

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: P856231

Luminaire Tested: **FFX-CLB-60-750-U-FR-T3-UPLR**

Issue Date: 07/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856231  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 07/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: FFX-CLB-60-750-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**

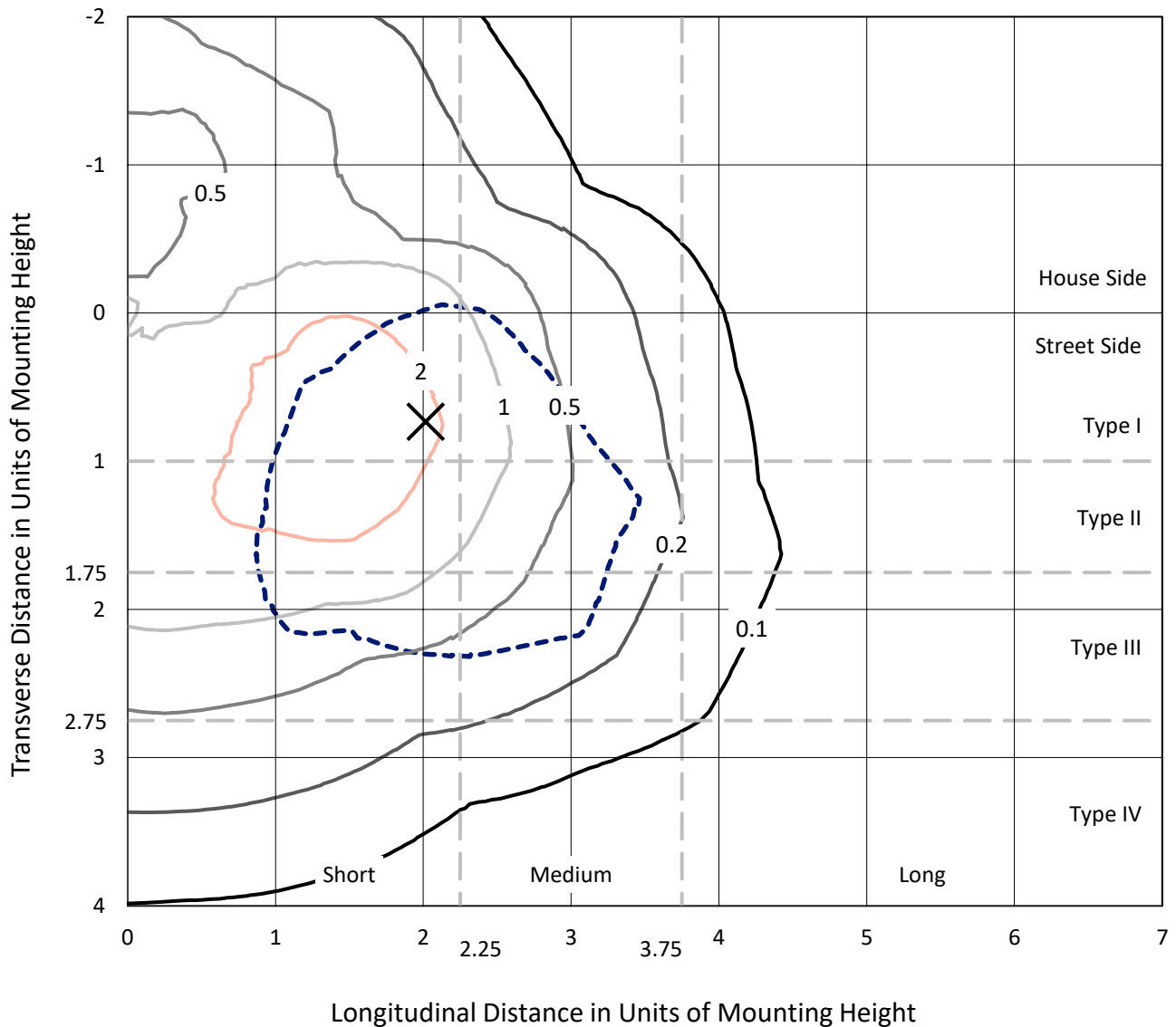
Lumens per Lamp: N/A  
Luminaire Lumens: 9200.3 lumens  
Efficiency: N/A  
Efficacy: 153.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.17' x H: 1.67')  
IES Classification: Type III - Short  
BUG Rating: B2 - U4 - G3

Input Watts (W): 59.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 8.9%  
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

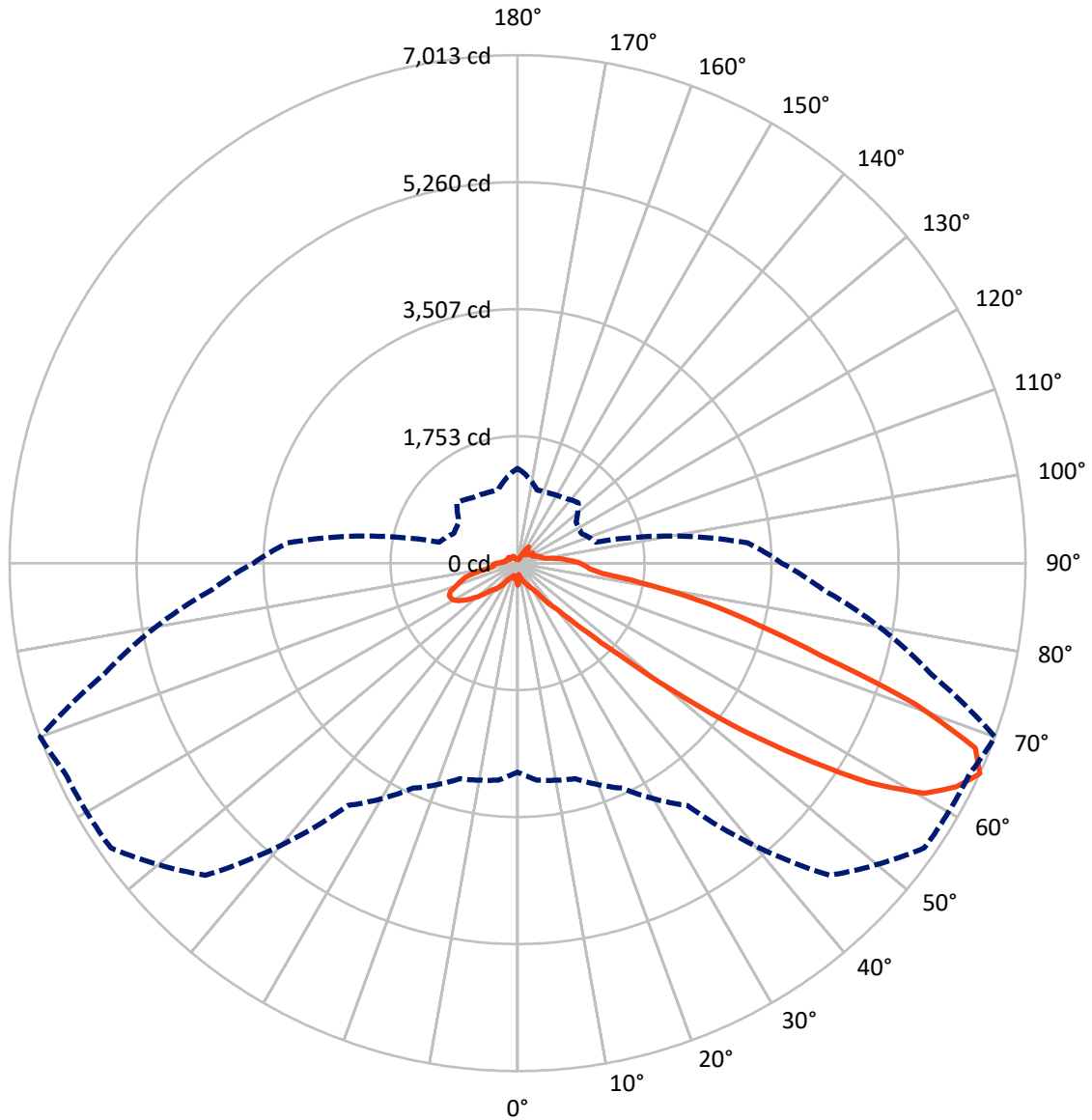
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4 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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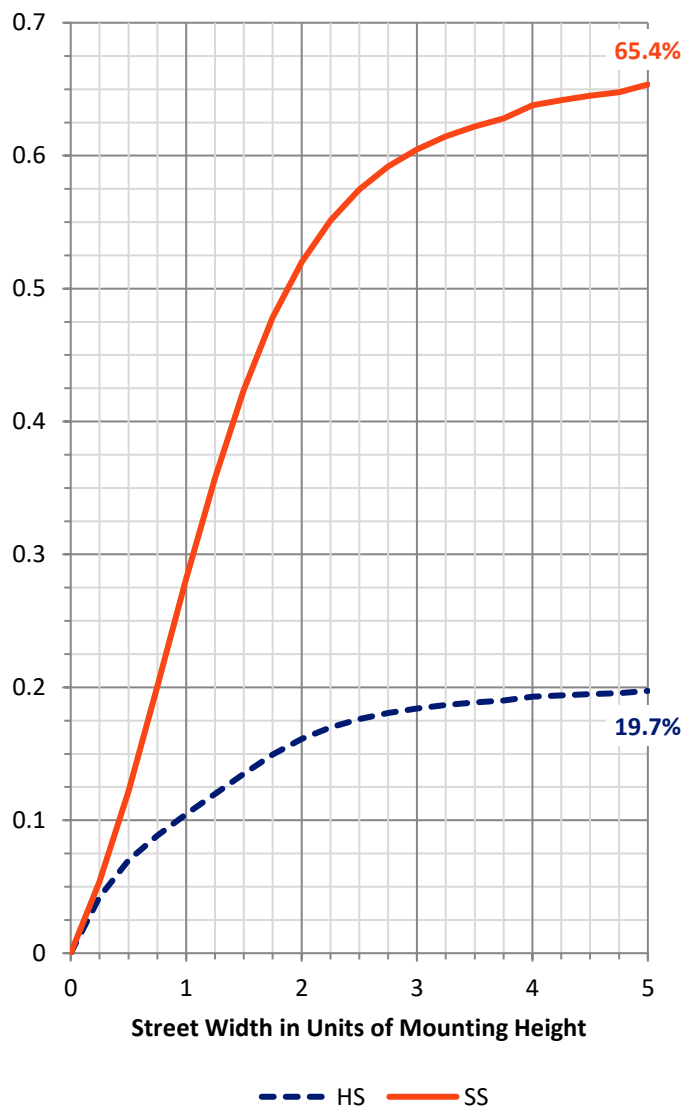
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1887.0	353.5	2240.5
	% Fixture	20.5	3.8	24.4
<b>Street Side</b>	Lumens	6222.2	737.5	6959.7
	% Fixture	67.6	8.0	75.6
<b>Total</b>	Lumens	8109.2	1091.0	9200.3
	% Fixture	88.1	11.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	19.6	0.2
10°-20°	61.5	0.7
20°-30°	124.2	1.3
30°-40°	262.7	2.9
40°-50°	612.7	6.7
50°-60°	1825.9	19.8
60°-70°	2925.8	31.8
70°-80°	1680.7	18.3
80°-90°	596.1	6.5
90°-100°	351.6	3.8
100°-110°	212.4	2.3
110°-120°	159.7	1.7
120°-130°	135.2	1.5
130°-140°	89.8	1.0
140°-150°	84.3	0.9
150°-160°	37.4	0.4
160°-170°	15.5	0.2
170°-180°	5.1	0.1
0°-90°	8109.2	88.1
0°-180°	9200.3	100.0



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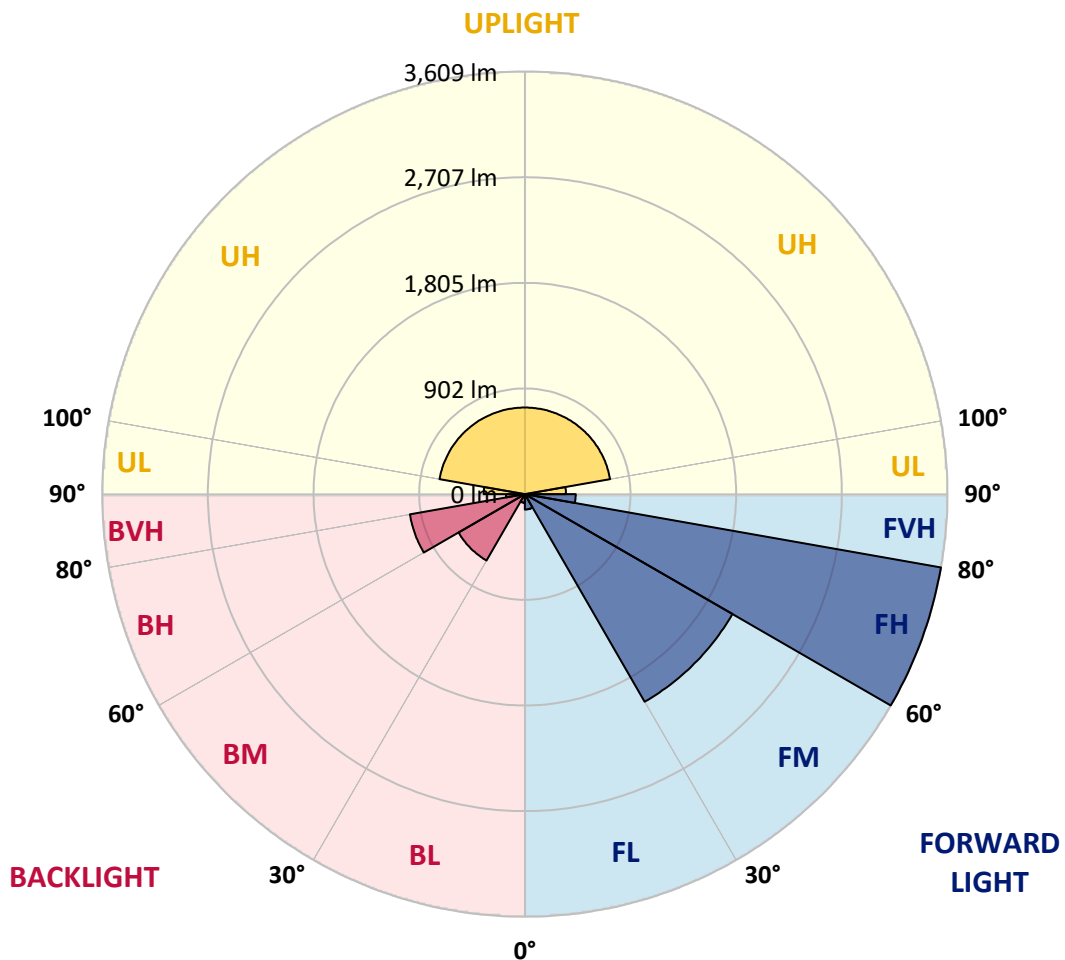
CATALOG NUMBER: FFX-CLB-60-750-U-FR-T3-UPLR

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	131.8	1.4			
FM (30°-60°)	2047.1	22.3			
FH (60°-80°)	3609.1	39.2			G2/5000
FVH (80°-90°)	434.2	4.7			G3/500
BL (0°-30°)	73.5	0.8	B0/110		
BM (30°-60°)	654.2	7.1	B1/1000		
BH (60°-80°)	997.4	10.8	B2/1000		G2/1000
BVH (80°-90°)	161.9	1.8			G2/225
UL (90°-100°)	351.6	3.8		U3/500	
UH (100°-180°)	739.4	8.0		U4/1000	

**BUG Rating: B2-U4-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2
2.5°	254.5	252.5	257.4	261.3	266.2	259.4	247.7	259.4	263.3	275.0	283.7
5°	216.5	217.4	222.3	233.0	242.8	240.8	210.6	171.6	159.9	155.0	156.0
7.5°	214.5	213.5	210.6	209.6	215.5	236.9	234.0	205.7	184.3	165.8	147.2
10°	226.2	229.1	232.1	232.1	228.2	214.5	213.5	211.6	203.8	195.0	183.3
12.5°	279.8	283.7	286.7	276.9	264.2	250.6	239.9	222.3	214.5	209.6	200.9
15°	338.3	342.2	337.4	318.8	296.4	271.1	261.3	262.3	251.6	238.9	220.4
17.5°	369.5	367.6	347.1	325.7	308.1	288.6	275.0	266.2	262.3	257.4	238.9
20°	350.0	345.2	332.5	323.7	321.8	311.0	302.3	294.5	289.6	278.9	256.4
22.5°	335.4	335.4	333.5	331.5	343.2	338.3	334.4	323.7	316.9	303.2	270.1
25°	353.9	353.9	354.9	352.0	367.6	367.6	367.6	355.9	347.1	327.6	287.6
27.5°	380.3	379.3	382.2	380.3	393.9	396.8	402.7	393.9	381.2	357.8	307.1
30°	408.5	408.5	411.5	413.4	427.1	433.9	440.7	436.8	421.2	392.9	340.3
32.5°	438.8	437.8	446.6	456.3	464.1	476.8	479.7	489.5	473.9	440.7	389.0
35°	482.6	485.6	509.0	529.4	551.9	559.7	573.3	611.3	595.7	550.9	491.4
37.5°	698.1	683.5	677.6	654.2	651.3	697.1	713.7	749.8	718.6	658.1	567.5
40°	740.0	722.5	714.7	692.3	700.1	794.6	778.1	907.7	831.7	735.2	676.7
42.5°	697.1	694.2	785.9	803.4	793.7	943.8	911.6	1151.5	1070.6	846.3	781.0
45°	841.4	833.6	872.6	903.8	928.2	1198.3	1178.8	1431.3	1396.2	1030.6	966.2
47.5°	949.7	941.9	986.7	1091.1	1233.4	1525.9	1640.0	2021.2	1902.3	1417.7	1271.4
50°	1273.4	1268.5	1389.4	1501.5	1736.5	2168.5	2481.4	2892.9	2718.4	1980.3	1711.2
52.5°	1579.5	1595.1	1736.5	1952.0	2200.6	2980.6	3427.2	3715.8	3713.9	2578.9	2196.7
55°	1798.9	1851.6	2018.3	2407.3	2752.5	3701.2	4303.8	4517.3	4696.7	3440.9	2675.5
57.5°	2225.0	2316.7	2476.6	2861.7	3307.3	4572.9	5432.8	5397.7	5720.5	4335.0	3196.1
60°	2662.8	2770.0	2823.7	3177.6	3762.6	5412.4	6208.9	6127.0	6451.7	5113.0	3744.1
62.5°	2799.3	2904.6	2957.2	3342.4	4091.2	5888.2	6566.8	6599.0	6800.8	5667.8	4068.8
65°	2885.1	3006.0	3082.0	3429.2	4084.4	6095.8	6856.4	6886.6	7013.3	5906.7	4236.5
67.5°	2869.5	3005.0	3102.5	3413.6	3858.2	5923.3	6784.2	6647.7	6817.4	5736.1	4060.0
70°	2559.4	2677.4	2774.9	3014.8	3220.5	4990.2	5869.6	5644.4	5819.9	4792.2	3352.1
72.5°	2091.4	2140.2	2225.0	2338.1	2440.5	3702.2	4477.3	4284.2	4385.7	3594.9	2511.7
75°	1718.0	1708.2	1784.3	1866.2	1834.0	2704.7	3542.3	3365.8	3460.4	2730.1	2003.7
77.5°	1273.4	1268.5	1378.7	1371.9	1323.1	1873.0	2808.1	2680.3	2693.0	2016.3	1500.6
80°	765.4	780.0	887.3	908.7	851.2	1174.9	2004.6	1944.2	1853.5	1377.7	1052.0
82.5°	537.2	559.7	616.2	639.6	611.3	858.0	1328.0	1286.1	1178.8	999.4	741.0
85°	548.0	551.9	558.7	560.6	548.0	770.3	1030.6	1007.2	1000.4	837.5	611.3
87.5°	548.0	556.7	562.6	561.6	539.2	721.5	950.6	913.6	922.4	782.9	590.9
90°	491.4	507.0	506.0	509.0	490.4	652.3	861.9	831.7	843.4	705.9	537.2
92.5°	401.7	412.4	423.2	443.6	416.3	554.8	728.3	700.1	714.7	600.6	457.3
95°	373.4	383.2	390.0	400.7	373.4	493.4	644.5	610.4	616.2	509.9	387.1
97.5°	302.3	308.1	315.9	317.9	298.4	379.3	490.4	461.2	465.1	395.9	304.2
100°	253.5	258.4	265.2	265.2	252.5	314.0	388.1	372.5	370.5	323.7	257.4
102.5°	239.9	241.8	252.5	250.6	237.9	289.6	351.0	341.3	342.2	300.3	241.8
105°	236.0	236.0	246.7	241.8	231.1	275.9	328.6	325.7	324.7	285.7	232.1
107.5°	232.1	232.1	242.8	237.9	229.1	260.3	309.1	299.3	298.4	272.0	219.4
110°	216.5	219.4	231.1	225.2	218.4	245.7	283.7	276.9	276.9	256.4	209.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
112.5°	192.1	194.0	204.8	199.9	195.0	218.4	251.6	242.8	243.8	230.1	196.0
115°	179.4	182.3	193.1	186.2	182.3	203.8	233.0	227.2	229.1	216.5	185.3
117.5°	180.4	181.4	189.2	190.1	182.3	199.9	215.5	217.4	220.4	212.6	188.2
120°	219.4	214.5	218.4	213.5	209.6	230.1	248.6	250.6	249.6	235.0	187.2
122.5°	221.3	211.6	222.3	215.5	211.6	234.0	254.5	259.4	254.5	241.8	191.1
125°	176.5	179.4	180.4	182.3	186.2	210.6	221.3	222.3	223.3	219.4	185.3
127.5°	155.0	154.1	149.2	150.2	158.9	180.4	188.2	194.0	190.1	188.2	166.7
130°	148.2	150.2	149.2	149.2	154.1	170.6	176.5	185.3	182.3	178.4	152.1
132.5°	136.5	138.5	147.2	158.0	156.0	161.9	163.8	172.6	173.6	173.6	153.1
135°	129.7	131.6	138.5	152.1	148.2	151.1	150.2	158.0	158.9	159.9	144.3
137.5°	132.6	133.6	129.7	131.6	134.6	147.2	151.1	158.9	158.9	155.0	134.6
140°	139.4	139.4	130.7	127.7	133.6	153.1	160.9	173.6	171.6	164.8	139.4
142.5°	128.7	130.7	135.5	141.4	154.1	207.7	207.7	232.1	239.9	241.8	168.7
145°	167.7	168.7	170.6	173.6	197.9	272.0	247.7	265.2	272.0	278.9	202.8
147.5°	193.1	195.0	193.1	185.3	207.7	233.0	221.3	229.1	236.9	238.9	203.8
150°	151.1	149.2	148.2	147.2	171.6	179.4	169.7	168.7	174.5	179.4	158.0
152.5°	110.2	109.2	108.2	107.3	128.7	123.8	117.0	117.0	119.0	119.9	111.2
155°	97.5	96.5	94.6	95.6	109.2	104.3	98.5	96.5	98.5	97.5	92.6
157.5°	80.0	78.0	78.0	81.9	88.7	82.9	79.0	76.1	77.0	76.1	77.0
160°	66.3	65.3	66.3	71.2	75.1	70.2	66.3	64.4	64.4	66.3	70.2
162.5°	59.5	58.5	59.5	61.4	63.4	58.5	55.6	55.6	56.6	60.5	68.3
165°	51.7	51.7	52.7	53.6	54.6	51.7	50.7	50.7	52.7	58.5	67.3
167.5°	49.7	49.7	49.7	49.7	49.7	48.8	47.8	50.7	52.7	55.6	61.4
170°	48.8	47.8	48.8	48.8	48.8	48.8	48.8	51.7	51.7	52.7	55.6
172.5°	49.7	49.7	49.7	50.7	52.7	53.6	52.7	54.6	53.6	53.6	53.6
175°	50.7	50.7	51.7	52.7	53.6	54.6	55.6	55.6	55.6	56.6	56.6
177.5°	50.7	50.7	51.7	52.7	53.6	51.7	49.7	48.8	47.8	47.8	47.8
180°	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2	305.2
2.5°	275.9	251.6	217.4	232.1	276.9	268.1	223.3	196.0	197.9	217.4	219.4
5°	160.9	165.8	188.2	235.0	243.8	201.8	162.8	157.0	189.2	234.0	242.8
7.5°	145.3	145.3	163.8	228.2	256.4	210.6	158.9	143.3	167.7	204.8	210.6
10°	175.5	169.7	171.6	195.0	205.7	168.7	142.4	135.5	149.2	154.1	152.1
12.5°	197.9	201.8	220.4	215.5	168.7	137.5	128.7	127.7	135.5	140.4	139.4
15°	212.6	205.7	192.1	176.5	160.9	143.3	130.7	122.9	114.1	110.2	110.2
17.5°	226.2	212.6	188.2	173.6	158.0	145.3	133.6	121.9	118.0	119.0	119.0
20°	242.8	226.2	203.8	187.2	168.7	151.1	136.5	123.8	120.9	121.9	120.9
22.5°	255.5	240.8	217.4	196.0	176.5	157.0	142.4	129.7	125.8	124.8	124.8
25°	271.1	258.4	234.0	207.7	184.3	165.8	153.1	138.5	131.6	129.7	129.7
27.5°	291.5	280.8	253.5	225.2	197.9	176.5	162.8	147.2	137.5	133.6	132.6
30°	322.7	308.1	277.9	242.8	214.5	192.1	175.5	156.0	144.3	137.5	136.5
32.5°	369.5	351.0	311.0	267.2	233.0	209.6	189.2	164.8	150.2	142.4	141.4
35°	469.0	448.5	397.8	336.4	286.7	238.9	206.7	174.5	156.0	146.3	145.3
37.5°	531.4	494.3	432.9	377.3	316.9	288.6	247.7	204.8	163.8	151.1	149.2
40°	622.1	574.3	497.3	422.2	315.9	314.9	287.6	249.6	193.1	159.9	157.0
42.5°	689.3	627.9	531.4	447.5	318.8	327.6	304.2	271.1	229.1	186.2	181.4
45°	826.8	748.8	595.7	470.0	322.7	342.2	318.8	283.7	246.7	216.5	213.5
47.5°	1084.2	976.0	720.5	512.9	366.6	391.0	349.1	308.1	272.0	241.8	235.0
50°	1444.0	1314.3	871.7	550.9	441.7	497.3	429.0	366.6	323.7	300.3	293.5
52.5°	1866.2	1720.9	966.2	610.4	532.4	627.9	552.8	479.7	423.2	427.1	423.2
55°	2337.1	2165.5	1049.1	700.1	648.4	773.2	691.3	627.9	597.7	682.5	687.4
57.5°	2791.5	2608.2	1100.8	794.6	778.1	940.9	845.3	800.5	812.2	1060.8	1119.3
60°	3225.4	2935.8	1140.8	883.4	887.3	1072.5	999.4	990.6	1026.7	1345.5	1434.3
62.5°	3476.0	3103.5	1138.8	940.9	955.5	1153.5	1089.1	1094.0	1121.3	1392.3	1466.4
65°	3646.6	3188.3	1119.3	970.1	984.8	1182.7	1099.8	1061.8	1044.2	1229.5	1308.5
67.5°	3544.2	3024.5	1072.5	944.8	964.3	1135.9	1032.5	937.0	906.8	1007.2	1054.0
70°	2996.2	2527.3	955.5	859.0	871.7	958.4	870.7	766.4	736.1	788.8	810.2
72.5°	2264.0	1940.3	857.0	793.7	763.4	792.7	706.9	597.7	590.9	619.1	623.0
75°	1808.7	1523.0	781.0	715.7	634.7	665.0	561.6	444.6	435.8	437.8	428.0
77.5°	1363.1	1133.0	657.2	563.6	480.7	530.4	417.3	307.1	292.5	286.7	275.9
80°	933.1	786.8	446.6	377.3	341.3	389.0	297.4	225.2	224.3	222.3	210.6
82.5°	662.0	607.4	364.7	320.8	289.6	306.2	258.4	210.6	205.7	206.7	194.0
85°	579.2	549.9	352.0	324.7	294.5	293.5	246.7	197.0	195.0	196.0	184.3
87.5°	553.8	521.6	344.2	310.1	280.8	266.2	217.4	173.6	178.4	181.4	170.6
90°	496.3	463.1	312.0	276.9	248.6	223.3	184.3	157.0	164.8	166.7	157.0
92.5°	418.3	384.2	242.8	222.3	208.7	204.8	172.6	149.2	155.0	156.0	148.2
95°	353.9	322.7	211.6	196.0	186.2	185.3	156.0	135.5	138.5	137.5	130.7
97.5°	284.7	262.3	185.3	170.6	159.9	154.1	133.6	118.0	121.9	123.8	119.0
100°	242.8	230.1	172.6	159.9	147.2	139.4	121.9	109.2	113.1	117.0	113.1
102.5°	228.2	218.4	169.7	156.0	142.4	132.6	116.0	102.4	104.3	109.2	106.3
105°	216.5	207.7	164.8	150.2	137.5	126.8	113.1	96.5	95.6	100.4	99.5
107.5°	203.8	196.0	161.9	144.3	130.7	120.9	108.2	92.6	88.7	91.7	90.7
110°	197.0	189.2	156.0	137.5	122.9	114.1	102.4	89.7	84.8	85.8	85.8



REPORT NUMBER: P856231

CATALOG NUMBER: FFX-CLB-60-750-U-FR-T3-UPLR

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	183.3	174.5	143.3	125.8	114.1	106.3	94.6	85.8	80.0	81.9	82.9
115°	174.5	162.8	131.6	119.0	106.3	99.5	92.6	84.8	78.0	78.0	79.0
117.5°	180.4	158.0	122.9	113.1	106.3	104.3	102.4	90.7	77.0	76.1	76.1
120°	172.6	158.9	133.6	130.7	123.8	118.0	105.3	89.7	75.1	73.1	73.1
122.5°	168.7	165.8	151.1	141.4	128.7	117.0	98.5	81.9	72.2	70.2	70.2
125°	166.7	163.8	146.3	127.7	111.2	99.5	87.8	77.0	71.2	68.3	68.3
127.5°	153.1	139.4	118.0	107.3	96.5	91.7	81.9	75.1	68.3	64.4	64.4
130°	141.4	128.7	110.2	98.5	89.7	85.8	79.0	72.2	65.3	61.4	60.5
132.5°	139.4	126.8	107.3	92.6	84.8	80.9	77.0	69.2	61.4	57.5	56.6
135°	129.7	115.1	95.6	87.8	82.9	80.0	77.0	67.3	59.5	55.6	55.6
137.5°	119.9	105.3	90.7	86.8	82.9	80.0	71.2	61.4	55.6	52.7	52.7
140°	120.9	104.3	92.6	89.7	83.9	75.1	67.3	60.5	55.6	51.7	50.7
142.5°	128.7	108.2	93.6	84.8	80.9	76.1	73.1	65.3	55.6	48.8	46.8
145°	141.4	117.0	105.3	101.4	94.6	85.8	75.1	60.5	50.7	44.9	43.9
147.5°	156.0	131.6	118.0	107.3	93.6	79.0	64.4	52.7	44.9	42.9	41.9
150°	135.5	112.1	101.4	86.8	75.1	63.4	52.7	46.8	42.9	41.9	41.9
152.5°	102.4	83.9	75.1	68.3	61.4	55.6	49.7	45.8	42.9	41.0	41.0
155°	88.7	79.0	70.2	63.4	56.6	50.7	45.8	43.9	41.0	41.0	40.0
157.5°	78.0	73.1	61.4	55.6	50.7	47.8	45.8	42.9	41.9	41.0	41.0
160°	71.2	68.3	56.6	51.7	48.8	46.8	46.8	44.9	41.9	41.0	41.0
162.5°	69.2	66.3	54.6	49.7	46.8	47.8	49.7	48.8	44.9	42.9	42.9
165°	68.3	66.3	55.6	48.8	46.8	47.8	52.7	53.6	48.8	45.8	44.9
167.5°	62.4	61.4	58.5	53.6	50.7	50.7	53.6	54.6	52.7	52.7	51.7
170°	56.6	56.6	57.5	58.5	56.6	53.6	51.7	51.7	54.6	57.5	58.5
172.5°	54.6	55.6	57.5	60.5	60.5	56.6	53.6	52.7	55.6	59.5	60.5
175°	57.5	58.5	59.5	59.5	57.5	56.6	55.6	54.6	56.6	60.5	61.4
177.5°	47.8	47.8	48.8	48.8	47.8	48.8	47.8	45.8	45.8	45.8	45.8
180°	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9

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.

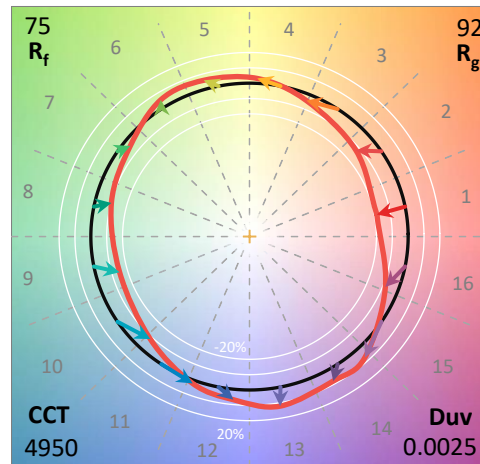
**Test Information**

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



**Test Conditions**

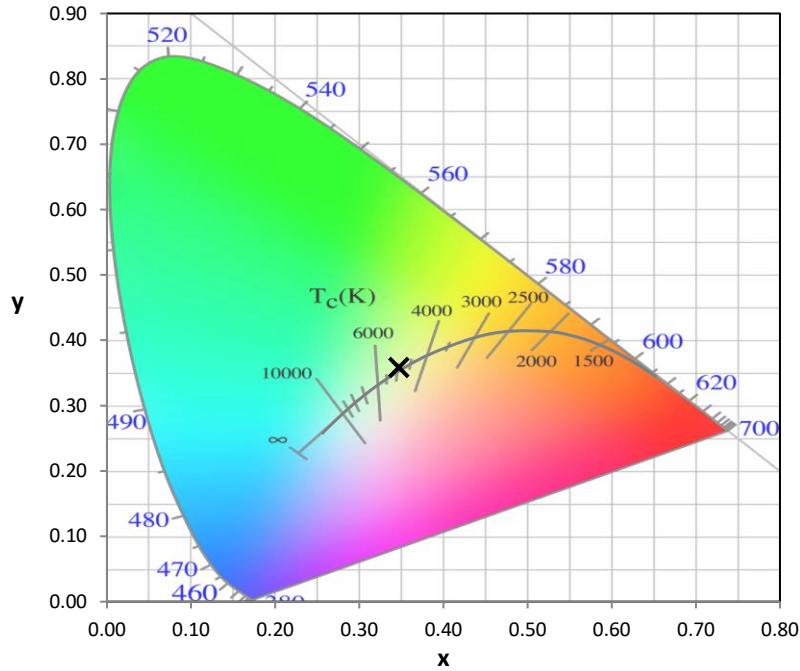
Stabilization Time: 0.803355M  
 Operation Time: 1H  
 Sphere Temperature (°C): 24.7

REPORT NUMBER: SP1-2406-133-5

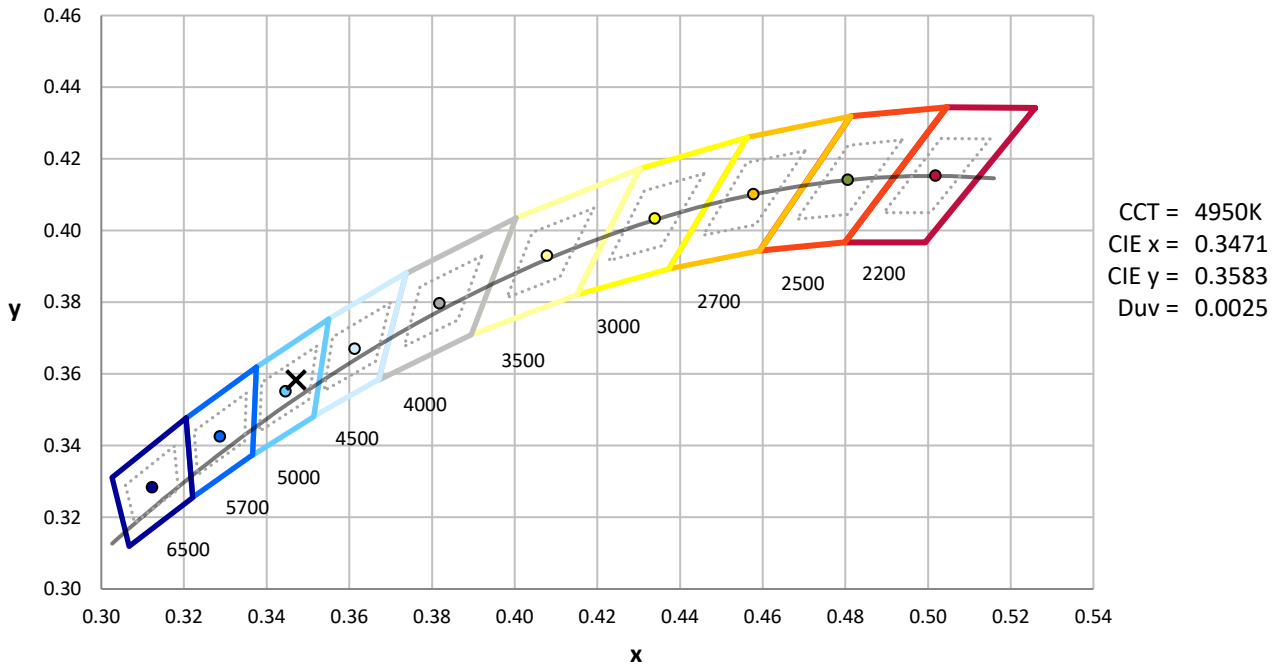
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



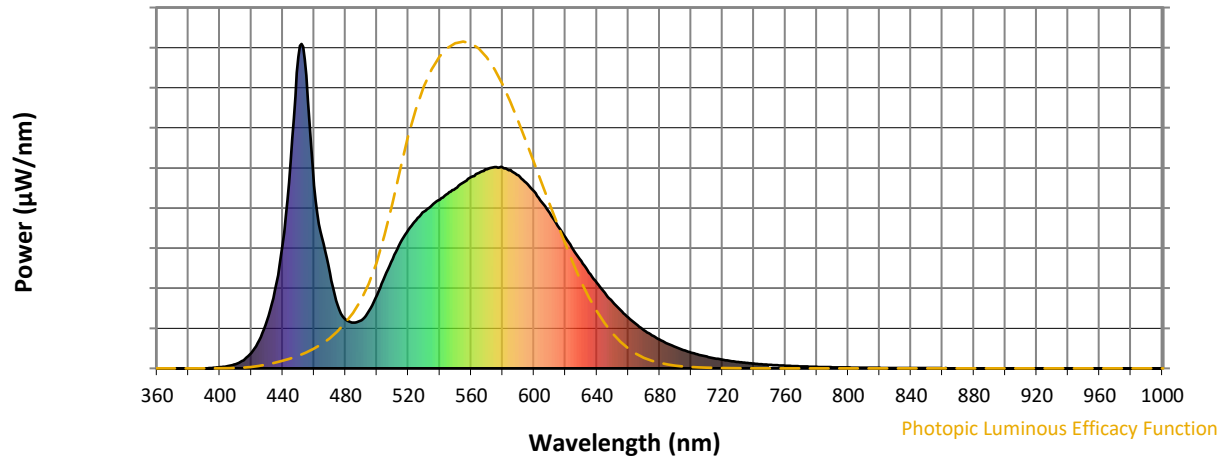
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2406-133-5

**Photopic Flux vs. Wavelength**

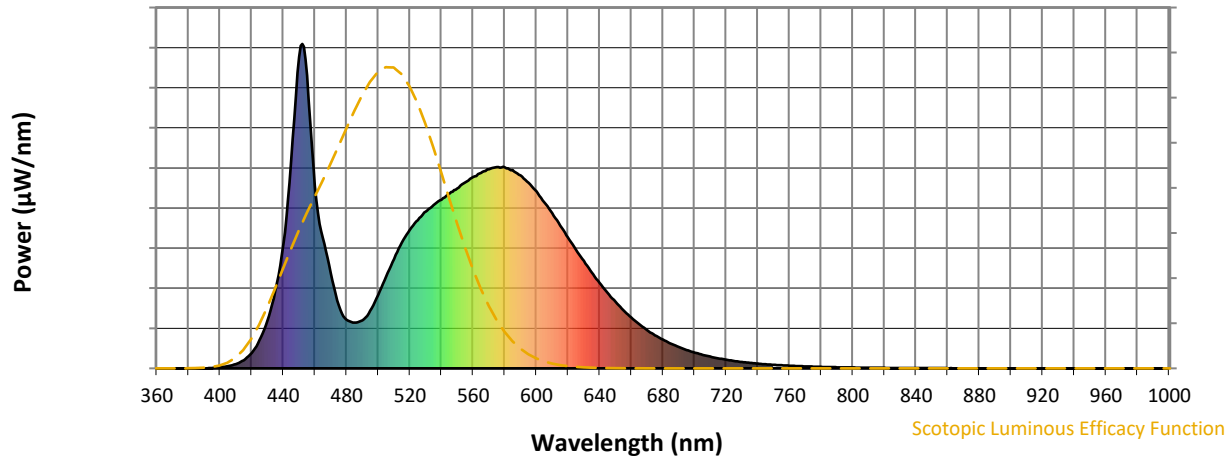


**Photopic Lumens: NR**

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			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

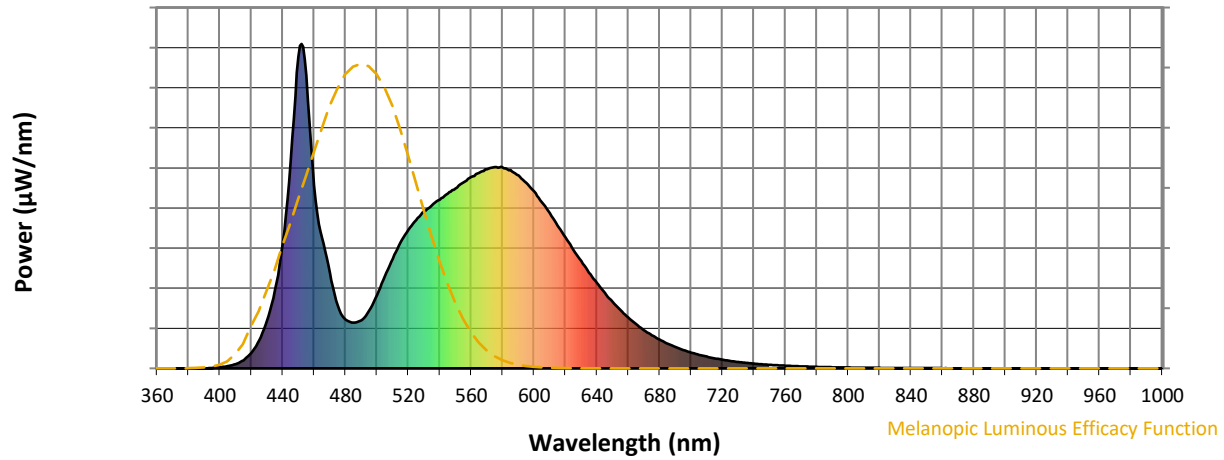
**S/P: 1.8**

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			



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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.74

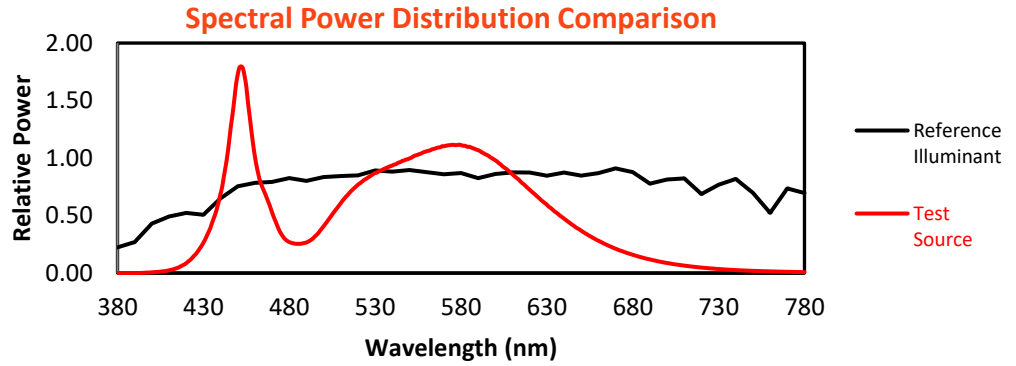
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	148	NR	620	403	NR	750	11	NR	880	0	NR
365	0	NR	495	178	NR	625	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			

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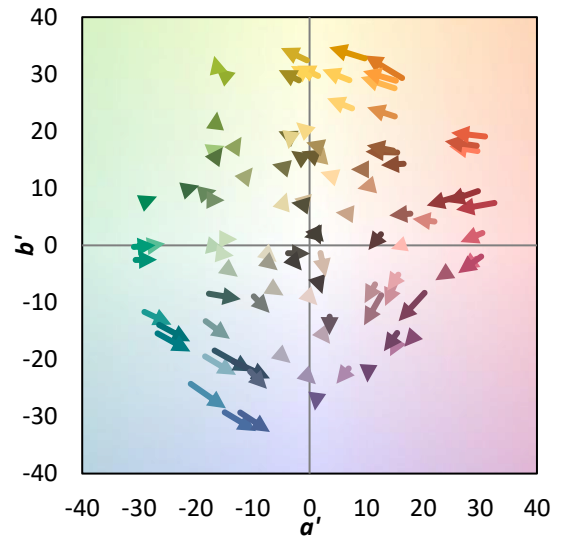
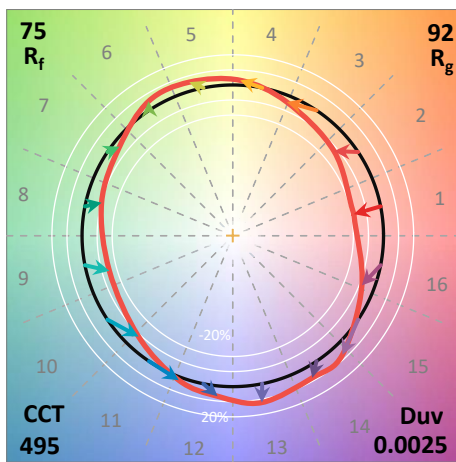
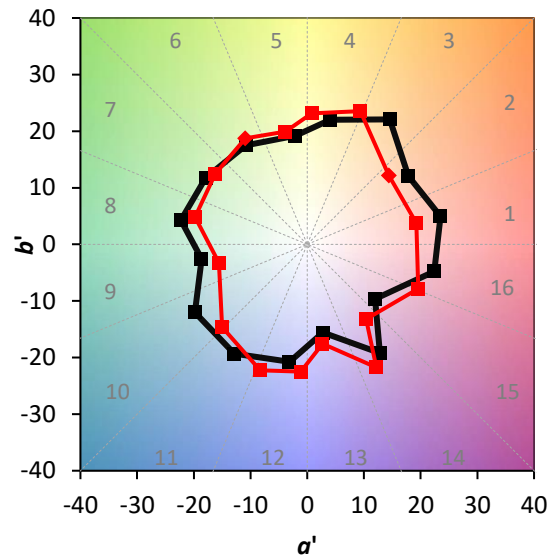
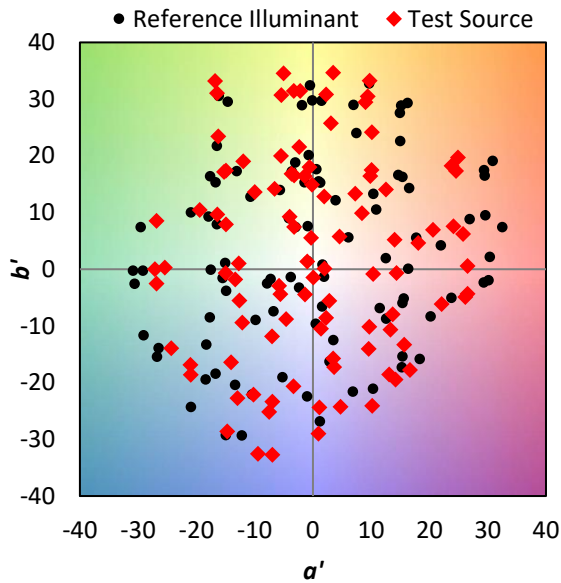
TM-30-18

**Summary**

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



**Color Vector Graphics**

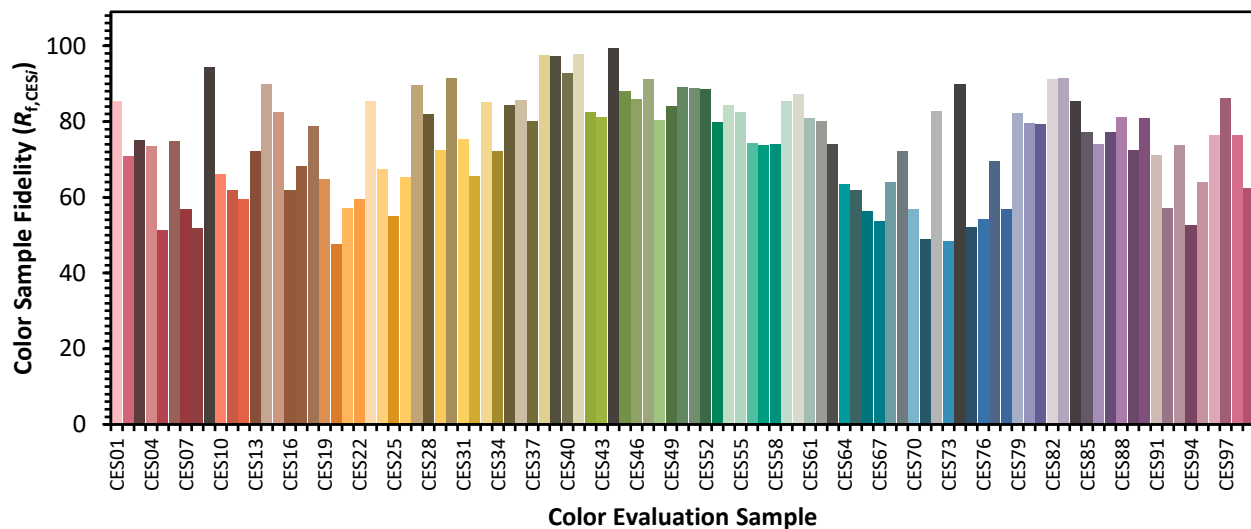


REPORT NUMBER: SP1-2406-133-5

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

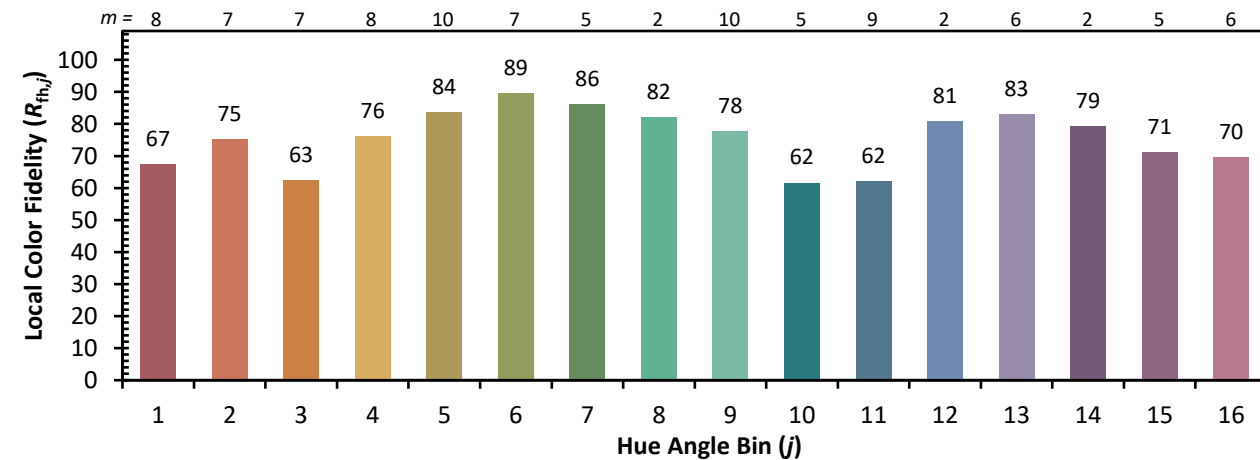
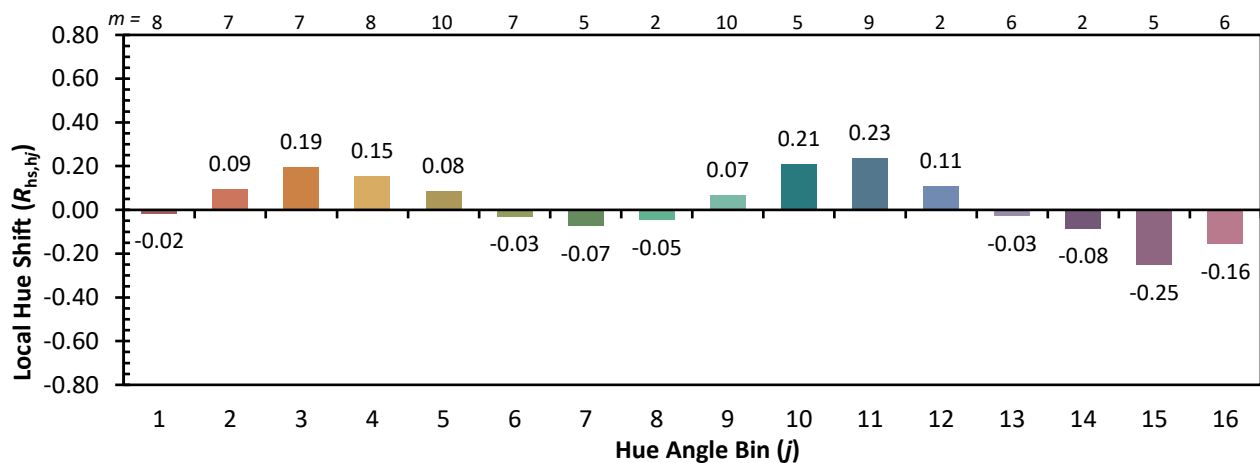
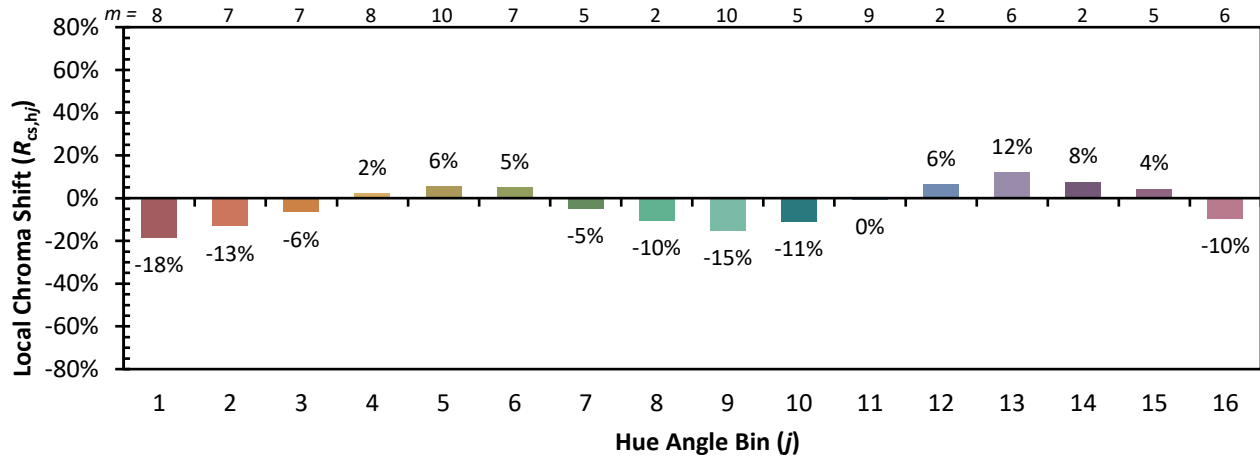
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 54
CES02 = 60	CES27 = 90	CES52 = 88	CES77 = 69
CES03 = 30	CES28 = 82	CES53 = 80	CES78 = 57
CES04 = 69	CES29 = 72	CES54 = 84	CES79 = 82
CES05 = 46	CES30 = 91	CES55 = 82	CES80 = 79
CES06 = 50	CES31 = 75	CES56 = 74	CES81 = 79
CES07 = 39	CES32 = 66	CES57 = 74	CES82 = 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	



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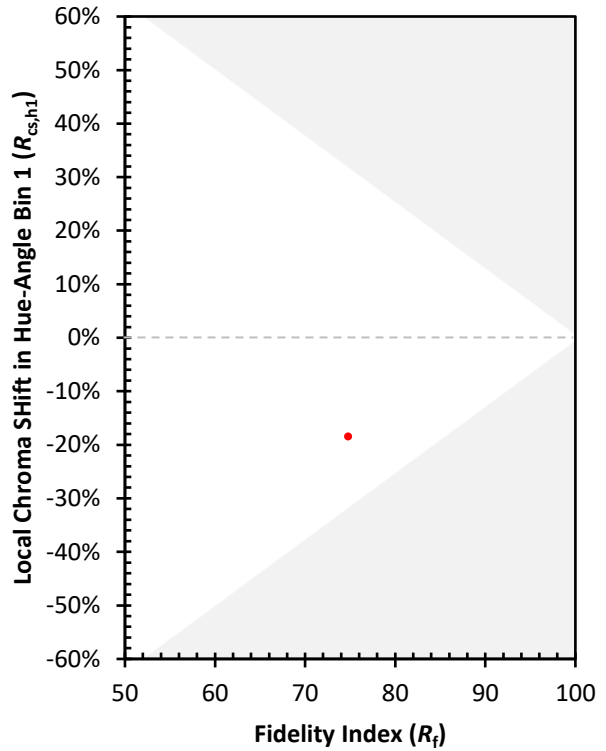
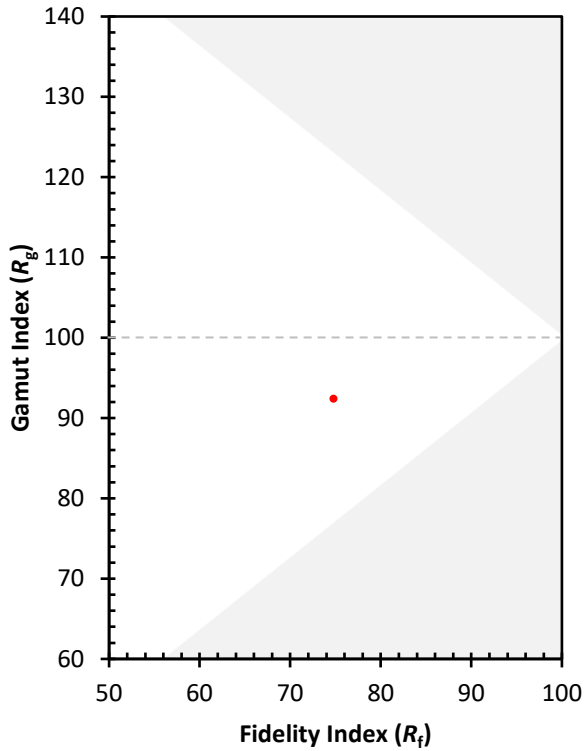
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2406-133-5

TM-30-18

Measure Comparisons



(END OF REPORT)