.7	204.4	185.9	155.5
40°	209.7	203.8	196.5	191.5	192.2	228.9	222.6	264.0	240.5	212.7	189.9
42.5°	199.1	197.2	222.6	234.5	225.9	279.5	268.9	347.7	320.9	252.7	229.2
45°	249.7	245.8	254.7	266.6	269.3	367.8	360.6	442.9	432.0	315.9	294.1
47.5°	285.8	282.2	294.1	334.4	369.2	475.7	515.4	634.1	595.8	448.9	398.3
50°	394.0	393.3	430.0	478.0	538.9	692.0	797.5	930.8	869.0	635.4	546.1
52.5°	500.8	502.1	547.1	632.1	695.3	965.9	1115.8	1209.0	1217.3	828.6	707.9
55°	581.5	589.8	644.0	786.6	882.2	1209.7	1404.2	1476.6	1559.3	1119.7	876.3
57.5°	739.0	751.6	803.2	942.8	1076.4	1513.4	1776.0	1784.0	1907.3	1442.6	1056.9
60°	876.6	906.0	924.2	1050.9	1233.2	1803.5	2052.2	2036.3	2152.1	1710.2	1240.1
62.5°	919.3	953.0	970.2	1105.2	1357.2	1966.2	2181.2	2201.1	2280.8	1898.1	1352.3
65°	947.1	986.7	1012.5	1132.0	1358.6	2035.7	2279.1	2300.3	2349.6	1976.8	1408.2
67.5°	932.8	983.4	1016.5	1122.7	1287.1	1982.1	2259.6	2218.9	2271.2	1911.0	1345.7
70°	814.4	867.3	900.7	979.8	1076.1	1666.5	1948.0	1879.9	1925.9	1595.1	1106.5
72.5°	663.6	689.7	710.2	753.5	811.1	1229.2	1480.3	1423.7	1451.2	1200.1	829.3
75°	545.1	553.1	578.6	603.4	613.0	899.1	1172.7	1121.0	1153.1	913.6	659.9
77.5°	396.0	400.6	437.0	440.9	438.6	616.9	924.2	878.9	889.2	679.1	492.5
80°	229.9	238.8	286.5	284.1	280.2	380.1	650.7	632.5	600.7	461.1	341.0
82.5°	162.1	171.0	192.9	197.8	195.2	272.9	422.4	410.5	376.1	320.9	235.9
85°	170.7	171.7	172.7	175.0	170.7	243.5	323.5	317.6	317.9	265.3	194.5
87.5°	168.4	172.3	174.0	175.0	170.7	231.2	300.7	293.1	296.7	252.1	188.9
90°	147.9	155.1	155.8	157.5	155.1	206.4	269.9	262.6	267.3	227.3	172.0
92.5°	120.7	124.7	129.3	135.6	133.0	176.6	229.6	224.3	229.9	196.8	151.2
95°	114.5	118.8	121.7	126.0	122.1	161.1	207.4	196.8	201.5	172.3	130.3
97.5°	94.6	98.2	100.9	102.5	99.6	127.0	159.1	151.8	151.5	133.3	104.2
100°	80.7	83.0	85.3	87.0	84.4	105.2	126.0	123.4	124.0	110.2	89.6
102.5°	76.7	78.1	81.7	82.0	79.1	95.9	113.5	112.5	113.8	101.9	84.0
105°	75.1	76.1	79.1	78.1	75.4	89.6	104.5	105.2	105.2	94.9	78.7
107.5°	70.1	71.8	75.1	73.4	72.1	82.7	96.3	93.9	94.6	88.3	74.8
110°	69.5	70.8	74.1	72.8	71.8	80.7	92.6	92.0	93.0	87.3	76.7



REPORT NUMBER: P856136  
 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
112.5°	86.3	85.0	87.7	85.0	86.7	94.3	106.8	105.5	108.5	106.5	95.9
115°	106.5	107.2	109.8	104.5	106.2	113.8	120.7	123.1	125.7	122.7	111.8
117.5°	98.6	104.2	100.9	100.2	98.9	104.9	103.9	109.8	112.5	110.2	105.9
120°	105.5	112.5	102.9	97.9	95.9	110.8	118.1	117.8	115.8	111.1	102.2
122.5°	157.8	158.8	159.4	174.3	169.0	183.6	187.9	182.3	182.3	188.2	170.0
125°	246.1	247.1	246.4	253.1	249.4	263.3	268.9	268.6	265.3	262.3	244.5
127.5°	248.8	248.8	246.4	242.8	246.1	259.7	260.0	272.6	268.3	260.3	243.8
130°	173.7	175.0	183.3	185.9	190.5	193.5	190.2	201.1	203.1	201.8	190.5
132.5°	143.9	146.2	155.1	158.4	161.4	161.8	160.4	169.0	171.0	171.0	166.1
135°	124.4	127.0	128.0	126.4	130.7	134.0	136.6	143.6	142.9	141.6	137.3
137.5°	108.5	109.5	106.5	102.9	105.2	114.8	120.1	127.4	127.0	124.7	117.4
140°	91.6	92.0	90.3	88.7	91.0	99.2	104.2	112.1	111.1	109.5	100.9
142.5°	69.5	70.5	74.8	78.1	83.7	100.9	98.2	105.2	110.2	114.1	94.3
145°	73.1	71.8	71.1	74.8	82.0	106.8	99.2	108.2	110.5	113.1	90.3
147.5°	84.4	85.0	84.0	81.7	91.6	99.6	95.3	103.2	104.5	103.9	94.6
150°	66.2	67.2	67.5	66.5	78.7	78.4	74.1	80.1	80.7	80.7	74.4
152.5°	53.9	54.2	53.6	52.9	60.9	59.5	57.6	59.5	59.2	58.9	57.6
155°	51.3	51.3	50.6	50.9	56.2	54.9	53.6	54.9	54.2	53.3	51.9
157.5°	47.3	47.6	47.6	48.6	51.9	49.6	48.3	49.0	48.3	47.6	47.6
160°	44.7	44.7	45.0	46.3	48.3	46.0	45.0	45.3	45.0	44.3	44.7
162.5°	43.7	43.7	44.0	44.7	45.0	43.7	42.7	42.7	42.7	42.7	43.7
165°	43.0	43.0	43.0	43.3	43.3	42.3	42.0	42.3	42.7	43.0	44.3
167.5°	44.3	44.3	44.3	44.3	44.0	43.3	43.0	43.3	43.7	44.0	45.0
170°	46.3	46.0	46.0	45.6	45.3	44.7	44.3	44.0	44.0	44.3	44.7
172.5°	47.6	47.6	47.3	47.3	47.0	46.3	45.6	45.3	45.3	45.3	45.3
175°	49.3	49.3	49.3	49.3	49.0	48.3	48.0	47.3	47.3	47.3	47.3
177.5°	51.3	51.3	51.3	51.3	50.6	49.9	49.3	48.6	48.6	48.6	48.3
180°	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0





REPORT NUMBER: P856136  
 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	23.8	23.5	22.5	22.2	21.8	21.2	20.5	20.2	19.8	19.8	20.2
5°	31.8	31.4	31.4	30.4	29.4	27.8	27.1	27.1	27.5	27.8	28.4
7.5°	40.0	40.7	41.3	39.7	36.7	32.7	30.4	31.1	32.7	34.1	34.1
10°	46.3	46.3	48.6	46.6	41.7	36.7	33.4	32.7	33.1	33.4	33.7
12.5°	55.2	55.2	53.9	48.6	43.7	38.7	36.1	35.4	35.4	34.1	33.7
15°	61.9	59.9	55.2	50.3	46.0	41.0	38.0	37.0	36.1	35.1	34.7
17.5°	65.8	62.2	55.9	51.3	47.0	43.0	40.0	38.0	37.0	37.4	37.4
20°	70.5	66.5	60.9	55.9	50.6	45.3	41.7	38.7	37.7	38.0	37.7
22.5°	74.1	70.1	64.5	58.9	53.3	47.6	43.3	39.7	38.4	38.7	38.7
25°	78.4	75.1	69.1	62.5	55.6	50.3	46.0	41.7	39.7	39.4	39.4
27.5°	82.7	80.4	74.1	66.2	58.9	52.6	48.3	43.3	41.0	40.0	40.0
30°	88.3	85.7	79.4	69.8	61.9	55.9	51.3	46.0	42.7	41.0	40.7
32.5°	97.3	94.3	86.7	76.4	65.2	59.2	54.2	48.3	44.0	42.0	41.7
35°	126.4	121.7	109.8	97.9	79.7	66.2	57.9	50.3	45.3	42.7	42.3
37.5°	144.6	133.3	117.4	109.5	89.6	81.0	69.8	57.6	47.3	44.0	43.3
40°	174.0	158.4	138.6	123.1	87.3	88.7	81.7	71.8	56.2	46.3	45.3
42.5°	198.8	179.3	149.2	129.0	87.7	92.6	87.3	79.1	67.5	54.9	52.9
45°	245.1	220.0	173.3	138.6	90.0	98.6	92.0	83.4	73.1	64.5	63.5
47.5°	331.1	297.0	216.7	154.5	105.2	114.5	102.5	91.3	82.0	72.1	70.5
50°	453.2	412.5	266.6	167.0	131.3	150.8	129.3	110.5	99.9	92.6	91.6
52.5°	593.8	551.1	303.3	190.2	163.1	195.8	171.0	149.2	135.3	135.3	137.3
55°	757.2	714.5	332.8	222.3	202.1	245.4	218.7	200.8	194.2	222.3	229.9
57.5°	919.3	865.0	352.6	255.0	247.8	303.7	271.6	256.4	268.6	352.0	377.8
60°	1067.1	977.5	368.2	286.1	286.8	350.0	326.2	325.2	344.0	450.5	483.3
62.5°	1152.5	1030.4	367.2	304.0	309.6	378.8	358.9	364.2	374.8	467.1	491.9
65°	1211.0	1055.6	359.6	311.9	319.2	389.0	364.2	355.3	348.3	413.5	437.3
67.5°	1170.7	996.7	342.4	300.4	313.3	374.1	341.4	315.9	302.3	335.4	351.6
70°	980.5	831.3	303.0	270.3	282.2	315.2	283.8	258.7	244.5	262.3	269.9
72.5°	742.6	632.5	273.2	252.7	247.4	260.7	230.9	202.8	194.2	205.8	207.4
75°	591.5	494.9	251.4	228.6	207.7	220.6	184.3	150.2	145.2	145.2	142.6
77.5°	443.6	366.8	214.4	178.0	153.2	174.3	137.3	104.5	97.9	96.6	93.0
80°	297.4	249.7	144.2	118.1	110.2	129.3	97.6	76.7	77.1	76.7	72.4
82.5°	207.7	192.9	117.1	102.9	94.3	101.9	88.3	73.8	73.1	73.8	69.1
85°	184.3	176.6	113.5	106.2	97.3	98.2	84.7	69.8	70.1	71.5	67.5
87.5°	177.0	168.4	113.8	102.5	94.9	91.0	76.7	64.5	66.5	67.8	64.5
90°	159.4	150.8	104.5	92.6	84.7	79.1	67.8	61.2	63.8	65.2	62.2
92.5°	138.3	129.3	87.0	81.7	79.7	79.7	71.1	65.2	66.8	67.5	64.8
95°	119.1	110.5	77.4	71.8	70.1	70.5	63.5	58.5	59.5	59.2	57.2
97.5°	96.3	91.0	67.5	63.8	62.2	61.5	56.9	53.3	55.2	56.6	54.9
100°	85.0	82.4	65.2	62.5	60.2	59.9	55.9	53.6	55.2	57.2	55.9
102.5°	79.4	77.4	62.2	58.5	56.9	56.2	53.6	50.9	52.6	54.6	53.6
105°	74.8	71.8	59.5	56.2	53.9	53.6	50.9	47.6	48.6	51.3	50.6
107.5°	70.8	68.8	59.2	55.6	52.6	52.6	49.6	47.0	47.3	48.3	48.3
110°	74.1	71.8	61.5	58.9	54.9	53.6	52.9	50.9	49.3	48.6	48.6



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 CATALOG NUMBER: FFX-CLB-20-740-U-FR-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	91.6	87.3	77.1	74.1	67.5	62.9	58.5	54.6	51.9	50.9	50.3
115°	108.2	103.2	91.0	83.4	74.4	67.5	61.5	57.2	53.3	51.9	53.3
117.5°	111.5	98.2	79.4	73.1	67.8	63.5	60.2	56.9	53.9	54.9	53.9
120°	110.5	94.3	80.1	89.0	80.1	70.1	62.2	62.2	61.2	56.2	57.2
122.5°	170.0	158.8	141.6	136.3	111.1	101.6	86.7	74.1	61.9	54.9	51.6
125°	232.9	222.0	195.5	175.3	150.2	123.7	94.9	73.1	57.2	50.6	51.6
127.5°	234.2	224.3	199.1	165.1	132.0	105.9	79.1	64.8	55.9	51.6	50.9
130°	182.6	173.0	151.5	125.4	104.5	87.3	71.1	58.5	50.6	47.3	46.3
132.5°	158.1	149.5	129.7	105.9	90.6	77.1	63.5	50.9	45.6	43.3	43.7
135°	133.0	122.7	103.9	91.0	81.4	69.1	56.9	46.6	44.0	43.3	43.0
137.5°	112.8	105.5	92.3	82.4	73.1	62.2	49.9	43.7	42.7	43.3	42.7
140°	95.9	90.0	82.7	74.1	62.9	52.6	44.7	41.7	43.3	43.7	43.3
142.5°	82.7	76.7	69.1	57.6	52.3	47.6	45.6	43.3	43.3	43.0	42.7
145°	69.1	61.2	57.6	59.2	55.9	51.3	47.6	43.0	41.3	41.3	41.7
147.5°	79.4	71.1	66.5	62.9	56.6	49.9	44.3	40.0	39.4	40.7	40.4
150°	68.5	60.9	57.6	52.6	48.6	43.7	40.0	38.4	38.7	40.4	40.4
152.5°	54.6	49.3	47.3	46.0	44.0	41.0	39.0	38.4	39.0	39.7	39.7
155°	51.3	48.3	46.0	45.0	42.7	40.4	38.7	38.4	39.0	39.7	40.4
157.5°	48.0	47.0	44.0	43.0	41.0	40.0	39.0	39.0	39.4	40.0	40.7
160°	45.6	45.3	42.7	42.3	41.0	40.4	40.4	40.7	41.0	41.0	41.0
162.5°	44.3	44.3	43.3	42.7	42.3	42.0	43.0	43.3	43.0	43.0	43.0
165°	44.7	45.0	44.0	43.3	43.0	43.7	45.3	45.3	44.7	44.3	44.0
167.5°	45.0	45.3	44.7	44.3	44.3	45.0	45.6	45.3	45.0	44.7	44.3
170°	44.7	45.0	45.0	45.3	45.3	45.3	46.0	46.0	45.3	45.0	45.0
172.5°	45.3	45.6	46.0	46.3	46.6	46.3	46.6	46.6	46.6	46.6	47.0
175°	47.3	47.3	47.6	47.6	47.3	47.6	47.6	47.6	48.0	48.6	48.6
177.5°	48.3	48.3	48.0	48.0	47.6	48.0	48.0	48.0	48.0	48.3	48.0
180°	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0

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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2406-133-1

Test Date: 07/11/2024

Luminaire Tested: FFX-CLB-100-740-U-FR-T5

Data in this report applies to families of products including FFX-CLB-100-740-U-FR-T5.

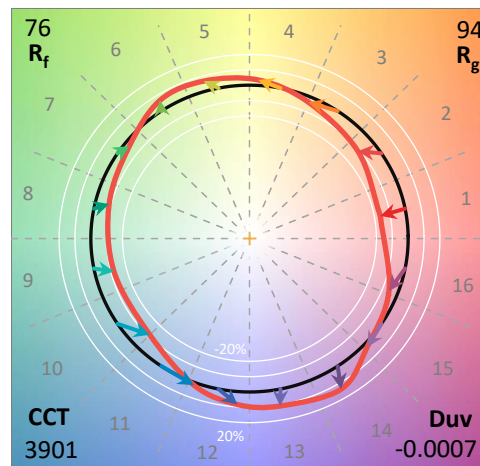
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2406-133-1  
 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-100-740-U-FR-T5**  
 Description: FAIRFAX ACORN W/ FAIRFAX REFRACTOR 100W T5

**Spectral Parameters**

CCT (K): 3901  
 CIE u': 0.2273  
 CIE v': 0.5026  
 Duv: -0.0007  
 CIE x: 0.3844  
 CIE y: 0.3776  
 CIE z: 0.2380  
 Peak Wavelength (nm): 451  
 Dominant Wavelength (nm): 579  
 Purity: 28.6799  
 R<sub>f</sub>: 76.2  
 R<sub>g</sub>: 94.4

CRI (Ra):	74.5		
R1:	71.8	R9:	-23.4
R2:	81.9	R10:	56.6
R3:	89.3	R11:	68.4
R4:	72.6	R12:	46.6
R5:	71.3	R13:	73.7
R6:	74.0	R14:	93.9
R7:	81.5	R15:	65.1
R8:	53.3		



**Test Conditions**

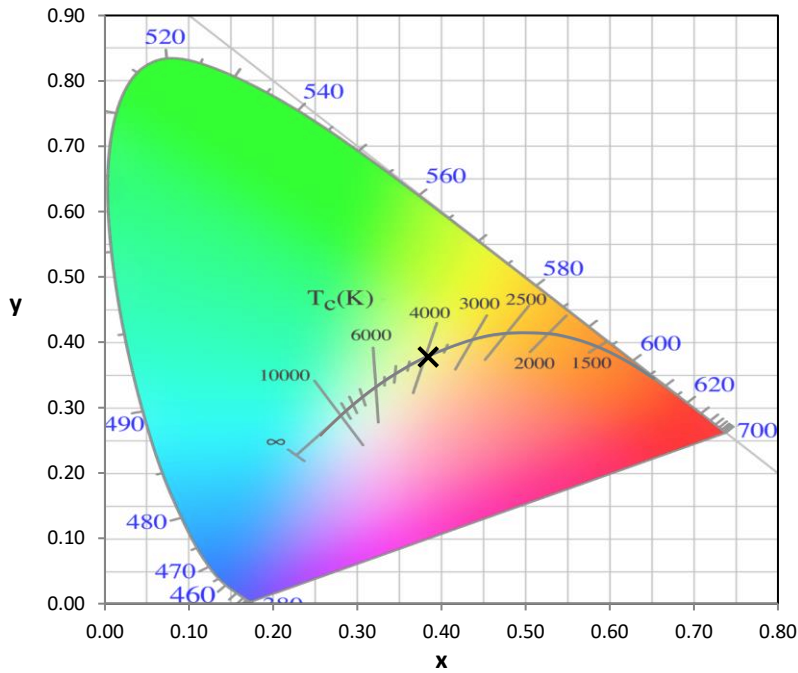
Stabilization Time: 0.818109M  
 Operation Time: 1H  
 Sphere Temperature (°C): 24.6

REPORT NUMBER: SP1-2406-133-1

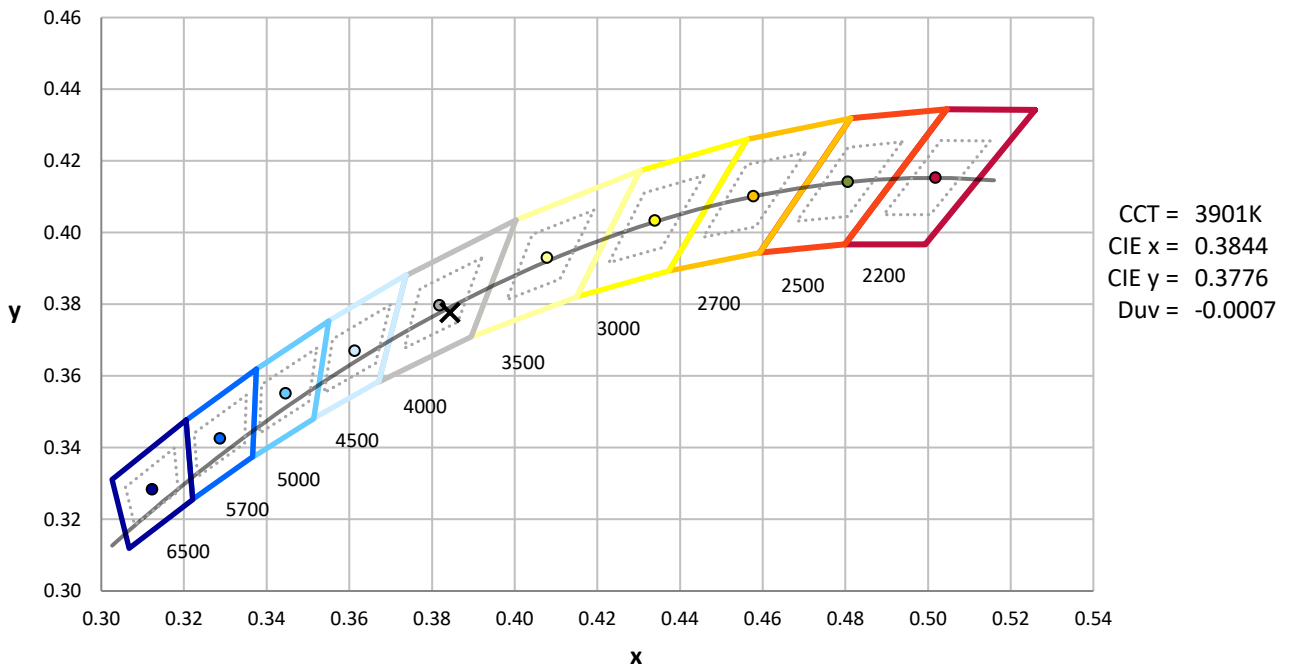
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2406-133-1

**CIE 1931 Chromaticity Diagram**



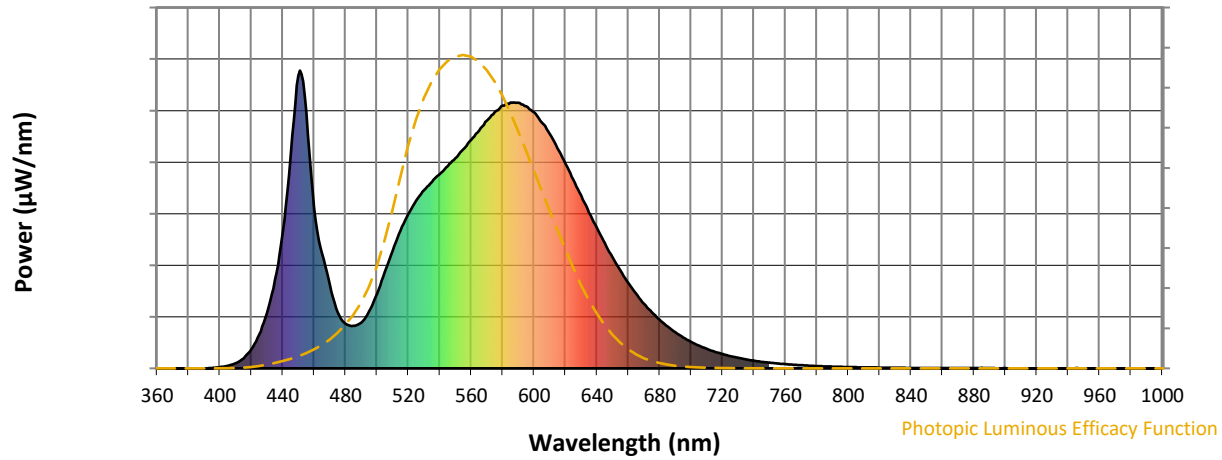
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2406-133-1

**Photopic Flux vs. Wavelength**

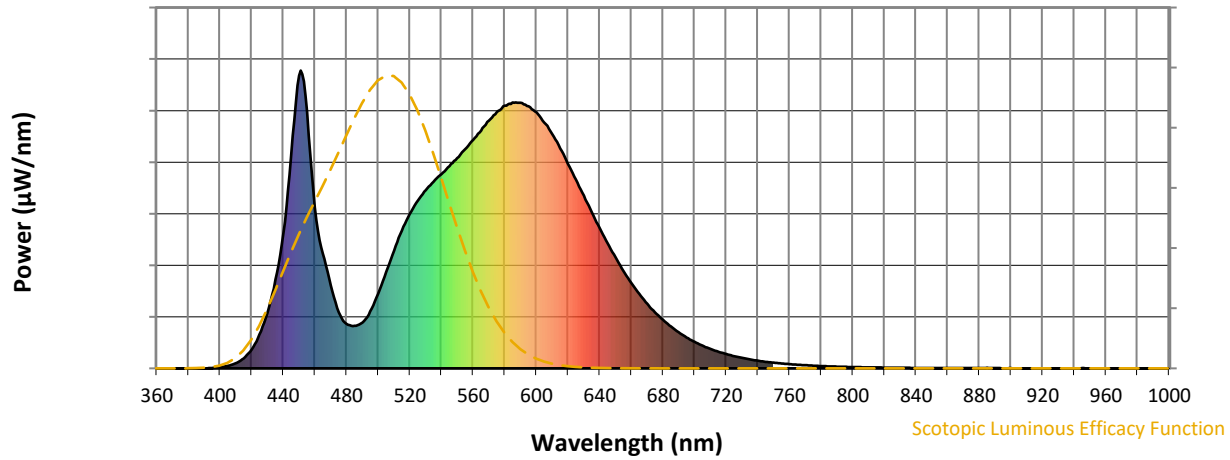


**Photopic Lumens: NR**

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	154	NR	620	687	NR	750	19	NR	880	1	NR
365	0	NR	495	191	NR	625	634	NR	755	17	NR	885	2	NR
370	0	NR	500	251	NR	630	581	NR	760	14	NR	890	1	NR
375	0	NR	505	323	NR	635	524	NR	765	12	NR	895	0	NR
380	0	NR	510	395	NR	640	471	NR	770	11	NR	900	1	NR
385	0	NR	515	462	NR	645	420	NR	775	9	NR	905	0	NR
390	0	NR	520	520	NR	650	373	NR	780	8	NR	910	0	NR
395	1	NR	525	563	NR	655	328	NR	785	7	NR	915	0	NR
400	4	NR	530	599	NR	660	286	NR	790	6	NR	920	0	NR
405	8	NR	535	627	NR	665	250	NR	795	5	NR	925	0	NR
410	17	NR	540	653	NR	670	217	NR	800	4	NR	930	0	NR
415	34	NR	545	679	NR	675	188	NR	805	4	NR	935	0	NR
420	63	NR	550	706	NR	680	163	NR	810	3	NR	940	0	NR
425	114	NR	555	737	NR	685	140	NR	815	3	NR	945	1	NR
430	186	NR	560	768	NR	690	121	NR	820	3	NR	950	0	NR
435	297	NR	565	798	NR	695	104	NR	825	2	NR	955	0	NR
440	454	NR	570	831	NR	700	89	NR	830	2	NR	960	0	NR
445	713	NR	575	860	NR	705	77	NR	835	2	NR	965	0	NR
450	983	NR	580	882	NR	710	65	NR	840	2	NR	970	0	NR
455	861	NR	585	893	NR	715	56	NR	845	1	NR	975	0	NR
460	540	NR	590	892	NR	720	48	NR	850	1	NR	980	0	NR
465	386	NR	595	880	NR	725	41	NR	855	1	NR	985	0	NR
470	279	NR	600	859	NR	730	35	NR	860	1	NR	990	0	NR
475	188	NR	605	825	NR	735	30	NR	865	1	NR	995	0	NR
480	149	NR	610	787	NR	740	26	NR	870	1	NR	1000	0	NR
485	143	NR	615	738	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-1

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

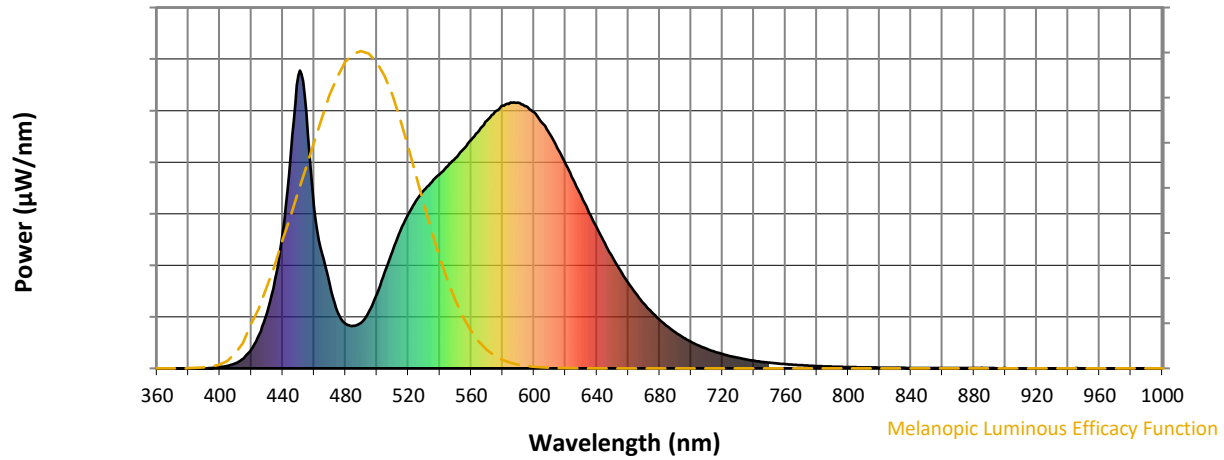
**S/P: 1.53**

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	154	NR	620	687	NR	750	19	NR	880	1	NR
365	0	NR	495	191	NR	625	634	NR	755	17	NR	885	2	NR
370	0	NR	500	251	NR	630	581	NR	760	14	NR	890	1	NR
375	0	NR	505	323	NR	635	524	NR	765	12	NR	895	0	NR
380	0	NR	510	395	NR	640	471	NR	770	11	NR	900	1	NR
385	0	NR	515	462	NR	645	420	NR	775	9	NR	905	0	NR
390	0	NR	520	520	NR	650	373	NR	780	8	NR	910	0	NR
395	1	NR	525	563	NR	655	328	NR	785	7	NR	915	0	NR
400	4	NR	530	599	NR	660	286	NR	790	6	NR	920	0	NR
405	8	NR	535	627	NR	665	250	NR	795	5	NR	925	0	NR
410	17	NR	540	653	NR	670	217	NR	800	4	NR	930	0	NR
415	34	NR	545	679	NR	675	188	NR	805	4	NR	935	0	NR
420	63	NR	550	706	NR	680	163	NR	810	3	NR	940	0	NR
425	114	NR	555	737	NR	685	140	NR	815	3	NR	945	1	NR
430	186	NR	560	768	NR	690	121	NR	820	3	NR	950	0	NR
435	297	NR	565	798	NR	695	104	NR	825	2	NR	955	0	NR
440	454	NR	570	831	NR	700	89	NR	830	2	NR	960	0	NR
445	713	NR	575	860	NR	705	77	NR	835	2	NR	965	0	NR
450	983	NR	580	882	NR	710	65	NR	840	2	NR	970	0	NR
455	861	NR	585	893	NR	715	56	NR	845	1	NR	975	0	NR
460	540	NR	590	892	NR	720	48	NR	850	1	NR	980	0	NR
465	386	NR	595	880	NR	725	41	NR	855	1	NR	985	0	NR
470	279	NR	600	859	NR	730	35	NR	860	1	NR	990	0	NR
475	188	NR	605	825	NR	735	30	NR	865	1	NR	995	0	NR
480	149	NR	610	787	NR	740	26	NR	870	1	NR	1000	0	NR
485	143	NR	615	738	NR	745	22	NR	875	1	NR			



REPORT NUMBER: SP1-2406-133-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.04

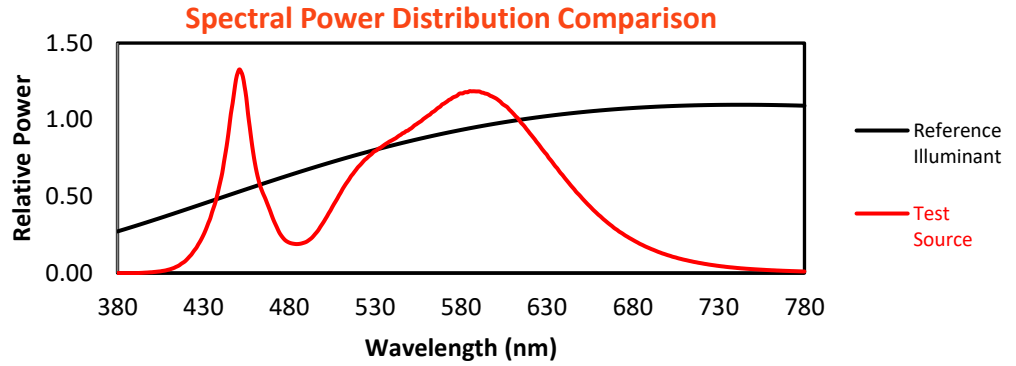
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	154	NR	620	687	NR	750	19	NR	880	1	NR
365	0	NR	495	191	NR	625	634	NR	755	17	NR	885	2	NR
370	0	NR	500	251	NR	630	581	NR	760	14	NR	890	1	NR
375	0	NR	505	323	NR	635	524	NR	765	12	NR	895	0	NR
380	0	NR	510	395	NR	640	471	NR	770	11	NR	900	1	NR
385	0	NR	515	462	NR	645	420	NR	775	9	NR	905	0	NR
390	0	NR	520	520	NR	650	373	NR	780	8	NR	910	0	NR
395	1	NR	525	563	NR	655	328	NR	785	7	NR	915	0	NR
400	4	NR	530	599	NR	660	286	NR	790	6	NR	920	0	NR
405	8	NR	535	627	NR	665	250	NR	795	5	NR	925	0	NR
410	17	NR	540	653	NR	670	217	NR	800	4	NR	930	0	NR
415	34	NR	545	679	NR	675	188	NR	805	4	NR	935	0	NR
420	63	NR	550	706	NR	680	163	NR	810	3	NR	940	0	NR
425	114	NR	555	737	NR	685	140	NR	815	3	NR	945	1	NR
430	186	NR	560	768	NR	690	121	NR	820	3	NR	950	0	NR
435	297	NR	565	798	NR	695	104	NR	825	2	NR	955	0	NR
440	454	NR	570	831	NR	700	89	NR	830	2	NR	960	0	NR
445	713	NR	575	860	NR	705	77	NR	835	2	NR	965	0	NR
450	983	NR	580	882	NR	710	65	NR	840	2	NR	970	0	NR
455	861	NR	585	893	NR	715	56	NR	845	1	NR	975	0	NR
460	540	NR	590	892	NR	720	48	NR	850	1	NR	980	0	NR
465	386	NR	595	880	NR	725	41	NR	855	1	NR	985	0	NR
470	279	NR	600	859	NR	730	35	NR	860	1	NR	990	0	NR
475	188	NR	605	825	NR	735	30	NR	865	1	NR	995	0	NR
480	149	NR	610	787	NR	740	26	NR	870	1	NR	1000	0	NR
485	143	NR	615	738	NR	745	22	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-1

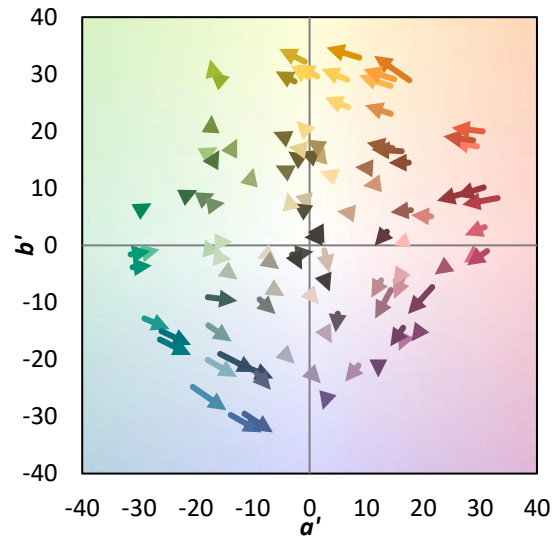
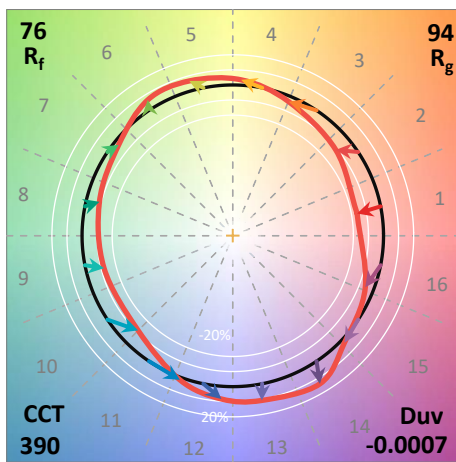
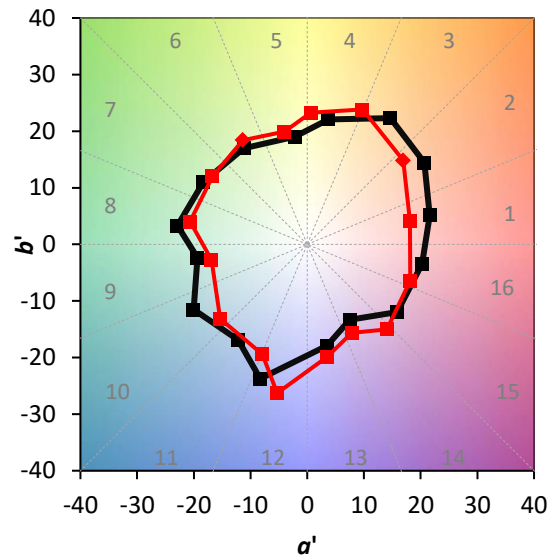
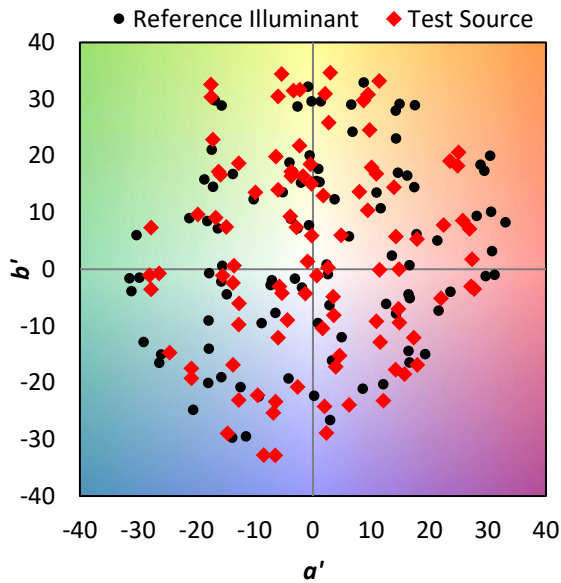
TM-30-18

**Summary**

$R_f = 76.2$   
 $R_g = 94.4$   
 CIE  $R_a = 74.5$   
 $R_g = -23.4$



**Color Vector Graphics**

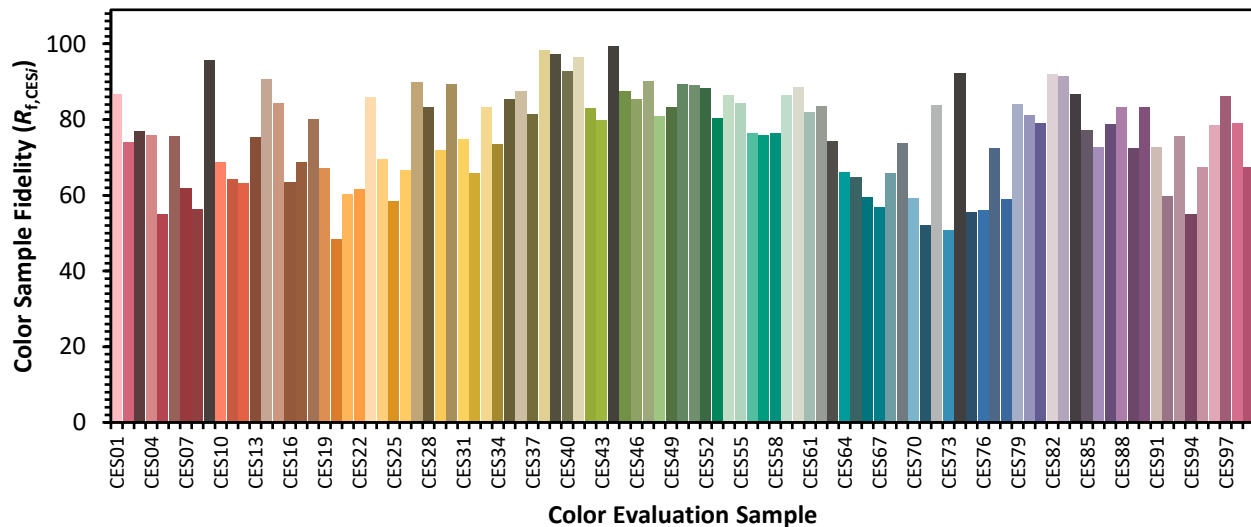


REPORT NUMBER: SP1-2406-133-1

TM-30-18

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

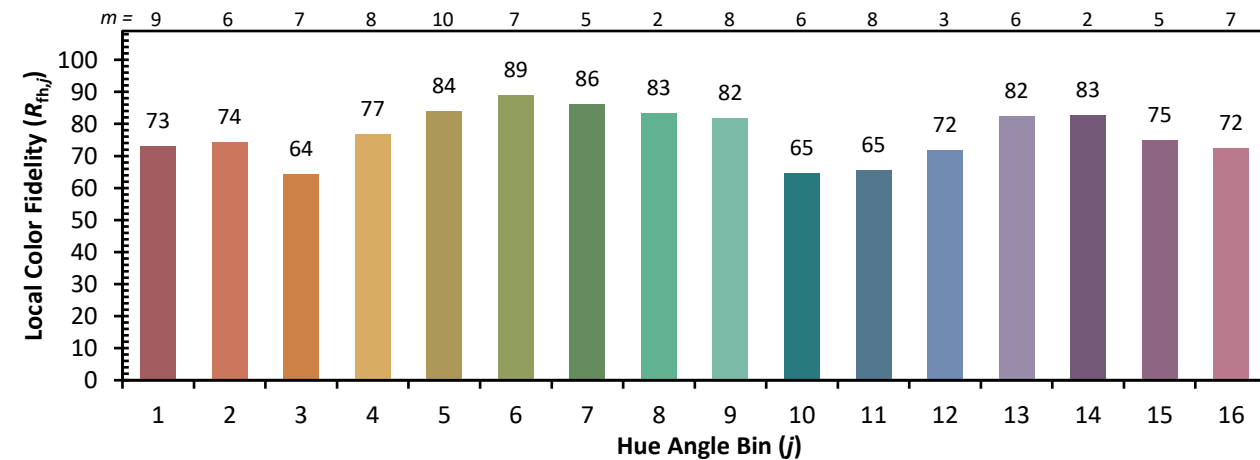
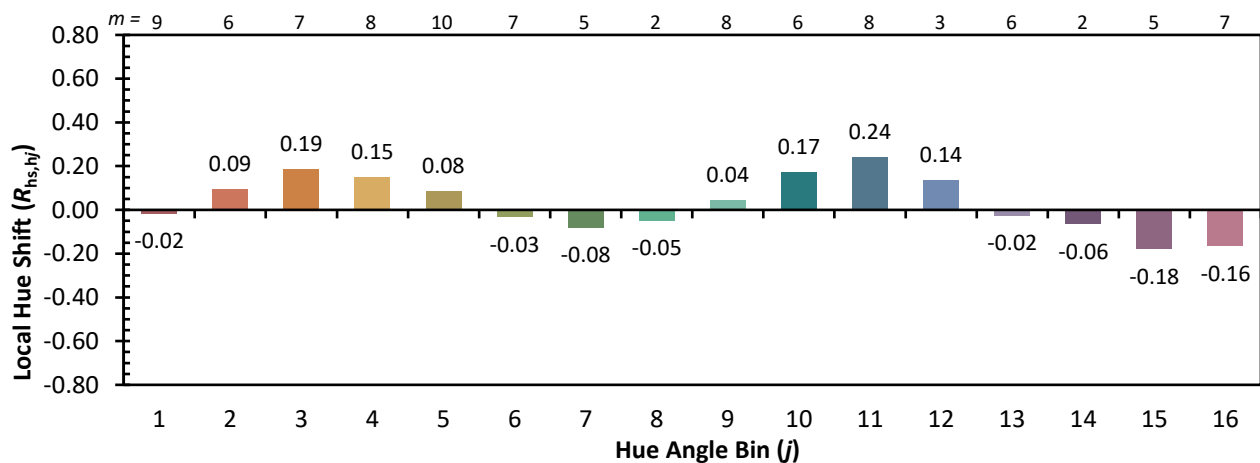
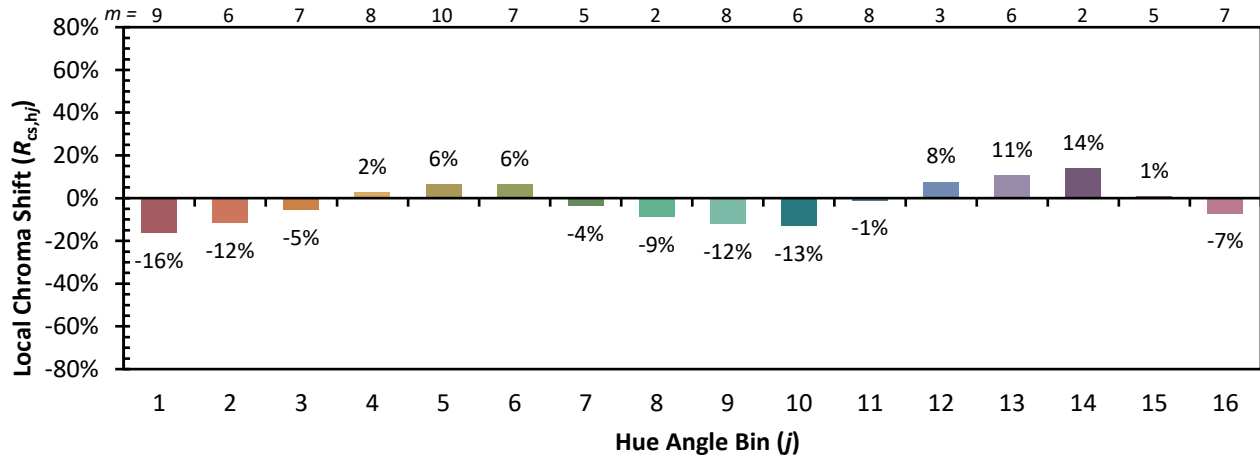
CES01 = 85	CES26 = 67	CES51 = 89	CES76 = 56
CES02 = 61	CES27 = 90	CES52 = 88	CES77 = 72
CES03 = 30	CES28 = 83	CES53 = 80	CES78 = 59
CES04 = 70	CES29 = 72	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 89	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 75	CES56 = 77	CES81 = 79
CES07 = 40	CES32 = 66	CES57 = 76	CES82 = 92
CES08 = 39	CES33 = 83	CES58 = 76	CES83 = 92
CES09 = 29	CES34 = 74	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 85	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 87	CES61 = 82	CES86 = 73
CES12 = 63	CES37 = 81	CES62 = 84	CES87 = 79
CES13 = 42	CES38 = 98	CES63 = 74	CES88 = 83
CES14 = 74	CES39 = 97	CES64 = 66	CES89 = 72
CES15 = 71	CES40 = 93	CES65 = 65	CES90 = 83
CES16 = 46	CES41 = 96	CES66 = 59	CES91 = 73
CES17 = 49	CES42 = 83	CES67 = 57	CES92 = 60
CES18 = 56	CES43 = 80	CES68 = 66	CES93 = 75
CES19 = 72	CES44 = 99	CES69 = 74	CES94 = 55
CES20 = 65	CES45 = 87	CES70 = 59	CES95 = 67
CES21 = 86	CES46 = 85	CES71 = 52	CES96 = 78
CES22 = 78	CES47 = 90	CES72 = 84	CES97 = 86
CES23 = 92	CES48 = 81	CES73 = 51	CES98 = 79
CES24 = 91	CES49 = 83	CES74 = 92	CES99 = 68
CES25 = 72	CES50 = 89	CES75 = 56	



REPORT NUMBER: SP1-2406-133-1

TM-30-18

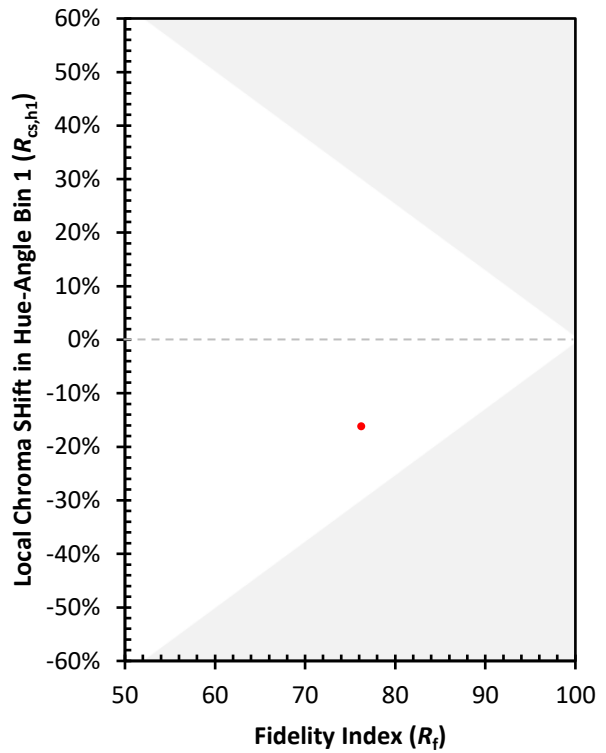
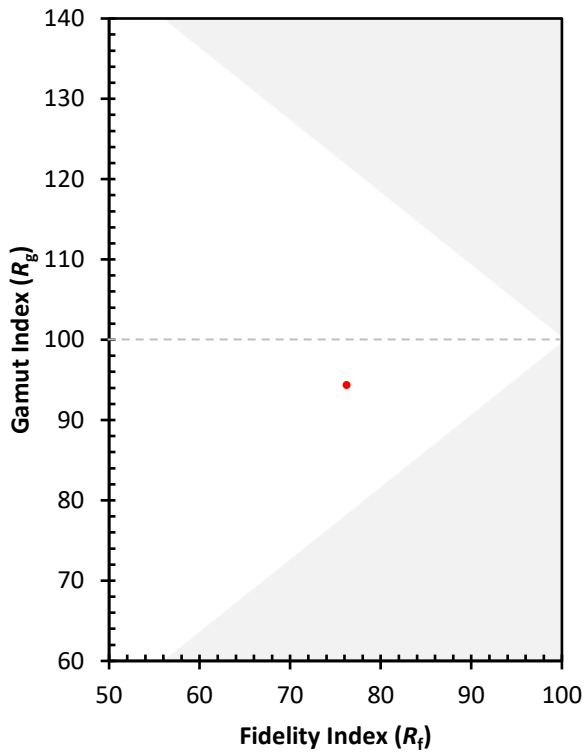
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2406-133-1

TM-30-18

Measure Comparisons



(END OF REPORT)