

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: P856210

Luminaire Tested: **FFX-CLB-90-730-U-FR-T3-UPLR**

Issue Date: 07/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856210  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: FFX-CLB-90-730-U-FR-T3-UPLR  
Description: FAIRFAX POST TOP FIXTURE w/ FAIRFAX REFRACTOR T3 DISTRIBUTION LENS AND UPLIGHT REFLECTOR  
Light Source: (4) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

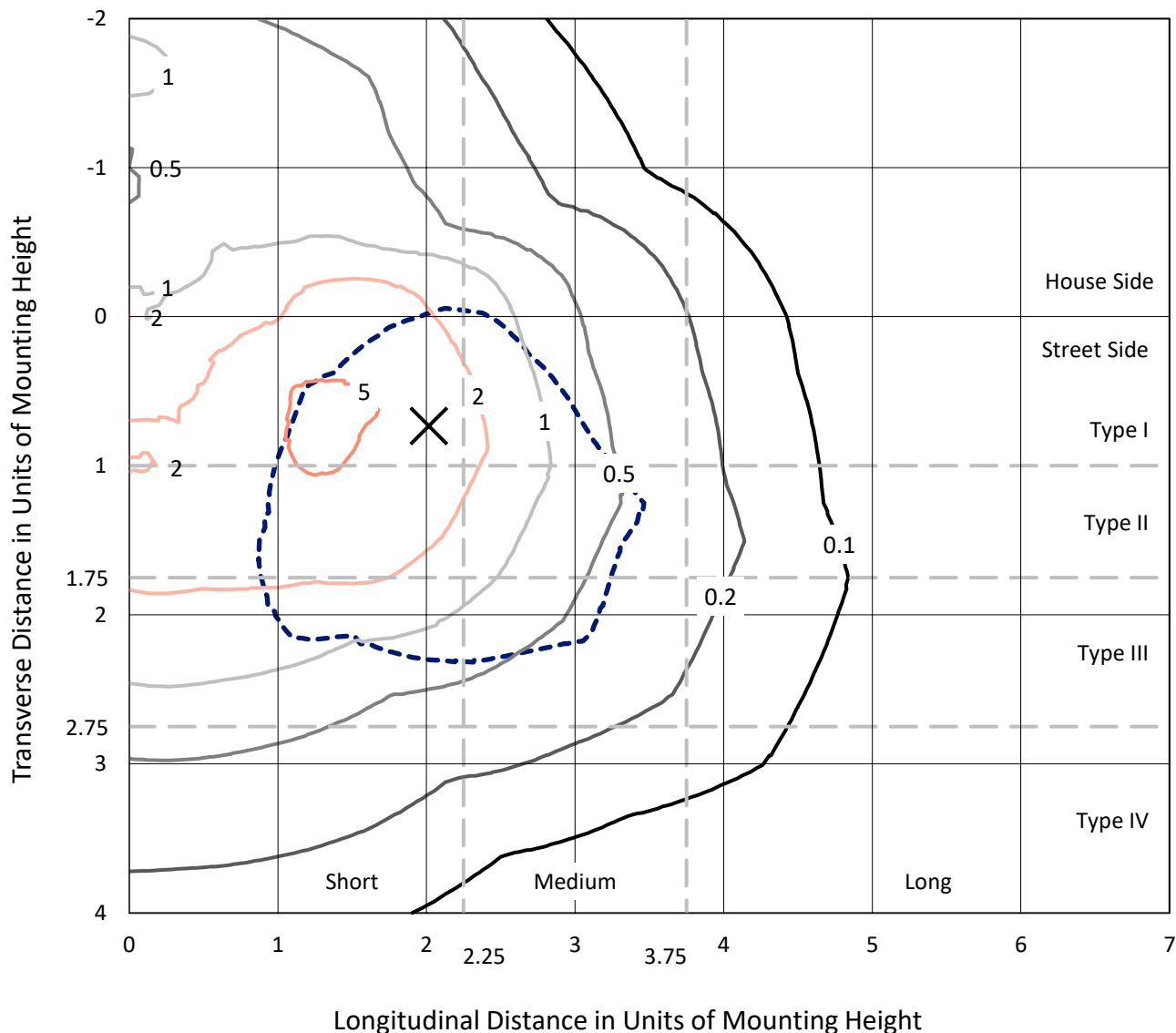
Lumens per Lamp: N/A  
Luminaire Lumens: 13720.3 lumens  
Efficiency: N/A  
Efficacy: 151.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 1.67')  
IES Classification: Type III - Short  
BUG Rating: B3 - U5 - G4

Input Watts (W): 90.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.6%%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Iso-Footcandle Lines of Horizontal Illumination

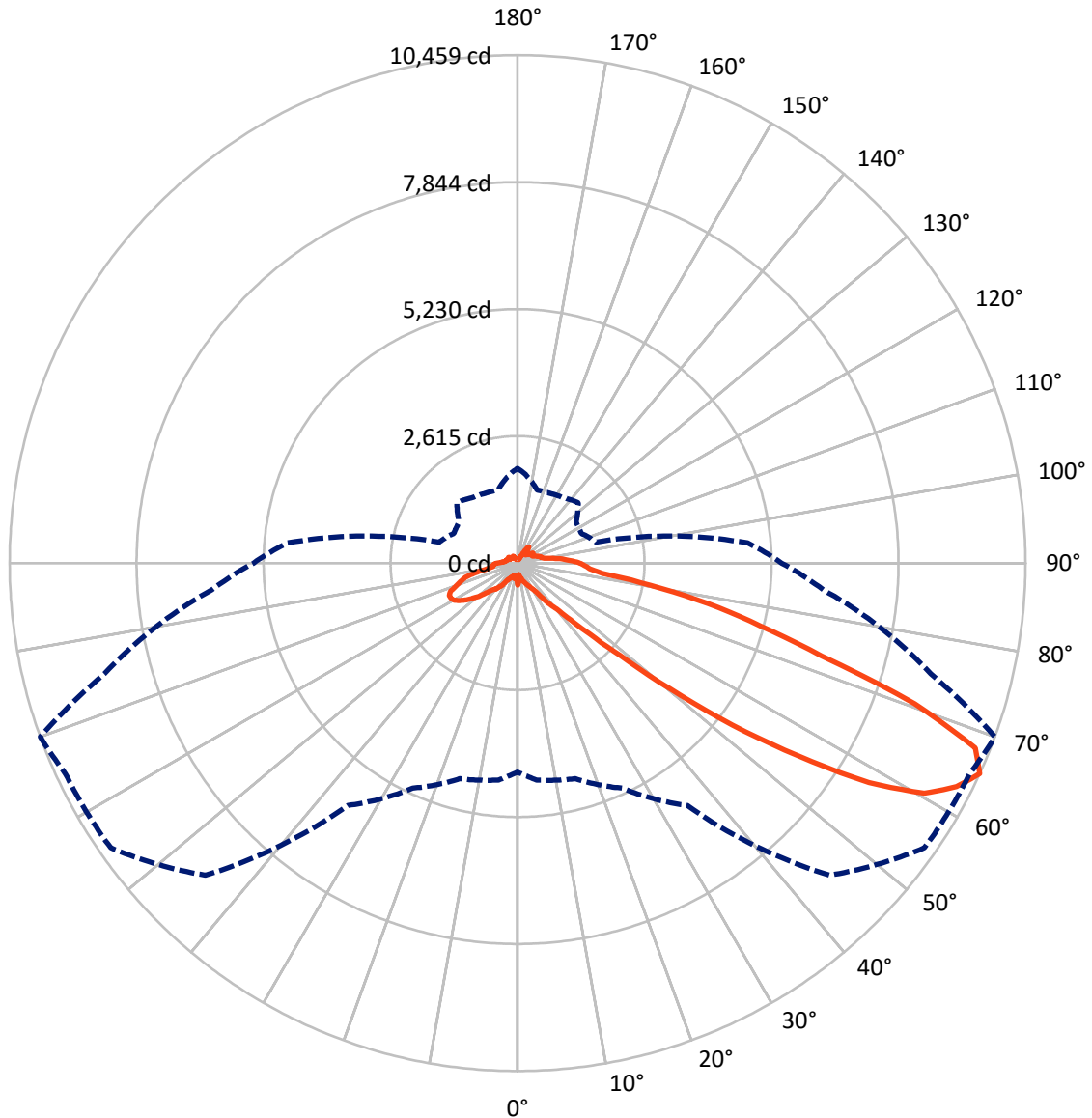
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 5.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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

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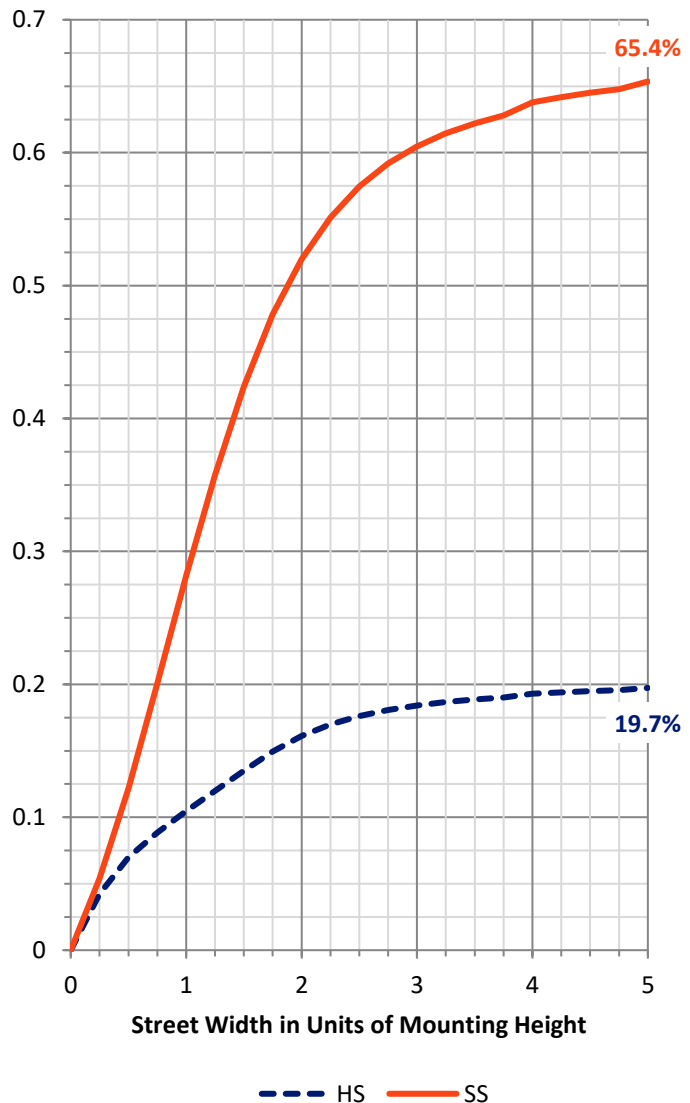
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2814.1	527.2	3341.2
	% Fixture	20.5	3.8	24.4
<b>Street Side</b>	Lumens	9279.3	1099.8	10379.1
	% Fixture	67.6	8.0	75.6
<b>Total</b>	Lumens	12093.3	1627.0	13720.3
	% Fixture	88.1	11.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.3	0.2
10°-20°	91.7	0.7
20°-30°	185.2	1.3
30°-40°	391.8	2.9
40°-50°	913.7	6.7
50°-60°	2722.9	19.8
60°-70°	4363.2	31.8
70°-80°	2506.5	18.3
80°-90°	889.0	6.5
90°-100°	524.3	3.8
100°-110°	316.7	2.3
110°-120°	238.2	1.7
120°-130°	201.7	1.5
130°-140°	133.9	1.0
140°-150°	125.8	0.9
150°-160°	55.8	0.4
160°-170°	23.1	0.2
170°-180°	7.6	0.1
0°-90°	12093.3	88.1
0°-180°	13720.3	100.0



REPORT NUMBER: P856210

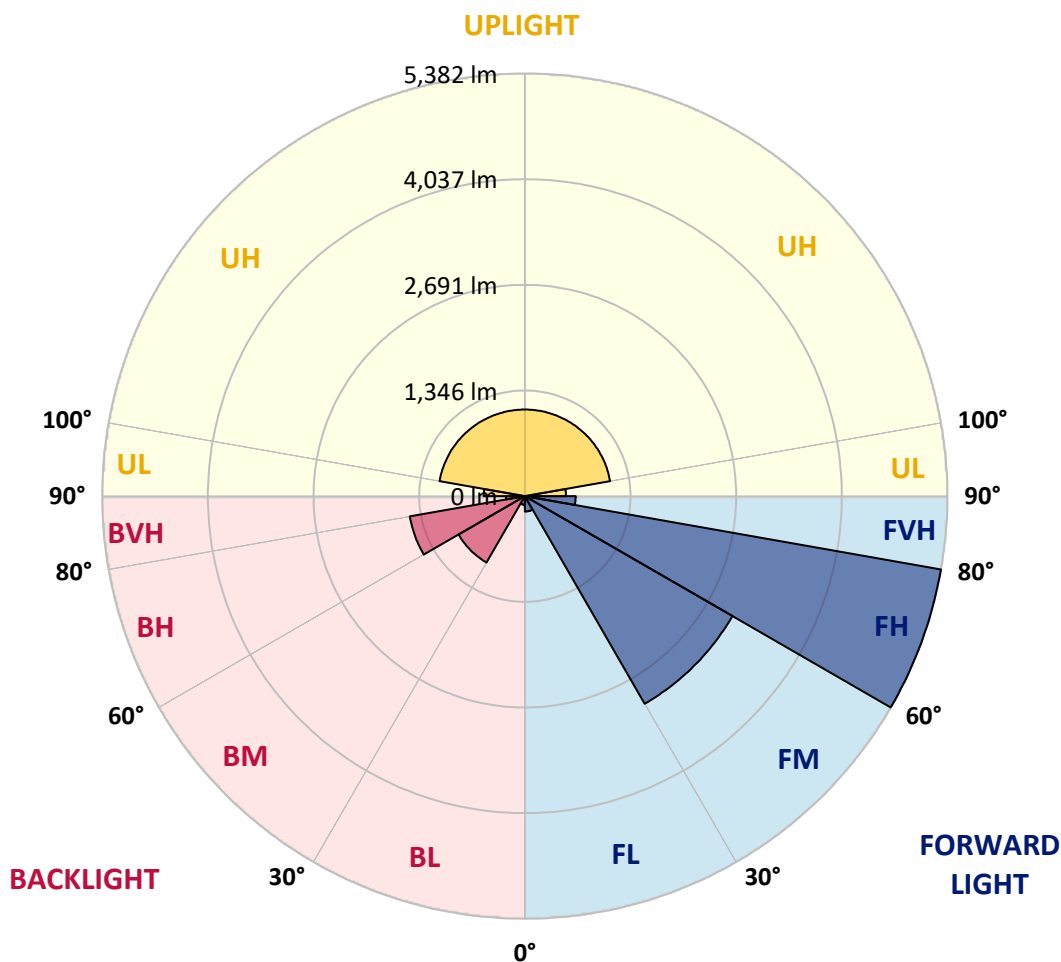
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	196.6	1.4			
FM (30°-60°)	3052.8	22.3			
FH (60°-80°)	5382.3	39.2			G3/7500
FVH (80°-90°)	647.6	4.7			G4/750
BL (0°-30°)	109.6	0.8	B0/110		
BM (30°-60°)	975.6	7.1	B1/1000		
BH (60°-80°)	1487.4	10.8	B3/2500		G3/2500
BVH (80°-90°)	241.4	1.8			G3/500
UL (90°-100°)	524.3	3.8		U4/1000	
UH (100°-180°)	1102.7	8.0		U5	

**BUG Rating: B3-U5-G4**

Type III Short





REPORT NUMBER: P856210

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1
2.5°	379.5	376.6	383.9	389.7	397.0	386.8	369.3	386.8	392.6	410.0	423.1
5°	322.8	324.3	331.5	347.5	362.1	359.2	314.1	255.9	238.5	231.2	232.6
7.5°	319.9	318.4	314.1	312.6	321.3	353.3	349.0	306.8	274.8	247.2	219.6
10°	337.3	341.7	346.1	346.1	340.2	319.9	318.4	315.5	303.9	290.8	273.4
12.5°	417.3	423.1	427.5	413.0	394.0	373.7	357.7	331.5	319.9	312.6	299.5
15°	504.6	510.4	503.1	475.5	442.0	404.2	389.7	391.1	375.1	356.2	328.6
17.5°	551.1	548.2	517.6	485.7	459.5	430.4	410.0	397.0	391.1	383.9	356.2
20°	522.0	514.7	495.8	482.7	479.8	463.8	450.8	439.1	431.9	415.9	382.4
22.5°	500.2	500.2	497.3	494.4	511.8	504.6	498.7	482.7	472.6	452.2	402.8
25°	527.8	527.8	529.3	524.9	548.2	548.2	548.2	530.7	517.6	488.6	428.9
27.5°	567.1	565.6	570.0	567.1	587.4	591.8	600.5	587.4	568.5	533.6	458.0
30°	609.2	609.2	613.6	616.5	636.9	647.1	657.2	651.4	628.2	586.0	507.5
32.5°	654.3	652.9	666.0	680.5	692.1	711.0	715.4	729.9	706.7	657.2	580.2
35°	719.8	724.1	759.0	789.6	823.0	834.6	855.0	911.7	888.4	821.5	732.8
37.5°	1041.1	1019.3	1010.6	975.7	971.3	1039.7	1064.4	1118.2	1071.6	981.5	846.3
40°	1103.6	1077.5	1065.8	1032.4	1044.0	1185.1	1160.3	1353.7	1240.3	1096.4	1009.1
42.5°	1039.7	1035.3	1172.0	1198.1	1183.6	1407.5	1359.5	1717.2	1596.6	1262.1	1164.7
45°	1254.9	1243.2	1301.4	1347.9	1384.3	1787.0	1758.0	2134.6	2082.2	1536.9	1441.0
47.5°	1416.3	1404.6	1471.5	1627.1	1839.4	2275.6	2445.7	3014.3	2836.9	2114.2	1896.1
50°	1899.0	1891.7	2072.0	2239.2	2589.7	3233.8	3700.6	4314.2	4053.9	2953.2	2551.9
52.5°	2355.6	2378.8	2589.7	2911.0	3281.8	4445.1	5111.0	5541.4	5538.5	3846.0	3276.0
55°	2682.7	2761.3	3009.9	3590.1	4104.8	5519.6	6418.2	6736.6	7004.2	5131.4	3989.9
57.5°	3318.2	3454.8	3693.3	4267.7	4932.2	6819.5	8102.0	8049.7	8530.9	6464.7	4766.4
60°	3971.0	4131.0	4210.9	4738.8	5611.2	8071.5	9259.4	9137.3	9621.5	7625.1	5583.6
62.5°	4174.6	4331.6	4410.2	4984.5	6101.2	8781.0	9793.1	9841.1	10142.0	8452.4	6067.8
65°	4302.6	4482.9	4596.3	5113.9	6091.0	9090.8	10224.9	10270.0	10459.0	8808.7	6317.9
67.5°	4279.3	4481.4	4626.8	5090.7	5753.7	8833.4	10117.3	9913.8	10166.8	8554.2	6054.7
70°	3816.9	3992.8	4138.2	4495.9	4802.7	7441.9	8753.4	8417.5	8679.3	7146.7	4999.0
72.5°	3119.0	3191.7	3318.2	3486.8	3639.5	5521.1	6677.0	6389.1	6540.3	5361.1	3745.6
75°	2562.0	2547.5	2660.9	2783.1	2735.1	4033.6	5282.6	5019.4	5160.4	4071.4	2988.1
77.5°	1899.0	1891.7	2056.0	2045.9	1973.2	2793.2	4187.7	3997.2	4016.1	3007.0	2237.8
80°	1141.4	1163.2	1323.2	1355.2	1269.4	1752.1	2989.5	2899.4	2764.2	2054.6	1568.9
82.5°	801.2	834.6	919.0	953.9	911.7	1279.6	1980.4	1917.9	1758.0	1490.4	1105.1
85°	817.2	823.0	833.2	836.1	817.2	1148.7	1536.9	1502.0	1491.9	1249.0	911.7
87.5°	817.2	830.3	839.0	837.5	804.1	1076.0	1417.7	1362.5	1375.5	1167.6	881.2
90°	732.8	756.1	754.7	759.0	731.4	972.8	1285.4	1240.3	1257.8	1052.7	801.2
92.5°	599.1	615.1	631.1	661.6	620.9	827.4	1086.2	1044.0	1065.8	895.7	682.0
95°	556.9	571.4	581.6	597.6	556.9	735.8	961.1	910.2	919.0	760.5	577.3
97.5°	450.8	459.5	471.1	474.0	444.9	565.6	731.4	687.8	693.6	590.3	453.7
100°	378.1	385.3	395.5	395.5	376.6	468.2	578.7	555.4	552.5	482.7	383.9
102.5°	357.7	360.6	376.6	373.7	354.8	431.9	523.5	508.9	510.4	447.8	360.6
105°	351.9	351.9	367.9	360.6	344.6	411.5	490.0	485.7	484.2	426.0	346.1
107.5°	346.1	346.1	362.1	354.8	341.7	388.2	460.9	446.4	444.9	405.7	327.2
110°	322.8	327.2	344.6	335.9	325.7	366.4	423.1	413.0	413.0	382.4	312.6



REPORT NUMBER: P856210

CATALOG NUMBER: FFX-CLB-90-730-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
112.5°	286.4	289.4	305.4	298.1	290.8	325.7	375.1	362.1	363.5	343.2	292.3
115°	267.5	271.9	287.9	277.7	271.9	303.9	347.5	338.8	341.7	322.8	276.3
117.5°	269.0	270.5	282.1	283.5	271.9	298.1	321.3	324.3	328.6	317.0	280.6
120°	327.2	319.9	325.7	318.4	312.6	343.2	370.8	373.7	372.2	350.4	279.2
122.5°	330.1	315.5	331.5	321.3	315.5	349.0	379.5	386.8	379.5	360.6	285.0
125°	263.2	267.5	269.0	271.9	277.7	314.1	330.1	331.5	333.0	327.2	276.3
127.5°	231.2	229.7	222.5	223.9	237.0	269.0	280.6	289.4	283.5	280.6	248.6
130°	221.0	223.9	222.5	222.5	229.7	254.5	263.2	276.3	271.9	266.1	226.8
132.5°	203.6	206.5	219.6	235.6	232.6	241.4	244.3	257.4	258.8	258.8	228.3
135°	193.4	196.3	206.5	226.8	221.0	225.4	223.9	235.6	237.0	238.5	215.2
137.5°	197.8	199.2	193.4	196.3	200.7	219.6	225.4	237.0	237.0	231.2	200.7
140°	207.9	207.9	194.8	190.5	199.2	228.3	239.9	258.8	255.9	245.7	207.9
142.5°	191.9	194.8	202.1	210.8	229.7	309.7	309.7	346.1	357.7	360.6	251.6
145°	250.1	251.6	254.5	258.8	295.2	405.7	369.3	395.5	405.7	415.9	302.4
147.5°	287.9	290.8	287.9	276.3	309.7	347.5	330.1	341.7	353.3	356.2	303.9
150°	225.4	222.5	221.0	219.6	255.9	267.5	253.0	251.6	260.3	267.5	235.6
152.5°	164.3	162.9	161.4	159.9	191.9	184.7	174.5	174.5	177.4	178.8	165.8
155°	145.4	144.0	141.0	142.5	162.9	155.6	146.9	144.0	146.9	145.4	138.1
157.5°	119.2	116.3	116.3	122.1	132.3	123.6	117.8	113.4	114.9	113.4	114.9
160°	98.9	97.4	98.9	106.1	112.0	104.7	98.9	96.0	96.0	98.9	104.7
162.5°	88.7	87.2	88.7	91.6	94.5	87.2	82.9	82.9	84.3	90.2	101.8
165°	77.1	77.1	78.5	80.0	81.4	77.1	75.6	75.6	78.5	87.2	100.3
167.5°	74.2	74.2	74.2	74.2	74.2	72.7	71.2	75.6	78.5	82.9	91.6
170°	72.7	71.2	72.7	72.7	72.7	72.7	72.7	77.1	77.1	78.5	82.9
172.5°	74.2	74.2	74.2	75.6	78.5	80.0	78.5	81.4	80.0	80.0	80.0
175°	75.6	75.6	77.1	78.5	80.0	81.4	82.9	82.9	82.9	84.3	84.3
177.5°	75.6	75.6	77.1	78.5	80.0	77.1	74.2	72.7	71.2	71.2	71.2
180°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9





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CATALOG NUMBER: FFX-CLB-90-730-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1	455.1
2.5°	411.5	375.1	324.3	346.1	413.0	399.9	333.0	292.3	295.2	324.3	327.2
5°	239.9	247.2	280.6	350.4	363.5	301.0	242.8	234.1	282.1	349.0	362.1
7.5°	216.7	216.7	244.3	340.2	382.4	314.1	237.0	213.7	250.1	305.4	314.1
10°	261.7	253.0	255.9	290.8	306.8	251.6	212.3	202.1	222.5	229.7	226.8
12.5°	295.2	301.0	328.6	321.3	251.6	205.0	191.9	190.5	202.1	209.4	207.9
15°	317.0	306.8	286.4	263.2	239.9	213.7	194.8	183.2	170.1	164.3	164.3
17.5°	337.3	317.0	280.6	258.8	235.6	216.7	199.2	181.8	175.9	177.4	177.4
20°	362.1	337.3	303.9	279.2	251.6	225.4	203.6	184.7	180.3	181.8	180.3
22.5°	381.0	359.2	324.3	292.3	263.2	234.1	212.3	193.4	187.6	186.1	186.1
25°	404.2	385.3	349.0	309.7	274.8	247.2	228.3	206.5	196.3	193.4	193.4
27.5°	434.8	418.8	378.1	335.9	295.2	263.2	242.8	219.6	205.0	199.2	197.8
30°	481.3	459.5	414.4	362.1	319.9	286.4	261.7	232.6	215.2	205.0	203.6
32.5°	551.1	523.5	463.8	398.4	347.5	312.6	282.1	245.7	223.9	212.3	210.8
35°	699.4	668.9	593.3	501.6	427.5	356.2	308.3	260.3	232.6	218.1	216.7
37.5°	792.5	737.2	645.6	562.7	472.6	430.4	369.3	305.4	244.3	225.4	222.5
40°	927.7	856.4	741.6	629.6	471.1	469.7	428.9	372.2	287.9	238.5	234.1
42.5°	1028.0	936.4	792.5	667.4	475.5	488.6	453.7	404.2	341.7	277.7	270.5
45°	1233.0	1116.7	888.4	700.9	481.3	510.4	475.5	423.1	367.9	322.8	318.4
47.5°	1616.9	1455.5	1074.5	764.8	546.7	583.1	520.6	459.5	405.7	360.6	350.4
50°	2153.5	1960.1	1299.9	821.5	658.7	741.6	639.8	546.7	482.7	447.8	437.7
52.5°	2783.1	2566.4	1441.0	910.2	793.9	936.4	824.5	715.4	631.1	636.9	631.1
55°	3485.4	3229.5	1564.6	1044.0	966.9	1153.1	1030.9	936.4	891.3	1017.8	1025.1
57.5°	4163.0	3889.6	1641.6	1185.1	1160.3	1403.2	1260.7	1193.8	1211.2	1582.0	1669.3
60°	4810.0	4378.2	1701.2	1317.4	1323.2	1599.5	1490.4	1477.3	1531.1	2006.6	2138.9
62.5°	5183.7	4628.3	1698.3	1403.2	1425.0	1720.1	1624.2	1631.5	1672.2	2076.4	2186.9
65°	5438.2	4754.8	1669.3	1446.8	1468.6	1763.8	1640.2	1583.5	1557.3	1833.6	1951.3
67.5°	5285.5	4510.5	1599.5	1409.0	1438.1	1694.0	1539.8	1397.3	1352.3	1502.0	1571.8
70°	4468.3	3768.9	1425.0	1281.0	1299.9	1429.3	1298.5	1142.9	1097.8	1176.3	1208.3
72.5°	3376.3	2893.6	1278.1	1183.6	1138.5	1182.1	1054.2	891.3	881.2	923.3	929.1
75°	2697.3	2271.2	1164.7	1067.3	946.6	991.7	837.5	663.0	650.0	652.9	638.3
77.5°	2032.8	1689.6	980.0	840.4	716.8	791.0	622.3	458.0	436.2	427.5	411.5
80°	1391.5	1173.4	666.0	562.7	508.9	580.2	443.5	335.9	334.4	331.5	314.1
82.5°	987.3	905.9	543.8	478.4	431.9	456.6	385.3	314.1	306.8	308.3	289.4
85°	863.7	820.1	524.9	484.2	439.1	437.7	367.9	293.7	290.8	292.3	274.8
87.5°	825.9	777.9	513.3	462.4	418.8	397.0	324.3	258.8	266.1	270.5	254.5
90°	740.1	690.7	465.3	413.0	370.8	333.0	274.8	234.1	245.7	248.6	234.1
92.5°	623.8	572.9	362.1	331.5	311.2	305.4	257.4	222.5	231.2	232.6	221.0
95°	527.8	481.3	315.5	292.3	277.7	276.3	232.6	202.1	206.5	205.0	194.8
97.5°	424.6	391.1	276.3	254.5	238.5	229.7	199.2	175.9	181.8	184.7	177.4
100°	362.1	343.2	257.4	238.5	219.6	207.9	181.8	162.9	168.7	174.5	168.7
102.5°	340.2	325.7	253.0	232.6	212.3	197.8	173.0	152.7	155.6	162.9	158.5
105°	322.8	309.7	245.7	223.9	205.0	189.0	168.7	144.0	142.5	149.8	148.3
107.5°	303.9	292.3	241.4	215.2	194.8	180.3	161.4	138.1	132.3	136.7	135.2
110°	293.7	282.1	232.6	205.0	183.2	170.1	152.7	133.8	126.5	128.0	128.0



REPORT NUMBER: P856210

CATALOG NUMBER: FFX-CLB-90-730-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	273.4	260.3	213.7	187.6	170.1	158.5	141.0	128.0	119.2	122.1	123.6
115°	260.3	242.8	196.3	177.4	158.5	148.3	138.1	126.5	116.3	116.3	117.8
117.5°	269.0	235.6	183.2	168.7	158.5	155.6	152.7	135.2	114.9	113.4	113.4
120°	257.4	237.0	199.2	194.8	184.7	175.9	157.0	133.8	112.0	109.1	109.1
122.5°	251.6	247.2	225.4	210.8	191.9	174.5	146.9	122.1	107.6	104.7	104.7
125°	248.6	244.3	218.1	190.5	165.8	148.3	130.9	114.9	106.1	101.8	101.8
127.5°	228.3	207.9	175.9	159.9	144.0	136.7	122.1	112.0	101.8	96.0	96.0
130°	210.8	191.9	164.3	146.9	133.8	128.0	117.8	107.6	97.4	91.6	90.2
132.5°	207.9	189.0	159.9	138.1	126.5	120.7	114.9	103.2	91.6	85.8	84.3
135°	193.4	171.6	142.5	130.9	123.6	119.2	114.9	100.3	88.7	82.9	82.9
137.5°	178.8	157.0	135.2	129.4	123.6	119.2	106.1	91.6	82.9	78.5	78.5
140°	180.3	155.6	138.1	133.8	125.0	112.0	100.3	90.2	82.9	77.1	75.6
142.5°	191.9	161.4	139.6	126.5	120.7	113.4	109.1	97.4	82.9	72.7	69.8
145°	210.8	174.5	157.0	151.2	141.0	128.0	112.0	90.2	75.6	66.9	65.4
147.5°	232.6	196.3	175.9	159.9	139.6	117.8	96.0	78.5	66.9	64.0	62.5
150°	202.1	167.2	151.2	129.4	112.0	94.5	78.5	69.8	64.0	62.5	62.5
152.5°	152.7	125.0	112.0	101.8	91.6	82.9	74.2	68.3	64.0	61.1	61.1
155°	132.3	117.8	104.7	94.5	84.3	75.6	68.3	65.4	61.1	61.1	59.6
157.5°	116.3	109.1	91.6	82.9	75.6	71.2	68.3	64.0	62.5	61.1	61.1
160°	106.1	101.8	84.3	77.1	72.7	69.8	69.8	66.9	62.5	61.1	61.1
162.5°	103.2	98.9	81.4	74.2	69.8	71.2	74.2	72.7	66.9	64.0	64.0
165°	101.8	98.9	82.9	72.7	69.8	71.2	78.5	80.0	72.7	68.3	66.9
167.5°	93.1	91.6	87.2	80.0	75.6	75.6	80.0	81.4	78.5	78.5	77.1
170°	84.3	84.3	85.8	87.2	84.3	80.0	77.1	77.1	81.4	85.8	87.2
172.5°	81.4	82.9	85.8	90.2	90.2	84.3	80.0	78.5	82.9	88.7	90.2
175°	85.8	87.2	88.7	88.7	85.8	84.3	82.9	81.4	84.3	90.2	91.6
177.5°	71.2	71.2	72.7	72.7	71.2	72.7	71.2	68.3	68.3	68.3	68.3
180°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9

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: SP1-2406-133-4

Test Date: 07/12/2024

Luminaire Tested: FFX-CLB-100-730-U-FR-T5

Data in this report applies to families of products including FFX-CLB-100-730-U-FR-T5.

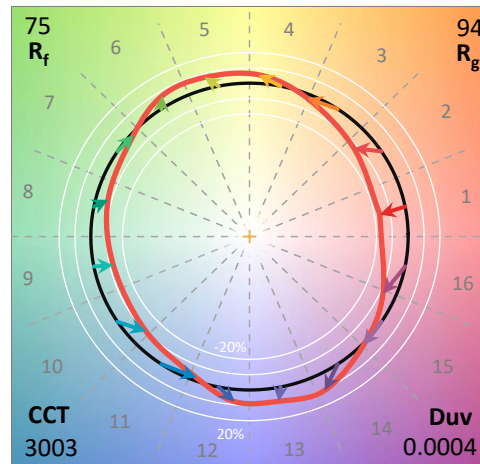
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2406-133-4  
 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-100-730-U-FR-T5**  
 Description: FAIRFAX ACORN W/ FAIRFAX REFRACTOR 100W T5

**Spectral Parameters**

CCT (K): 3003  
 CIE u': 0.2503  
 CIE v': 0.5219  
 Duv: 0.0004  
 CIE x: 0.4373  
 CIE y: 0.4053  
 CIE z: 0.1573  
 Peak Wavelength (nm): 595  
 Dominant Wavelength (nm): 582  
 Purity: 52.93545  
 Rf: 75.2  
 Rg: 93.8

CRI (Ra): 71.9  
 R1: 68.2  
 R2: 82.2  
 R3: 93.9  
 R4: 67.6  
 R5: 67.2  
 R6: 75.3  
 R7: 77.6  
 R8: 43.1  
 R9: -33.7  
 R10: 59.0  
 R11: 62.4  
 R12: 48.5  
 R13: 70.8  
 R14: 96.6  
 R15: 60.0



**Test Conditions**

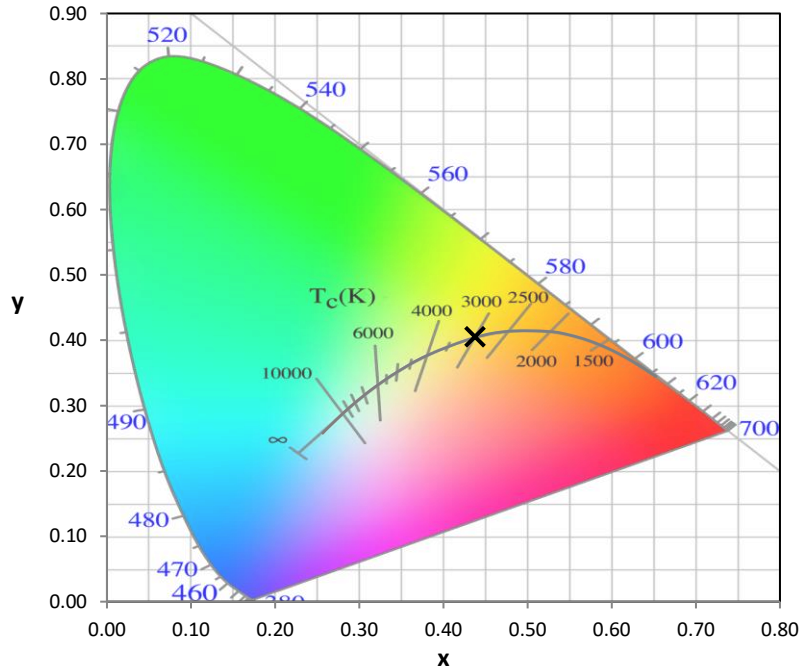
Stabilization Time: 0.794393M  
 Operation Time: 1H  
 Sphere Temperature (°C): 24.7

REPORT NUMBER: SP1-2406-133-4

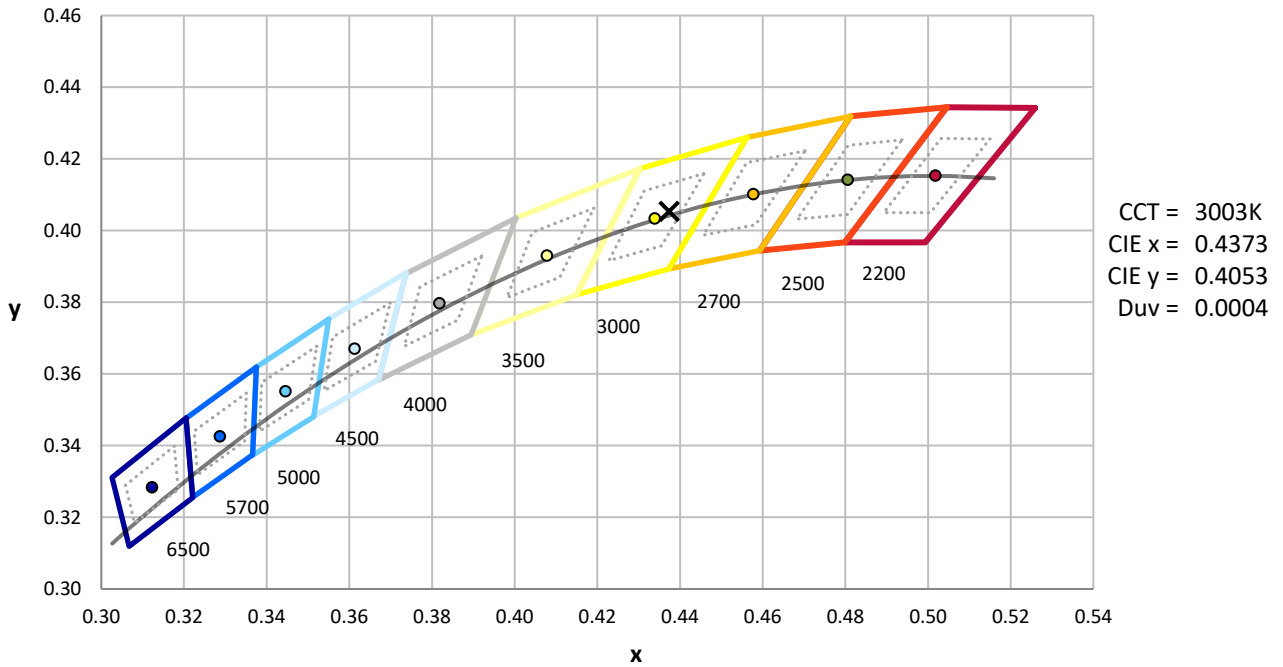
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2406-133-4

CIE 1931 Chromaticity Diagram



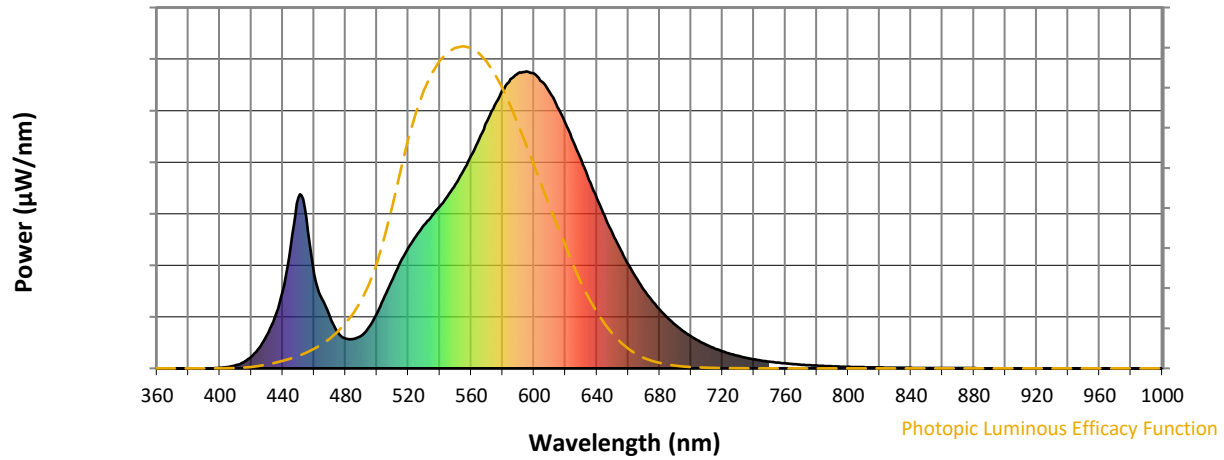
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2406-133-4

**Photopic Flux vs. Wavelength**

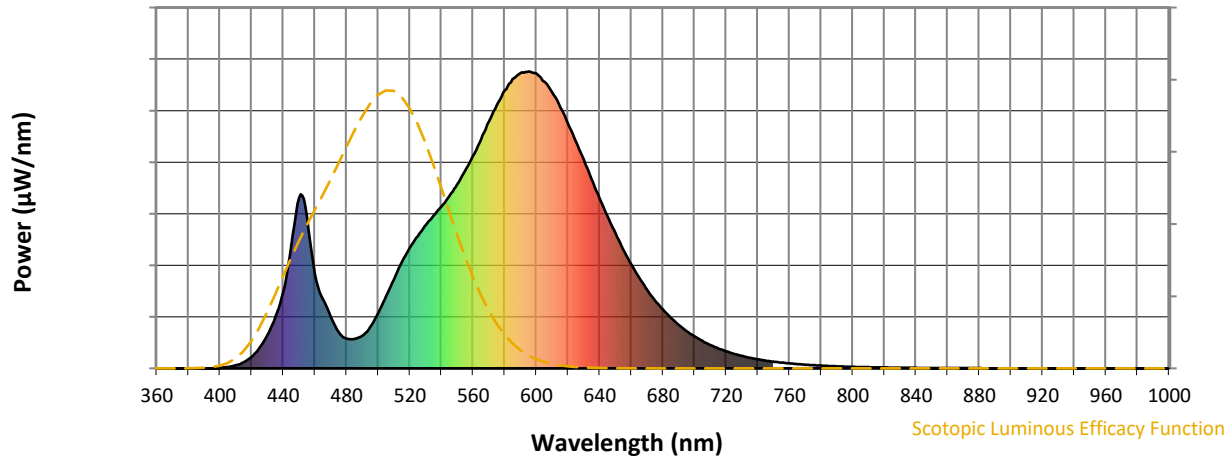


**Photopic Lumens: NR**

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	110	NR	620	825	NR	750	23	NR	880	1	NR
365	0	NR	495	139	NR	625	765	NR	755	19	NR	885	1	NR
370	0	NR	500	186	NR	630	702	NR	760	17	NR	890	0	NR
375	0	NR	505	243	NR	635	635	NR	765	14	NR	895	0	NR
380	0	NR	510	301	NR	640	572	NR	770	12	NR	900	0	NR
385	0	NR	515	357	NR	645	512	NR	775	11	NR	905	0	NR
390	0	NR	520	406	NR	650	455	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	400	NR	785	8	NR	915	0	NR
400	2	NR	530	483	NR	660	350	NR	790	7	NR	920	0	NR
405	5	NR	535	514	NR	665	305	NR	795	6	NR	925	0	NR
410	10	NR	540	545	NR	670	264	NR	800	5	NR	930	0	NR
415	21	NR	545	581	NR	675	229	NR	805	4	NR	935	0	NR
420	39	NR	550	620	NR	680	198	NR	810	4	NR	940	0	NR
425	69	NR	555	666	NR	685	170	NR	815	3	NR	945	0	NR
430	112	NR	560	716	NR	690	147	NR	820	3	NR	950	0	NR
435	174	NR	565	771	NR	695	125	NR	825	3	NR	955	0	NR
440	260	NR	570	831	NR	700	107	NR	830	2	NR	960	0	NR
445	410	NR	575	887	NR	705	92	NR	835	2	NR	965	0	NR
450	574	NR	580	937	NR	710	79	NR	840	2	NR	970	0	NR
455	508	NR	585	974	NR	715	67	NR	845	1	NR	975	0	NR
460	319	NR	590	994	NR	720	57	NR	850	1	NR	980	0	NR
465	234	NR	595	1000	NR	725	49	NR	855	1	NR	985	0	NR
470	174	NR	600	992	NR	730	42	NR	860	1	NR	990	0	NR
475	121	NR	605	966	NR	735	36	NR	865	1	NR	995	0	NR
480	100	NR	610	929	NR	740	30	NR	870	1	NR	1000	0	NR
485	99	NR	615	880	NR	745	26	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-4

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

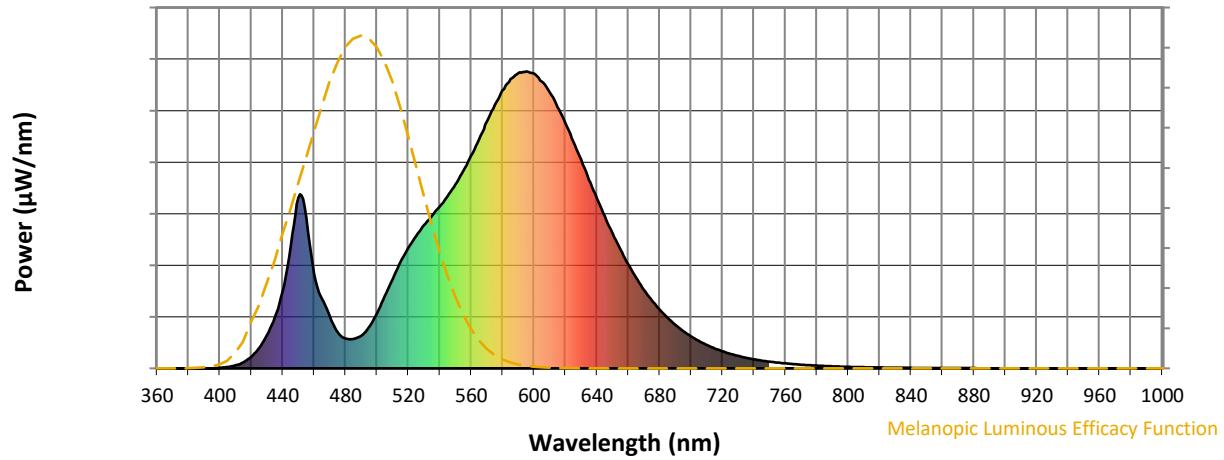
**S/P: 1.21**

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	110	NR	620	825	NR	750	23	NR	880	1	NR
365	0	NR	495	139	NR	625	765	NR	755	19	NR	885	1	NR
370	0	NR	500	186	NR	630	702	NR	760	17	NR	890	0	NR
375	0	NR	505	243	NR	635	635	NR	765	14	NR	895	0	NR
380	0	NR	510	301	NR	640	572	NR	770	12	NR	900	0	NR
385	0	NR	515	357	NR	645	512	NR	775	11	NR	905	0	NR
390	0	NR	520	406	NR	650	455	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	400	NR	785	8	NR	915	0	NR
400	2	NR	530	483	NR	660	350	NR	790	7	NR	920	0	NR
405	5	NR	535	514	NR	665	305	NR	795	6	NR	925	0	NR
410	10	NR	540	545	NR	670	264	NR	800	5	NR	930	0	NR
415	21	NR	545	581	NR	675	229	NR	805	4	NR	935	0	NR
420	39	NR	550	620	NR	680	198	NR	810	4	NR	940	0	NR
425	69	NR	555	666	NR	685	170	NR	815	3	NR	945	0	NR
430	112	NR	560	716	NR	690	147	NR	820	3	NR	950	0	NR
435	174	NR	565	771	NR	695	125	NR	825	3	NR	955	0	NR
440	260	NR	570	831	NR	700	107	NR	830	2	NR	960	0	NR
445	410	NR	575	887	NR	705	92	NR	835	2	NR	965	0	NR
450	574	NR	580	937	NR	710	79	NR	840	2	NR	970	0	NR
455	508	NR	585	974	NR	715	67	NR	845	1	NR	975	0	NR
460	319	NR	590	994	NR	720	57	NR	850	1	NR	980	0	NR
465	234	NR	595	1000	NR	725	49	NR	855	1	NR	985	0	NR
470	174	NR	600	992	NR	730	42	NR	860	1	NR	990	0	NR
475	121	NR	605	966	NR	735	36	NR	865	1	NR	995	0	NR
480	100	NR	610	929	NR	740	30	NR	870	1	NR	1000	0	NR
485	99	NR	615	880	NR	745	26	NR	875	1	NR			



REPORT NUMBER: SP1-2406-133-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.22

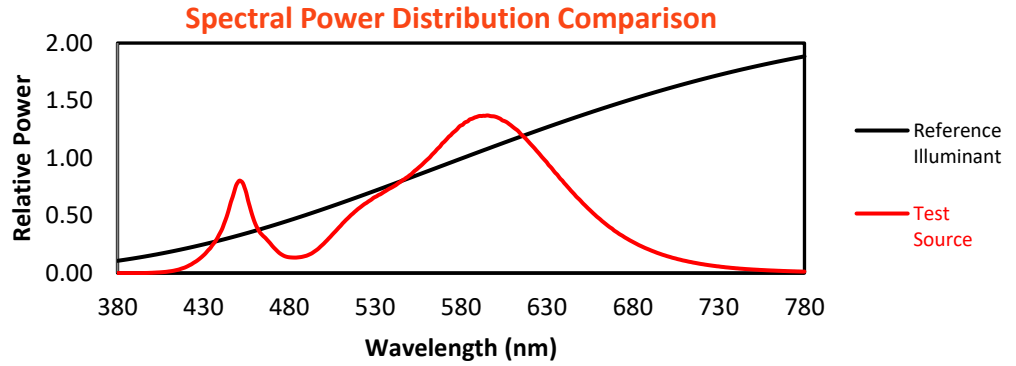
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	110	NR	620	825	NR	750	23	NR	880	1	NR
365	0	NR	495	139	NR	625	765	NR	755	19	NR	885	1	NR
370	0	NR	500	186	NR	630	702	NR	760	17	NR	890	0	NR
375	0	NR	505	243	NR	635	635	NR	765	14	NR	895	0	NR
380	0	NR	510	301	NR	640	572	NR	770	12	NR	900	0	NR
385	0	NR	515	357	NR	645	512	NR	775	11	NR	905	0	NR
390	0	NR	520	406	NR	650	455	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	400	NR	785	8	NR	915	0	NR
400	2	NR	530	483	NR	660	350	NR	790	7	NR	920	0	NR
405	5	NR	535	514	NR	665	305	NR	795	6	NR	925	0	NR
410	10	NR	540	545	NR	670	264	NR	800	5	NR	930	0	NR
415	21	NR	545	581	NR	675	229	NR	805	4	NR	935	0	NR
420	39	NR	550	620	NR	680	198	NR	810	4	NR	940	0	NR
425	69	NR	555	666	NR	685	170	NR	815	3	NR	945	0	NR
430	112	NR	560	716	NR	690	147	NR	820	3	NR	950	0	NR
435	174	NR	565	771	NR	695	125	NR	825	3	NR	955	0	NR
440	260	NR	570	831	NR	700	107	NR	830	2	NR	960	0	NR
445	410	NR	575	887	NR	705	92	NR	835	2	NR	965	0	NR
450	574	NR	580	937	NR	710	79	NR	840	2	NR	970	0	NR
455	508	NR	585	974	NR	715	67	NR	845	1	NR	975	0	NR
460	319	NR	590	994	NR	720	57	NR	850	1	NR	980	0	NR
465	234	NR	595	1000	NR	725	49	NR	855	1	NR	985	0	NR
470	174	NR	600	992	NR	730	42	NR	860	1	NR	990	0	NR
475	121	NR	605	966	NR	735	36	NR	865	1	NR	995	0	NR
480	100	NR	610	929	NR	740	30	NR	870	1	NR	1000	0	NR
485	99	NR	615	880	NR	745	26	NR	875	1	NR			

REPORT NUMBER: SP1-2406-133-4

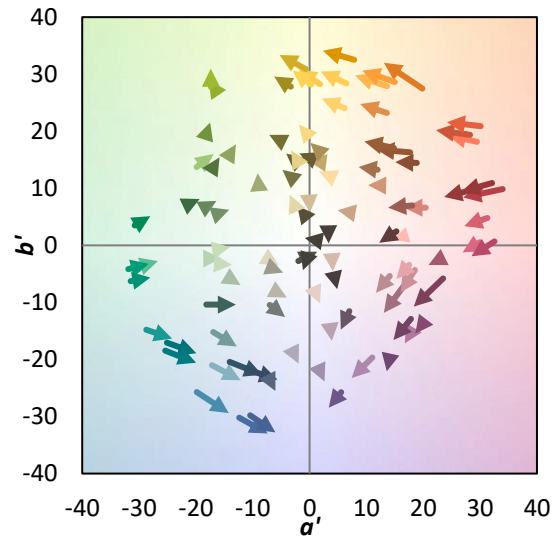
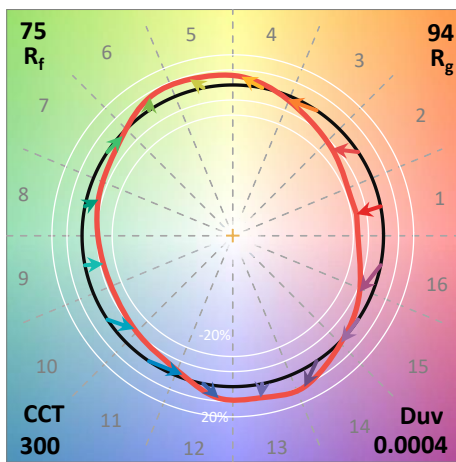
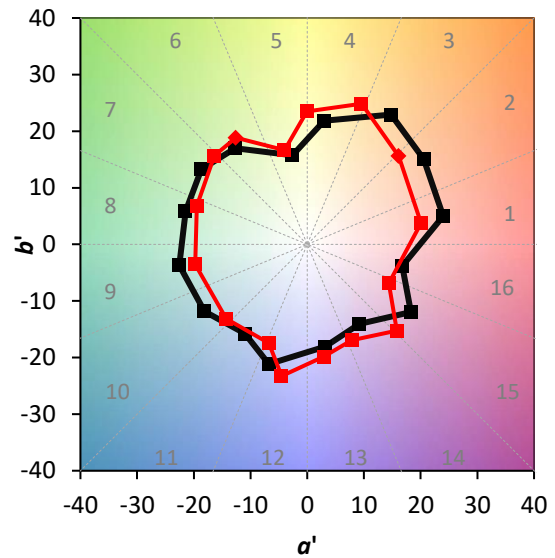
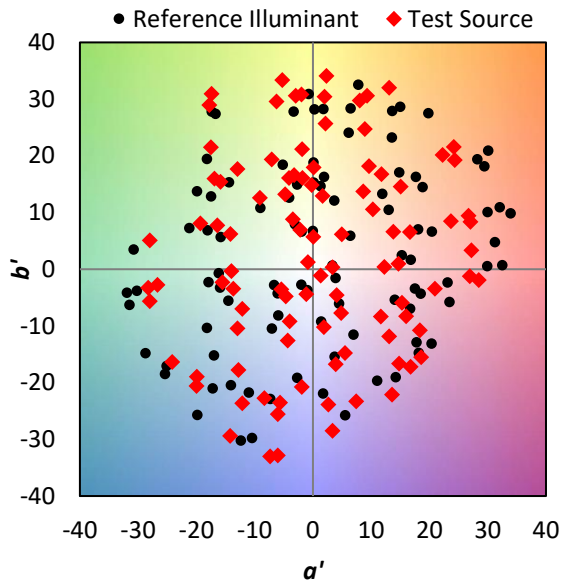
TM-30-18

**Summary**

$R_f = 75.2$   
 $R_g = 93.8$   
 CIE  $R_a = 71.9$   
 $R_9 = -33.7$



**Color Vector Graphics**

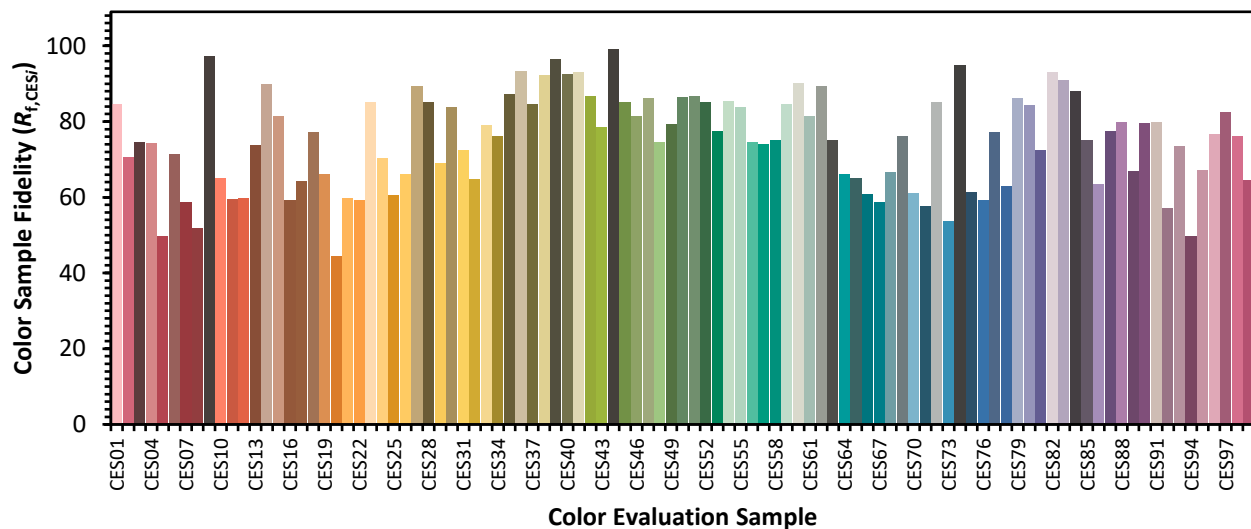


REPORT NUMBER: SP1-2406-133-4

TM-30-18

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

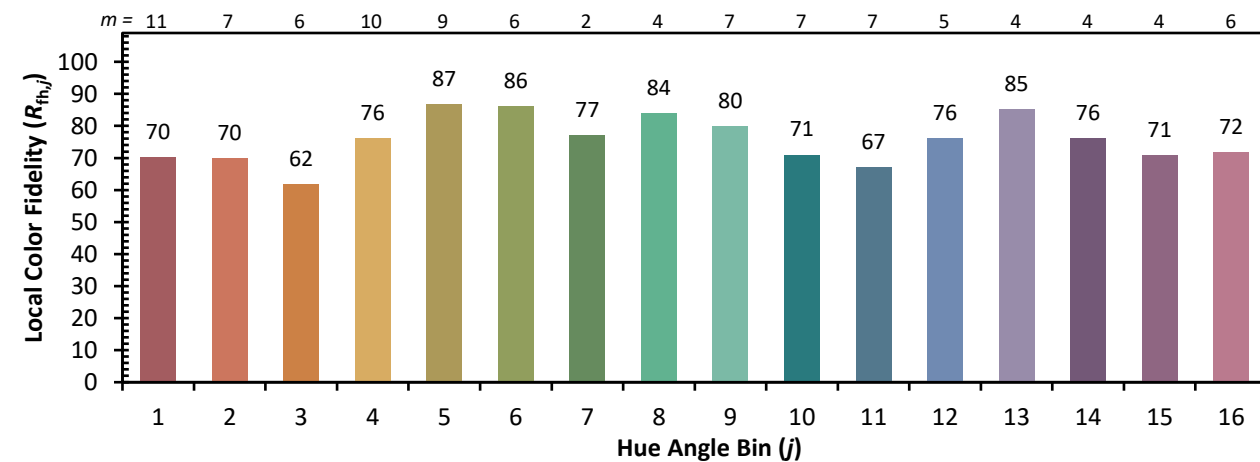
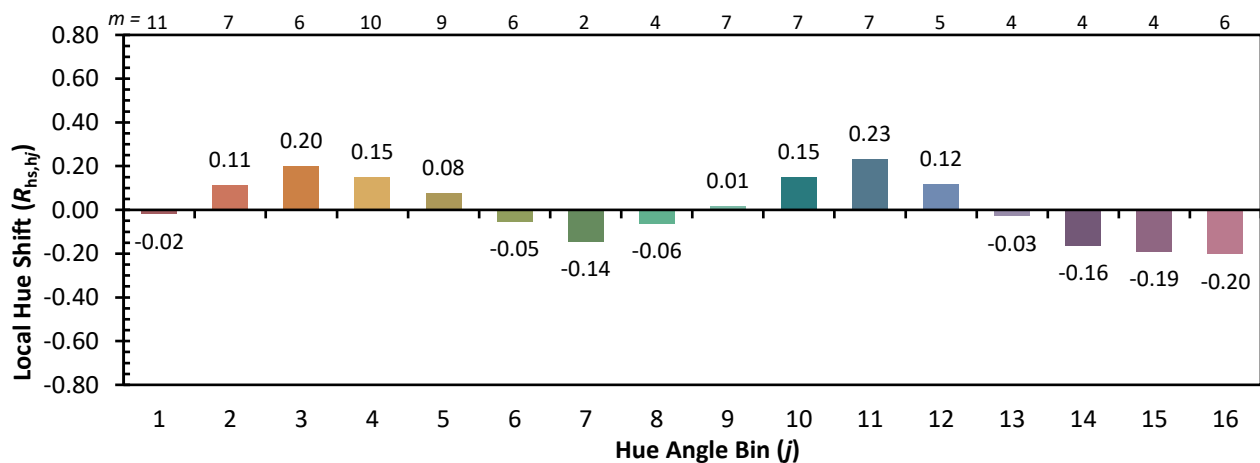
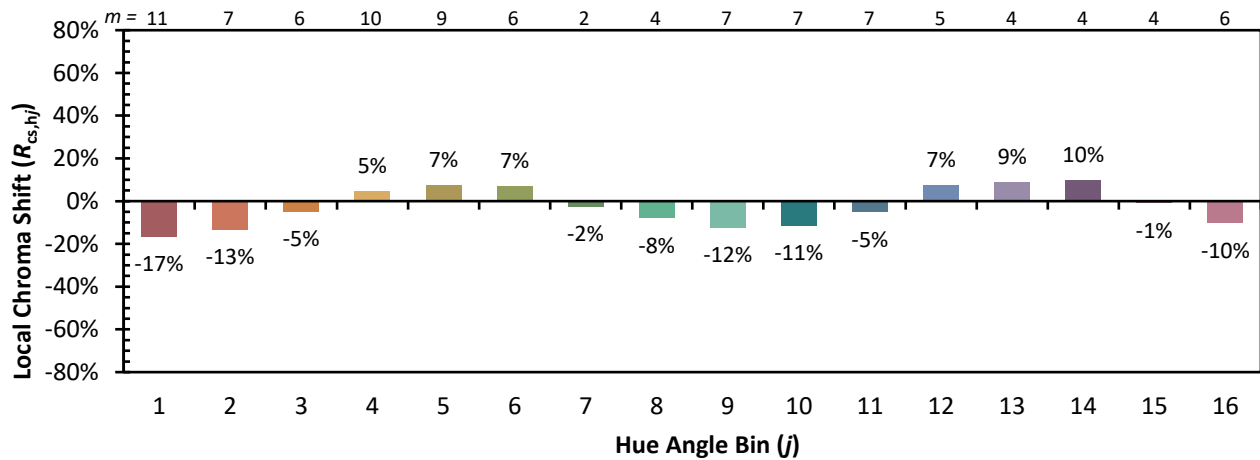
CES01 = 86	CES26 = 66	CES51 = 87	CES76 = 59
CES02 = 62	CES27 = 89	CES52 = 85	CES77 = 77
CES03 = 31	CES28 = 85	CES53 = 77	CES78 = 63
CES04 = 71	CES29 = 69	CES54 = 86	CES79 = 86
CES05 = 49	CES30 = 84	CES55 = 84	CES80 = 84
CES06 = 51	CES31 = 72	CES56 = 75	CES81 = 72
CES07 = 41	CES32 = 65	CES57 = 74	CES82 = 93
CES08 = 40	CES33 = 79	CES58 = 75	CES83 = 91
CES09 = 29	CES34 = 76	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 87	CES60 = 90	CES85 = 75
CES11 = 59	CES36 = 93	CES61 = 81	CES86 = 63
CES12 = 65	CES37 = 85	CES62 = 89	CES87 = 77
CES13 = 43	CES38 = 92	CES63 = 75	CES88 = 80
CES14 = 74	CES39 = 97	CES64 = 66	CES89 = 67
CES15 = 71	CES40 = 93	CES65 = 65	CES90 = 80
CES16 = 47	CES41 = 93	CES66 = 61	CES91 = 80
CES17 = 50	CES42 = 87	CES67 = 59	CES92 = 57
CES18 = 56	CES43 = 79	CES68 = 67	CES93 = 73
CES19 = 73	CES44 = 99	CES69 = 76	CES94 = 50
CES20 = 66	CES45 = 85	CES70 = 61	CES95 = 67
CES21 = 87	CES46 = 81	CES71 = 58	CES96 = 77
CES22 = 79	CES47 = 86	CES72 = 85	CES97 = 83
CES23 = 92	CES48 = 75	CES73 = 54	CES98 = 76
CES24 = 91	CES49 = 79	CES74 = 95	CES99 = 65
CES25 = 73	CES50 = 86	CES75 = 61	



REPORT NUMBER: SP1-2406-133-4

TM-30-18

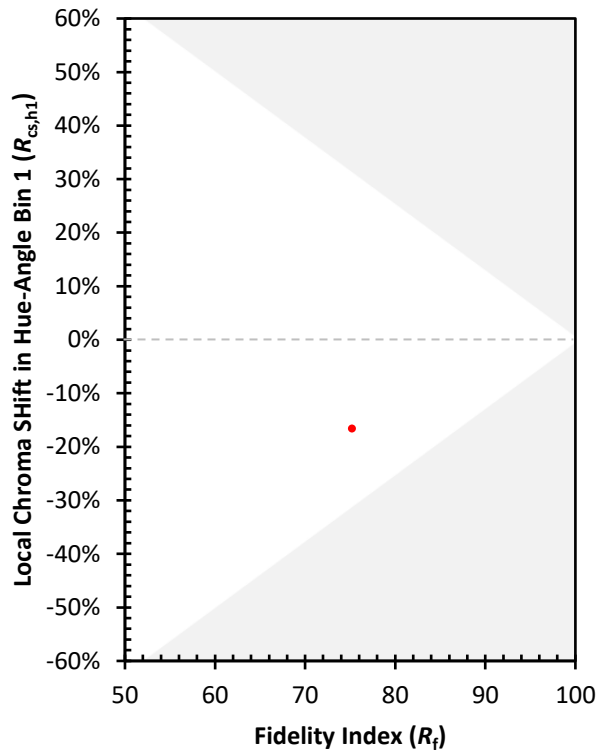
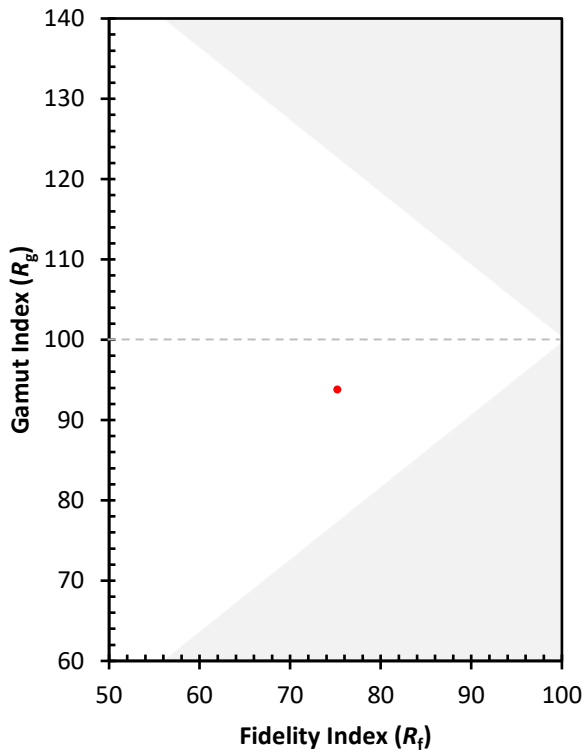
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2406-133-4

TM-30-18

Measure Comparisons



(END OF REPORT)