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: P821271

Luminaire Tested: **TT-D1-740-24VDC-RW-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821271
	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-D1-740-24VDC-RW-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2445 lumens
Efficiency:	N/A
Efficacy:	87.3 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U1 - G2

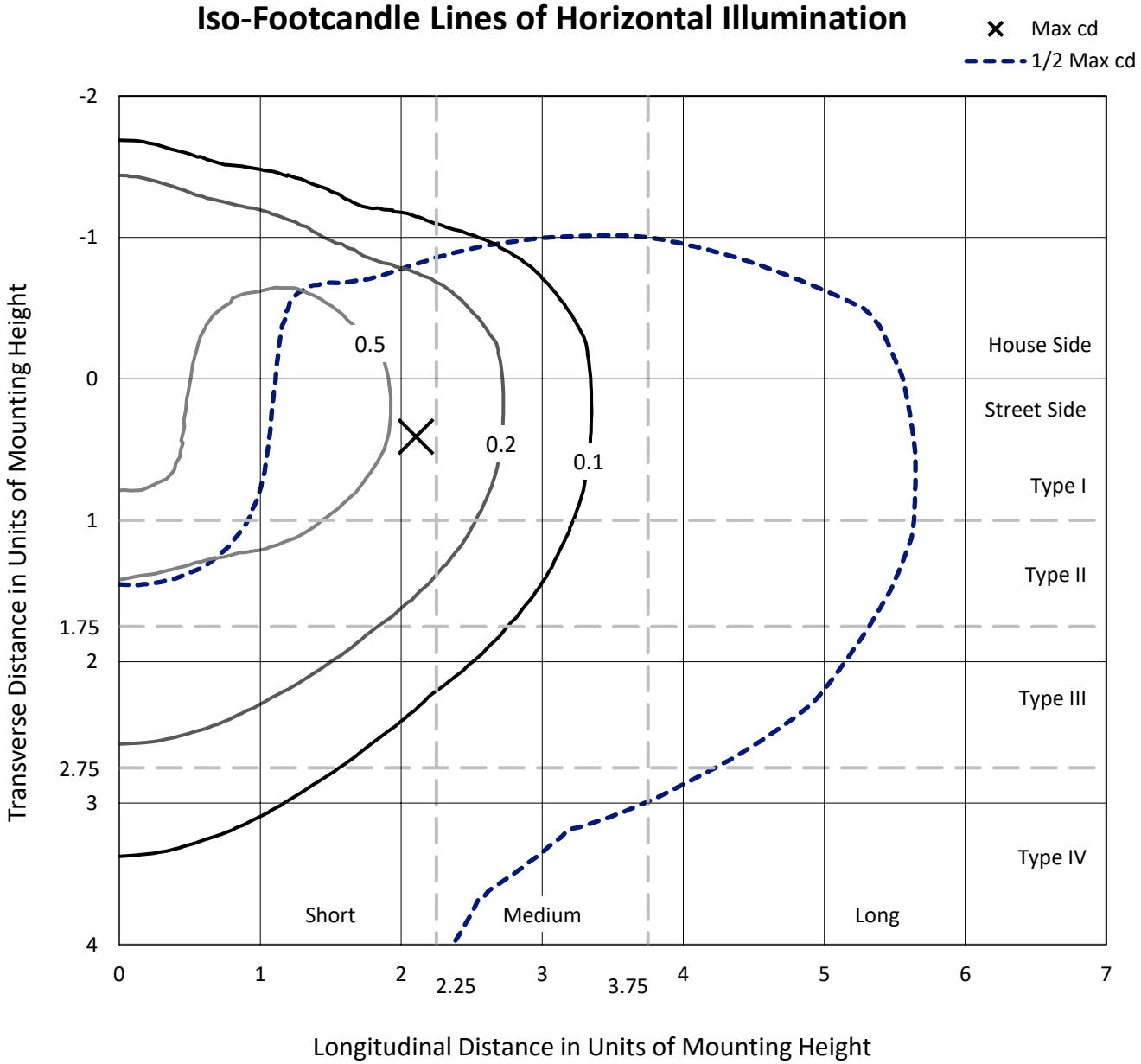
Input Watts (W):	28
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



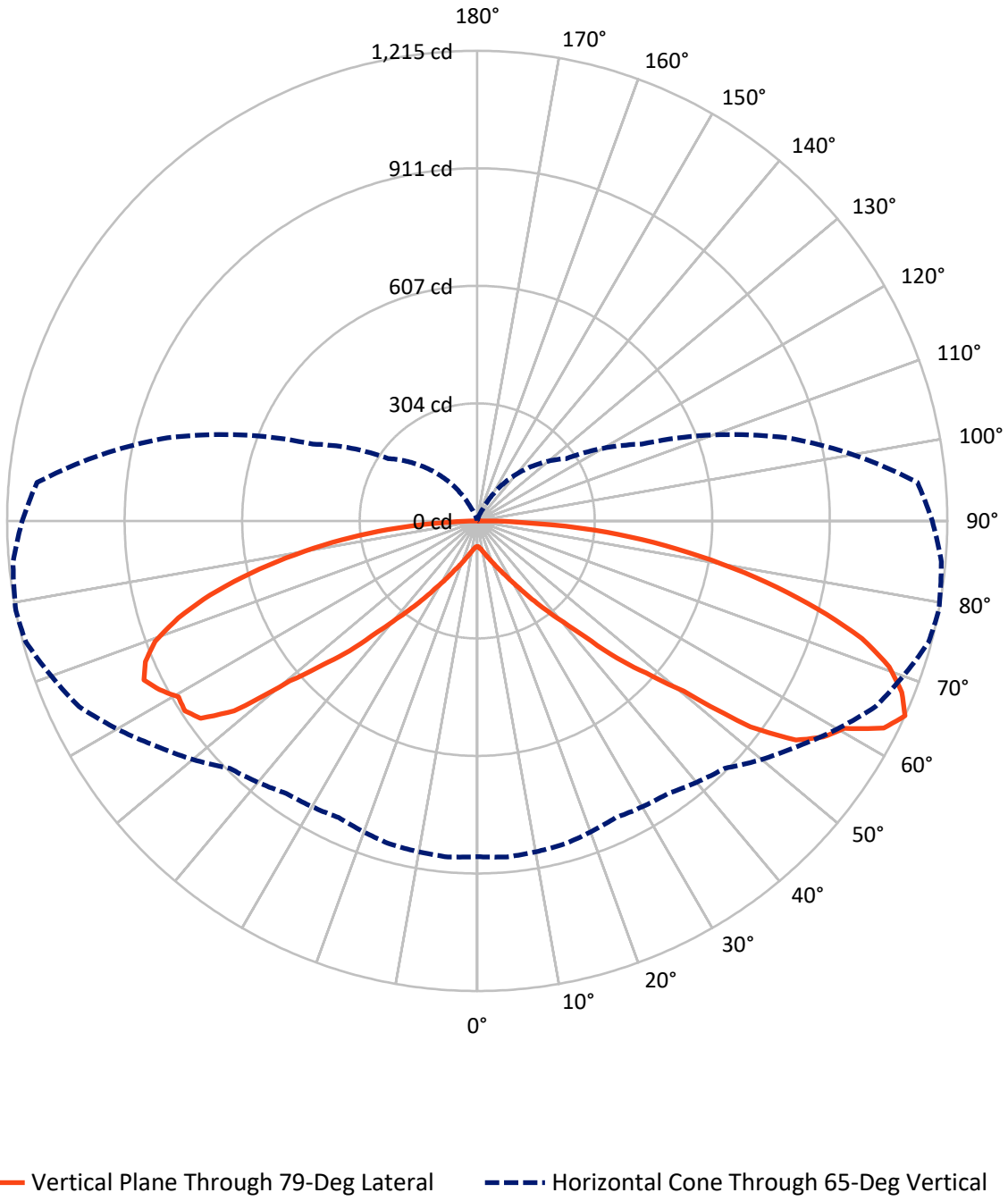
Based on 15 foot mounting height. Maximum calculated value = 0.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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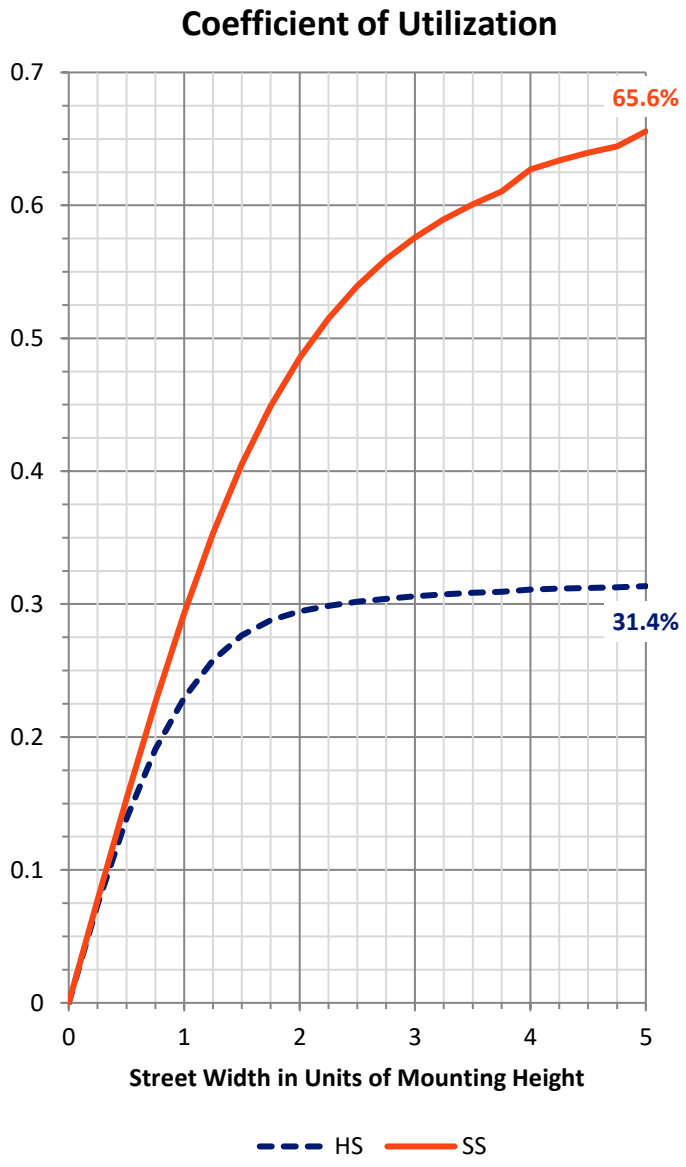
REPORT NUMBER: P821271
CATALOG NUMBER: TT-D1-740-24VDC-RW-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	772.1	1.0	773.0
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	1661.2	10.8	1671.9
	% Fixture	67.9	0.4	68.4
Total	Lumens	2433.2	11.7	2445.0
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.0	0.3
10°-20°	26.3	1.1
20°-30°	60.7	2.5
30°-40°	130.1	5.3
40°-50°	278.8	11.4
50°-60°	526.5	21.5
60°-70°	654.3	26.8
70°-80°	560.1	22.9
80°-90°	189.5	7.7
90°-100°	8.2	0.3
100°-110°	2.4	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°	2433.2	99.5
0°-180°	2445.0	100.0



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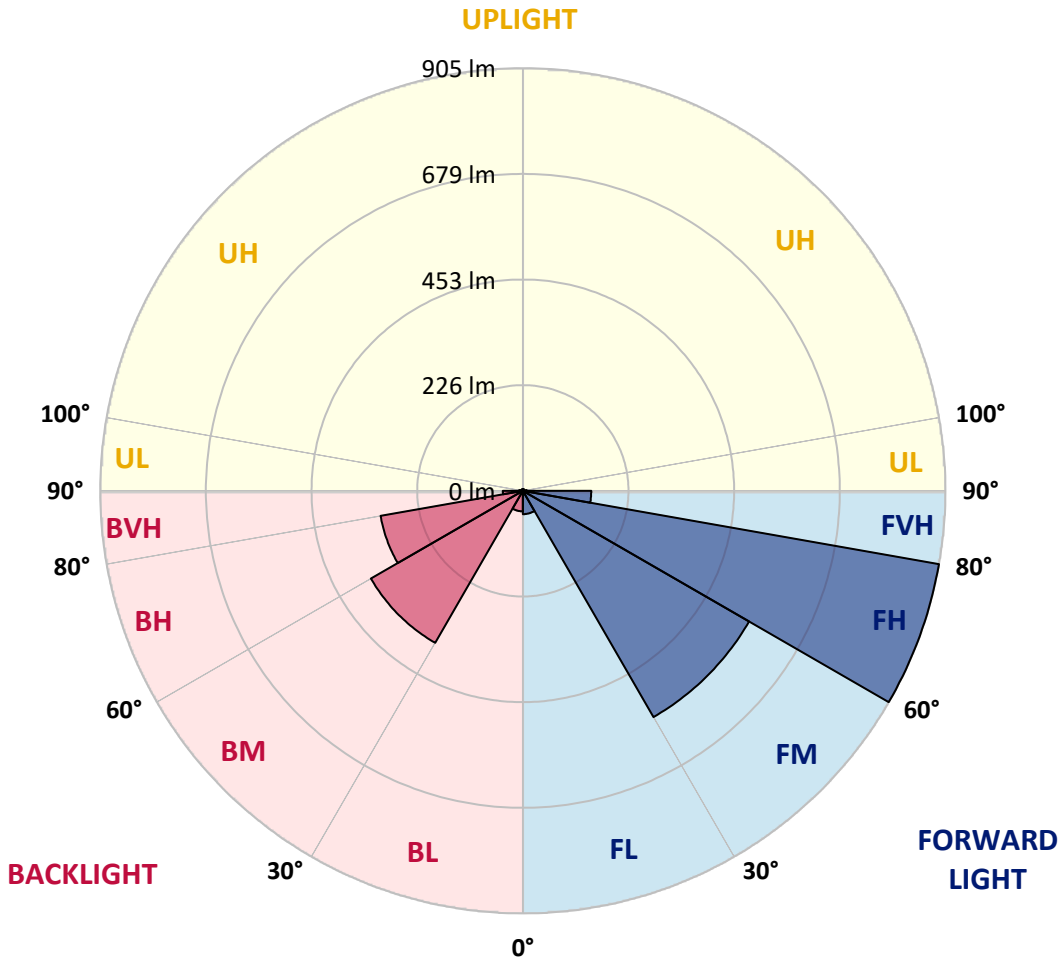
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	50.0	2.0			
FM	(30°-60°)	559.5	22.9			
FH	(60°-80°)	905.0	37.0			G1/1800
FVH	(80°-90°)	146.6	6.0			G2/225
BL	(0°-30°)	44.0	1.8	B0/110		
BM	(30°-60°)	375.8	15.4	B1/1000		
BH	(60°-80°)	309.3	12.7	B1/500		G1/500
BVH	(80°-90°)	42.9	1.8			G1/100
UL	(90°-100°)	8.2	0.3		U1/10	
UH	(100°-180°)	3.5	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°	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	*66.4*	66.4
2.5°	70.1	70.1	70.1	69.5	69.5	69.5	68.8	68.2	67.6	*67.6*	67.6
5°	73.7	73.7	73.7	73.7	73.1	72.5	71.9	71.3	70.7	*70.7*	70.1
7.5°	78.6	78.0	78.6	78.0	78.0	77.4	76.8	76.2	74.9	*74.9*	74.3
10°	83.5	83.5	83.5	83.5	83.5	82.9	82.2	81.6	81.0	*80.4*	79.8
12.5°	89.6	89.6	89.6	89.0	89.6	89.0	88.3	88.3	87.7	*86.5*	86.5
15°	95.7	95.7	95.7	95.7	96.3	96.3	96.3	95.7	95.7	*95.0*	94.4
17.5°	103.0	102.4	103.0	103.0	103.6	104.2	104.8	105.4	105.4	*104.8*	104.8
20°	110.9	110.3	110.9	110.9	112.1	113.3	115.1	116.4	117.0	*115.8*	115.8
22.5°	119.4	118.8	120.0	120.0	121.8	123.7	126.7	127.9	129.8	*129.2*	129.2
25°	129.8	129.2	129.8	130.4	132.8	135.9	139.5	142.6	144.4	*144.4*	145.0
27.5°	141.3	141.3	142.0	142.6	145.0	149.9	155.4	160.8	165.1	*164.5*	165.1
30°	157.2	157.2	158.4	159.0	162.1	167.5	174.9	182.2	188.3	*188.3*	189.5
32.5°	174.9	174.2	176.1	176.7	179.7	187.0	197.4	209.0	216.9	*216.9*	218.1
35°	196.2	195.6	197.4	197.4	201.1	211.4	224.8	240.7	254.1	*254.7*	256.5
37.5°	223.0	221.8	221.8	223.6	227.9	241.3	259.5	281.5	295.5	*296.7*	299.8
40°	254.7	254.1	255.3	254.7	260.1	276.6	299.8	325.3	341.8	*344.8*	348.5
42.5°	293.7	294.9	293.0	293.0	299.8	318.6	346.1	375.9	405.8	*409.4*	411.2
45°	341.2	343.6	341.2	340.6	346.7	368.6	406.4	458.8	493.5	*505.7*	509.3
47.5°	398.4	399.7	396.6	395.4	402.1	430.1	478.9	537.4	578.2	*587.3*	597.1
50°	462.4	460.6	458.2	456.3	469.1	503.8	560.5	620.8	690.9	*692.1*	695.8
52.5°	528.2	522.7	523.3	522.7	540.4	578.2	653.7	756.1	862.7	*884.6*	887.1
55°	594.0	587.3	586.7	592.8	617.8	672.0	767.0	899.9	986.4	*999.8*	997.9
57.5°	659.8	656.8	655.6	661.0	697.6	762.2	869.4	981.5	1055.2	*1054.0*	1041.2
60°	728.1	730.5	726.2	736.6	774.4	838.9	916.9	1026.0	1094.2	*1088.7*	1075.9
62.5°	798.1	804.2	799.9	801.2	825.5	873.1	949.8	1076.5	1171.0	*1178.9*	1164.3
65°	*867.6*	*871.8*	*865.1*	*846.2*	*859.6*	*904.1*	*1013.8*	*1135.6*	*1207.5*	*1214.8*	*1203.9*
67.5°	926.1	930.3	907.2	877.3	879.1	911.4	1007.7	1124.1	1188.0	*1183.2*	1165.5
70°	976.0	968.1	930.3	879.1	857.8	873.1	963.8	1066.8	1132.0	*1129.5*	1108.8
72.5°	992.5	982.1	918.1	838.9	796.9	802.4	890.7	982.7	1035.7	*1040.0*	1015.0
75°	966.3	948.6	860.9	761.6	707.3	711.0	786.5	871.2	913.9	*909.0*	889.5
77.5°	871.8	854.2	759.1	653.1	600.1	605.6	665.3	731.7	767.0	*765.2*	751.8
80°	723.8	707.9	624.5	525.8	477.7	480.7	526.4	578.8	606.2	*612.3*	605.0
82.5°	534.9	524.0	464.9	385.0	346.1	345.4	380.2	420.4	447.2	*460.0*	455.1
85°	330.8	325.3	292.4	240.7	213.2	212.6	233.3	263.2	287.6	*304.6*	293.7
87.5°	131.6	129.8	120.0	96.9	84.7	80.4	75.5	94.4	96.3	*113.9*	113.3
90°	32.3	31.7	31.1	29.2	26.2	22.5	18.3	13.4	8.5	*6.7*	3.7
92.5°	28.6	28.6	28.0	26.2	23.8	20.1	16.4	12.2	7.9	*6.1*	3.0
95°	23.2	23.2	22.5	21.3	18.9	16.4	12.8	9.7	6.1	*4.9*	2.4
97.5°	17.7	17.1	17.1	15.8	14.6	12.2	9.7	7.3	4.9	*3.7*	1.8
100°	12.8	12.8	12.2	11.6	10.4	9.1	7.3	5.5	3.0	*2.4*	1.2
102.5°	9.1	8.5	8.5	8.5	7.3	6.1	4.9	3.7	2.4	*1.8*	0.6
105°	6.1	5.5	5.5	5.5	4.9	4.3	3.0	2.4	1.2	*1.2*	0.6
107.5°	3.7	3.7	3.7	3.7	3.0	2.4	1.8	1.2	0.6	*0.6*	0.6
110°	1.8	1.8	1.8	2.4	1.8	1.8	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°	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
2.5°	67.0	67.0	67.0	66.4	66.4	66.4	65.8	65.8	65.2	65.2	65.2
5°	69.5	69.5	68.8	68.8	68.2	67.6	67.6	67.0	67.0	66.4	66.4
7.5°	73.7	73.7	73.1	72.5	71.3	70.7	70.1	69.5	69.5	68.8	68.8
10°	79.2	79.2	78.0	76.8	75.5	74.3	73.7	72.5	71.9	71.9	71.9
12.5°	85.9	85.3	84.1	82.2	81.0	79.2	78.0	76.8	75.5	75.5	75.5
15°	93.8	93.8	91.4	89.6	87.1	84.7	82.9	81.0	79.8	79.2	79.2
17.5°	103.6	103.6	100.5	97.5	94.4	91.4	89.0	86.5	85.3	84.7	84.7
20°	114.5	114.5	111.5	107.8	103.6	99.3	95.7	92.6	90.8	90.2	90.2
22.5°	127.9	127.9	123.7	118.8	113.3	107.2	102.4	98.7	96.9	95.7	95.7
25°	143.2	142.0	137.7	131.6	123.7	116.4	109.7	106.0	103.6	101.7	102.4
27.5°	163.9	162.1	156.6	146.2	136.5	126.7	118.8	113.9	110.9	109.7	110.3
30°	187.6	185.8	177.9	166.3	151.7	138.9	129.2	123.7	120.6	118.8	119.4
32.5°	216.3	213.8	204.1	188.3	171.2	152.9	140.7	134.0	131.0	129.2	128.6
35°	254.1	251.0	238.8	216.9	193.1	171.2	154.1	145.6	142.6	140.7	141.3
37.5°	296.7	292.4	276.0	249.2	219.3	191.3	171.8	160.8	157.2	154.1	154.1
40°	345.4	340.6	319.2	283.9	248.0	213.2	188.3	176.1	171.8	171.8	171.8
42.5°	406.4	401.5	377.1	325.3	277.8	237.0	207.1	193.1	188.9	190.1	190.1
45°	500.8	494.1	455.1	386.9	316.8	261.4	226.6	210.8	207.8	210.8	210.8
47.5°	587.3	578.8	521.5	444.1	355.2	285.7	246.1	227.9	226.6	233.3	233.3
50°	684.2	673.2	612.9	490.4	386.3	312.5	263.8	241.9	242.5	252.2	255.3
52.5°	871.8	860.3	756.1	574.5	419.8	322.3	271.1	244.9	244.9	255.9	260.1
55°	983.3	959.6	823.7	629.4	433.8	333.9	268.1	232.7	231.5	243.7	247.4
57.5°	1019.9	995.5	837.7	613.5	424.6	319.2	250.4	199.8	197.4	213.2	212.0
60°	1049.7	1017.4	815.2	560.5	372.9	288.2	216.3	148.7	138.3	152.3	151.7
62.5°	1133.8	1099.1	816.4	498.4	311.9	240.7	162.7	83.5	62.1	73.1	68.2
65°	*1175.8*	*1141.7*	*829.2*	*469.1*	*280.9*	*199.2*	*116.4*	*34.1*	*2.4*	*2.4*	*1.2*
67.5°	1139.9	1109.4	812.7	461.8	276.6	198.0	118.2	33.5	0.0	0.0	0.0
70°	1087.5	1058.3	775.0	436.2	262.6	190.7	115.8	33.5	0.0	0.0	0.0
72.5°	995.5	965.7	709.8	399.7	241.3	174.9	107.2	31.7	0.0	0.0	0.0
75°	874.3	851.7	626.9	352.1	212.6	154.1	95.0	28.0	0.0	0.0	0.0
77.5°	740.2	713.4	525.8	293.0	177.9	127.9	80.4	23.2	0.0	0.0	0.0
80°	594.0	574.5	414.3	229.7	137.7	99.9	62.8	17.7	0.0	0.0	0.0
82.5°	441.7	425.3	306.5	164.5	98.1	69.5	43.3	11.6	0.0	0.0	0.0
85°	290.0	285.7	196.8	99.9	58.5	38.4	23.2	5.5	0.0	0.0	0.0
87.5°	104.8	108.4	71.9	28.6	15.8	6.7	3.0	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: P821271
CATALOG NUMBER: TT-D1-740-24VDC-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: SP1-2407-176-5

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-740-U-WQ

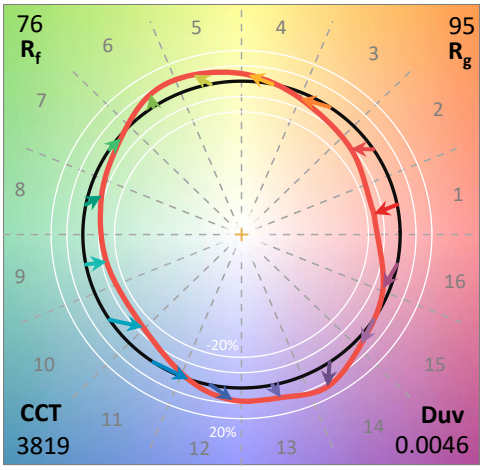
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Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-5
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-30-740-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3819	CRI (Ra):	72.9		
CIE u':	0.2261	R1:	70.1	R9:	-21.5
CIE v':	0.5108	R2:	78.4	R10:	48.5
Duv:	0.0046	R3:	85.0	R11:	68.4
CIE x:	0.3926	R4:	72.9	R12:	39.0
CIE y:	0.3942	R5:	69.1	R13:	71.1
CIE z:	0.2132	R6:	69.2	R14:	91.3
Peak Wavelength (nm):	450	R7:	82.8	R15:	63.2
Dominant Wavelength (nm):	577	R8:	55.4		
Purity:	36.15483				
Rf:	75.6				
Rg:	94.8				



Test Conditions

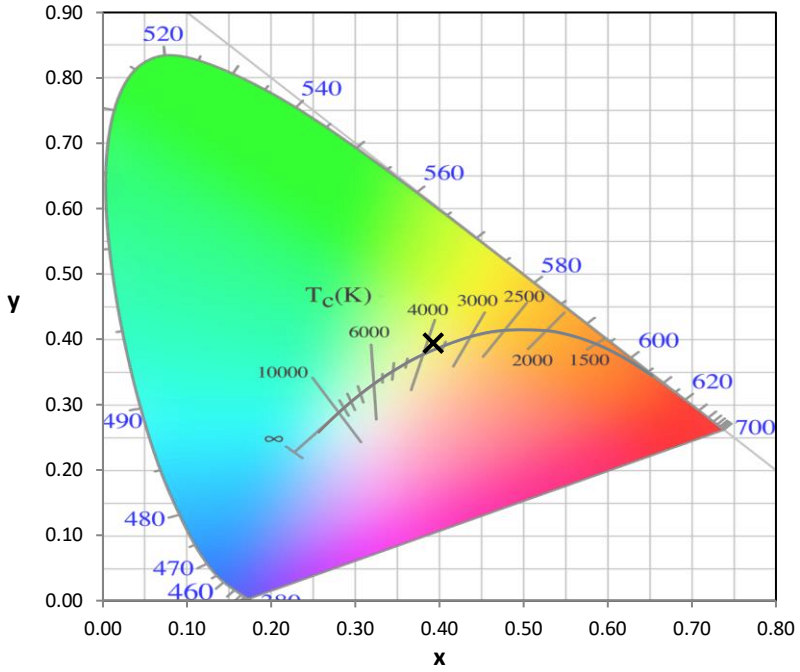
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

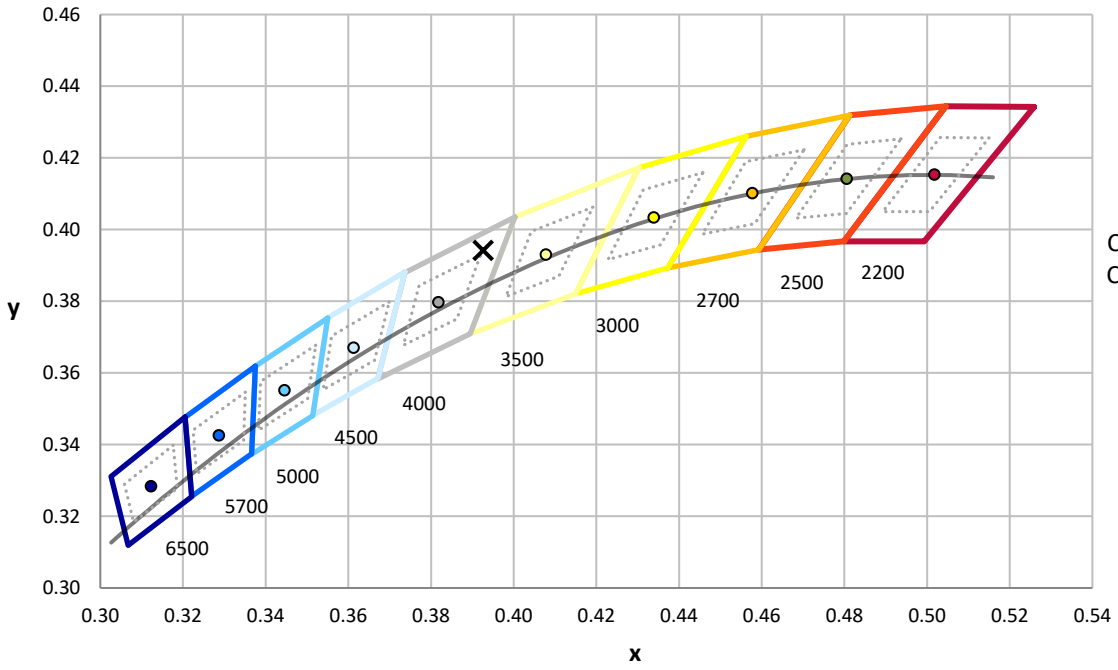
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-5

CIE 1931 Chromaticity Diagram



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

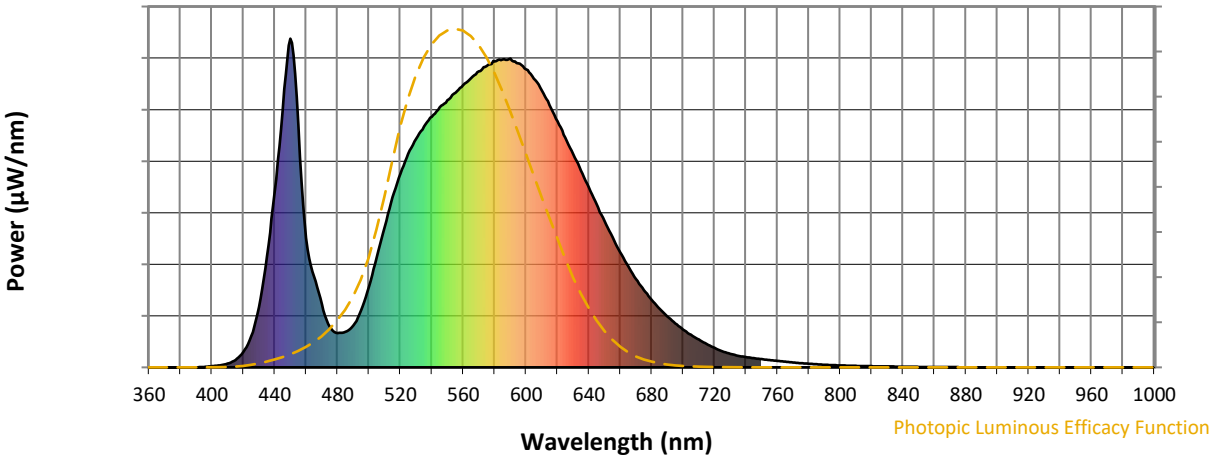


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

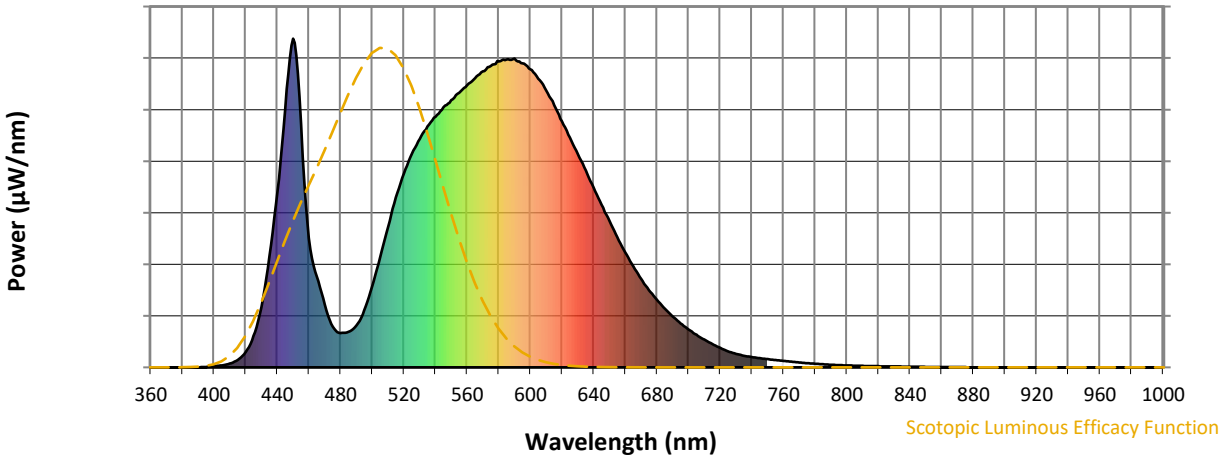


Photopic Lumens: NR

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Scotopic Flux vs. Wavelength

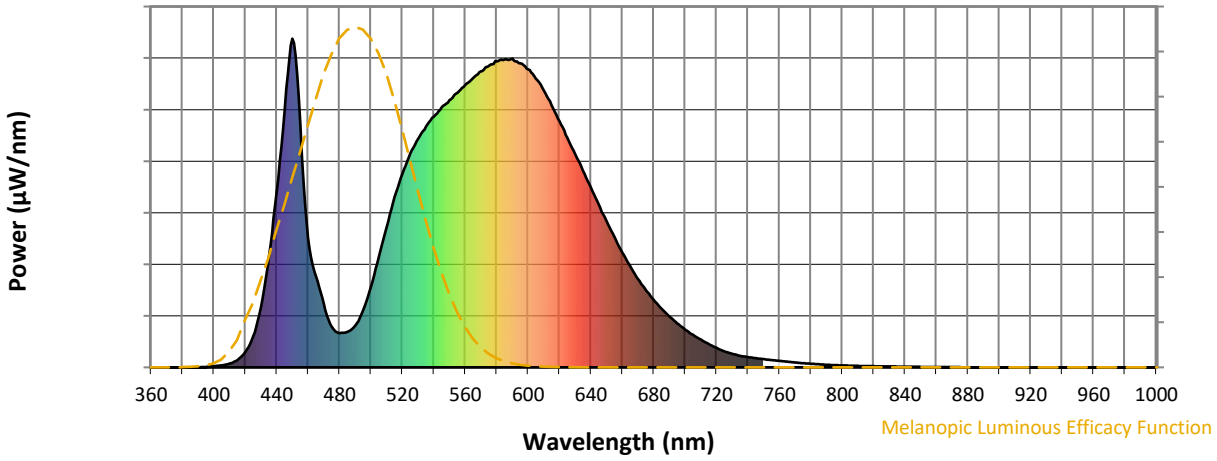


Scotopic Lumens: NR **S/P: 1.45**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.76**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

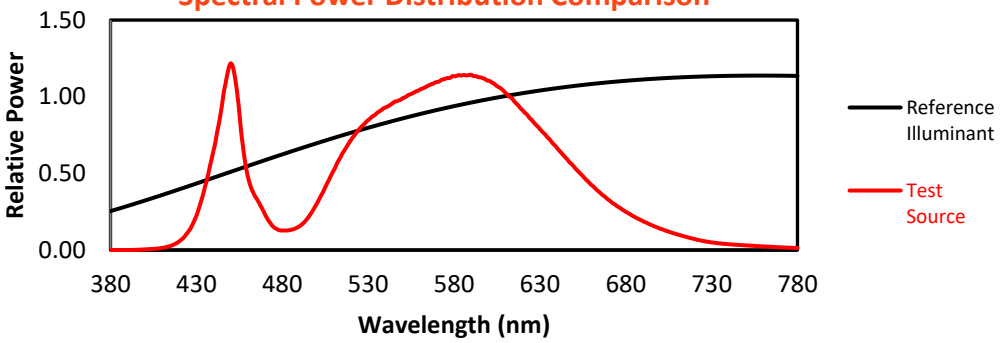
REPORT NUMBER: SP1-2407-176-5

TM-30-18

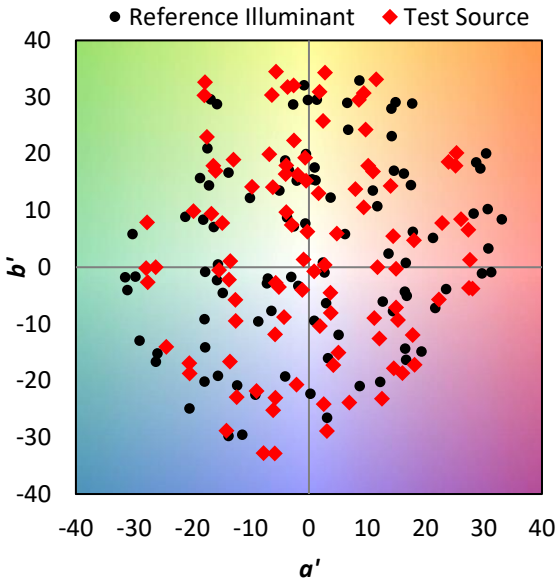
Summary

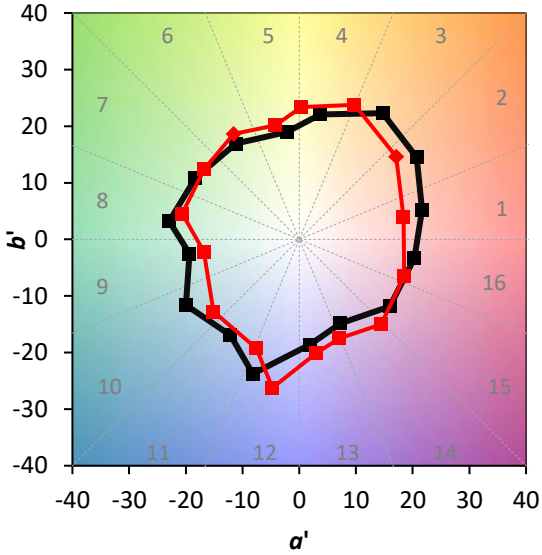
R_f = 75.6
R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

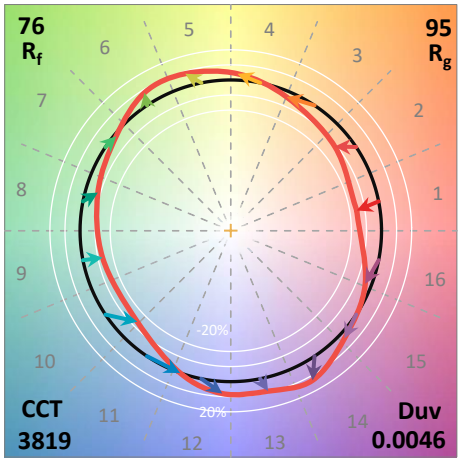
Spectral Power Distribution Comparison

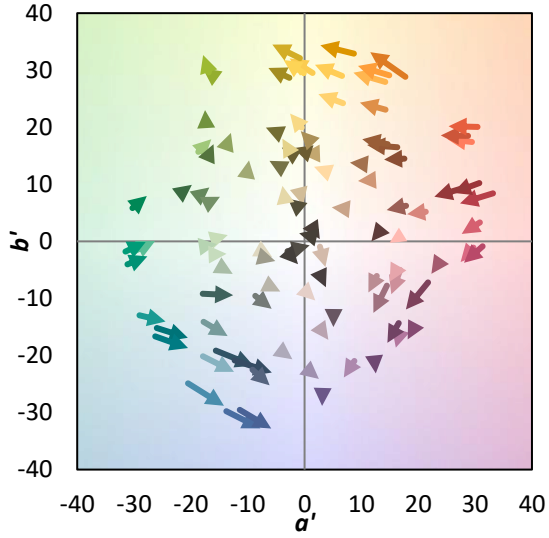


Color Vector Graphics







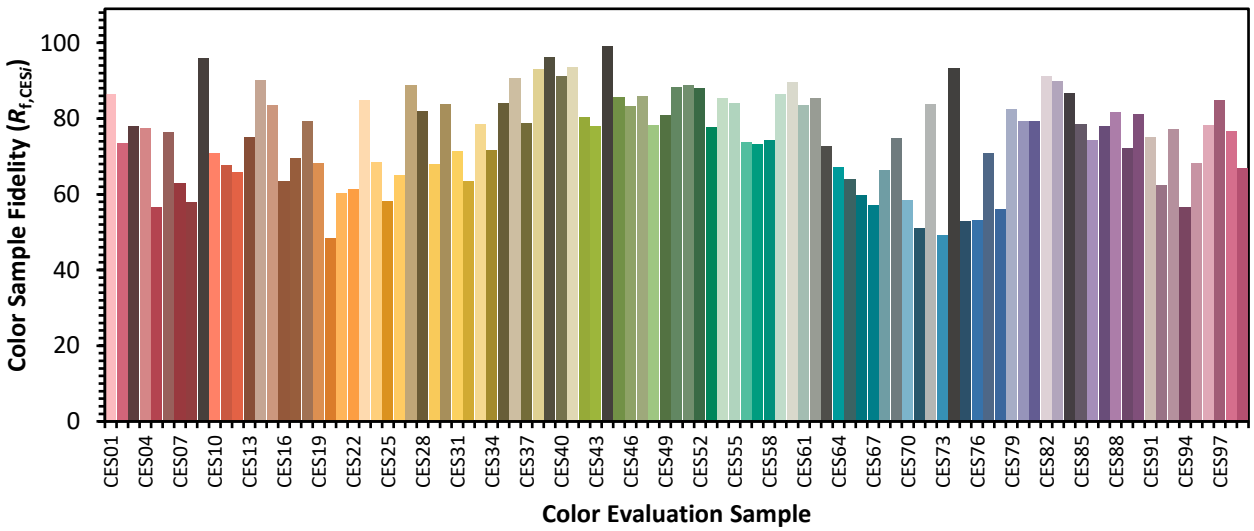


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

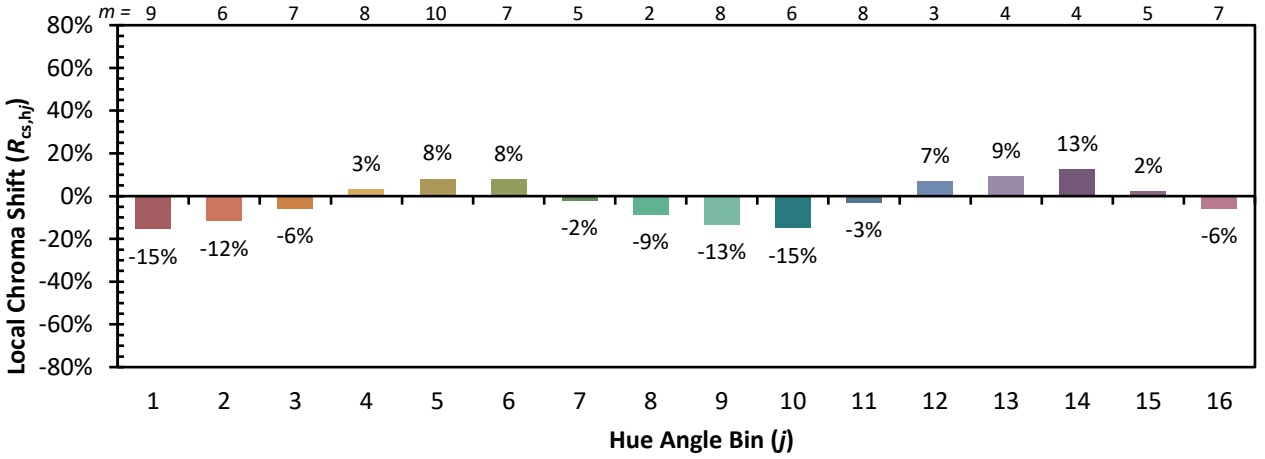
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 91
CES08 = 39	CES33 = 79	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 84	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 91	CES61 = 84	CES86 = 74
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 78
CES13 = 42	CES38 = 93	CES63 = 73	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 67	CES89 = 72
CES15 = 71	CES40 = 91	CES65 = 64	CES90 = 81
CES16 = 47	CES41 = 93	CES66 = 60	CES91 = 75
CES17 = 49	CES42 = 80	CES67 = 57	CES92 = 62
CES18 = 56	CES43 = 78	CES68 = 66	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 75	CES94 = 57
CES20 = 65	CES45 = 86	CES70 = 58	CES95 = 68
CES21 = 86	CES46 = 83	CES71 = 51	CES96 = 78
CES22 = 78	CES47 = 86	CES72 = 84	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 49	CES98 = 77
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 67
CES25 = 72	CES50 = 88	CES75 = 53	

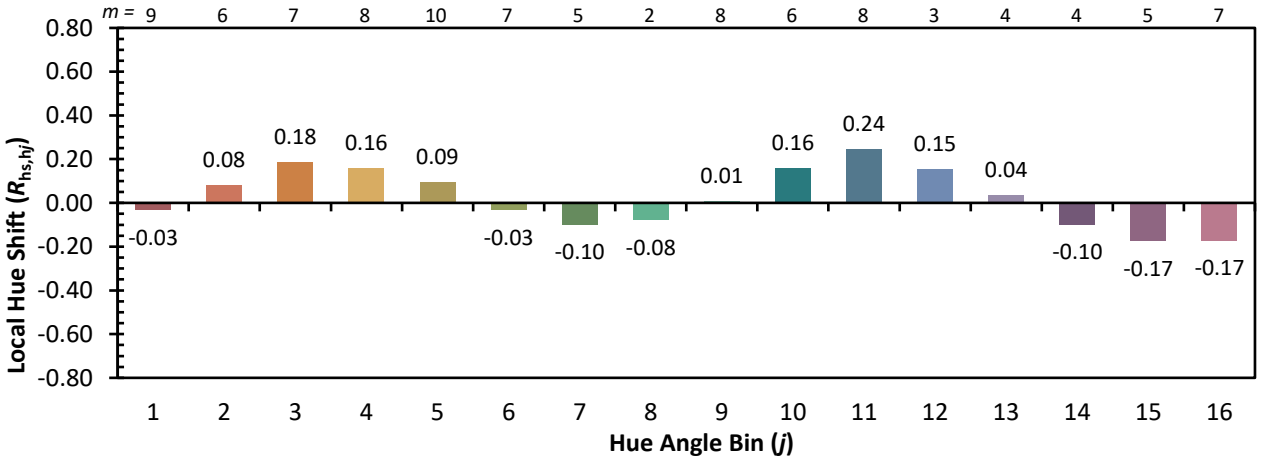


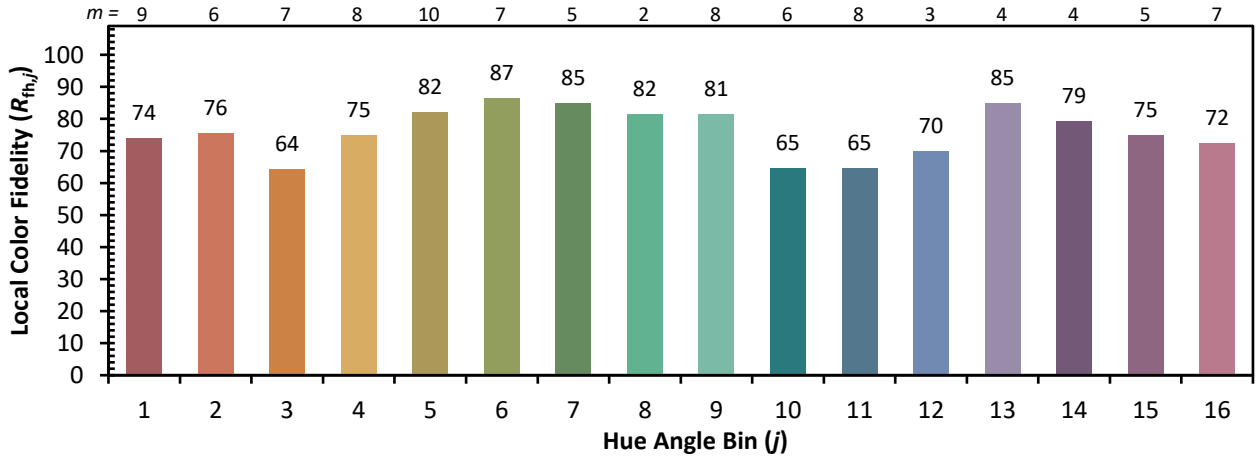
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Color Rendition by Hue-Angle Bin



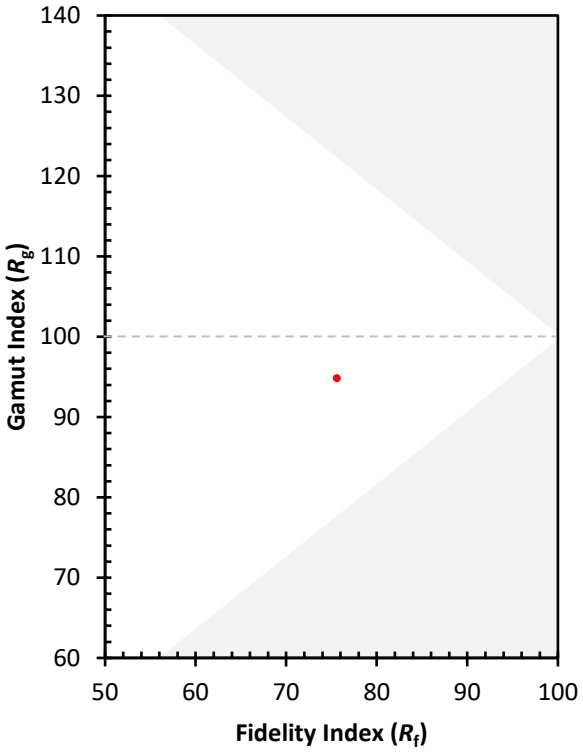


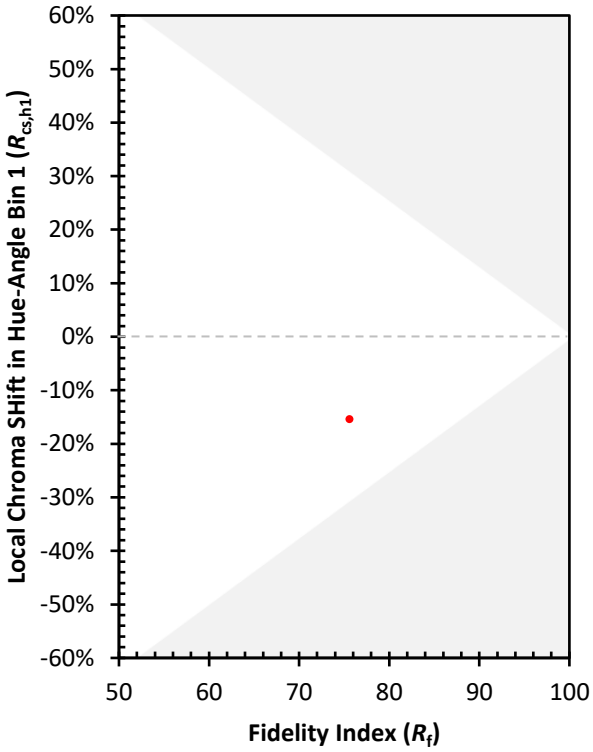


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Measure Comparisons





(END OF REPORT)