

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: P856227

Luminaire Tested: **FFX-CLB-100-750-U-FR-T3-UPLR**

Issue Date: 07/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856227  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: FFX-CLB-100-750-U-FR-T3-UPLR  
Description: FAIRFAX POST TOP FIXTURE w/ FAIRFAX REFRACTOR T3 DISTRIBUTION LENS AND UPLIGHT REFLECTOR  
Light Source: (4) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

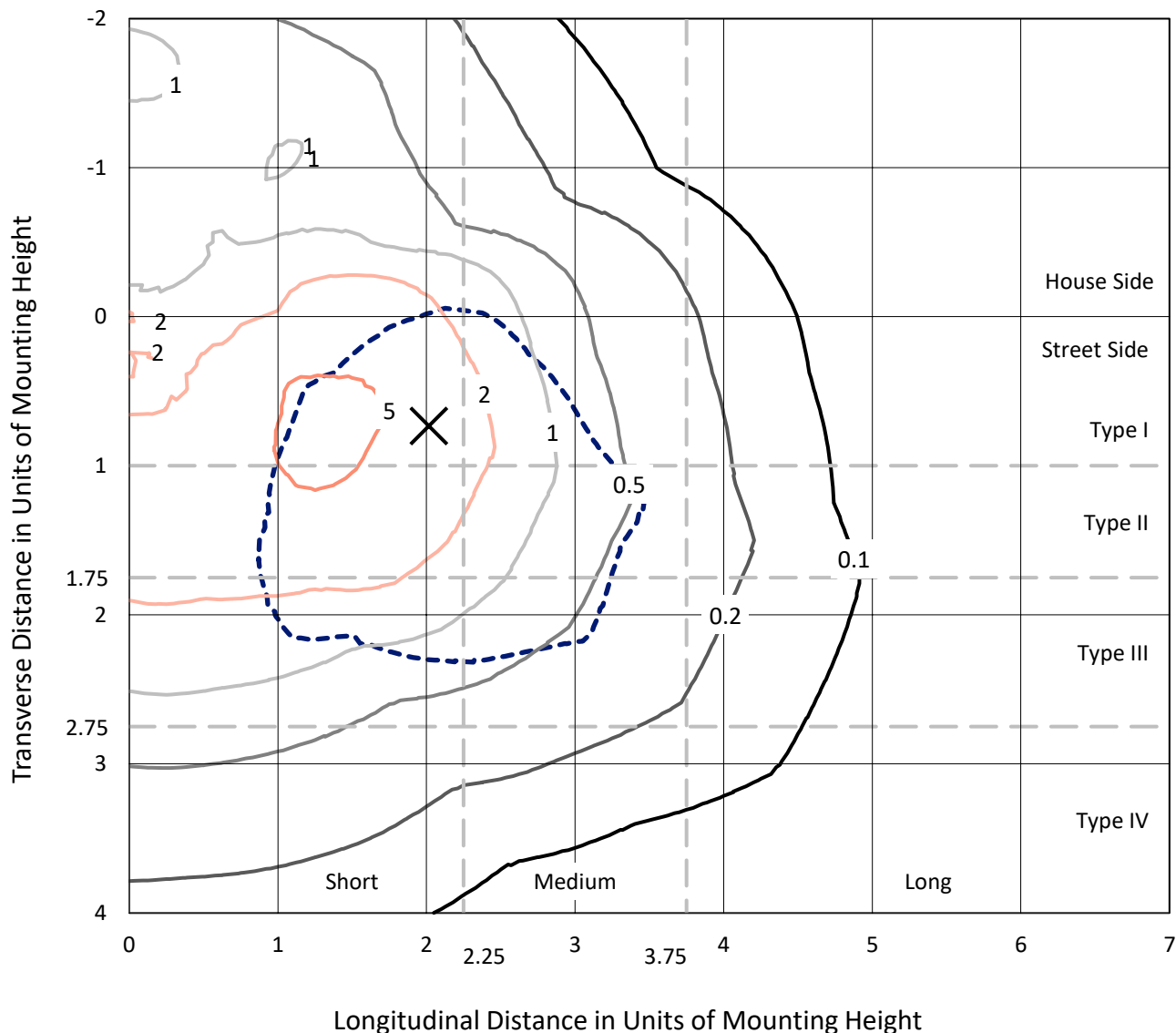
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14747.9 lumens  
Efficiency: N/A  
Efficacy: 153.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 1.67')  
IES Classification: Type III - Short  
BUG Rating: B3 - U5 - G4  
  
Input Watts (W): 96.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.2%%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P856227  
 CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

### Iso-Footcandle Lines of Horizontal Illumination

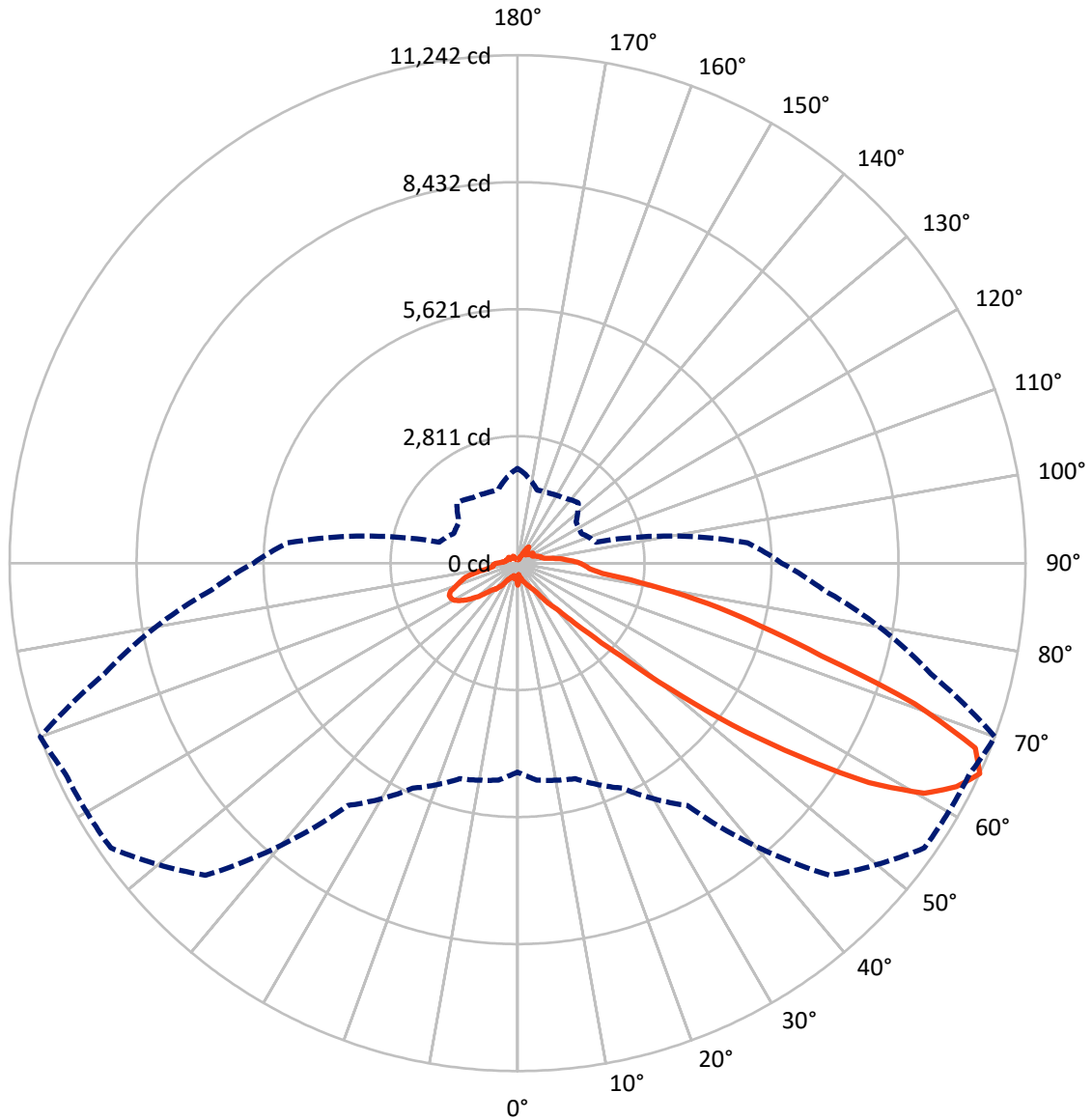
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Short - N/A

REPORT NUMBER: P856227  
CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P856227  
 CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

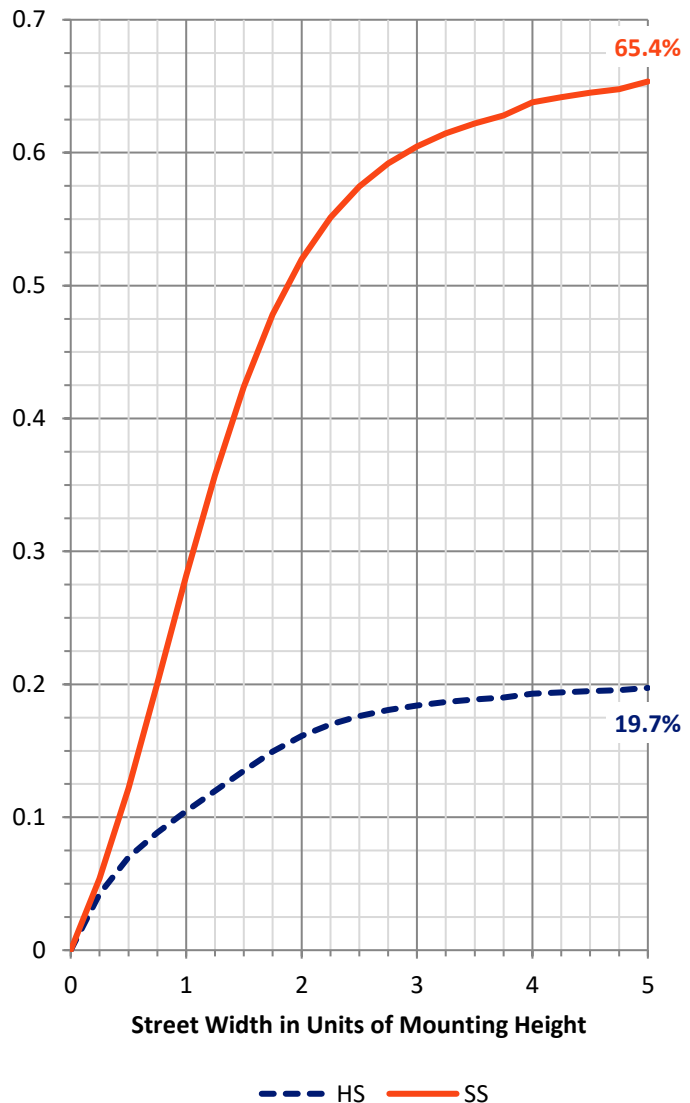
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3024.8	566.6	3591.5
	% Fixture	20.5	3.8	24.4
<b>Street Side</b>	Lumens	9974.2	1182.2	11156.4
	% Fixture	67.6	8.0	75.6
<b>Total</b>	Lumens	12999.0	1748.8	14747.9
	% Fixture	88.1	11.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	0.2
10°-20°	98.6	0.7
20°-30°	199.1	1.3
30°-40°	421.2	2.9
40°-50°	982.1	6.7
50°-60°	2926.9	19.8
60°-70°	4690.0	31.8
70°-80°	2694.2	18.3
80°-90°	955.5	6.5
90°-100°	563.6	3.8
100°-110°	340.5	2.3
110°-120°	256.0	1.7
120°-130°	216.8	1.5
130°-140°	143.9	1.0
140°-150°	135.2	0.9
150°-160°	59.9	0.4
160°-170°	24.8	0.2
170°-180°	8.2	0.1
0°-90°	12999.0	88.1
0°-180°	14747.9	100.0

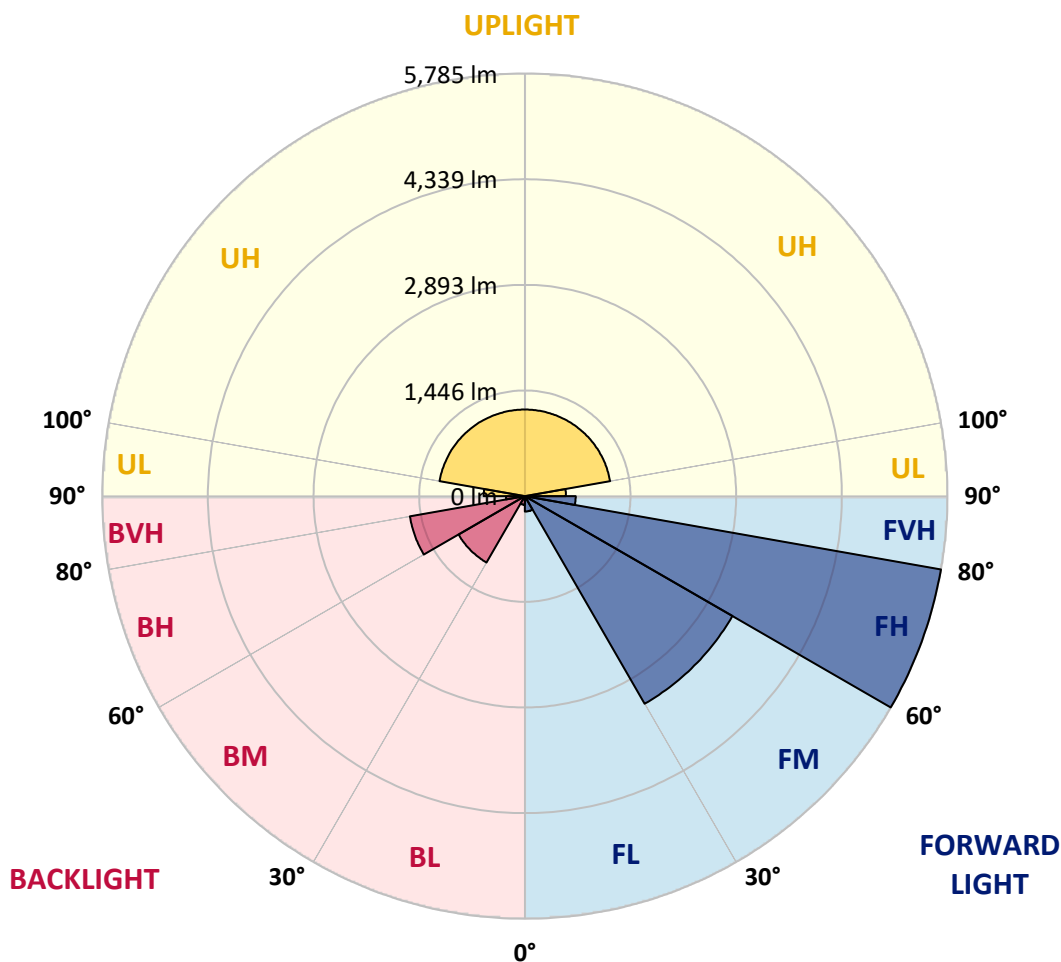


REPORT NUMBER: P856227  
 CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	211.3	1.4			
FM (30°-60°)	3281.5	22.3			
FH (60°-80°)	5785.4	39.2			G3/7500
FVH (80°-90°)	696.1	4.7			G4/750
BL (0°-30°)	117.9	0.8	B1/500		
BM (30°-60°)	1048.7	7.1	B2/2500		
BH (60°-80°)	1598.8	10.8	B3/2500		G3/2500
BVH (80°-90°)	259.5	1.8			G3/500
UL (90°-100°)	563.6	3.8		U4/1000	
UH (100°-180°)	1185.3	8.0		U5	

**BUG Rating: B3-U5-G4**  
 Type III Short





REPORT NUMBER: P856227

CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2
2.5°	407.9	404.8	412.6	418.9	426.7	415.7	397.0	415.7	422.0	440.8	454.8
5°	347.0	348.5	356.4	373.5	389.2	386.1	337.6	275.1	256.3	248.5	250.1
7.5°	343.9	342.3	337.6	336.0	345.4	379.8	375.1	329.8	295.4	265.7	236.0
10°	362.6	367.3	372.0	372.0	365.7	343.9	342.3	339.2	326.7	312.6	293.8
12.5°	448.6	454.8	459.5	443.9	423.6	401.7	384.5	356.4	343.9	336.0	322.0
15°	542.3	548.6	540.8	511.1	475.1	434.5	418.9	420.4	403.2	382.9	353.2
17.5°	592.4	589.2	556.4	522.0	493.9	462.6	440.8	426.7	420.4	412.6	382.9
20°	561.1	553.3	533.0	518.9	515.8	498.6	484.5	472.0	464.2	447.0	411.1
22.5°	537.7	537.7	534.5	531.4	550.2	542.3	536.1	518.9	508.0	486.1	432.9
25°	567.4	567.4	568.9	564.2	589.2	589.2	589.2	570.5	556.4	525.2	461.1
27.5°	609.6	608.0	612.7	609.6	631.4	636.1	645.5	631.4	611.1	573.6	492.3
30°	654.9	654.9	659.6	662.7	684.6	695.5	706.5	700.2	675.2	629.9	545.5
32.5°	703.3	701.8	715.8	731.5	744.0	764.3	769.0	784.6	759.6	706.5	623.6
35°	773.7	778.4	815.9	848.7	884.6	897.1	919.0	980.0	955.0	883.1	787.7
37.5°	1119.1	1095.6	1086.3	1048.7	1044.1	1117.5	1144.1	1201.9	1151.9	1055.0	909.6
40°	1186.3	1158.2	1145.6	1109.7	1122.2	1273.8	1247.2	1455.1	1333.2	1178.5	1084.7
42.5°	1117.5	1112.8	1259.7	1287.9	1272.2	1512.9	1461.4	1845.9	1716.1	1356.6	1251.9
45°	1348.8	1336.3	1398.8	1448.9	1487.9	1920.9	1889.6	2294.4	2238.2	1652.0	1548.9
47.5°	1522.3	1509.8	1581.7	1749.0	1977.1	2446.0	2628.9	3240.0	3049.3	2272.5	2038.1
50°	2041.2	2033.4	2227.2	2407.0	2783.6	3476.0	3977.7	4637.3	4357.5	3174.4	2743.0
52.5°	2532.0	2557.0	2783.6	3129.0	3527.6	4778.0	5493.8	5956.4	5953.3	4134.0	3521.3
55°	2883.7	2968.1	3235.3	3858.9	4412.2	5933.0	6898.9	7241.2	7528.8	5515.7	4288.8
57.5°	3566.7	3713.6	3969.9	4587.3	5301.6	7330.3	8708.8	8652.5	9169.9	6948.9	5123.4
60°	4268.4	4440.4	4526.3	5093.7	6031.5	8676.0	9952.9	9821.6	10342.1	8196.2	6001.8
62.5°	4487.3	4656.1	4740.5	5357.8	6558.2	9438.7	10526.5	10578.1	10901.6	9085.5	6522.2
65°	4624.8	4818.6	4940.5	5496.9	6547.2	9771.6	10990.7	11039.2	11242.4	9468.4	6791.1
67.5°	4599.8	4817.0	4973.3	5471.9	6184.6	9495.0	10875.1	10656.2	10928.2	9194.9	6508.2
70°	4102.8	4291.9	4448.2	4832.7	5162.5	7999.2	9409.0	9048.0	9329.3	7681.9	5373.5
72.5°	3352.5	3430.7	3566.7	3748.0	3912.1	5934.6	7177.1	6867.6	7030.2	5762.6	4026.2
75°	2753.9	2738.3	2860.2	2991.5	2939.9	4335.6	5678.2	5395.3	5546.9	4376.3	3211.9
77.5°	2041.2	2033.4	2210.0	2199.1	2120.9	3002.4	4501.3	4296.6	4316.9	3232.2	2405.4
80°	1226.9	1250.4	1422.3	1456.7	1364.5	1883.4	3213.4	3116.5	2971.2	2208.5	1686.4
82.5°	861.2	897.1	987.8	1025.3	980.0	1375.4	2128.7	2061.5	1889.6	1602.0	1187.8
85°	878.4	884.6	895.6	898.7	878.4	1234.7	1652.0	1614.5	1603.6	1342.6	980.0
87.5°	878.4	892.4	901.8	900.3	864.3	1156.6	1523.9	1464.5	1478.6	1255.1	947.2
90°	787.7	812.7	811.2	815.9	786.2	1045.6	1381.7	1333.2	1352.0	1131.6	861.2
92.5°	643.9	661.1	678.3	711.1	667.4	889.3	1167.5	1122.2	1145.6	962.8	733.0
95°	598.6	614.2	625.2	642.4	598.6	790.9	1033.1	978.4	987.8	817.4	620.5
97.5°	484.5	493.9	506.4	509.5	478.3	608.0	786.2	739.3	745.5	634.6	487.6
100°	406.4	414.2	425.1	425.1	404.8	503.3	622.1	597.1	593.9	518.9	412.6
102.5°	384.5	387.6	404.8	401.7	381.4	464.2	562.7	547.0	548.6	481.4	387.6
105°	378.2	378.2	395.4	387.6	370.4	442.3	526.7	522.0	520.5	457.9	372.0
107.5°	372.0	372.0	389.2	381.4	367.3	417.3	495.5	479.8	478.3	436.1	351.7
110°	347.0	351.7	370.4	361.0	350.1	393.9	454.8	443.9	443.9	411.1	336.0



REPORT NUMBER: P856227

CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
112.5°	307.9	311.0	328.2	320.4	312.6	350.1	403.2	389.2	390.7	368.9	314.2
115°	287.6	292.3	309.5	298.5	292.3	326.7	373.5	364.2	367.3	347.0	297.0
117.5°	289.1	290.7	303.2	304.8	292.3	320.4	345.4	348.5	353.2	340.7	301.7
120°	351.7	343.9	350.1	342.3	336.0	368.9	398.6	401.7	400.1	376.7	300.1
122.5°	354.8	339.2	356.4	345.4	339.2	375.1	407.9	415.7	407.9	387.6	306.3
125°	282.9	287.6	289.1	292.3	298.5	337.6	354.8	356.4	357.9	351.7	297.0
127.5°	248.5	246.9	239.1	240.7	254.8	289.1	301.7	311.0	304.8	301.7	267.3
130°	237.6	240.7	239.1	239.1	246.9	273.5	282.9	297.0	292.3	286.0	243.8
132.5°	218.8	221.9	236.0	253.2	250.1	259.5	262.6	276.6	278.2	278.2	245.4
135°	207.9	211.0	221.9	243.8	237.6	242.3	240.7	253.2	254.8	256.3	231.3
137.5°	212.6	214.1	207.9	211.0	215.7	236.0	242.3	254.8	254.8	248.5	215.7
140°	223.5	223.5	209.4	204.7	214.1	245.4	257.9	278.2	275.1	264.1	223.5
142.5°	206.3	209.4	217.3	226.6	246.9	332.9	332.9	372.0	384.5	387.6	270.4
145°	268.8	270.4	273.5	278.2	317.3	436.1	397.0	425.1	436.1	447.0	325.1
147.5°	309.5	312.6	309.5	297.0	332.9	373.5	354.8	367.3	379.8	382.9	326.7
150°	242.3	239.1	237.6	236.0	275.1	287.6	272.0	270.4	279.8	287.6	253.2
152.5°	176.6	175.1	173.5	171.9	206.3	198.5	187.6	187.6	190.7	192.2	178.2
155°	156.3	154.7	151.6	153.2	175.1	167.2	157.9	154.7	157.9	156.3	148.5
157.5°	128.2	125.0	125.0	131.3	142.2	132.9	126.6	121.9	123.5	121.9	123.5
160°	106.3	104.7	106.3	114.1	120.3	112.5	106.3	103.2	103.2	106.3	112.5
162.5°	95.3	93.8	95.3	98.5	101.6	93.8	89.1	89.1	90.7	96.9	109.4
165°	82.8	82.8	84.4	86.0	87.5	82.8	81.3	81.3	84.4	93.8	107.8
167.5°	79.7	79.7	79.7	79.7	79.7	78.1	76.6	81.3	84.4	89.1	98.5
170°	78.1	76.6	78.1	78.1	78.1	78.1	78.1	82.8	82.8	84.4	89.1
172.5°	79.7	79.7	79.7	81.3	84.4	86.0	84.4	87.5	86.0	86.0	86.0
175°	81.3	81.3	82.8	84.4	86.0	87.5	89.1	89.1	89.1	90.7	90.7
177.5°	81.3	81.3	82.8	84.4	86.0	82.8	79.7	78.1	76.6	76.6	76.6
180°	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9





REPORT NUMBER: P856227

CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2
2.5°	442.3	403.2	348.5	372.0	443.9	429.8	357.9	314.2	317.3	348.5	351.7
5°	257.9	265.7	301.7	376.7	390.7	323.5	261.0	251.6	303.2	375.1	389.2
7.5°	232.9	232.9	262.6	365.7	411.1	337.6	254.8	229.8	268.8	328.2	337.6
10°	281.3	272.0	275.1	312.6	329.8	270.4	228.2	217.3	239.1	246.9	243.8
12.5°	317.3	323.5	353.2	345.4	270.4	220.4	206.3	204.7	217.3	225.1	223.5
15°	340.7	329.8	307.9	282.9	257.9	229.8	209.4	196.9	182.9	176.6	176.6
17.5°	362.6	340.7	301.7	278.2	253.2	232.9	214.1	195.4	189.1	190.7	190.7
20°	389.2	362.6	326.7	300.1	270.4	242.3	218.8	198.5	193.8	195.4	193.8
22.5°	409.5	386.1	348.5	314.2	282.9	251.6	228.2	207.9	201.6	200.1	200.1
25°	434.5	414.2	375.1	332.9	295.4	265.7	245.4	221.9	211.0	207.9	207.9
27.5°	467.3	450.1	406.4	361.0	317.3	282.9	261.0	236.0	220.4	214.1	212.6
30°	517.3	493.9	445.4	389.2	343.9	307.9	281.3	250.1	231.3	220.4	218.8
32.5°	592.4	562.7	498.6	428.3	373.5	336.0	303.2	264.1	240.7	228.2	226.6
35°	751.8	719.0	637.7	539.2	459.5	382.9	331.3	279.8	250.1	234.4	232.9
37.5°	851.8	792.4	694.0	604.9	508.0	462.6	397.0	328.2	262.6	242.3	239.1
40°	997.2	920.6	797.1	676.8	506.4	504.8	461.1	400.1	309.5	256.3	251.6
42.5°	1105.0	1006.5	851.8	717.4	511.1	525.2	487.6	434.5	367.3	298.5	290.7
45°	1325.4	1200.4	955.0	753.3	517.3	548.6	511.1	454.8	395.4	347.0	342.3
47.5°	1738.0	1564.5	1155.0	822.1	587.7	626.7	559.5	493.9	436.1	387.6	376.7
50°	2314.7	2106.9	1397.3	883.1	708.0	797.1	687.7	587.7	518.9	481.4	470.5
52.5°	2991.5	2758.6	1548.9	978.4	853.4	1006.5	886.2	769.0	678.3	684.6	678.3
55°	3746.4	3471.3	1681.7	1122.2	1039.4	1239.4	1108.1	1006.5	958.1	1094.1	1101.9
57.5°	4474.7	4180.9	1764.6	1273.8	1247.2	1508.3	1355.1	1283.2	1301.9	1700.5	1794.3
60°	5170.3	4706.1	1828.7	1416.0	1422.3	1719.3	1602.0	1588.0	1645.8	2156.9	2299.1
62.5°	5571.9	4974.9	1825.5	1508.3	1531.7	1849.0	1745.8	1753.6	1797.4	2231.9	2350.7
65°	5845.5	5110.9	1794.3	1555.1	1578.6	1895.9	1763.0	1702.1	1673.9	1970.9	2097.5
67.5°	5681.4	4848.3	1719.3	1514.5	1545.8	1820.8	1655.2	1502.0	1453.6	1614.5	1689.6
70°	4803.0	4051.2	1531.7	1377.0	1397.3	1536.4	1395.7	1228.5	1180.0	1264.4	1298.8
72.5°	3629.2	3110.3	1373.8	1272.2	1223.8	1270.7	1133.1	958.1	947.2	992.5	998.7
75°	2899.3	2441.3	1251.9	1147.2	1017.5	1065.9	900.3	712.7	698.6	701.8	686.1
77.5°	2185.0	1816.2	1053.4	903.4	770.5	850.2	668.9	492.3	468.9	459.5	442.3
80°	1495.8	1261.3	715.8	604.9	547.0	623.6	476.7	361.0	359.5	356.4	337.6
82.5°	1061.2	973.7	584.5	514.2	464.2	490.8	414.2	337.6	329.8	331.3	311.0
85°	928.4	881.5	564.2	520.5	472.0	470.5	395.4	315.7	312.6	314.2	295.4
87.5°	887.8	836.2	551.7	497.0	450.1	426.7	348.5	278.2	286.0	290.7	273.5
90°	795.5	742.4	500.1	443.9	398.6	357.9	295.4	251.6	264.1	267.3	251.6
92.5°	670.5	615.8	389.2	356.4	334.5	328.2	276.6	239.1	248.5	250.1	237.6
95°	567.4	517.3	339.2	314.2	298.5	297.0	250.1	217.3	221.9	220.4	209.4
97.5°	456.4	420.4	297.0	273.5	256.3	246.9	214.1	189.1	195.4	198.5	190.7
100°	389.2	368.9	276.6	256.3	236.0	223.5	195.4	175.1	181.3	187.6	181.3
102.5°	365.7	350.1	272.0	250.1	228.2	212.6	186.0	164.1	167.2	175.1	170.4
105°	347.0	332.9	264.1	240.7	220.4	203.2	181.3	154.7	153.2	161.0	159.4
107.5°	326.7	314.2	259.5	231.3	209.4	193.8	173.5	148.5	142.2	146.9	145.4
110°	315.7	303.2	250.1	220.4	196.9	182.9	164.1	143.8	136.0	137.5	137.5



REPORT NUMBER: P856227

CATALOG NUMBER: FFX-CLB-100-750-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	293.8	279.8	229.8	201.6	182.9	170.4	151.6	137.5	128.2	131.3	132.9
115°	279.8	261.0	211.0	190.7	170.4	159.4	148.5	136.0	125.0	125.0	126.6
117.5°	289.1	253.2	196.9	181.3	170.4	167.2	164.1	145.4	123.5	121.9	121.9
120°	276.6	254.8	214.1	209.4	198.5	189.1	168.8	143.8	120.3	117.2	117.2
122.5°	270.4	265.7	242.3	226.6	206.3	187.6	157.9	131.3	115.7	112.5	112.5
125°	267.3	262.6	234.4	204.7	178.2	159.4	140.7	123.5	114.1	109.4	109.4
127.5°	245.4	223.5	189.1	171.9	154.7	146.9	131.3	120.3	109.4	103.2	103.2
130°	226.6	206.3	176.6	157.9	143.8	137.5	126.6	115.7	104.7	98.5	96.9
132.5°	223.5	203.2	171.9	148.5	136.0	129.7	123.5	111.0	98.5	92.2	90.7
135°	207.9	184.4	153.2	140.7	132.9	128.2	123.5	107.8	95.3	89.1	89.1
137.5°	192.2	168.8	145.4	139.1	132.9	128.2	114.1	98.5	89.1	84.4	84.4
140°	193.8	167.2	148.5	143.8	134.4	120.3	107.8	96.9	89.1	82.8	81.3
142.5°	206.3	173.5	150.0	136.0	129.7	121.9	117.2	104.7	89.1	78.1	75.0
145°	226.6	187.6	168.8	162.5	151.6	137.5	120.3	96.9	81.3	71.9	70.3
147.5°	250.1	211.0	189.1	171.9	150.0	126.6	103.2	84.4	71.9	68.8	67.2
150°	217.3	179.7	162.5	139.1	120.3	101.6	84.4	75.0	68.8	67.2	67.2
152.5°	164.1	134.4	120.3	109.4	98.5	89.1	79.7	73.5	68.8	65.6	65.6
155°	142.2	126.6	112.5	101.6	90.7	81.3	73.5	70.3	65.6	65.6	64.1
157.5°	125.0	117.2	98.5	89.1	81.3	76.6	73.5	68.8	67.2	65.6	65.6
160°	114.1	109.4	90.7	82.8	78.1	75.0	75.0	71.9	67.2	65.6	65.6
162.5°	111.0	106.3	87.5	79.7	75.0	76.6	79.7	78.1	71.9	68.8	68.8
165°	109.4	106.3	89.1	78.1	75.0	76.6	84.4	86.0	78.1	73.5	71.9
167.5°	100.0	98.5	93.8	86.0	81.3	81.3	86.0	87.5	84.4	84.4	82.8
170°	90.7	90.7	92.2	93.8	90.7	86.0	82.8	82.8	87.5	92.2	93.8
172.5°	87.5	89.1	92.2	96.9	96.9	90.7	86.0	84.4	89.1	95.3	96.9
175°	92.2	93.8	95.3	95.3	92.2	90.7	89.1	87.5	90.7	96.9	98.5
177.5°	76.6	76.6	78.1	78.1	76.6	78.1	76.6	73.5	73.5	73.5	73.5
180°	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9

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: SP1-2406-133-5

Test Date: 07/12/2024

Luminaire Tested: FFX-CLB-100-750-U-FR-T5

Data in this report applies to families of products including FFX-CLB-100-750-U-FR-T5.

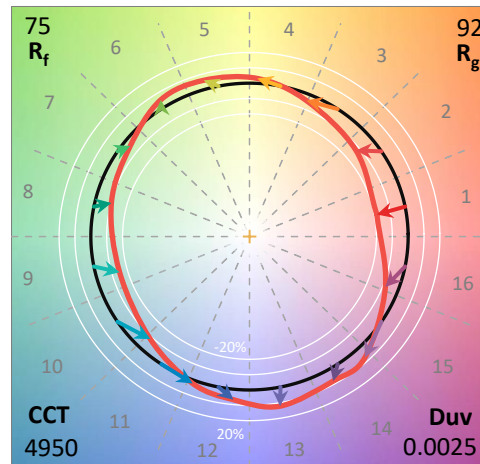
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2406-133-5  
 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-100-750-U-FR-T5**  
 Description: FAIRFAX ACORN W/ FAIRFAX REFRACTOR 100W T5

**Spectral Parameters**

CCT (K): 4950  
 CIE u': 0.2102  
 CIE v': 0.4882  
 Duv: 0.0025  
 CIE x: 0.3471  
 CIE y: 0.3583  
 CIE z: 0.2946  
 Peak Wavelength (nm): 452  
 Dominant Wavelength (nm): 571  
 Purity: 11.64963  
 Rf: 74.8  
 Rg: 92.4

CRI (Ra): 73.0  
 R1: 69.1  
 R2: 80.1  
 R3: 87.3  
 R4: 70.6  
 R5: 69.4  
 R6: 71.2  
 R7: 82.5  
 R8: 53.6  
 R9: -35.4  
 R10: 51.9  
 R11: 66.1  
 R12: 40.1  
 R13: 71.5  
 R14: 93.0  
 R15: 62.2



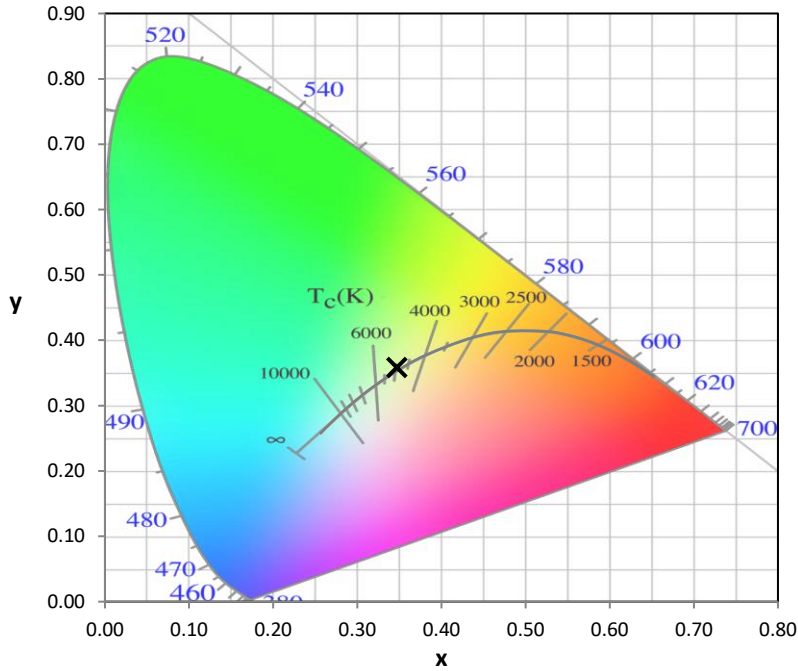
**Test Conditions**  
 Stabilization Time: 0.803355M  
 Operation Time: 1H  
 Sphere Temperature (°C): 24.7

REPORT NUMBER: SP1-2406-133-5

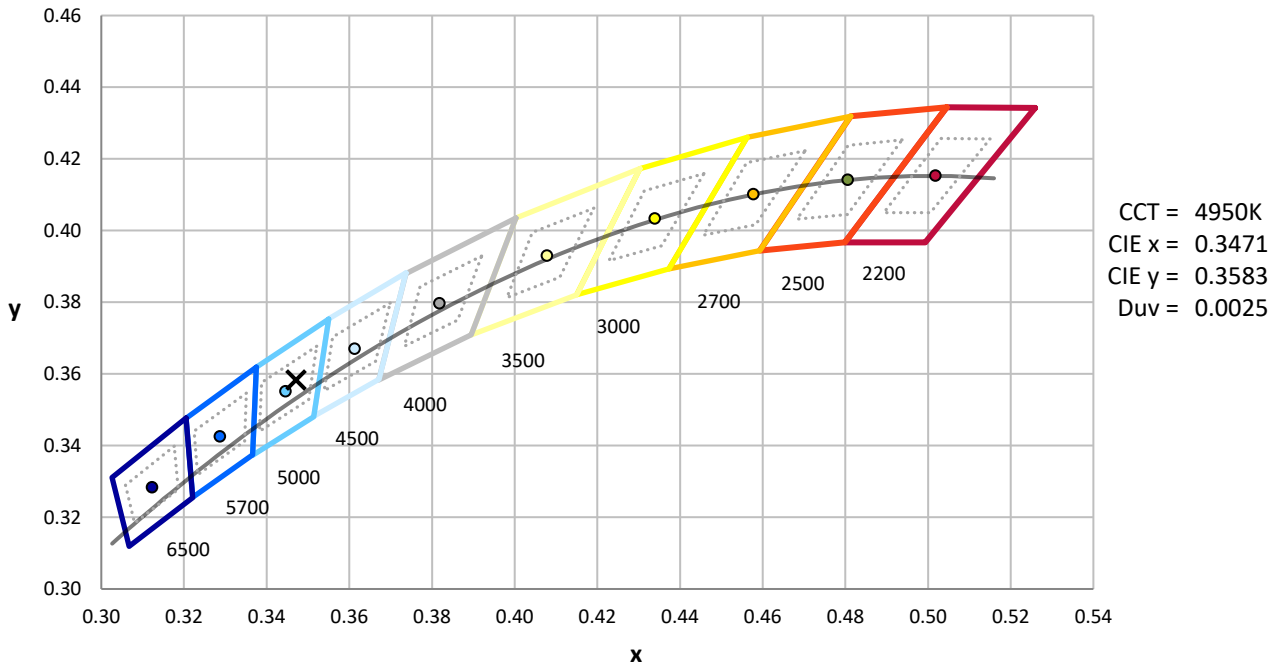
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2406-133-5

CIE 1931 Chromaticity Diagram



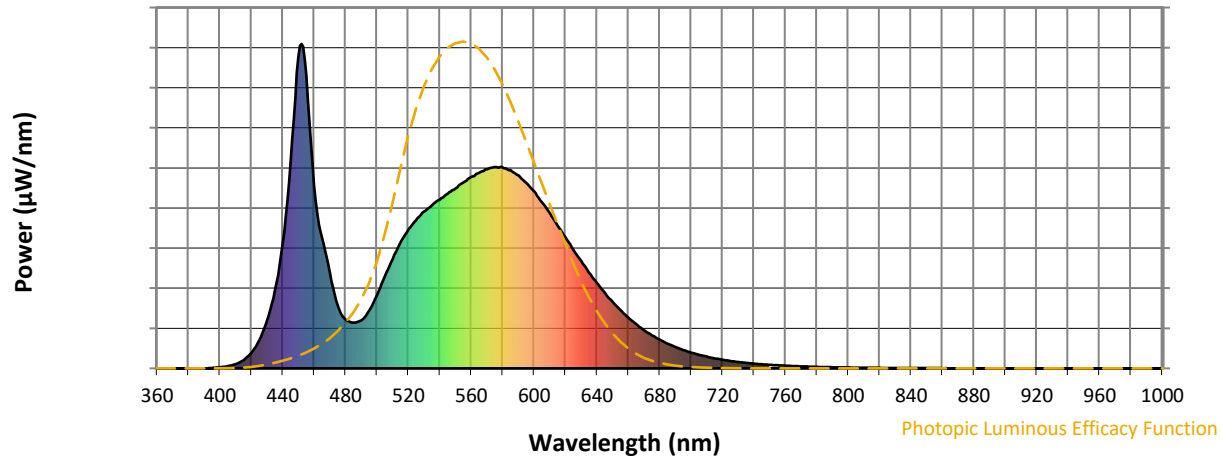
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2406-133-5

**Photopic Flux vs. Wavelength**

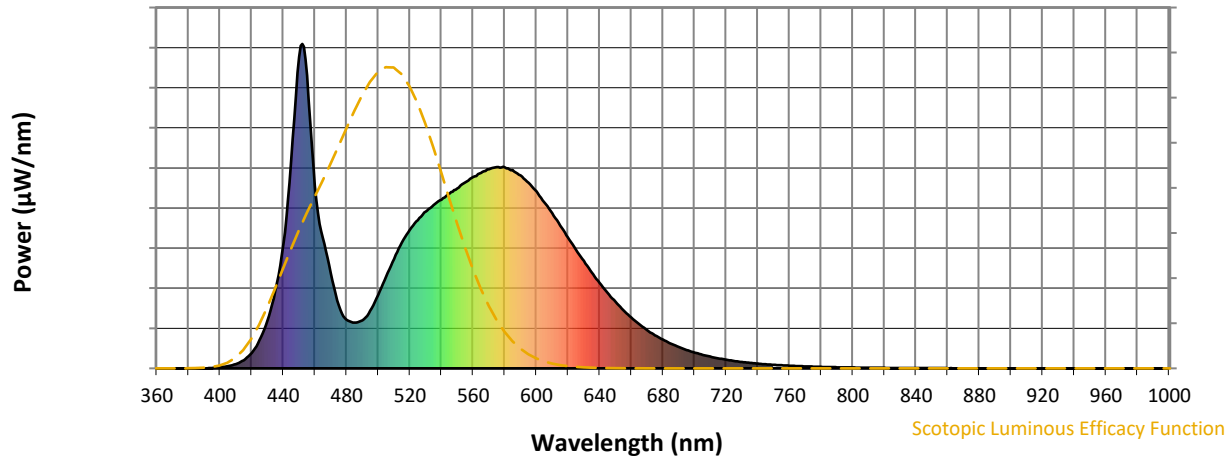


**Photopic Lumens: NR**

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	148	NR	620	403	NR	750	11	NR	880	0	NR
365	0	NR	495	178	NR	625	366	NR	755	9	NR	885	0	NR
370	0	NR	500	226	NR	630	331	NR	760	8	NR	890	0	NR
375	0	NR	505	283	NR	635	295	NR	765	7	NR	895	0	NR
380	0	NR	510	338	NR	640	263	NR	770	6	NR	900	0	NR
385	0	NR	515	387	NR	645	232	NR	775	5	NR	905	0	NR
390	0	NR	520	428	NR	650	205	NR	780	5	NR	910	0	NR
395	1	NR	525	457	NR	655	179	NR	785	4	NR	915	0	NR
400	4	NR	530	484	NR	660	156	NR	790	3	NR	920	0	NR
405	7	NR	535	503	NR	665	136	NR	795	3	NR	925	0	NR
410	13	NR	540	520	NR	670	118	NR	800	3	NR	930	0	NR
415	25	NR	545	538	NR	675	102	NR	805	2	NR	935	0	NR
420	48	NR	550	555	NR	680	89	NR	810	2	NR	940	0	NR
425	87	NR	555	573	NR	685	76	NR	815	2	NR	945	0	NR
430	147	NR	560	590	NR	690	66	NR	820	2	NR	950	0	NR
435	242	NR	565	603	NR	695	56	NR	825	1	NR	955	0	NR
440	384	NR	570	614	NR	700	49	NR	830	1	NR	960	0	NR
445	638	NR	575	621	NR	705	42	NR	835	1	NR	965	0	NR
450	960	NR	580	619	NR	710	36	NR	840	1	NR	970	0	NR
455	902	NR	585	611	NR	715	31	NR	845	1	NR	975	0	NR
460	564	NR	590	594	NR	720	27	NR	850	1	NR	980	0	NR
465	402	NR	595	572	NR	725	23	NR	855	1	NR	985	0	NR
470	293	NR	600	546	NR	730	20	NR	860	1	NR	990	0	NR
475	194	NR	605	511	NR	735	17	NR	865	0	NR	995	0	NR
480	150	NR	610	478	NR	740	14	NR	870	0	NR	1000	0	NR
485	141	NR	615	440	NR	745	13	NR	875	0	NR			

REPORT NUMBER: SP1-2406-133-5

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

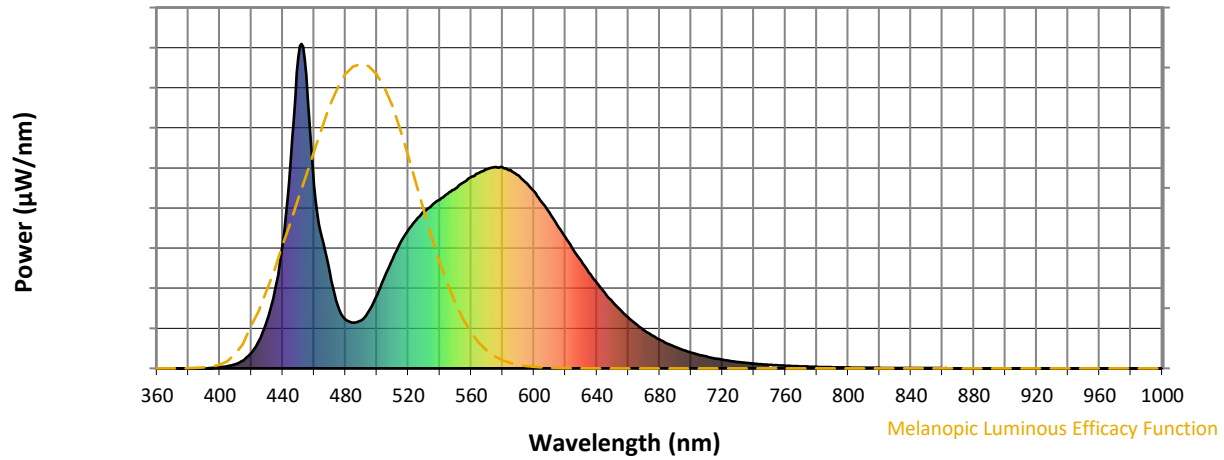
**S/P: 1.8**

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	148	NR	620	403	NR	750	11	NR	880	0	NR
365	0	NR	495	178	NR	625	366	NR	755	9	NR	885	0	NR
370	0	NR	500	226	NR	630	331	NR	760	8	NR	890	0	NR
375	0	NR	505	283	NR	635	295	NR	765	7	NR	895	0	NR
380	0	NR	510	338	NR	640	263	NR	770	6	NR	900	0	NR
385	0	NR	515	387	NR	645	232	NR	775	5	NR	905	0	NR
390	0	NR	520	428	NR	650	205	NR	780	5	NR	910	0	NR
395	1	NR	525	457	NR	655	179	NR	785	4	NR	915	0	NR
400	4	NR	530	484	NR	660	156	NR	790	3	NR	920	0	NR
405	7	NR	535	503	NR	665	136	NR	795	3	NR	925	0	NR
410	13	NR	540	520	NR	670	118	NR	800	3	NR	930	0	NR
415	25	NR	545	538	NR	675	102	NR	805	2	NR	935	0	NR
420	48	NR	550	555	NR	680	89	NR	810	2	NR	940	0	NR
425	87	NR	555	573	NR	685	76	NR	815	2	NR	945	0	NR
430	147	NR	560	590	NR	690	66	NR	820	2	NR	950	0	NR
435	242	NR	565	603	NR	695	56	NR	825	1	NR	955	0	NR
440	384	NR	570	614	NR	700	49	NR	830	1	NR	960	0	NR
445	638	NR	575	621	NR	705	42	NR	835	1	NR	965	0	NR
450	960	NR	580	619	NR	710	36	NR	840	1	NR	970	0	NR
455	902	NR	585	611	NR	715	31	NR	845	1	NR	975	0	NR
460	564	NR	590	594	NR	720	27	NR	850	1	NR	980	0	NR
465	402	NR	595	572	NR	725	23	NR	855	1	NR	985	0	NR
470	293	NR	600	546	NR	730	20	NR	860	1	NR	990	0	NR
475	194	NR	605	511	NR	735	17	NR	865	0	NR	995	0	NR
480	150	NR	610	478	NR	740	14	NR	870	0	NR	1000	0	NR
485	141	NR	615	440	NR	745	13	NR	875	0	NR			



REPORT NUMBER: SP1-2406-133-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.74

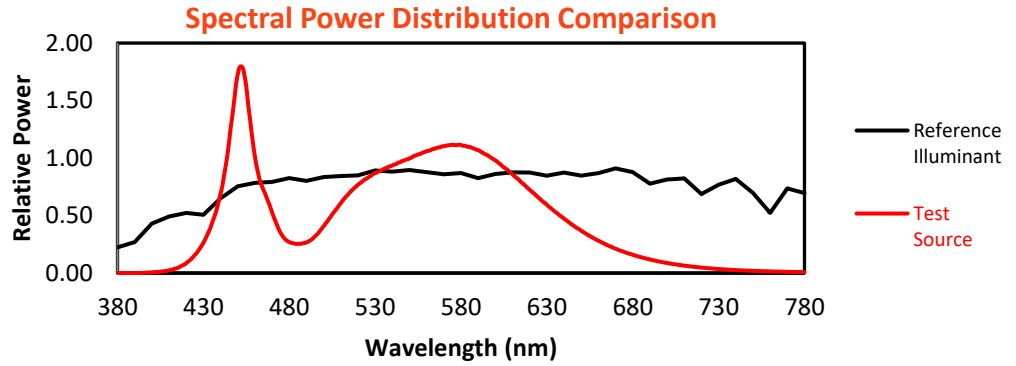
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	148	NR	620	403	NR	750	11	NR	880	0	NR
365	0	NR	495	178	NR	625	366	NR	755	9	NR	885	0	NR
370	0	NR	500	226	NR	630	331	NR	760	8	NR	890	0	NR
375	0	NR	505	283	NR	635	295	NR	765	7	NR	895	0	NR
380	0	NR	510	338	NR	640	263	NR	770	6	NR	900	0	NR
385	0	NR	515	387	NR	645	232	NR	775	5	NR	905	0	NR
390	0	NR	520	428	NR	650	205	NR	780	5	NR	910	0	NR
395	1	NR	525	457	NR	655	179	NR	785	4	NR	915	0	NR
400	4	NR	530	484	NR	660	156	NR	790	3	NR	920	0	NR
405	7	NR	535	503	NR	665	136	NR	795	3	NR	925	0	NR
410	13	NR	540	520	NR	670	118	NR	800	3	NR	930	0	NR
415	25	NR	545	538	NR	675	102	NR	805	2	NR	935	0	NR
420	48	NR	550	555	NR	680	89	NR	810	2	NR	940	0	NR
425	87	NR	555	573	NR	685	76	NR	815	2	NR	945	0	NR
430	147	NR	560	590	NR	690	66	NR	820	2	NR	950	0	NR
435	242	NR	565	603	NR	695	56	NR	825	1	NR	955	0	NR
440	384	NR	570	614	NR	700	49	NR	830	1	NR	960	0	NR
445	638	NR	575	621	NR	705	42	NR	835	1	NR	965	0	NR
450	960	NR	580	619	NR	710	36	NR	840	1	NR	970	0	NR
455	902	NR	585	611	NR	715	31	NR	845	1	NR	975	0	NR
460	564	NR	590	594	NR	720	27	NR	850	1	NR	980	0	NR
465	402	NR	595	572	NR	725	23	NR	855	1	NR	985	0	NR
470	293	NR	600	546	NR	730	20	NR	860	1	NR	990	0	NR
475	194	NR	605	511	NR	735	17	NR	865	0	NR	995	0	NR
480	150	NR	610	478	NR	740	14	NR	870	0	NR	1000	0	NR
485	141	NR	615	440	NR	745	13	NR	875	0	NR			

REPORT NUMBER: SP1-2406-133-5

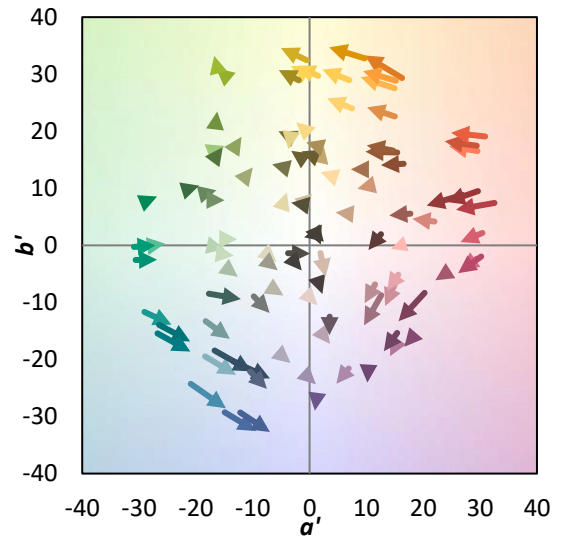
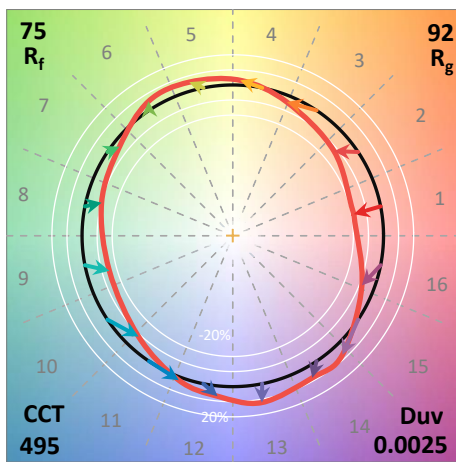
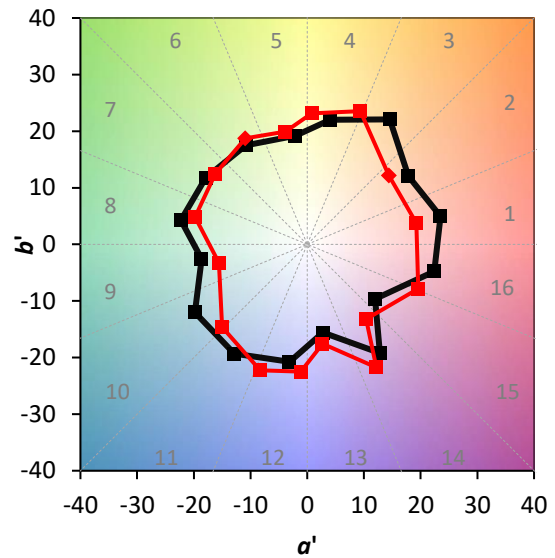
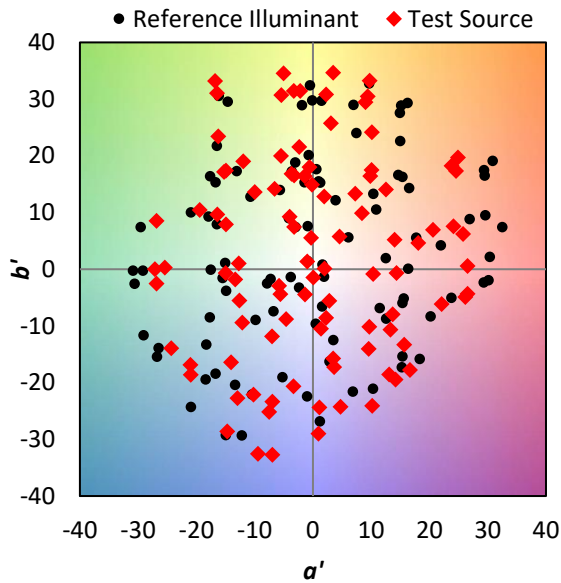
TM-30-18

**Summary**

$R_f = 74.8$   
 $R_g = 92.4$   
 CIE  $R_a = 73.0$   
 $R_9 = -35.4$



**Color Vector Graphics**

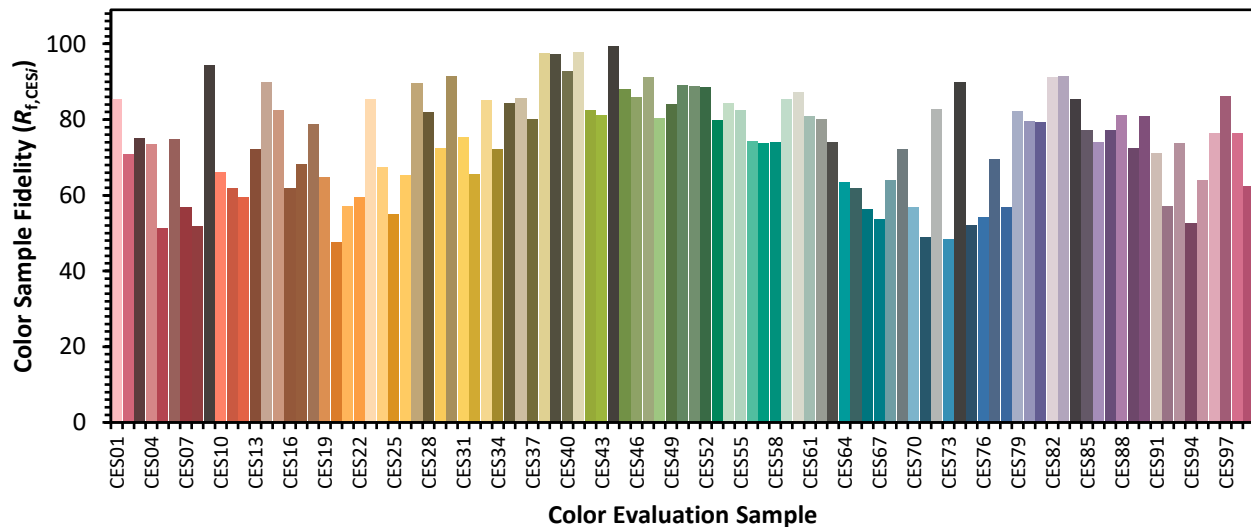


REPORT NUMBER: SP1-2406-133-5

TM-30-18

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

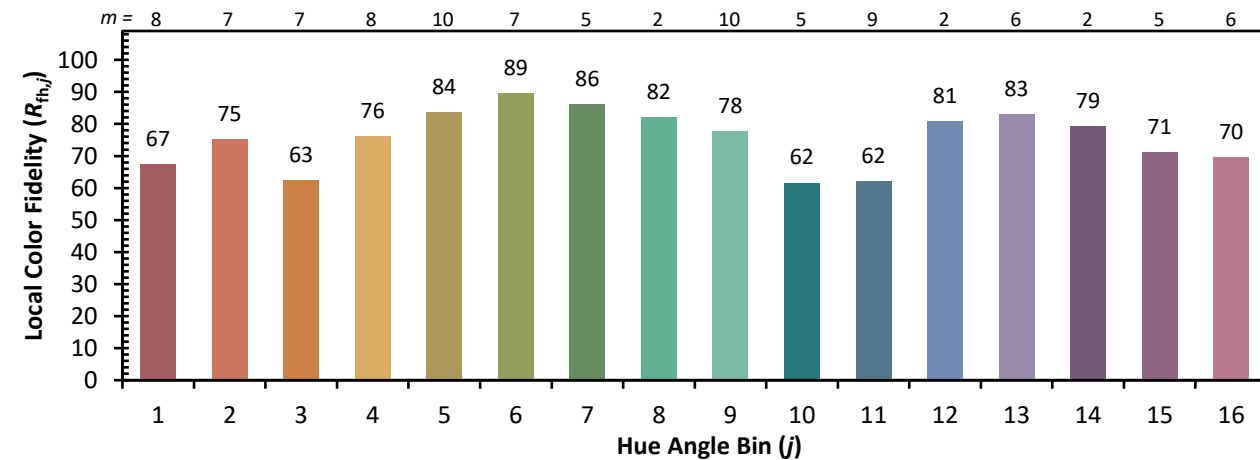
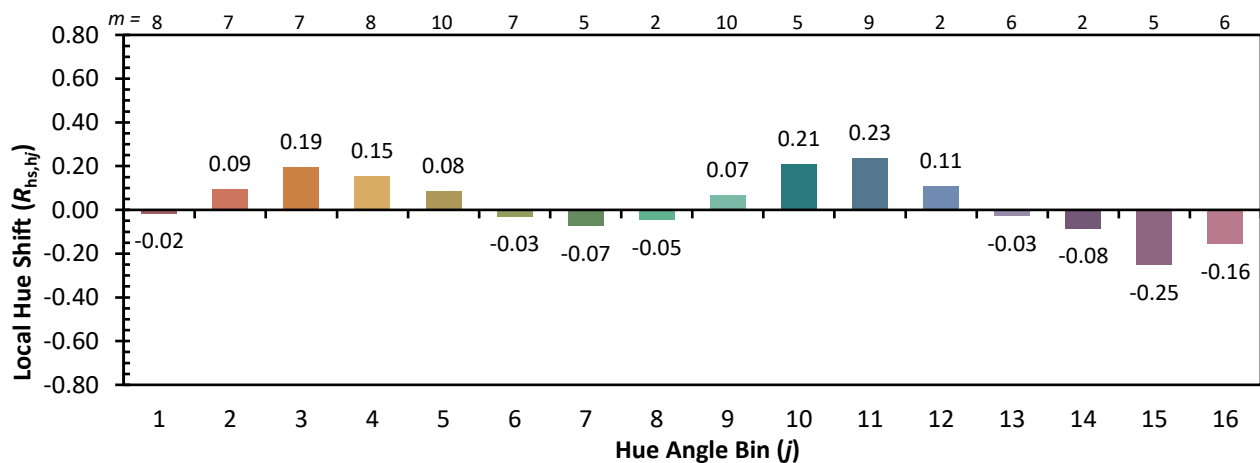
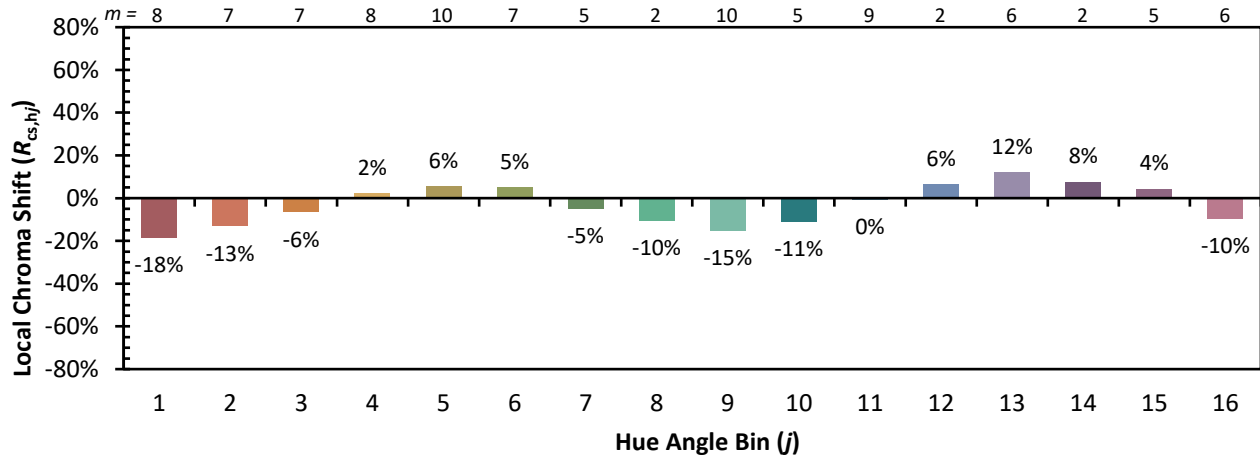
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 54
CES02 = 60	CES27 = 90	CES52 = 88	CES77 = 69
CES03 = 30	CES28 = 82	CES53 = 80	CES78 = 57
CES04 = 69	CES29 = 72	CES54 = 84	CES79 = 82
CES05 = 46	CES30 = 91	CES55 = 82	CES80 = 79
CES06 = 50	CES31 = 75	CES56 = 74	CES81 = 79
CES07 = 39	CES32 = 66	CES57 = 74	CES82 = 91
CES08 = 38	CES33 = 85	CES58 = 74	CES83 = 91
CES09 = 29	CES34 = 72	CES59 = 85	CES84 = 85
CES10 = 73	CES35 = 84	CES60 = 87	CES85 = 77
CES11 = 56	CES36 = 86	CES61 = 81	CES86 = 74
CES12 = 62	CES37 = 80	CES62 = 80	CES87 = 77
CES13 = 41	CES38 = 98	CES63 = 74	CES88 = 81
CES14 = 74	CES39 = 97	CES64 = 63	CES89 = 72
CES15 = 70	CES40 = 93	CES65 = 62	CES90 = 81
CES16 = 46	CES41 = 98	CES66 = 56	CES91 = 71
CES17 = 49	CES42 = 83	CES67 = 54	CES92 = 57
CES18 = 55	CES43 = 81	CES68 = 64	CES93 = 74
CES19 = 71	CES44 = 99	CES69 = 72	CES94 = 53
CES20 = 64	CES45 = 88	CES70 = 57	CES95 = 64
CES21 = 85	CES46 = 86	CES71 = 49	CES96 = 76
CES22 = 77	CES47 = 91	CES72 = 83	CES97 = 86
CES23 = 91	CES48 = 80	CES73 = 48	CES98 = 77
CES24 = 90	CES49 = 84	CES74 = 90	CES99 = 62
CES25 = 71	CES50 = 89	CES75 = 52	



REPORT NUMBER: SP1-2406-133-5

TM-30-18

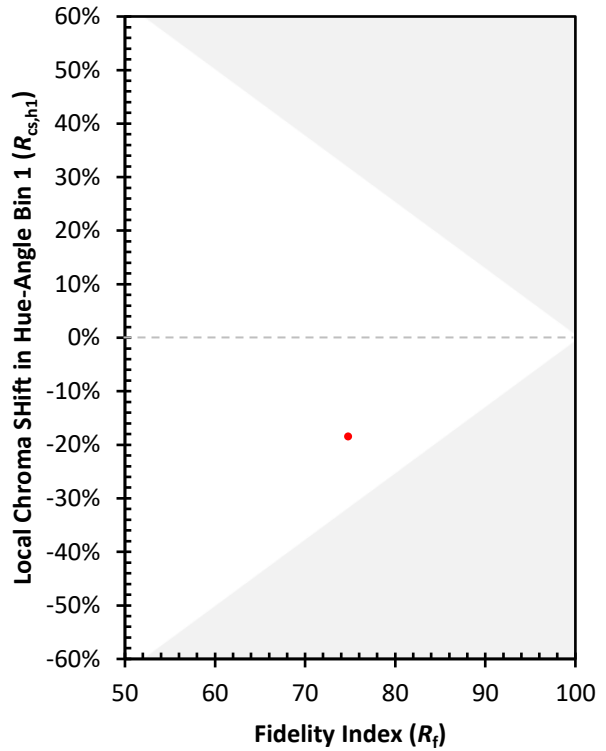
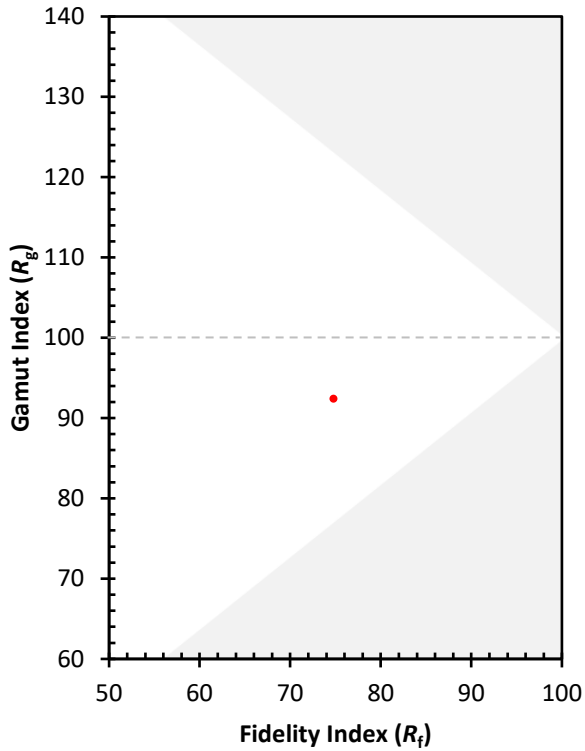
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2406-133-5

TM-30-18

Measure Comparisons



(END OF REPORT)