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: McGRAW-EDISON

Report Number: P821197

Luminaire Tested: **TT-D1-735-24VDC-RW-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821197
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-5)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D1-735-24VDC-RW-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2311.1 lumens
Efficiency:	N/A
Efficacy:	82.5 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U1 - G2

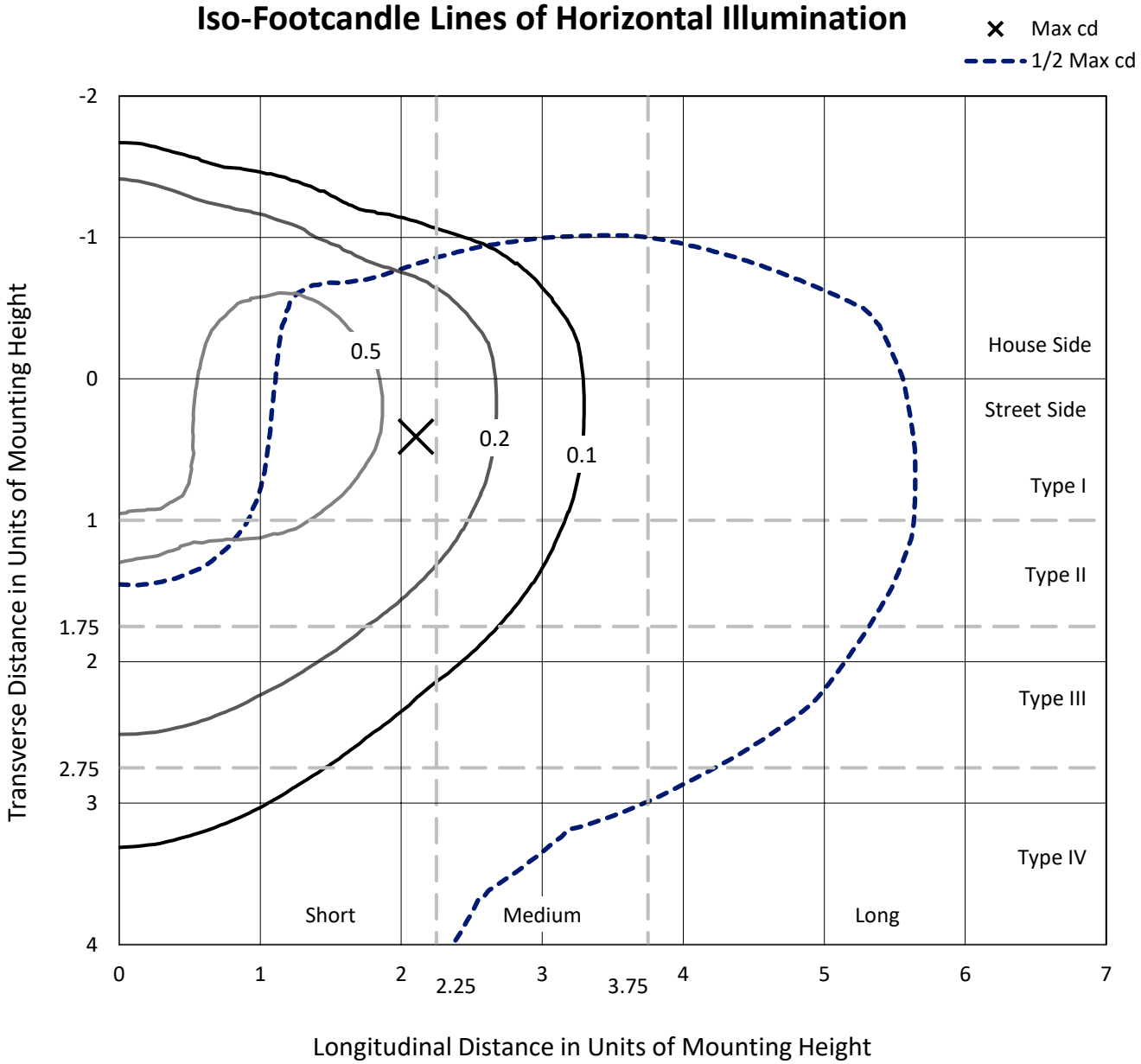
Input Watts (W):	28
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



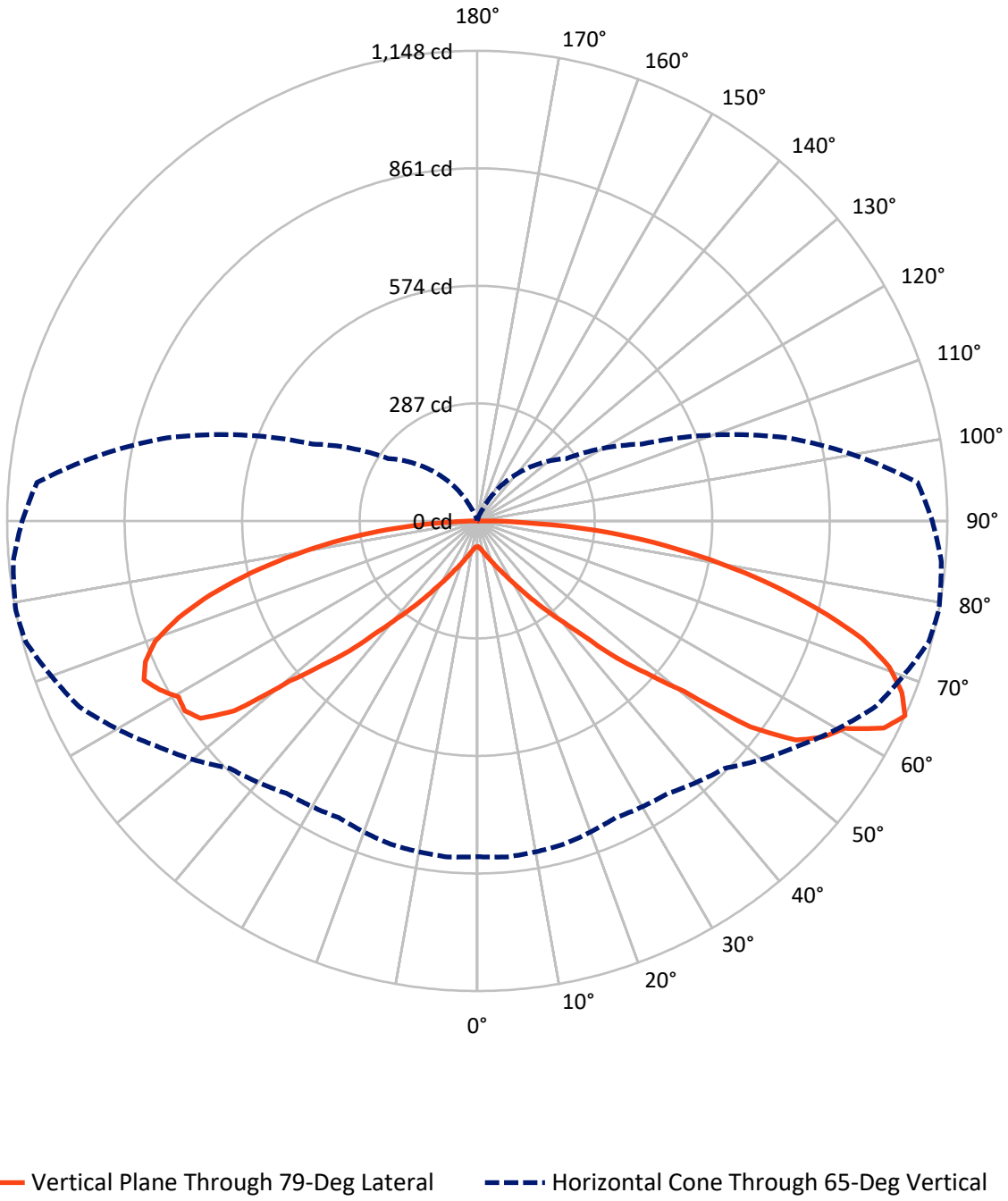
Based on 15 foot mounting height. Maximum calculated value = 0.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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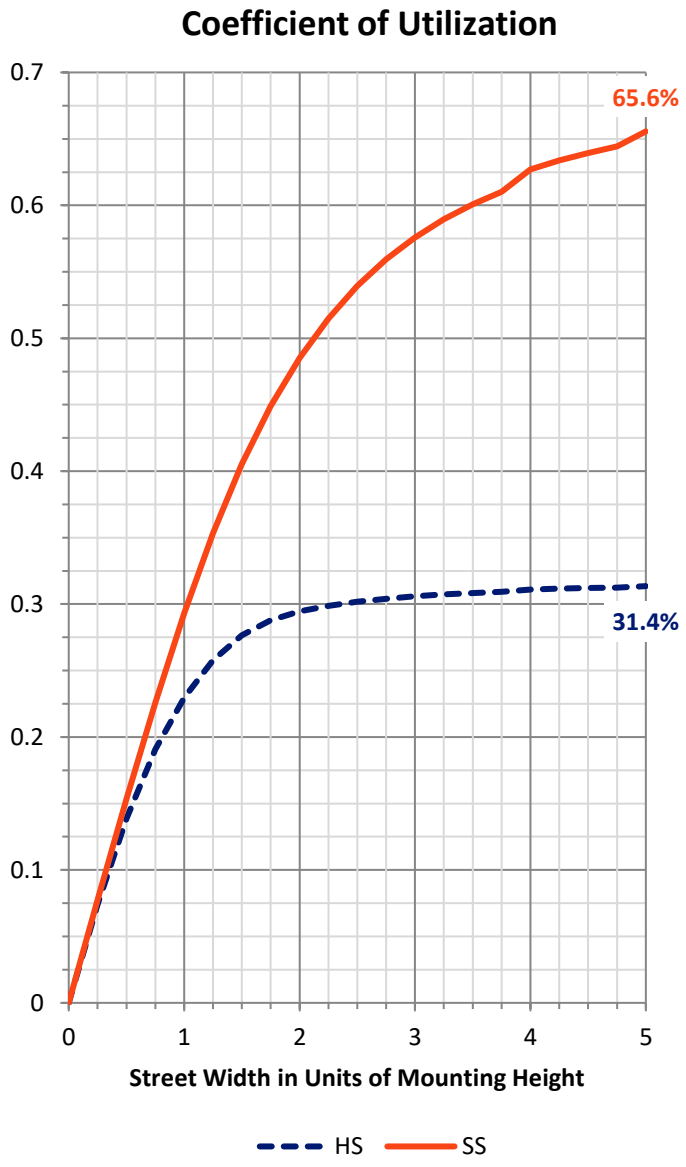
REPORT NUMBER: P821197
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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	729.8	1.0	730.7
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	1570.1	10.2	1580.3
	% Fixture	67.9	0.4	68.4
Total	Lumens	2299.9	11.2	2311.1
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.6	0.3
10°-20°	24.9	1.1
20°-30°	57.4	2.5
30°-40°	123.0	5.3
40°-50°	263.5	11.4
50°-60°	497.6	21.5
60°-70°	618.4	26.8
70°-80°	529.4	22.9
80°-90°	179.1	7.7
90°-100°	7.8	0.3
100°-110°	2.2	0.1
110°-120°	0.5	0.0
120°-130°	0.3	0.0
130°-140°	0.2	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2299.9	99.5
0°-180°	2311.1	100.0



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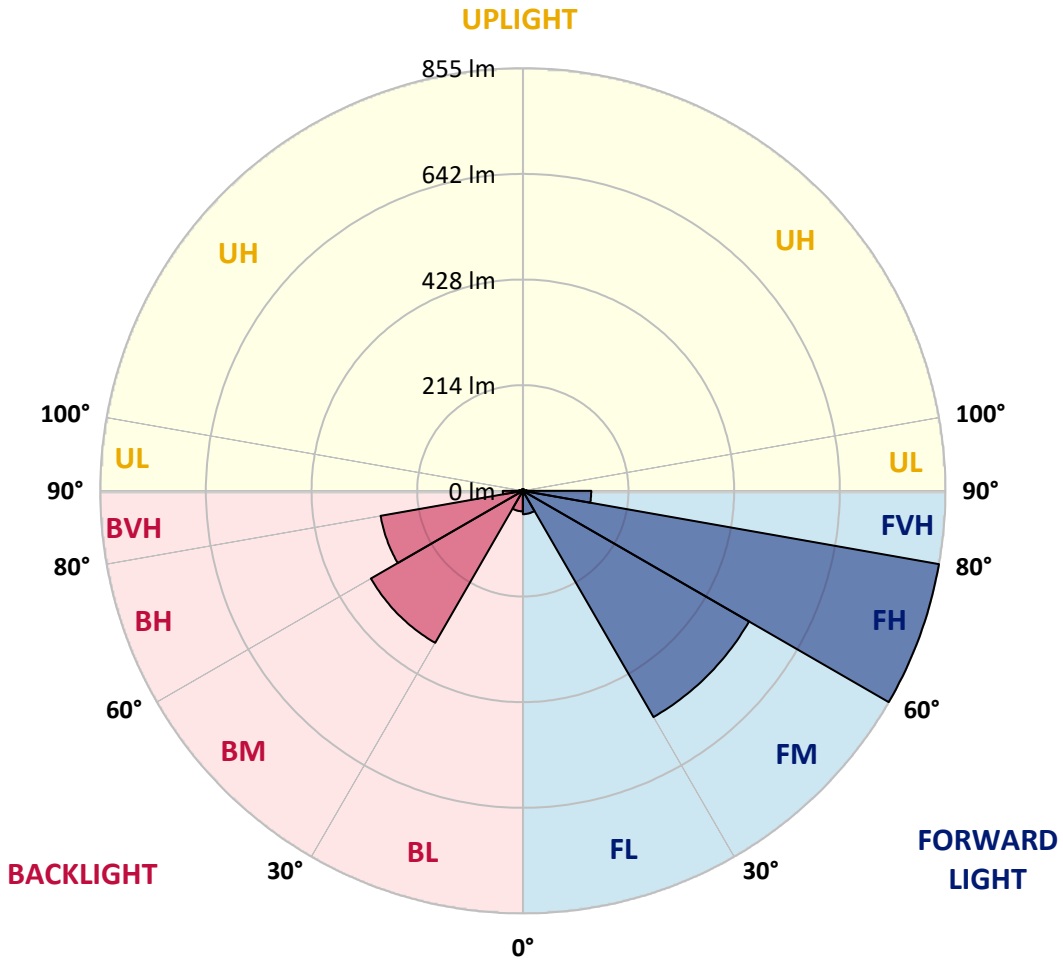
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	47.3	2.0			
FM	(30°-60°)	528.9	22.9			
FH	(60°-80°)	855.4	37.0			G1/1800
FVH	(80°-90°)	138.5	6.0			G2/225
BL	(0°-30°)	41.6	1.8	B0/110		
BM	(30°-60°)	355.2	15.4	B1/1000		
BH	(60°-80°)	292.4	12.7	B1/500		G1/500
BVH	(80°-90°)	40.5	1.8			G1/100
UL	(90°-100°)	7.8	0.3		U1/10	
UH	(100°-180°)	3.4	0.1		U1/10	

BUG Rating: B1-U1-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	*62.8*	62.8
2.5°	66.2	66.2	66.2	65.6	65.6	65.6	65.1	64.5	63.9	*63.9*	63.9
5°	69.7	69.7	69.7	69.7	69.1	68.5	68.0	67.4	66.8	*66.8*	66.2
7.5°	74.3	73.7	74.3	73.7	73.7	73.1	72.6	72.0	70.8	*70.8*	70.3
10°	78.9	78.9	78.9	78.9	78.9	78.3	77.7	77.2	76.6	*76.0*	75.4
12.5°	84.7	84.7	84.7	84.1	84.7	84.1	83.5	83.5	82.9	*81.8*	81.8
15°	90.4	90.4	90.4	90.4	91.0	91.0	91.0	90.4	90.4	*89.8*	89.3
17.5°	97.3	96.7	97.3	97.3	97.9	98.5	99.0	99.6	99.6	*99.0*	99.0
20°	104.8	104.2	104.8	104.8	106.0	107.1	108.8	110.0	110.6	*109.4*	109.4
22.5°	112.9	112.3	113.4	113.4	115.2	116.9	119.8	120.9	122.7	*122.1*	122.1
25°	122.7	122.1	122.7	123.2	125.5	128.4	131.9	134.8	136.5	*136.5*	137.1
27.5°	133.6	133.6	134.2	134.8	137.1	141.7	146.8	152.0	156.1	*155.5*	156.1
30°	148.6	148.6	149.7	150.3	153.2	158.4	165.3	172.2	177.9	*177.9*	179.1
32.5°	165.3	164.7	166.4	167.0	169.9	176.8	186.6	197.5	205.0	*205.0*	206.2
35°	185.4	184.9	186.6	186.6	190.0	199.8	212.5	227.5	240.1	*240.7*	242.4
37.5°	210.8	209.6	209.6	211.3	215.4	228.0	245.3	266.0	279.3	*280.4*	283.3
40°	240.7	240.1	241.3	240.7	245.9	261.4	283.3	307.5	323.1	*325.9*	329.4
42.5°	277.6	278.7	277.0	277.0	283.3	301.2	327.1	355.3	383.5	*387.0*	388.7
45°	322.5	324.8	322.5	321.9	327.7	348.4	384.1	433.6	466.4	*478.0*	481.4
47.5°	376.6	377.8	374.9	373.7	380.1	406.6	452.6	507.9	546.5	*555.1*	564.3
50°	437.1	435.3	433.0	431.3	443.4	476.2	529.8	586.8	653.0	*654.2*	657.6
52.5°	499.3	494.1	494.7	494.1	510.8	546.5	617.9	714.6	815.4	*836.1*	838.4
55°	561.5	555.1	554.6	560.3	583.9	635.2	725.0	850.5	932.3	*945.0*	943.3
57.5°	623.7	620.8	619.6	624.8	659.4	720.4	821.7	927.7	997.4	*996.2*	984.1
60°	688.2	690.5	686.4	696.2	731.9	793.0	866.7	969.7	1034.2	*1029.1*	1017.0
62.5°	754.4	760.1	756.1	757.3	780.3	825.2	897.8	1017.5	1106.8	*1114.3*	1100.5
65°	*820.0*	*824.1*	*817.7*	*799.9*	*812.5*	*854.6*	*958.2*	*1073.4*	*1141.4*	*1148.3*	*1137.9*
67.5°	875.3	879.3	857.5	829.2	831.0	861.5	952.5	1062.5	1122.9	*1118.3*	1101.6
70°	922.5	915.0	879.3	831.0	810.8	825.2	911.0	1008.3	1069.9	*1067.6*	1048.1
72.5°	938.1	928.3	867.8	793.0	753.2	758.4	841.9	928.9	979.0	*983.0*	959.4
75°	913.3	896.6	813.7	719.8	668.6	672.0	743.4	823.5	863.8	*859.2*	840.8
77.5°	824.1	807.4	717.5	617.3	567.2	572.4	628.8	691.6	725.0	*723.3*	710.6
80°	684.1	669.1	590.3	497.0	451.5	454.4	497.5	547.1	573.0	*578.7*	571.8
82.5°	505.6	495.2	439.4	363.9	327.1	326.5	359.3	397.3	422.7	*434.8*	430.2
85°	312.7	307.5	276.4	227.5	201.6	201.0	220.6	248.8	271.8	*287.9*	277.6
87.5°	124.4	122.7	113.4	91.6	80.0	76.0	71.4	89.3	91.0	*107.7*	107.1
90°	30.5	29.9	29.4	27.6	24.8	21.3	17.3	12.7	8.1	*6.3*	3.5
92.5°	27.1	27.1	26.5	24.8	22.5	19.0	15.5	11.5	7.5	*5.8*	2.9
95°	21.9	21.9	21.3	20.2	17.9	15.5	12.1	9.2	5.8	*4.6*	2.3
97.5°	16.7	16.1	16.1	15.0	13.8	11.5	9.2	6.9	4.6	*3.5*	1.7
100°	12.1	12.1	11.5	10.9	9.8	8.6	6.9	5.2	2.9	*2.3*	1.2
102.5°	8.6	8.1	8.1	8.1	6.9	5.8	4.6	3.5	2.3	*1.7*	0.6
105°	5.8	5.2	5.2	5.2	4.6	4.0	2.9	2.3	1.2	*1.2*	0.6
107.5°	3.5	3.5	3.5	3.5	2.9	2.3	1.7	1.2	0.6	*0.6*	0.6
110°	1.7	1.7	1.7	2.3	1.7	1.7	1.2	0.6	0.6	*0.6*	0.6

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
112.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	*0.6*	0.6
115°	0.6	0.6	0.6	1.2	1.2	0.6	0.6	0.0	0.0	*0.6*	0.6
117.5°	0.0	0.0	0.6	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
120°	0.0	0.0	0.6	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
122.5°	0.0	0.0	0.6	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
125°	0.0	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
127.5°	0.0	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
130°	0.0	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
132.5°	0.0	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	*0.0*	0.6
135°	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
137.5°	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
140°	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
142.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	*0.0*	0.0
145°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.0	0.0	*0.0*	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	*0.0*	0.0
150°	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
157.5°	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
160°	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	*0.0*	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
177.5°	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.0	*0.0*	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
2.5°	63.3	63.3	63.3	62.8	62.8	62.8	62.2	62.2	61.6	61.6	61.6
5°	65.6	65.6	65.1	65.1	64.5	63.9	63.9	63.3	63.3	62.8	62.8
7.5°	69.7	69.7	69.1	68.5	67.4	66.8	66.2	65.6	65.6	65.1	65.1
10°	74.9	74.9	73.7	72.6	71.4	70.3	69.7	68.5	68.0	68.0	68.0
12.5°	81.2	80.6	79.5	77.7	76.6	74.9	73.7	72.6	71.4	71.4	71.4
15°	88.7	88.7	86.4	84.7	82.3	80.0	78.3	76.6	75.4	74.9	74.9
17.5°	97.9	97.9	95.0	92.1	89.3	86.4	84.1	81.8	80.6	80.0	80.0
20°	108.3	108.3	105.4	101.9	97.9	93.9	90.4	87.5	85.8	85.2	85.2
22.5°	120.9	120.9	116.9	112.3	107.1	101.4	96.7	93.3	91.6	90.4	90.4
25°	135.3	134.2	130.1	124.4	116.9	110.0	103.7	100.2	97.9	96.2	96.7
27.5°	154.9	153.2	148.0	138.2	129.0	119.8	112.3	107.7	104.8	103.7	104.2
30°	177.4	175.6	168.2	157.2	143.4	131.3	122.1	116.9	114.0	112.3	112.9
32.5°	204.4	202.1	192.9	177.9	161.8	144.5	133.0	126.7	123.8	122.1	121.5
35°	240.1	237.3	225.7	205.0	182.5	161.8	145.7	137.6	134.8	133.0	133.6
37.5°	280.4	276.4	260.9	235.5	207.3	180.8	162.4	152.0	148.6	145.7	145.7
40°	326.5	321.9	301.7	268.3	234.4	201.6	177.9	166.4	162.4	162.4	162.4
42.5°	384.1	379.5	356.5	307.5	262.6	224.0	195.8	182.5	178.5	179.7	179.7
45°	473.4	467.0	430.2	365.7	299.4	247.0	214.2	199.2	196.4	199.2	199.2
47.5°	555.1	547.1	492.9	419.8	335.7	270.1	232.6	215.4	214.2	220.6	220.6
50°	646.7	636.3	579.3	463.6	365.1	295.4	249.3	228.6	229.2	238.4	241.3
52.5°	824.1	813.1	714.6	543.0	396.8	304.6	256.3	231.5	231.5	241.9	245.9
55°	929.4	907.0	778.6	594.9	410.0	315.6	253.4	220.0	218.8	230.3	233.8
57.5°	964.0	941.0	791.8	579.9	401.4	301.7	236.7	188.9	186.6	201.6	200.4
60°	992.2	961.7	770.5	529.8	352.4	272.4	204.4	140.5	130.7	144.0	143.4
62.5°	1071.7	1038.8	771.7	471.1	294.8	227.5	153.8	78.9	58.7	69.1	64.5
65°	*1111.4*	*1079.2*	*783.7*	*443.4*	*265.5*	*188.3*	*110.0*	*32.2*	*2.3*	*2.3*	*1.2*
67.5°	1077.4	1048.6	768.2	436.5	261.4	187.2	111.7	31.7	0.0	0.0	0.0
70°	1027.9	1000.3	732.5	412.3	248.2	180.2	109.4	31.7	0.0	0.0	0.0
72.5°	941.0	912.7	670.9	377.8	228.0	165.3	101.4	29.9	0.0	0.0	0.0
75°	826.4	805.0	592.6	332.8	201.0	145.7	89.8	26.5	0.0	0.0	0.0
77.5°	699.7	674.3	497.0	277.0	168.2	120.9	76.0	21.9	0.0	0.0	0.0
80°	561.5	543.0	391.6	217.1	130.1	94.4	59.3	16.7	0.0	0.0	0.0
82.5°	417.5	401.9	289.7	155.5	92.7	65.6	40.9	10.9	0.0	0.0	0.0
85°	274.1	270.1	186.0	94.4	55.3	36.3	21.9	5.2	0.0	0.0	0.0
87.5°	99.0	102.5	68.0	27.1	15.0	6.3	2.9	0.6	0.0	0.0	0.0
90°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
92.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
97.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
100°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
102.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
105°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
107.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
110°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P821197
CATALOG NUMBER: TT-D1-735-24VDC-RW-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
115°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
117.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
120°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
122.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
125°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
127.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
130°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
132.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
135°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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: SP1-2407-176-4

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-735-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-735-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

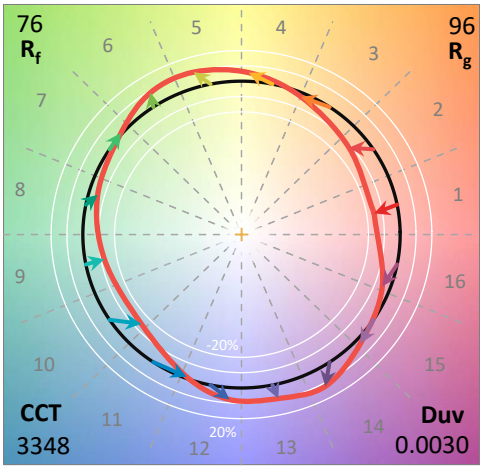
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	09/27/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-30-735-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3348	CRI (Ra):	73.4		
CIE u':	0.2384	R1:	70.8	R9:	-19.2
CIE v':	0.5184	R2:	79.9	R10:	52.5
Duv:	0.0030	R3:	87.6	R11:	68.0
CIE x:	0.4177	R4:	72.6	R12:	42.6
CIE y:	0.4036	R5:	69.3	R13:	72.0
CIE z:	0.1787	R6:	71.3	R14:	92.6
Peak Wavelength (nm):	593	R7:	82.1	R15:	63.8
Dominant Wavelength (nm):	580	R8:	53.3		
Purity:	46.5223				

Rf:	75.8
Rg:	95.8



Test Conditions

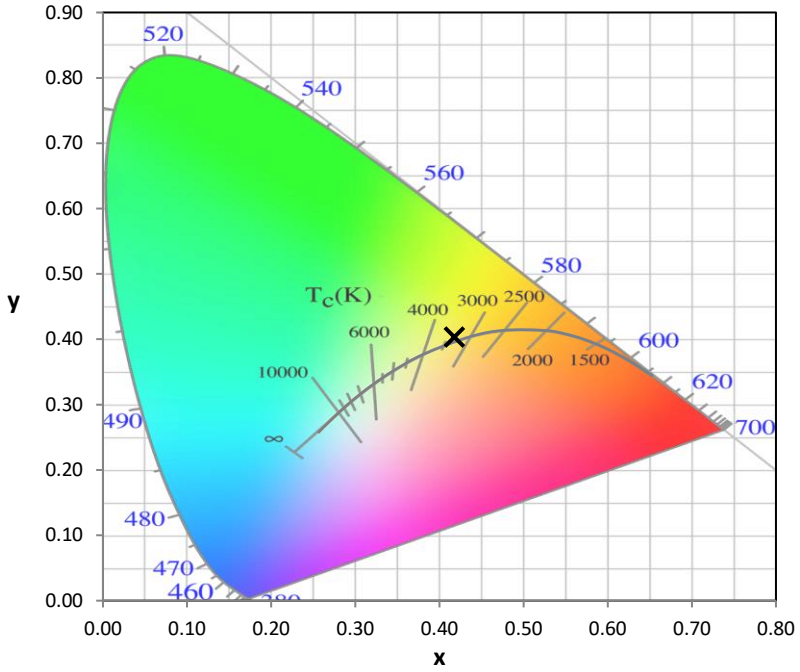
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-4

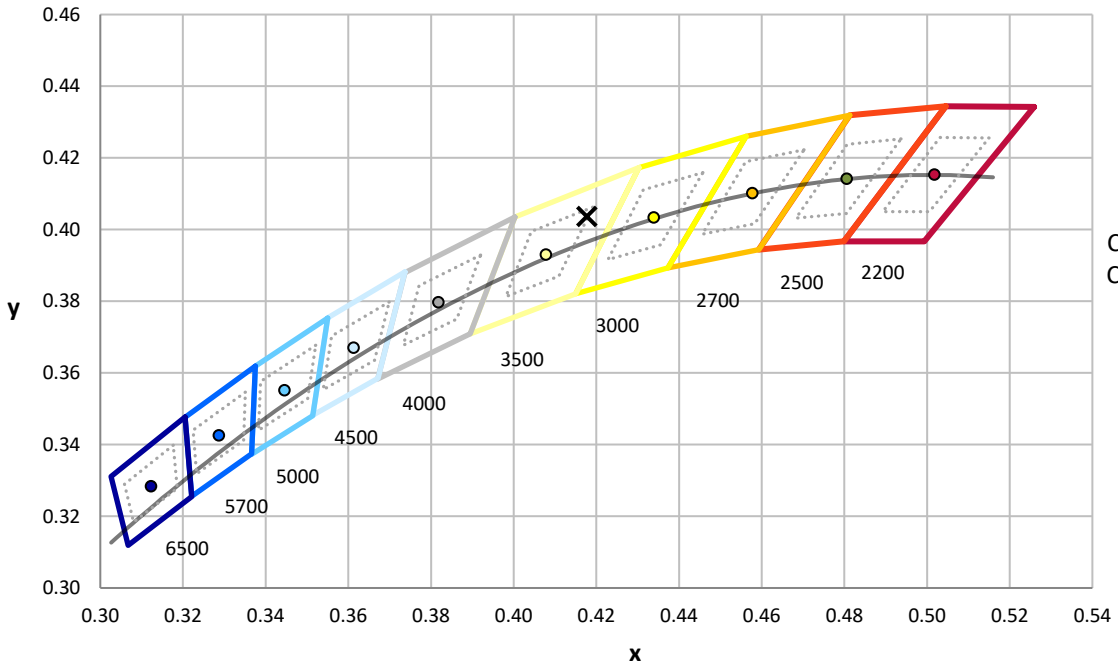
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-4

CIE 1931 Chromaticity Diagram



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

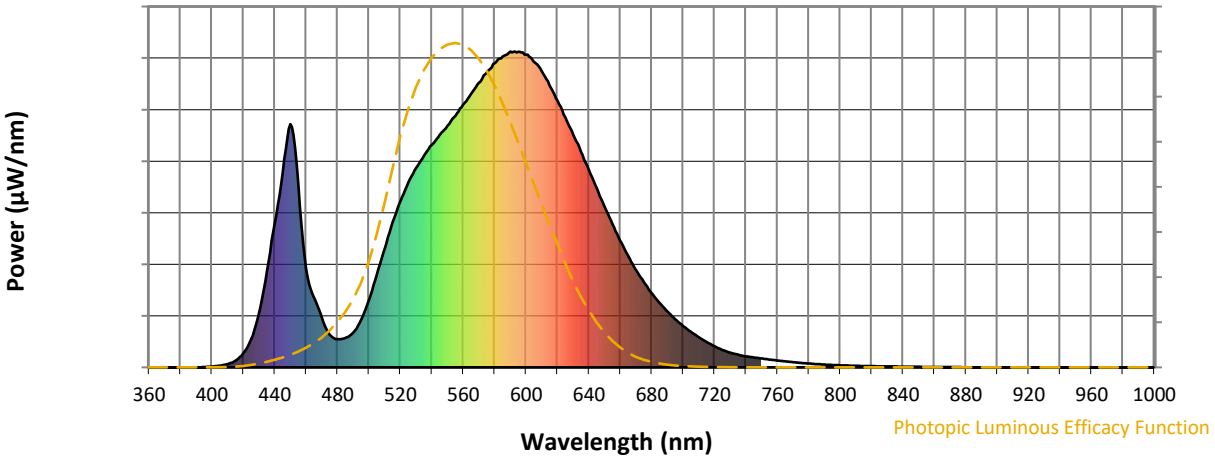


CCT = 3348K
CIE x = 0.4177
CIE y = 0.4036
Duv = 0.0030

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

Photopic Flux vs. Wavelength

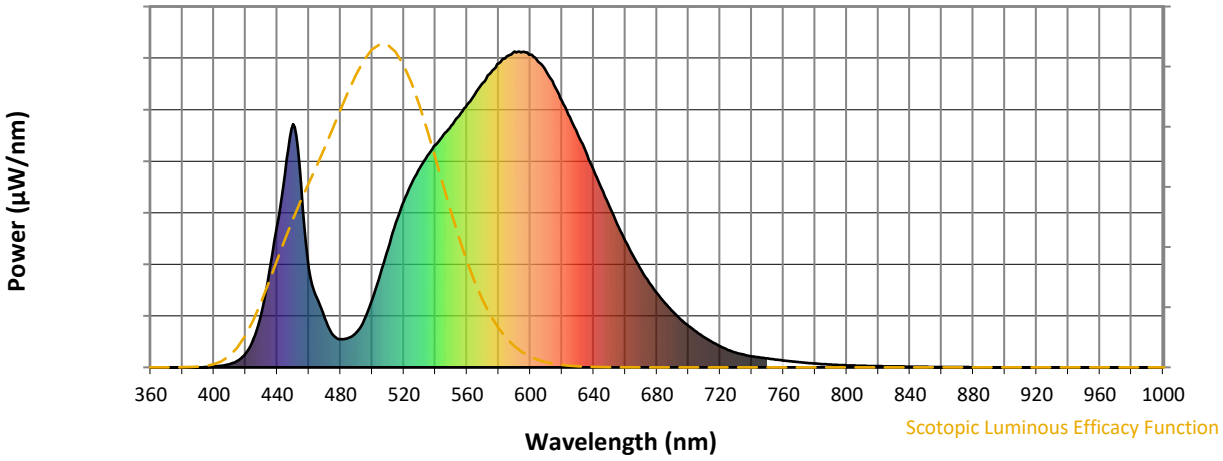


Photopic Lumens: NR

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Scotopic Flux vs. Wavelength

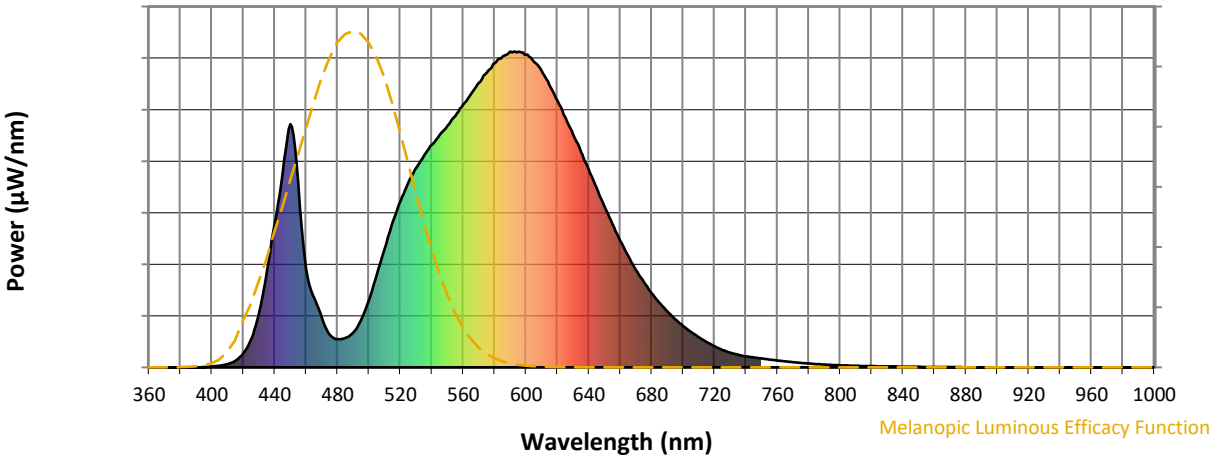


Scotopic Lumens: NR **S/P: 1.31**

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.4**

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

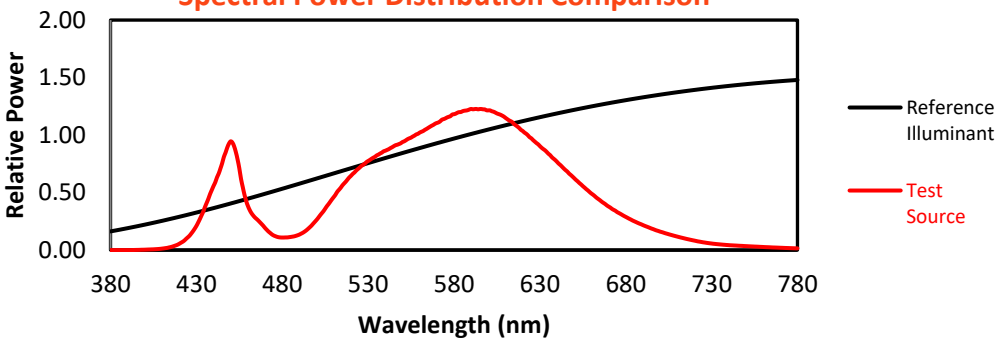
REPORT NUMBER: SP1-2407-176-4

TM-30-18

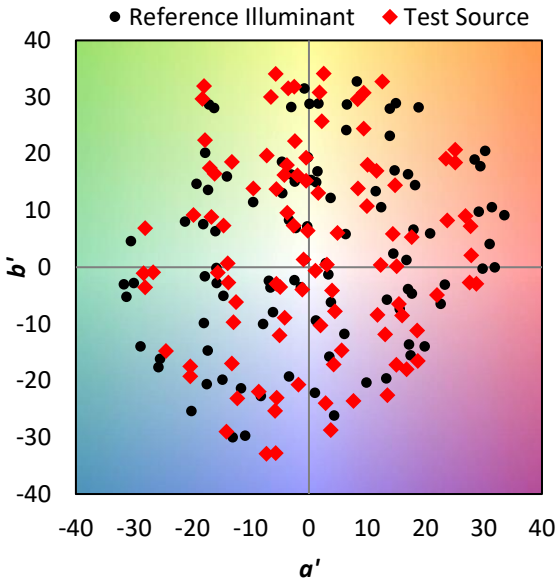
Summary

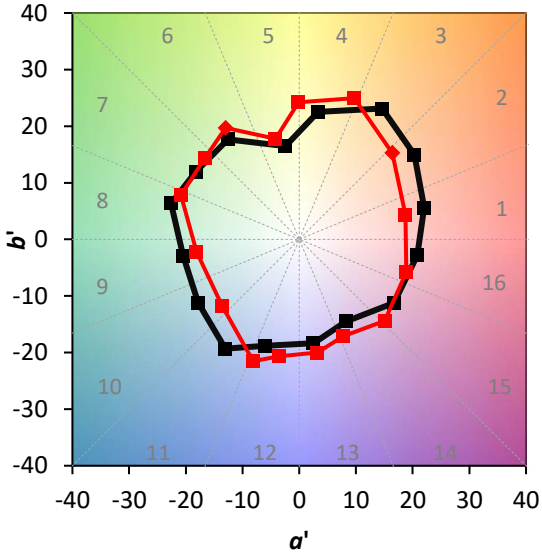
R_f = 75.8
R_g = 95.8
CIE R_a = 73.4
R_9 = -19.2

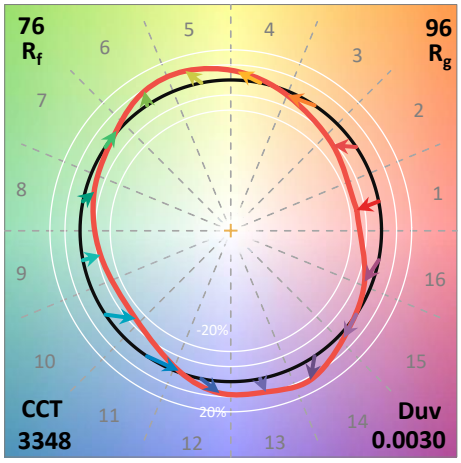
Spectral Power Distribution Comparison

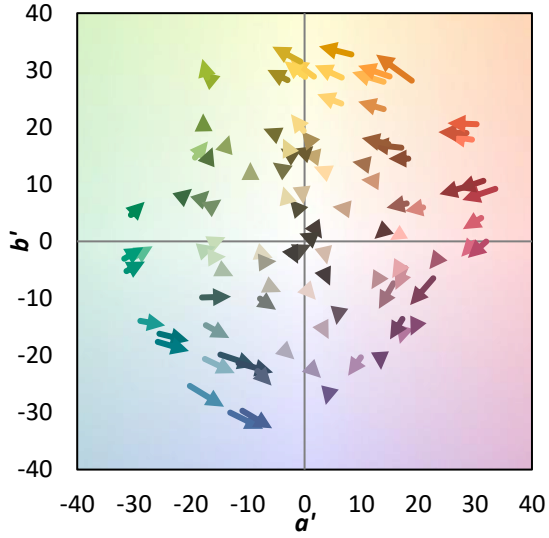


Color Vector Graphics







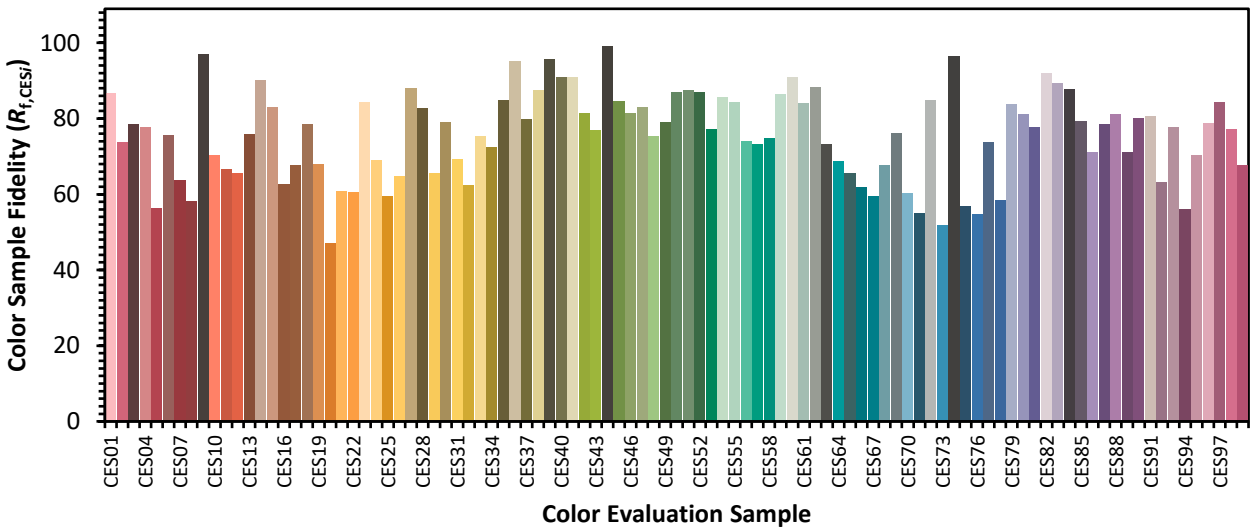


REPORT NUMBER: SP1-2407-176-4

TM-30-18

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

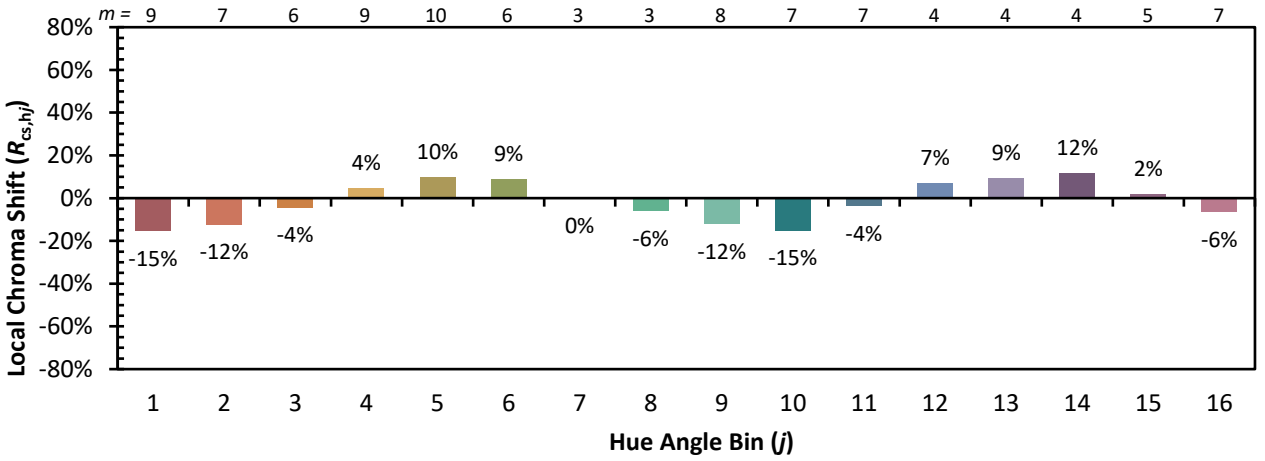
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 75	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 85	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 95	CES61 = 84	CES86 = 71
CES12 = 64	CES37 = 80	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 88	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 71
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 80
CES16 = 47	CES41 = 91	CES66 = 62	CES91 = 81
CES17 = 50	CES42 = 81	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 77	CES68 = 68	CES93 = 78
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 85	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 82	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 83	CES72 = 85	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 77
CES24 = 91	CES49 = 79	CES74 = 96	CES99 = 68
CES25 = 72	CES50 = 87	CES75 = 57	

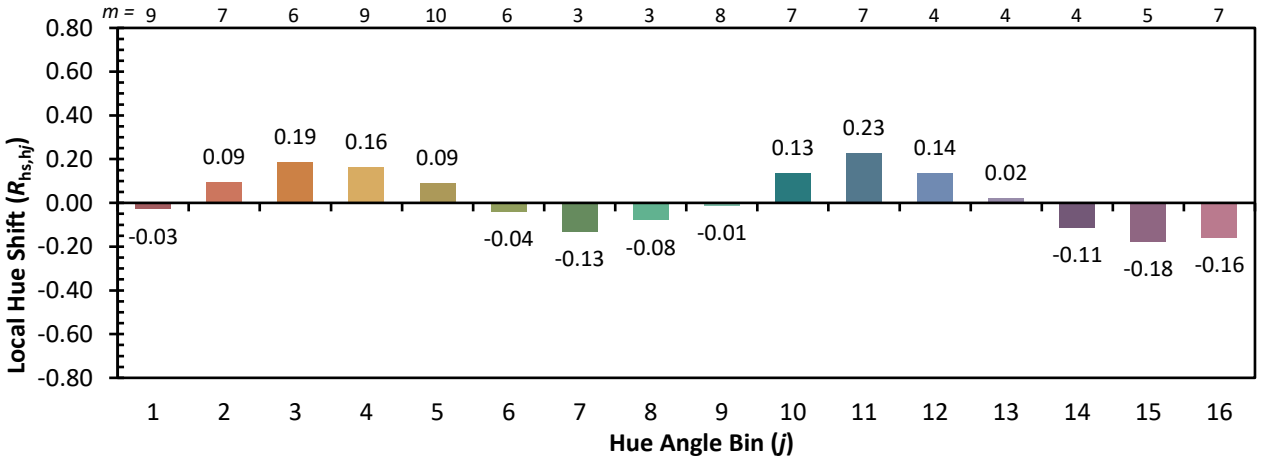


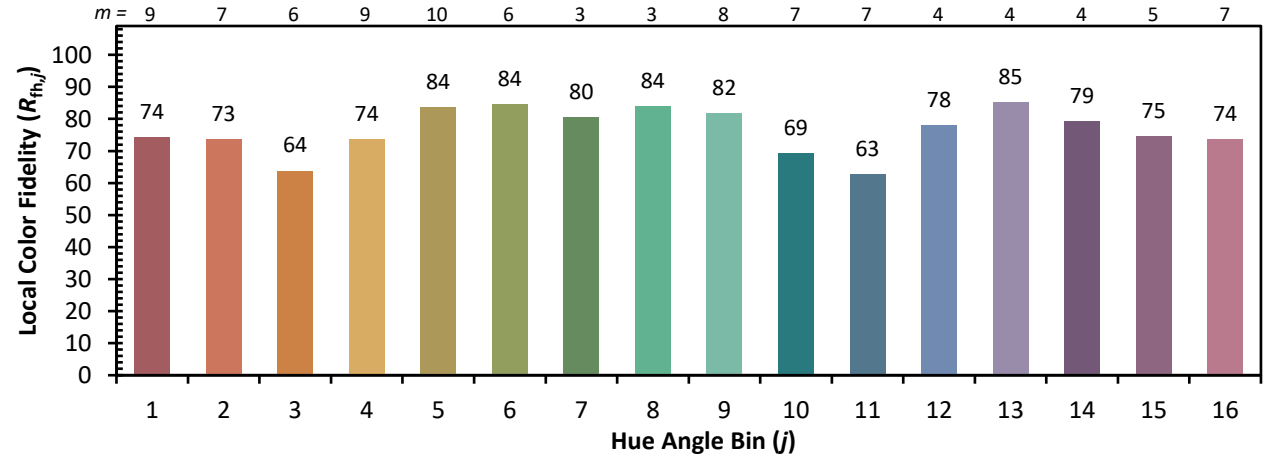
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Color Rendition by Hue-Angle Bin



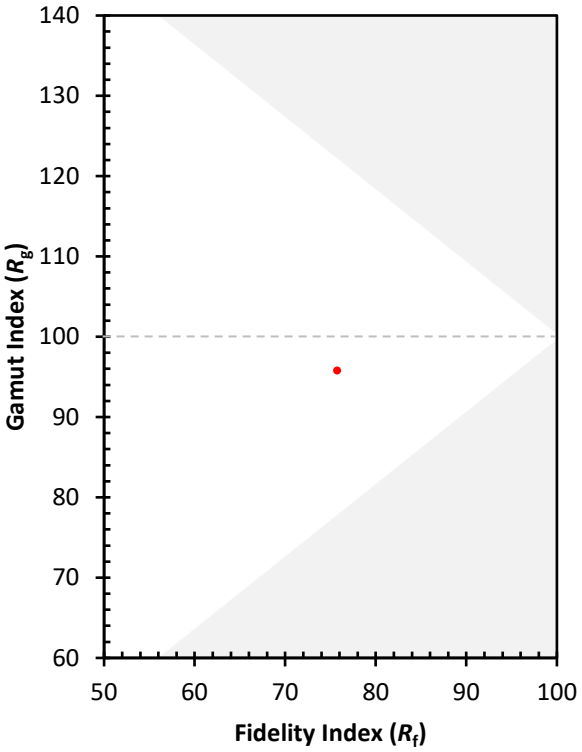


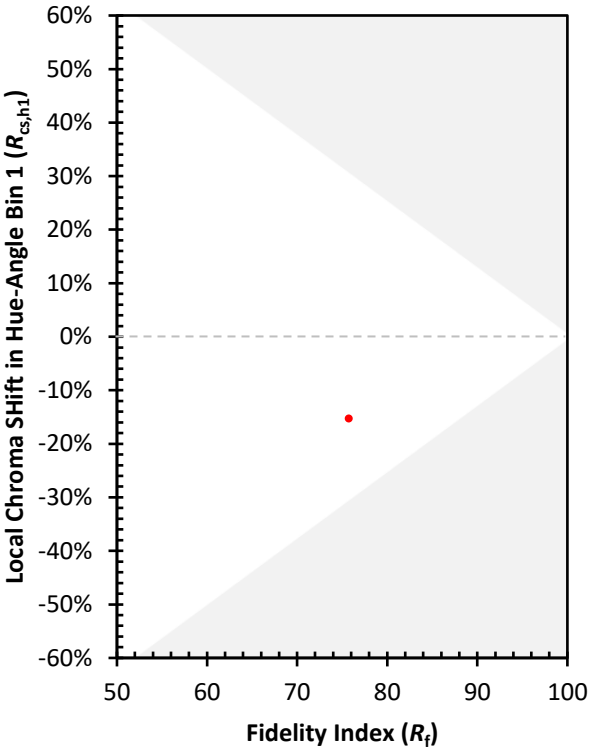


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Measure Comparisons





(END OF REPORT)