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: P981483

Luminaire Tested: **FFX-CLB-50-740-U-FR-T3-UPLR**

Issue Date: 04/15/2025

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P981483
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	04/15/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	FFX-CLB-50-740-U-FR-T3-UPLR
Description:	FAIRFAX POST TOP FIXTURE w/ FAIRFAX REFRACTOR T3 DISTRIBUTION LENS AND UPLIGHT REFLECTOR
Light Source:	(4) 4000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8018.2 lumens
Efficiency:	N/A
Efficacy:	158.5 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):	50.6
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	6.12%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

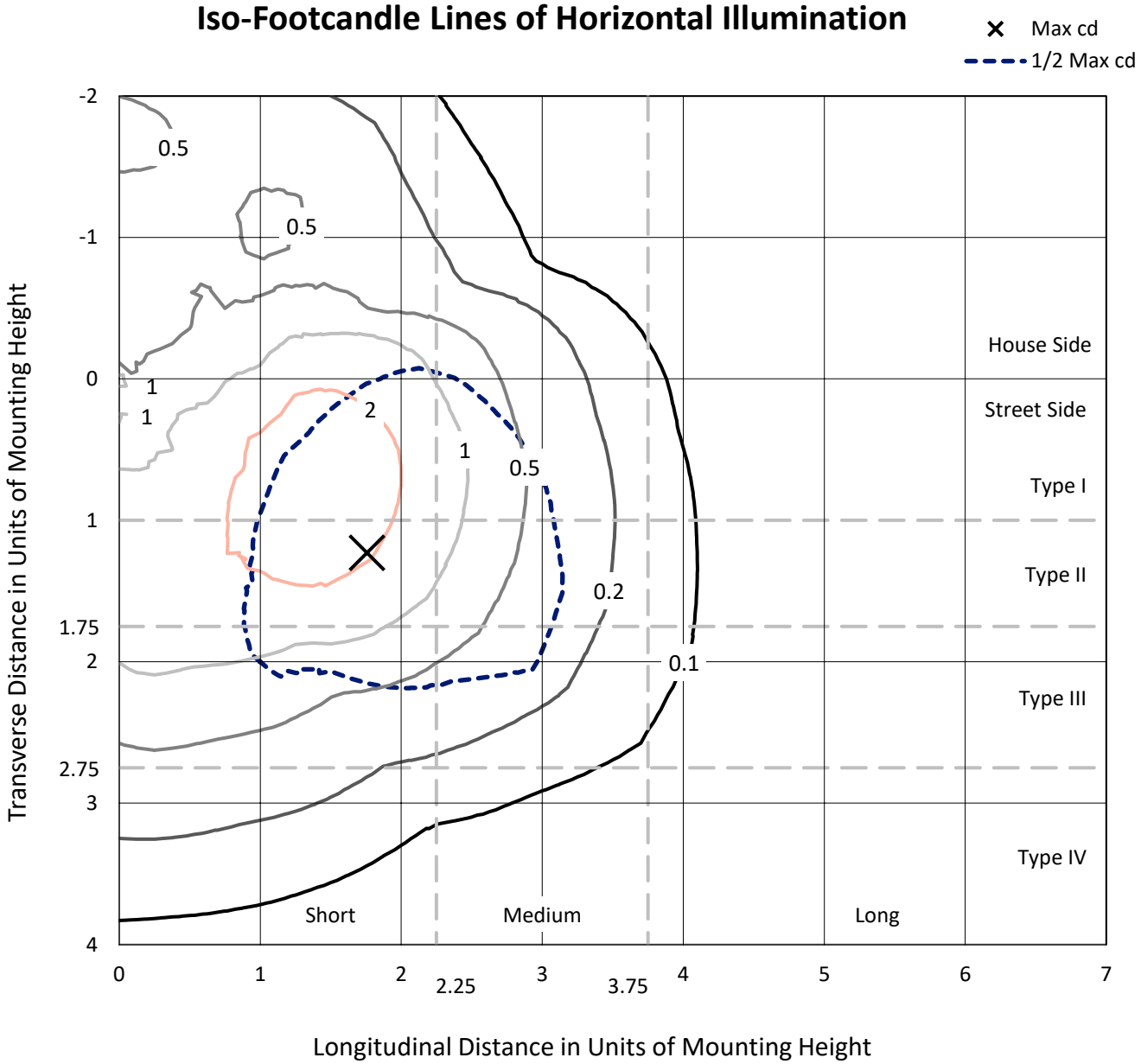


Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

Iso-Footcandle Lines of Horizontal Illumination



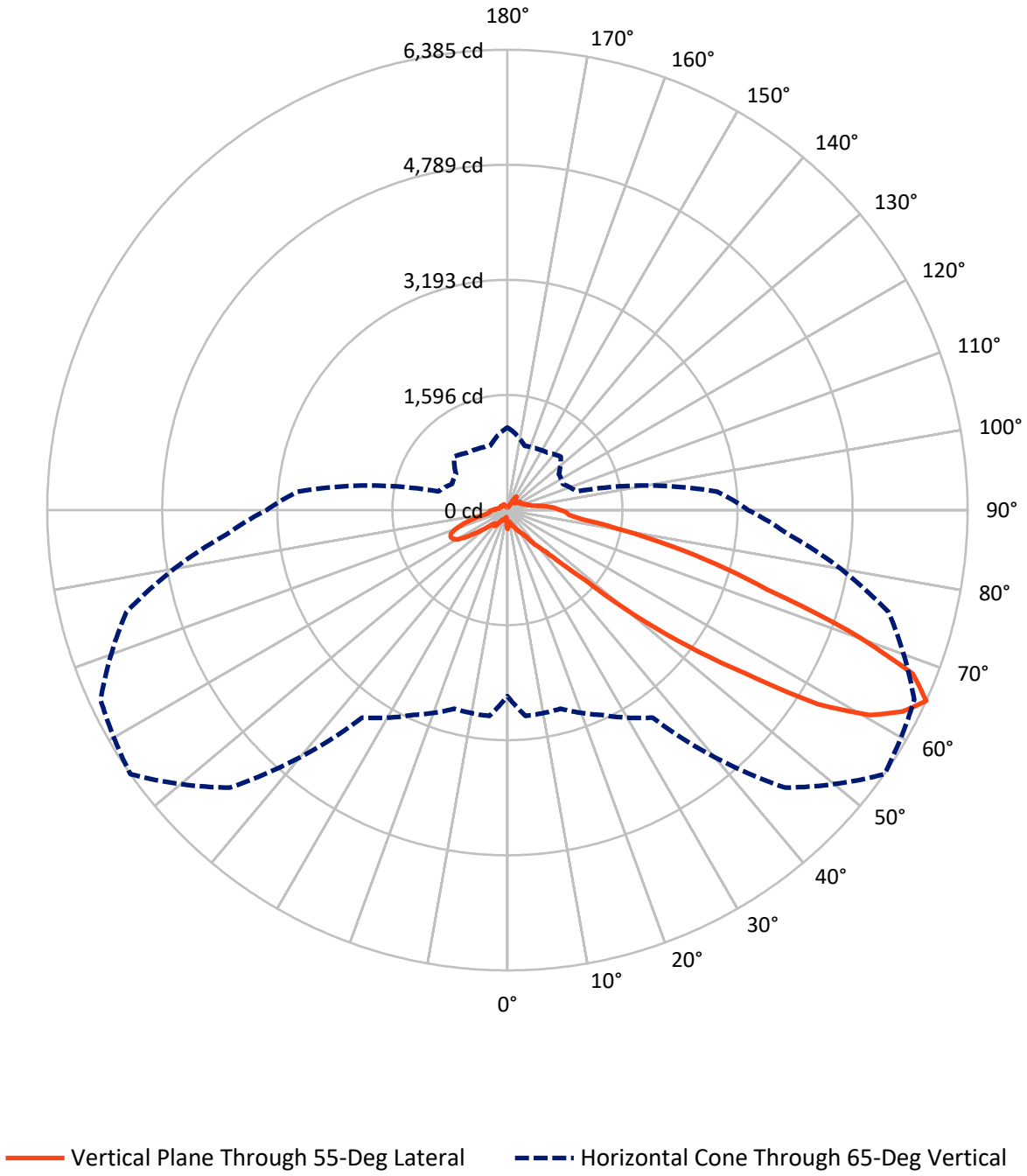
Based on 15 foot mounting height. Maximum calculated value = 3.5 fc
Type III - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

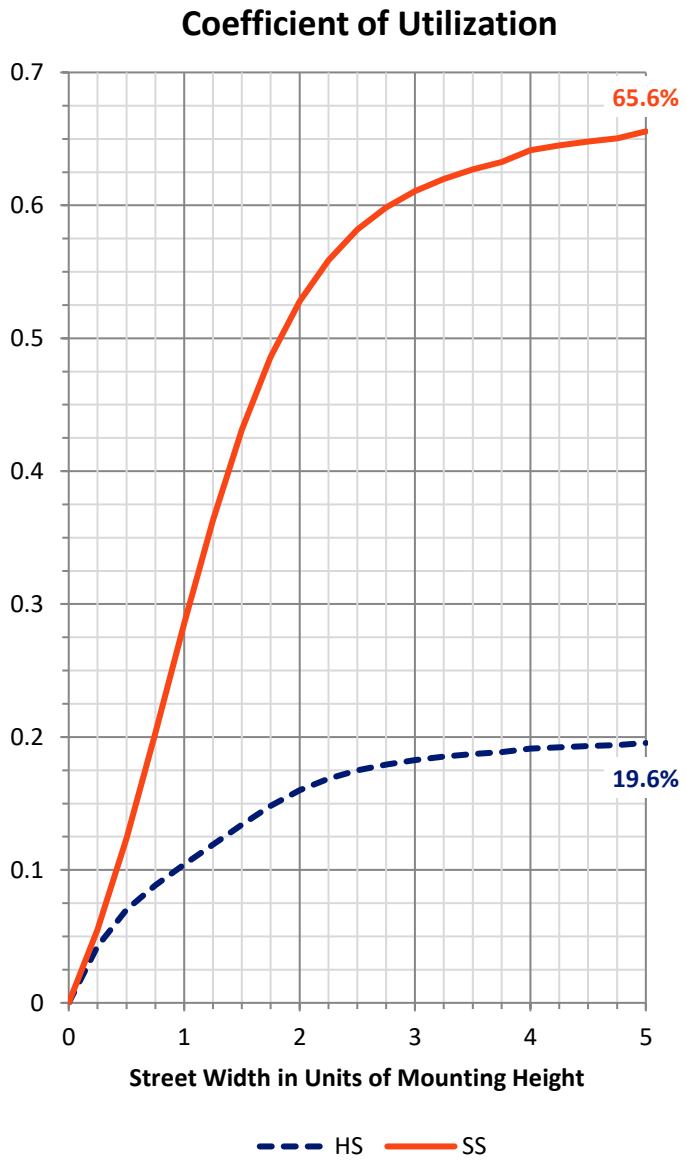
REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1628.9	317.9	1946.8
	% Fixture	20.3	4.0	24.3
Street Side	Lumens	5435.4	636.1	6071.4
	% Fixture	67.8	7.9	75.7
Total	Lumens	7064.3	953.9	8018.2
	% Fixture	88.1	11.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.1	0.2
10°-20°	49.0	0.6
20°-30°	100.2	1.3
30°-40°	217.3	2.7
40°-50°	527.5	6.6
50°-60°	1646.8	20.5
60°-70°	2616.8	32.6
70°-80°	1394.5	17.4
80°-90°	496.9	6.2
90°-100°	302.3	3.8
100°-110°	179.0	2.2
110°-120°	139.7	1.7
120°-130°	116.5	1.5
130°-140°	85.2	1.1
140°-150°	78.3	1.0
150°-160°	35.4	0.4
160°-170°	13.5	0.2
170°-180°	4.0	0.0
0°-90°	7064.3	88.1
0°-180°	8018.2	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

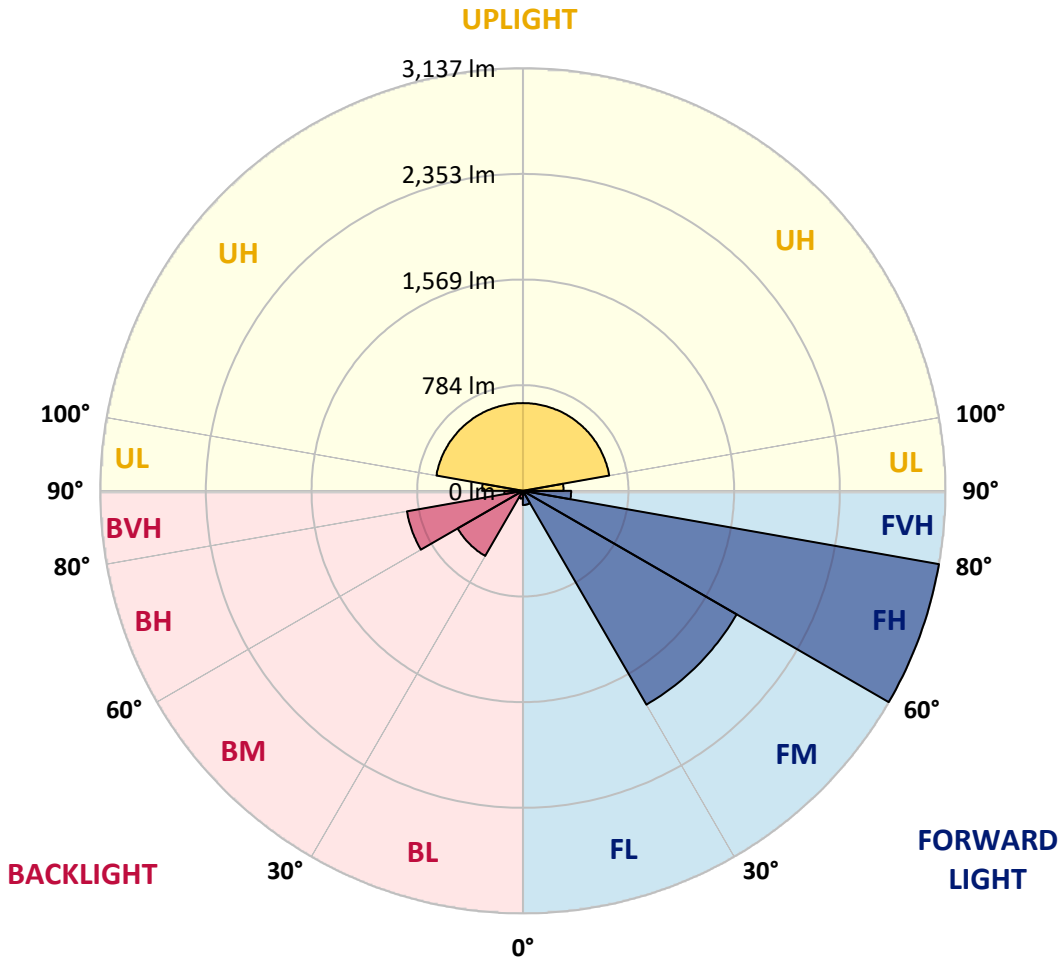
Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-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°)	106.0	1.3			
FM	(30°-60°)	1833.4	22.9			
FH	(60°-80°)	3137.5	39.1			G2/5000
FVH	(80°-90°)	358.6	4.5			G3/500
BL	(0°-30°)	58.4	0.7	B0/110		
BM	(30°-60°)	558.3	7.0	B1/1000		
BH	(60°-80°)	873.9	10.9	B2/1000		G2/1000
BVH	(80°-90°)	138.4	1.7			G2/225
UL	(90°-100°)	302.3	3.8		U3/500	
UH	(100°-180°)	651.6	8.1		U4/1000	

BUG Rating: B2-U4-G3
Type III Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	260.2	260.2	260.2	260.2	260.2	260.2	*260.2*	260.2	260.2	260.2	260.2
2.5°	155.3	156.4	173.8	187.4	204.2	199.3	*199.3*	236.3	260.7	296.5	293.3
5°	166.2	159.1	162.4	174.3	197.2	208.0	*196.1*	155.3	128.7	139.6	152.6
7.5°	181.9	180.3	176.5	165.1	156.4	179.8	*212.4*	189.0	142.8	120.0	115.1
10°	186.3	186.8	185.7	186.8	191.2	180.9	*162.4*	147.7	143.4	141.2	139.6
12.5°	225.4	224.9	227.0	224.3	214.0	201.5	*205.3*	194.4	173.3	158.6	154.8
15°	262.9	261.8	261.2	250.9	234.1	214.0	*204.2*	209.1	195.5	178.7	171.1
17.5°	278.1	278.1	267.2	252.5	242.2	228.1	*220.5*	215.1	204.8	193.9	184.7
20°	272.1	271.6	260.7	254.7	255.8	249.3	*242.8*	234.6	224.3	206.9	195.5
22.5°	268.8	268.8	265.0	263.4	272.6	270.5	*268.8*	258.5	244.9	219.4	204.8
25°	290.0	288.4	283.5	283.5	292.2	299.3	*302.0*	293.8	271.6	233.0	219.4
27.5°	310.7	310.1	303.6	305.2	310.7	324.8	*329.1*	325.3	294.9	244.4	232.5
30°	335.6	331.8	326.4	336.2	335.1	354.7	*360.6*	365.0	326.4	267.8	253.6
32.5°	362.3	360.1	355.7	368.2	372.6	390.5	*395.4*	417.1	369.3	309.6	294.9
35°	407.3	405.7	417.1	441.6	441.0	474.7	*461.6*	494.2	449.2	385.1	370.4
37.5°	610.5	601.2	588.2	564.8	563.2	609.9	*595.3*	620.8	557.2	467.1	450.8
40°	635.4	633.8	627.8	601.2	586.0	665.9	*675.6*	751.1	646.3	543.1	511.6
42.5°	620.8	623.0	702.8	719.6	688.7	787.0	*803.3*	935.8	746.8	658.8	601.2
45°	748.4	751.7	777.7	789.7	787.5	1034.6	*1074.8*	1237.2	922.8	821.2	714.7
47.5°	857.0	845.6	892.9	984.1	1046.6	1325.7	*1455.0*	1704.3	1239.9	1090.0	892.9
50°	1177.5	1174.8	1288.8	1388.7	1450.7	1907.4	*2305.5*	2579.3	1817.3	1580.5	1245.9
52.5°	1394.7	1487.1	1596.2	1827.6	1883.5	2595.6	*3134.3*	3353.7	2511.4	2075.8	1701.0
55°	1615.2	1748.3	1870.5	2230.6	2416.3	3372.2	*3985.4*	4045.7	3298.3	2523.9	2146.4
57.5°	2025.3	2249.6	2328.3	2615.6	2887.2	4267.3	*5080.3*	5016.2	4109.8	3043.6	2643.9
60°	2396.2	2666.2	2643.3	2924.7	3273.9	4996.7	*5775.5*	5708.2	4852.2	3505.3	3026.2
62.5°	2520.6	2792.7	2761.7	3068.1	3514.5	5387.7	*6154.6*	6039.5	5338.3	3801.3	3238.1
65°	*2578.7*	*2867.7*	*2852.4*	*3138.1*	*3514.5*	*5444.2*	*6385.4*	*6227.9*	*5474.1*	*3915.3*	*3340.2*
67.5°	2527.7	2806.3	2816.1	3069.7	3307.6	5036.3	*6070.4*	5856.4	5134.1	3641.6	3157.7
70°	2209.4	2404.4	2379.9	2609.7	2633.0	4031.6	*5037.9*	4805.0	4171.1	3036.6	2612.9
72.5°	1825.4	1872.7	1852.6	1997.6	2024.7	2952.9	*3765.4*	3633.4	3114.8	2259.4	1996.5
75°	1455.6	1447.9	1489.2	1522.9	1494.7	2167.6	*2981.7*	2831.8	2304.4	1701.6	1536.5
77.5°	1006.9	948.8	1057.4	1067.8	1023.2	1441.4	*2199.6*	2142.6	1651.6	1254.1	1132.4
80°	565.9	572.4	650.1	696.3	680.0	917.3	*1530.5*	1493.0	1128.1	876.6	778.8
82.5°	436.7	456.2	492.6	527.4	504.6	701.7	*1035.2*	1037.9	825.0	640.3	584.9
85°	480.1	490.4	495.3	496.4	478.5	652.3	*858.1*	846.7	700.6	536.1	518.7
87.5°	468.2	479.0	480.7	481.2	465.5	621.3	*812.5*	794.6	668.0	514.9	488.3
90°	401.4	419.8	422.0	436.1	417.7	555.1	*715.3*	697.4	602.3	464.4	439.4
92.5°	344.9	354.7	365.0	381.8	362.3	483.4	*640.3*	618.1	539.3	419.8	385.6
95°	315.6	321.0	329.7	336.2	313.4	410.6	*535.5*	512.2	437.8	337.8	307.4
97.5°	253.6	258.5	262.3	270.5	254.7	325.3	*415.5*	393.8	343.2	268.8	246.0
100°	216.7	220.0	224.3	229.7	216.7	272.6	*341.1*	331.3	285.7	227.0	212.4
102.5°	198.2	201.0	208.6	208.6	200.4	249.3	*304.7*	297.1	256.9	205.8	196.1
105°	191.2	191.7	198.2	195.5	190.1	232.5	*284.0*	274.3	240.6	195.5	184.1
107.5°	181.9	182.5	190.6	186.3	181.9	215.6	*257.4*	253.1	222.7	182.5	172.7
110°	172.7	174.3	184.7	180.9	178.1	202.6	*241.1*	233.0	212.9	176.5	168.4

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	165.7	166.7	176.5	173.8	171.6	193.9	*223.8*	223.8	208.0	176.5	165.7
115°	159.7	161.8	170.0	164.6	160.8	182.5	*206.4*	207.5	194.4	168.4	157.5
117.5°	149.4	154.2	158.6	160.8	156.4	174.9	*196.1*	195.0	187.9	162.4	154.8
120°	170.0	166.2	169.5	173.3	166.2	180.9	*198.8*	198.8	191.7	159.7	153.2
122.5°	177.6	172.2	175.4	171.6	171.1	190.1	*212.4*	214.0	199.3	164.6	148.3
125°	157.5	155.3	151.5	150.4	154.8	172.7	*192.8*	199.9	184.1	157.5	138.5
127.5°	134.7	132.0	127.1	129.8	138.0	155.9	*166.2*	170.0	163.5	146.1	132.0
130°	124.4	123.8	127.6	132.5	139.0	154.2	*157.5*	162.9	162.9	142.3	134.1
132.5°	113.5	114.1	126.0	142.8	147.7	151.0	*143.9*	154.2	159.1	145.0	135.8
135°	111.9	112.4	118.9	132.5	133.1	135.2	*135.8*	148.8	152.1	138.5	128.2
137.5°	122.2	122.2	117.3	120.0	126.0	142.3	*147.7*	158.0	155.3	130.9	115.7
140°	134.7	132.0	116.8	117.3	127.6	147.7	*154.8*	161.3	158.0	128.2	110.3
142.5°	111.3	112.4	115.1	125.5	137.4	183.0	*177.1*	193.3	186.8	135.8	107.5
145°	173.8	174.3	171.1	175.4	183.0	243.3	*224.9*	250.9	258.5	177.6	127.6
147.5°	190.1	192.3	186.3	182.5	204.2	222.7	*202.0*	223.8	238.4	186.3	136.9
150°	148.3	147.7	143.9	149.4	164.0	162.9	*152.1*	159.7	165.7	142.3	117.3
152.5°	105.4	103.7	101.6	102.1	119.5	115.1	*111.9*	118.4	118.4	109.2	94.0
155°	87.4	87.4	86.4	89.1	98.8	91.2	*88.5*	87.4	86.4	83.6	77.7
157.5°	73.9	75.5	73.9	77.1	83.6	76.6	*75.0*	73.3	73.9	73.9	72.2
160°	61.4	61.4	60.3	65.7	67.9	62.5	*59.7*	58.7	58.7	61.9	61.9
162.5°	51.6	51.6	52.1	54.3	55.9	52.1	*50.5*	50.5	52.1	57.0	57.0
165°	44.5	44.5	45.1	46.7	47.8	45.6	*44.5*	45.1	49.4	53.8	53.8
167.5°	40.7	40.7	40.7	41.3	41.8	40.7	*40.7*	42.9	46.7	49.4	49.4
170°	38.6	38.6	38.0	38.6	38.6	38.6	*40.7*	42.9	44.5	44.5	44.5
172.5°	39.1	39.1	38.6	39.1	39.1	38.6	*41.3*	44.0	42.9	42.4	42.4
175°	40.2	40.2	40.2	40.7	40.7	39.6	*39.1*	40.2	41.3	41.3	40.7
177.5°	40.2	40.2	39.6	40.2	39.6	38.6	*38.0*	37.5	37.5	36.9	36.9
180°	37.5	37.5	37.5	37.5	37.5	37.5	*37.5*	37.5	37.5	37.5	37.5

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2	260.2
2.5°	265.6	229.2	202.0	223.2	269.9	293.3	269.9	205.3	144.5	126.5
5°	159.1	154.8	139.6	136.3	142.3	136.9	152.1	143.9	114.1	115.1
7.5°	118.9	143.9	139.0	99.4	92.9	86.9	91.8	104.8	108.1	101.0
10°	138.0	124.4	108.6	101.0	110.3	118.9	113.0	98.3	84.7	80.9
12.5°	152.1	151.0	152.6	136.9	112.4	103.7	100.5	108.1	131.4	136.9
15°	163.5	151.0	139.6	136.3	120.0	111.3	107.0	104.8	100.5	97.2
17.5°	174.9	154.2	141.8	129.3	121.1	113.0	103.7	98.8	98.3	98.8
20°	182.5	163.5	148.8	134.7	124.4	113.5	104.3	99.9	99.9	99.9
22.5°	191.7	173.3	157.5	139.6	127.6	115.7	108.1	103.7	103.2	103.2
25°	206.9	186.3	167.8	148.3	135.2	124.4	114.1	108.6	107.0	106.5
27.5°	224.3	201.5	179.2	159.1	145.6	133.6	120.0	111.9	109.7	109.2
30°	246.6	220.5	192.3	171.1	154.2	142.8	126.5	116.8	112.4	111.9
32.5°	283.0	248.7	211.8	188.5	168.4	153.2	135.2	123.3	116.2	114.6
35°	353.0	311.2	255.8	222.1	190.1	166.2	142.8	127.1	120.0	118.9
37.5°	431.2	367.7	313.9	274.8	235.7	195.5	154.8	133.1	124.4	122.7
40°	464.9	404.6	347.6	286.2	277.5	246.0	190.1	147.7	130.3	127.6
42.5°	538.8	453.0	375.8	253.1	273.2	271.6	234.6	180.9	146.6	140.1
45°	634.4	515.4	418.2	270.5	275.4	265.6	240.6	209.1	178.1	171.1
47.5°	790.2	576.2	431.8	304.1	309.6	286.2	252.0	220.5	198.2	195.5
50°	1128.6	754.9	481.7	368.2	385.6	331.8	289.5	262.3	235.7	230.8
52.5°	1534.3	894.5	533.3	459.5	521.9	444.8	380.7	330.8	329.1	322.6
55°	1961.7	948.3	601.8	560.0	657.2	590.4	527.9	482.3	505.6	507.8
57.5°	2441.9	1005.9	700.6	691.4	821.2	714.7	662.1	674.6	840.2	904.8
60°	2761.7	1053.1	785.9	800.0	971.1	867.4	827.7	855.4	1136.7	1254.6
62.5°	2904.0	1029.2	827.7	852.1	1035.7	960.2	953.7	968.4	1206.8	1317.1
65°	*2923.6*	*993.9*	*850.5*	*871.7*	*1047.1*	*970.0*	*942.3*	*921.7*	*1080.3*	*1144.9*
67.5°	2683.5	919.0	832.6	854.9	995.5	903.2	834.2	787.5	879.3	885.8
70°	2183.9	820.6	771.8	779.9	850.5	756.0	690.8	650.7	671.8	663.1
72.5°	1693.4	723.4	687.6	668.6	689.8	608.8	531.7	511.1	531.2	521.9
75°	1286.6	646.3	606.7	542.6	577.3	468.7	382.9	364.4	373.1	360.6
77.5°	946.1	520.8	474.7	401.4	449.2	340.0	258.5	239.5	242.8	230.8
80°	690.3	385.1	347.1	287.9	323.7	241.7	186.8	183.6	183.0	175.4
82.5°	533.3	305.8	277.5	247.7	253.6	213.4	177.1	171.6	171.6	160.2
85°	494.8	296.0	267.2	246.0	247.7	206.9	168.4	165.1	166.7	154.8
87.5°	462.2	289.5	266.1	240.6	228.1	187.4	151.5	155.3	156.4	146.1
90°	396.5	257.4	236.3	211.8	197.2	159.1	135.8	142.8	143.9	134.7
92.5°	347.6	221.0	203.1	184.1	177.6	149.4	130.3	135.8	135.8	127.6
95°	277.0	180.9	172.7	163.5	161.8	139.6	121.7	124.4	123.3	116.2
97.5°	225.4	157.0	149.9	141.2	135.8	119.5	107.0	109.7	110.3	105.4
100°	198.2	145.0	135.2	125.5	120.0	107.5	97.8	102.6	105.9	101.6
102.5°	185.2	138.5	127.6	117.3	113.0	101.6	92.3	96.7	101.0	97.2
105°	176.0	133.6	122.2	113.0	107.5	96.1	86.9	88.0	93.4	91.2
107.5°	164.0	133.6	118.9	109.7	103.2	92.9	82.0	80.9	84.2	83.6
110°	159.7	133.6	116.8	107.5	100.5	91.2	81.5	77.1	78.8	78.8

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P981483
CATALOG NUMBER: FFX-CLB-50-740-U-FR-T3-UPLR

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	155.9	132.5	114.6	103.7	97.8	90.2	80.4	73.9	75.5	76.6
115°	147.2	122.2	108.1	96.7	90.7	82.6	76.0	71.1	71.7	72.8
117.5°	142.3	113.0	104.8	94.5	90.2	85.3	79.3	70.1	70.1	71.1
120°	142.3	111.3	107.5	103.7	101.6	93.4	83.6	70.1	68.4	68.4
122.5°	140.1	123.8	117.3	108.6	102.6	91.8	79.8	68.4	67.3	67.3
125°	128.7	118.4	108.1	97.8	90.7	82.0	75.0	69.0	66.8	66.8
127.5°	122.7	106.5	96.7	88.5	83.6	79.3	75.0	69.0	66.3	65.7
130°	124.4	107.5	95.0	88.5	84.7	80.4	75.5	67.9	63.5	63.0
132.5°	125.5	103.7	91.8	86.4	83.6	80.4	73.9	64.1	59.2	59.2
135°	113.5	93.4	88.0	84.2	82.6	79.8	70.1	60.8	57.0	56.5
137.5°	103.2	90.7	86.9	83.1	80.4	76.6	69.0	59.7	54.9	54.3
140°	98.8	88.5	83.1	76.0	72.8	65.2	59.7	54.3	52.7	52.1
142.5°	94.0	83.1	76.6	70.6	69.0	66.3	63.0	54.3	48.9	48.9
145°	112.4	99.9	92.3	86.4	78.8	73.3	63.0	52.1	45.1	44.0
147.5°	117.9	106.5	98.8	90.7	76.6	64.6	53.2	45.6	42.9	41.8
150°	103.2	93.4	85.3	76.6	64.1	55.9	48.3	43.4	42.4	42.4
152.5°	82.0	76.6	67.9	61.9	53.8	48.9	44.5	41.8	40.7	40.7
155°	67.9	63.5	58.7	53.8	49.4	46.2	43.4	41.3	40.2	40.2
157.5°	65.7	59.2	54.9	50.5	47.8	44.5	42.4	40.2	39.6	39.1
160°	59.7	52.1	48.3	45.6	45.1	44.0	42.4	40.7	40.2	39.6
162.5°	55.4	47.8	45.1	43.4	45.1	46.2	45.1	42.9	41.3	40.7
165°	52.1	45.1	42.9	42.9	46.2	47.8	45.1	42.9	42.9	42.4
167.5°	48.3	46.2	43.4	42.9	45.6	48.9	49.4	45.6	44.0	43.4
170°	45.1	45.6	45.6	44.0	44.5	47.3	48.3	47.3	45.1	44.5
172.5°	42.9	44.0	46.2	45.1	45.1	46.2	47.3	46.2	44.5	44.0
175°	40.7	41.3	40.2	40.7	42.4	44.0	43.4	42.9	42.4	42.4
177.5°	36.9	36.9	37.5	37.5	38.0	39.6	40.2	40.2	41.3	41.3
180°	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5

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: SP1-2501-332-1

Test Date: 03/20/2025

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

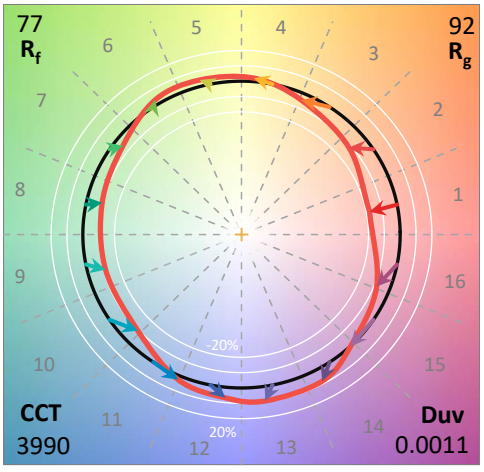
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2501-332-1
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	03/31/2025
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):	3990	CRI (Ra):	73.9		
CIE u':	0.2247	R1:	69.6	R9:	-36.4
CIE v':	0.5031	R2:	83.0	R10:	60.9
Duv:	0.0011	R3:	93.1	R11:	66.8
CIE x:	0.3816	R4:	70.6	R12:	52.5
CIE y:	0.3798	R5:	70.6	R13:	72.5
CIE z:	0.2386	R6:	76.4	R14:	96.4
Peak Wavelength (nm):	450	R7:	79.8	R15:	61.3
Dominant Wavelength (nm):	578	R8:	48.1		
Purity:	28.50862				

Rf:	77.5
Rg:	91.9



Test Conditions

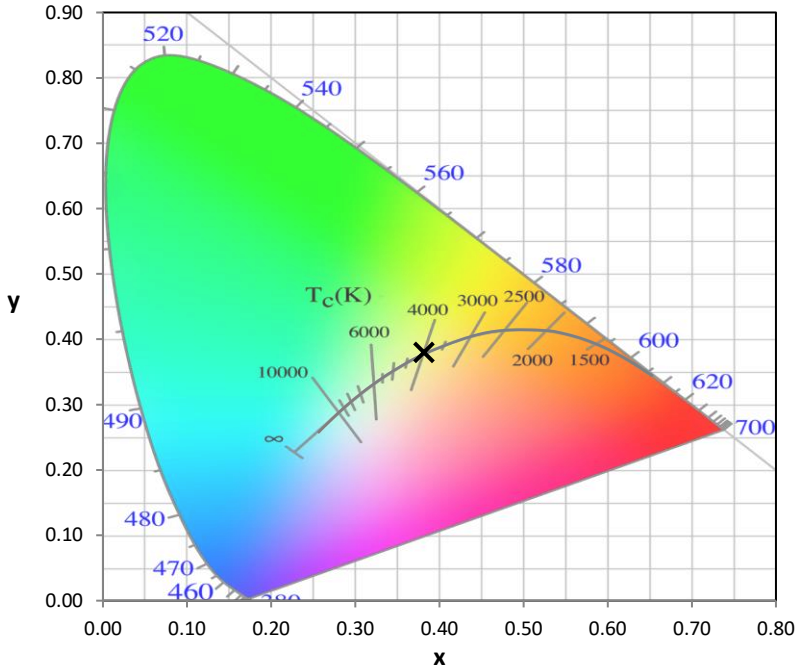
Stabilization Time:	70M
Operation Time:	2H 10M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP1-2501-332-1

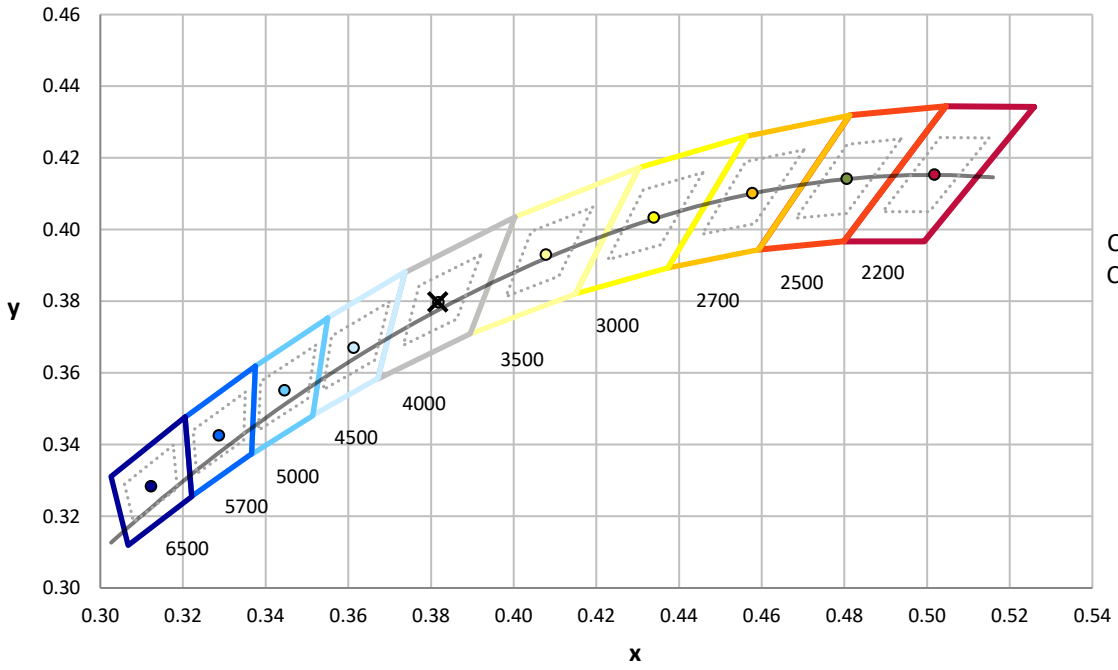
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2501-332-1

CIE 1931 Chromaticity Diagram



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

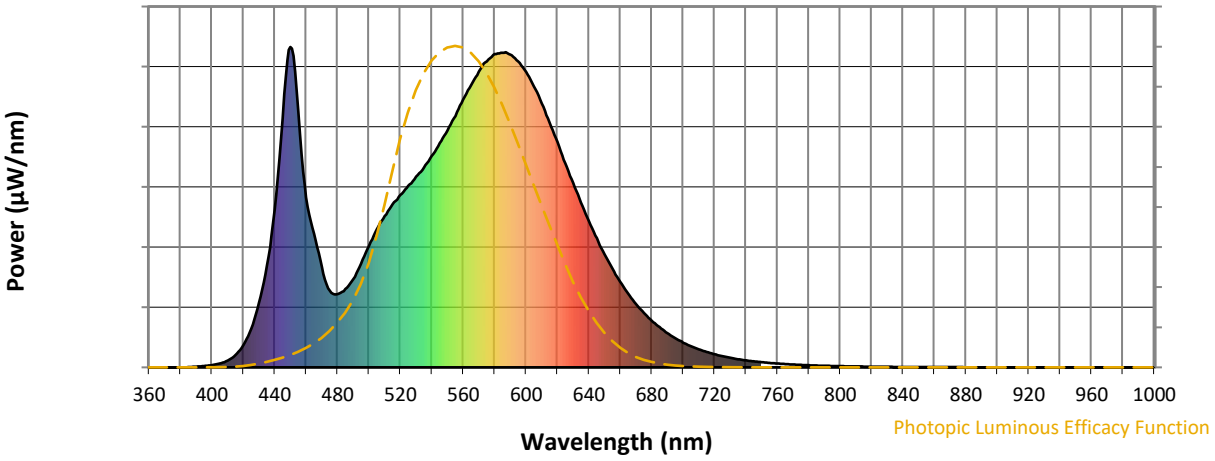


CCT = 3990K
CIE x = 0.3816
CIE y = 0.3798
Duv = 0.0011

Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2501-332-1

Photopic Flux vs. Wavelength

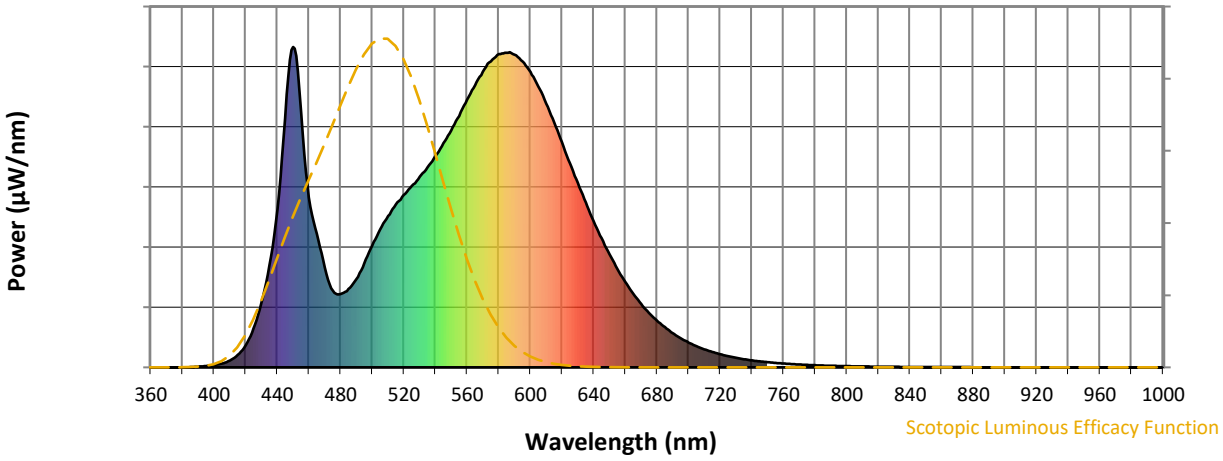


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	275	NR	620	703	NR	750	16	NR	880	1	NR
365	0	NR	495	324	NR	625	637	NR	755	14	NR	885	0	NR
370	0	NR	500	380	NR	630	576	NR	760	12	NR	890	0	NR
375	0	NR	505	431	NR	635	514	NR	765	10	NR	895	0	NR
380	0	NR	510	472	NR	640	456	NR	770	9	NR	900	0	NR
385	1	NR	515	508	NR	645	403	NR	775	8	NR	905	0	NR
390	2	NR	520	538	NR	650	353	NR	780	7	NR	910	0	NR
395	4	NR	525	567	NR	655	307	NR	785	6	NR	915	0	NR
400	7	NR	530	595	NR	660	266	NR	790	5	NR	920	0	NR
405	12	NR	535	624	NR	665	230	NR	795	4	NR	925	0	NR
410	21	NR	540	660	NR	670	198	NR	800	4	NR	930	0	NR
415	39	NR	545	700	NR	675	170	NR	805	3	NR	935	0	NR
420	69	NR	550	739	NR	680	146	NR	810	3	NR	940	0	NR
425	121	NR	555	784	NR	685	125	NR	815	3	NR	945	0	NR
430	202	NR	560	836	NR	690	107	NR	820	2	NR	950	0	NR
435	319	NR	565	881	NR	695	91	NR	825	2	NR	955	0	NR
440	492	NR	570	923	NR	700	77	NR	830	2	NR	960	0	NR
445	777	NR	575	955	NR	705	66	NR	835	1	NR	965	0	NR
450	1000	NR	580	978	NR	710	56	NR	840	1	NR	970	0	NR
455	797	NR	585	982	NR	715	48	NR	845	1	NR	975	0	NR
460	530	NR	590	976	NR	720	41	NR	850	1	NR	980	0	NR
465	418	NR	595	955	NR	725	35	NR	855	1	NR	985	0	NR
470	311	NR	600	922	NR	730	30	NR	860	1	NR	990	0	NR
475	239	NR	605	877	NR	735	25	NR	865	1	NR	995	0	NR
480	229	NR	610	823	NR	740	22	NR	870	1	NR	1000	0	NR
485	245	NR	615	764	NR	745	19	NR	875	1	NR			

REPORT NUMBER: SP1-2501-332-1

Scotopic Flux vs. Wavelength

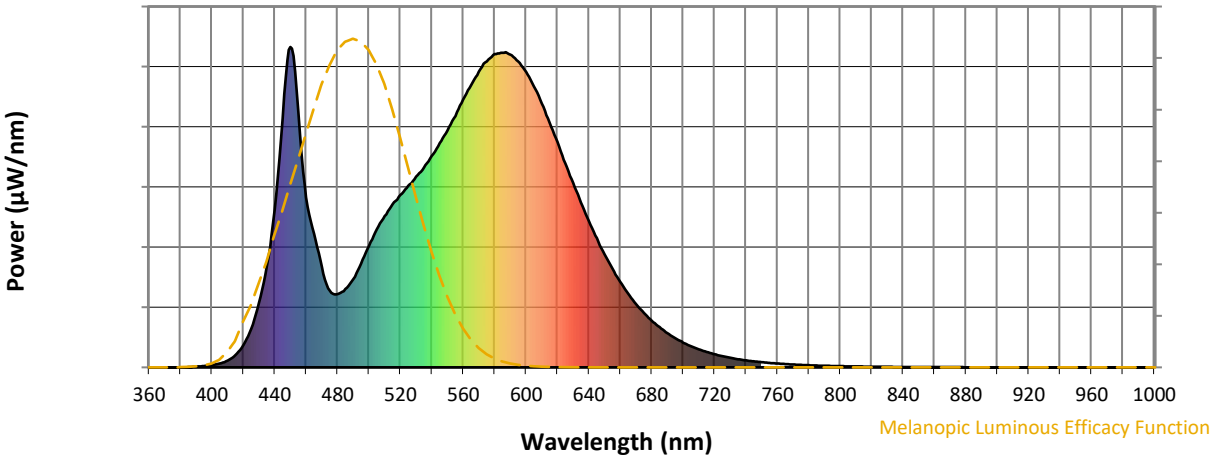


Scotopic Lumens: NR **S/P: 1.59**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	275	NR	620	703	NR	750	16	NR	880	1	NR
365	0	NR	495	324	NR	625	637	NR	755	14	NR	885	0	NR
370	0	NR	500	380	NR	630	576	NR	760	12	NR	890	0	NR
375	0	NR	505	431	NR	635	514	NR	765	10	NR	895	0	NR
380	0	NR	510	472	NR	640	456	NR	770	9	NR	900	0	NR
385	1	NR	515	508	NR	645	403	NR	775	8	NR	905	0	NR
390	2	NR	520	538	NR	650	353	NR	780	7	NR	910	0	NR
395	4	NR	525	567	NR	655	307	NR	785	6	NR	915	0	NR
400	7	NR	530	595	NR	660	266	NR	790	5	NR	920	0	NR
405	12	NR	535	624	NR	665	230	NR	795	4	NR	925	0	NR
410	21	NR	540	660	NR	670	198	NR	800	4	NR	930	0	NR
415	39	NR	545	700	NR	675	170	NR	805	3	NR	935	0	NR
420	69	NR	550	739	NR	680	146	NR	810	3	NR	940	0	NR
425	121	NR	555	784	NR	685	125	NR	815	3	NR	945	0	NR
430	202	NR	560	836	NR	690	107	NR	820	2	NR	950	0	NR
435	319	NR	565	881	NR	695	91	NR	825	2	NR	955	0	NR
440	492	NR	570	923	NR	700	77	NR	830	2	NR	960	0	NR
445	777	NR	575	955	NR	705	66	NR	835	1	NR	965	0	NR
450	1000	NR	580	978	NR	710	56	NR	840	1	NR	970	0	NR
455	797	NR	585	982	NR	715	48	NR	845	1	NR	975	0	NR
460	530	NR	590	976	NR	720	41	NR	850	1	NR	980	0	NR
465	418	NR	595	955	NR	725	35	NR	855	1	NR	985	0	NR
470	311	NR	600	922	NR	730	30	NR	860	1	NR	990	0	NR
475	239	NR	605	877	NR	735	25	NR	865	1	NR	995	0	NR
480	229	NR	610	823	NR	740	22	NR	870	1	NR	1000	0	NR
485	245	NR	615	764	NR	745	19	NR	875	1	NR			

REPORT NUMBER: SP1-2501-332-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.21**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	275	NR	620	703	NR	750	16	NR	880	1	NR
365	0	NR	495	324	NR	625	637	NR	755	14	NR	885	0	NR
370	0	NR	500	380	NR	630	576	NR	760	12	NR	890	0	NR
375	0	NR	505	431	NR	635	514	NR	765	10	NR	895	0	NR
380	0	NR	510	472	NR	640	456	NR	770	9	NR	900	0	NR
385	1	NR	515	508	NR	645	403	NR	775	8	NR	905	0	NR
390	2	NR	520	538	NR	650	353	NR	780	7	NR	910	0	NR
395	4	NR	525	567	NR	655	307	NR	785	6	NR	915	0	NR
400	7	NR	530	595	NR	660	266	NR	790	5	NR	920	0	NR
405	12	NR	535	624	NR	665	230	NR	795	4	NR	925	0	NR
410	21	NR	540	660	NR	670	198	NR	800	4	NR	930	0	NR
415	39	NR	545	700	NR	675	170	NR	805	3	NR	935	0	NR
420	69	NR	550	739	NR	680	146	NR	810	3	NR	940	0	NR
425	121	NR	555	784	NR	685	125	NR	815	3	NR	945	0	NR
430	202	NR	560	836	NR	690	107	NR	820	2	NR	950	0	NR
435	319	NR	565	881	NR	695	91	NR	825	2	NR	955	0	NR
440	492	NR	570	923	NR	700	77	NR	830	2	NR	960	0	NR
445	777	NR	575	955	NR	705	66	NR	835	1	NR	965	0	NR
450	1000	NR	580	978	NR	710	56	NR	840	1	NR	970	0	NR
455	797	NR	585	982	NR	715	48	NR	845	1	NR	975	0	NR
460	530	NR	590	976	NR	720	41	NR	850	1	NR	980	0	NR
465	418	NR	595	955	NR	725	35	NR	855	1	NR	985	0	NR
470	311	NR	600	922	NR	730	30	NR	860	1	NR	990	0	NR
475	239	NR	605	877	NR	735	25	NR	865	1	NR	995	0	NR
480	229	NR	610	823	NR	740	22	NR	870	1	NR	1000	0	NR
485	245	NR	615	764	NR	745	19	NR	875	1	NR			

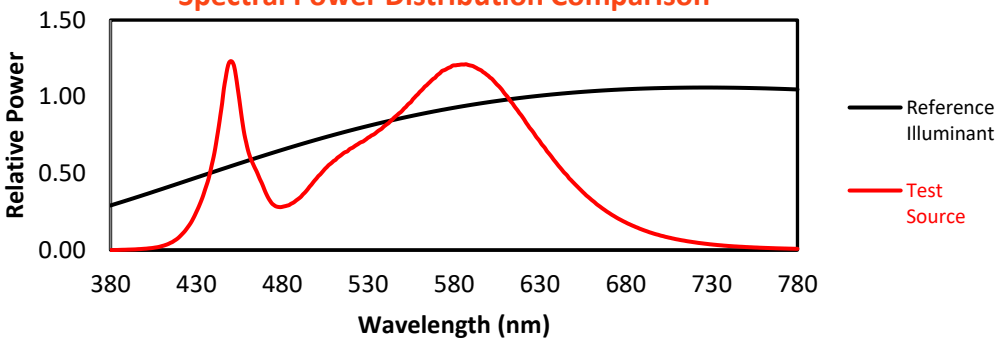
REPORT NUMBER: SP1-2501-332-1

TM-30-18

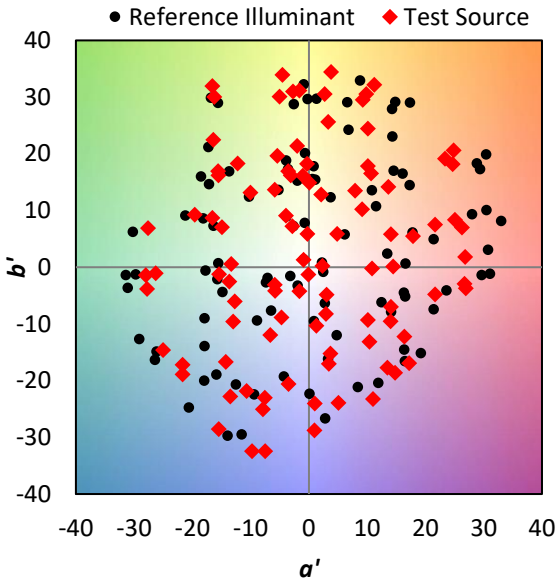
Summary

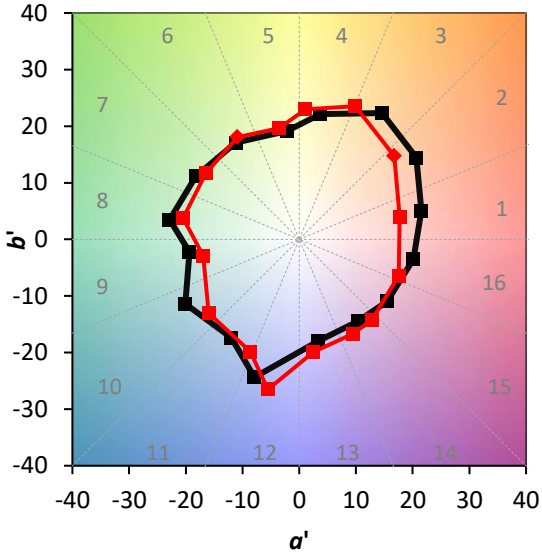
R_f = 77.5
R_g = 91.9
CIE R_a = 73.9
R_9 = -36.4

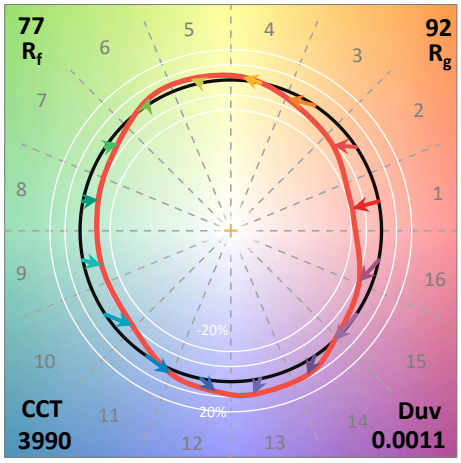
Spectral Power Distribution Comparison

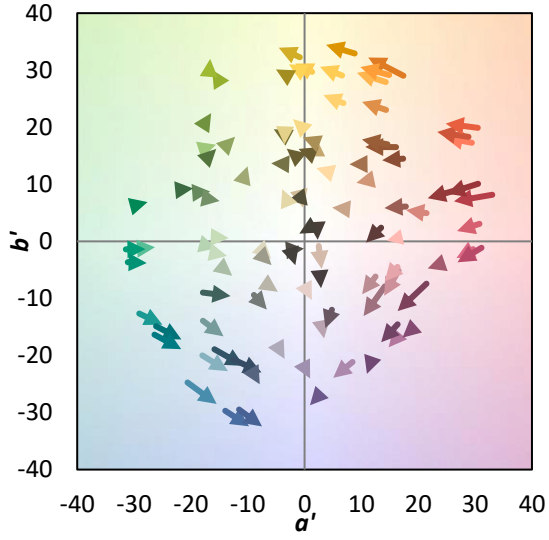


Color Vector Graphics







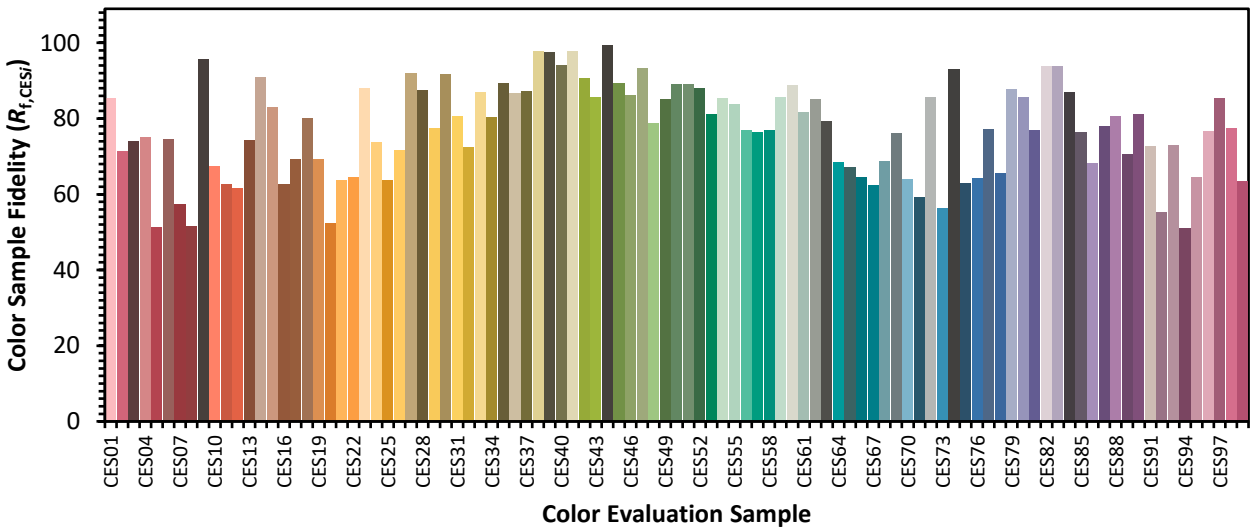


REPORT NUMBER: SP1-2501-332-1

TM-30-18

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

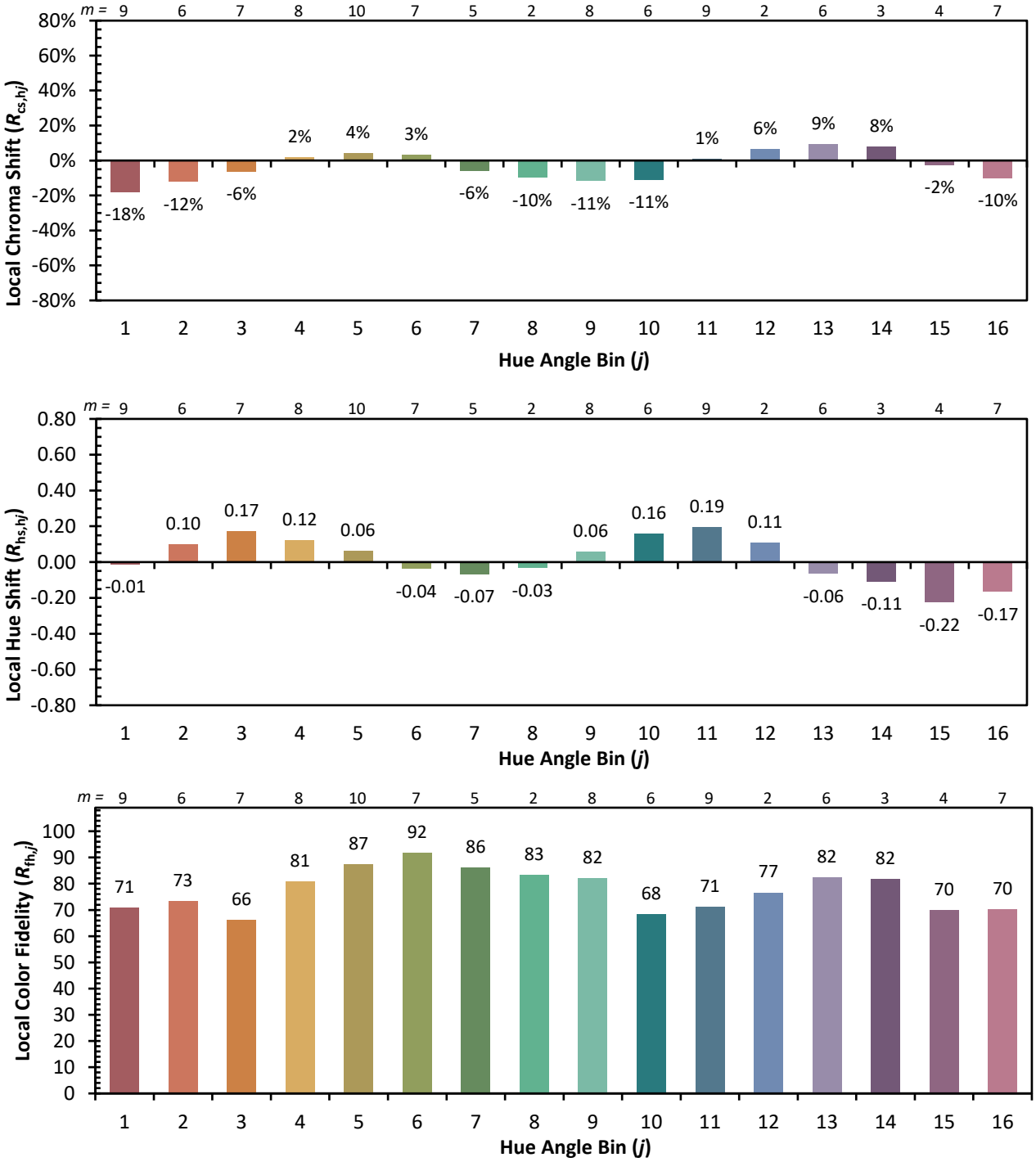
CES01 = 85	CES26 = 72	CES51 = 89	CES76 = 64
CES02 = 61	CES27 = 92	CES52 = 88	CES77 = 77
CES03 = 30	CES28 = 88	CES53 = 81	CES78 = 65
CES04 = 70	CES29 = 78	CES54 = 85	CES79 = 88
CES05 = 47	CES30 = 92	CES55 = 84	CES80 = 86
CES06 = 50	CES31 = 81	CES56 = 77	CES81 = 77
CES07 = 40	CES32 = 72	CES57 = 76	CES82 = 94
CES08 = 39	CES33 = 87	CES58 = 77	CES83 = 94
CES09 = 29	CES34 = 80	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 89	CES60 = 89	CES85 = 76
CES11 = 57	CES36 = 87	CES61 = 82	CES86 = 68
CES12 = 63	CES37 = 87	CES62 = 85	CES87 = 78
CES13 = 42	CES38 = 98	CES63 = 79	CES88 = 81
CES14 = 74	CES39 = 98	CES64 = 68	CES89 = 71
CES15 = 71	CES40 = 94	CES65 = 67	CES90 = 81
CES16 = 46	CES41 = 98	CES66 = 65	CES91 = 73
CES17 = 49	CES42 = 91	CES67 = 62	CES92 = 55
CES18 = 56	CES43 = 86	CES68 = 69	CES93 = 73
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 51
CES20 = 65	CES45 = 89	CES70 = 64	CES95 = 65
CES21 = 86	CES46 = 86	CES71 = 59	CES96 = 77
CES22 = 78	CES47 = 93	CES72 = 86	CES97 = 85
CES23 = 92	CES48 = 79	CES73 = 56	CES98 = 77
CES24 = 91	CES49 = 85	CES74 = 93	CES99 = 63
CES25 = 72	CES50 = 89	CES75 = 63	



REPORT NUMBER: SP1-2501-332-1

TM-30-18

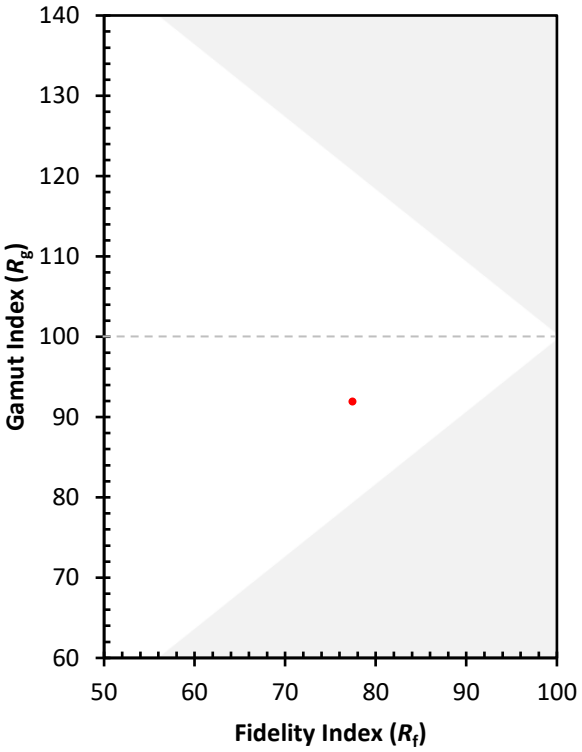
Color Rendition by Hue-Angle Bin

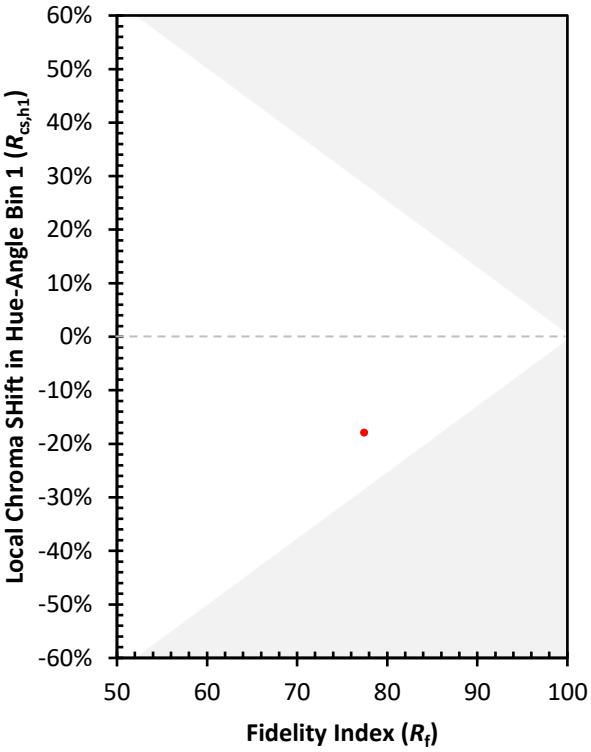


REPORT NUMBER: SP1-2501-332-1

TM-30-18

Measure Comparisons





(END OF REPORT)